SOCIAL SAFEGUARDS

FOR THE DEVELOPMENT OF ENERGY INFRASTRUCTURE FOR THE MARROON AND INDIGENOUS PEOPLE IN THE EAST OF SURINAME

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List of abbreviations and terms

Abbreviations	Meaning
ACT-S	Amazon Conservation Team Suriname.
BIC	Bestuurs Informatie Centrum (Management Information Center)
EBS	Energie Bedrijven Suriname (Energy Companies Suriname)
IDB	Inter-American Development Bank.
KPI	Key Performance Indicator.
KRI	Key Risk Indicator.
MZ	Medical mission (Medische Zending)
SIA	Social Impact Analysis.
SRA	Social Risk Analysis.
SWM	Surinaamsche Waterleiding Maatschappij (Surinamese Water infractructure company).
Terms	**Meaning**
Bioeconomy	The bioeconomy is the knowledge-based production and use of biological resources to provide products, processes and services in all economic sectors within the frame of a sustainable economic system

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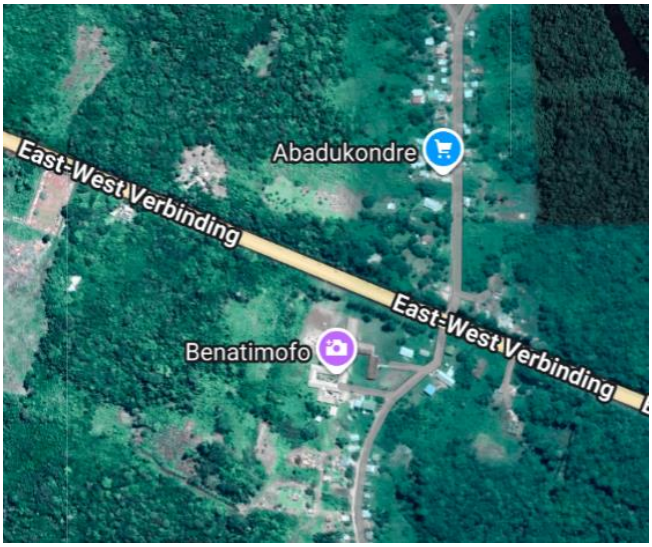
1. Introduction.

1.1. IDB's sustainable development project.

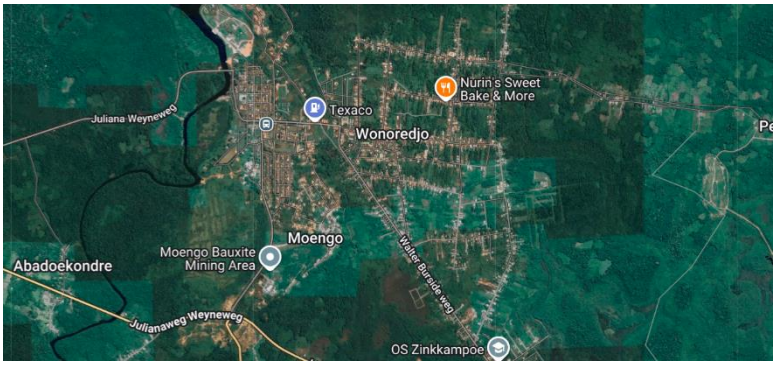
The Inter-American Development Bank (IDB) is the main source of financing for sustainable, social, economic and institutional development in Latin America and the Caribbean. In Suriname they have initiated among others an energy project for the sustainable development of Maroon and Indigenous peoples living in various villages and 2 small towns in the east of Suriname. The villages are divided into 2 clusters of villages that are located very close to each other and many of the villagers are related to each other.

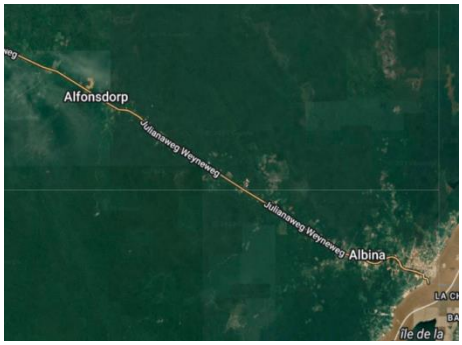
The villages of cluster I are: Wanhatti and surrounding villages: Langa Uku I and II, Lantiwee, Pikin Santi, Pinatjarimi and Tamarin.

The villages of cluster II are: Abadoekondre, Benhatti mofo, Akalekondre.



The 2 small towns in the east of Suriname are Moengo and Albina.





The project phases include:

1. Information gathering in 2020 and 2025;
2. Preparation and planning in 2025;
3. Start project in second half of 2025.

This report is about the villages in cluster II: Abadoekondre, Benhattimofo, Akalekondre and serves as a key output deliverable in order to contribute to the information gathering process.

The N.V. EBS (National Energy Company) is part of the Ministry of Natural Resources (NH). The Ministry of NH is responsible for the energy supply in Suriname, but responsibility for this task has been assigned to the NV Energy Companies Suriname, the EBS. The EBS is the company in charge of production, transport and distribution of electricity. Due to relatively low population density and difficulty of access, some areas are not connected to the EBS grid. In these rural areas, till now, a separate department of the ministry of natural resources namely DEV provided electricity to isolated villages, with small diesel generators, during 3 to 5 hours per day.

The EBS has identified a project of which pre- feasibility and the detail feasibility has been completed to connect isolated systems to the EBS main grid and thus reducing operational cost.[1]

1.2. Research questions.

The analysis in this report answers the following research questions.

Main research question per cluster:

What are the social safeguards and guidelines for IDB's electrification projects in the communities of Abadoekondre, Akalekondre and Benhattimofo ?

Sub- research questions:

1. What are the socio-cultural and socio-demographic characterizations of the locations?

[1] Electrification East to West Region and Rural Electrification. Jerry Aseja

a. What are the traditional structures?
b. Who are the key stakeholders per location?
c. What are the household characteristics?
d. What are the government structures?
e. What are the demographics?
f. What are other socio-cultural observations?

2. What are the baseline household energy needs and environmental considerations of the Indigenous peoples and Maroons and others in each location?
3. What are the potential positive impacts of improved energy on the Maroons and Indigenous peoples' and others social best practice indicators?
   a. What are the relevant social key performance indicators (KPI's)?
   b. What are guidelines to enhance these positive impacts (enhancement policies)?
4. What are the potential social risks that can damage the long-term sustainability of improved energy and/or damage the Maroons and Indigenous peoples' natural environment?
   a. What are the relevant environmental key risk indicators (KRI's)?
   b. What are policies and action plans to mitigate the risks (safeguard policies)?
5. What are the Free Prior and Informed Consent (FPIC) considerations per location?
6. Is there local expertise and what are the capacity gaps for the energy project in each location?
7. What socio-economic activities can be potentiated with improved energy access in each location?
8. What are potential community ownership models that can lead to the sustainable maintenance of the project's investments.

1.3. Protecting the Maroon and Indigenous peoples: theory of change and creating social safeguards.

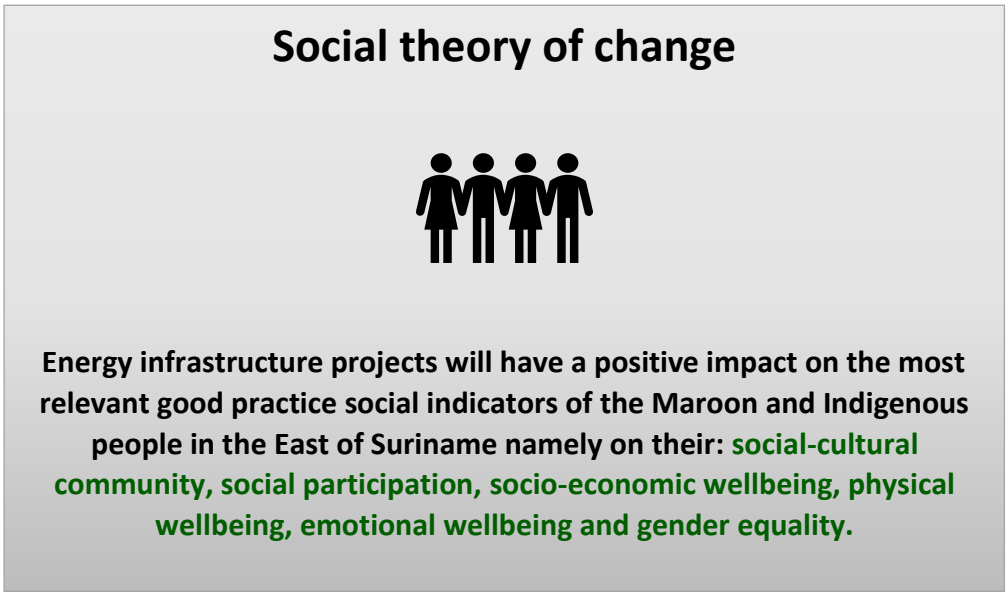


Figure 1. Social theory of change.

A ‘social theory of change’ has to be formulated to help inform and guide policy decisions. This theory consists of a vision for the environment that can be referred back to throughout the project’s phases and activities. The environmental theory of change on which the analysis of this report is based on is as follows: *“Energy infrastructure projects will have a positive impact on the most relevant good practice social indicators of the Maroon and Indigenous peoples in the East of Suriname, namely on their: social-cultural community, social participation, socio-economic wellbeing, physical wellbeing, emotional wellbeing and gender equality.”*

This report contains a Social Impact analysis (SIA) and a social risk analysis (SRA). From the ESIA, indicators for SRA were extracted to formulate relevant safeguards. Social safeguards are principles, policies, regulations or procedures designed to ensure positive social goals and outcomes. Best practice indicators and policies for Maroon and international quality of life frameworks were taken into consideration in the analysis of this report and the formulation of metrics and safeguards.

Figure 2. Social safeguards.

Figure 3 Krutu dorpelingen Abadoekondre, Akalekondre en Benatimofo.

2. Legal and Institutional Framework Governing Indigenous and Tribal Peoples in Suriname

2.1 International Legal Commitments

While Suriname does not yet have a formal national policy on collective rights for Indigenous and Tribal Peoples (ITPs), it is a party to several international human rights treaties, including the *International Covenant on Civil and Political Rights* (ICCPR), the *International Covenant on Economic, Social and Cultural Rights* (ICESCR), the *Convention on the Rights of the Child* (CRC), the *Convention on the Elimination of All Forms of Discrimination against Women* (CEDAW), and the *International Convention on the Elimination of All Forms of Racial Discrimination* (CERD). Furthermore, Suriname voted in favor of the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP) in 2007, thereby endorsing its principles (United Nations, 2007). However, Suriname has not ratified the International Labour Organization's *Convention No. 169* on Indigenous and Tribal Peoples, making it one of the few countries in South America not to have done so (ILO, 1989).

2.2 National Legal Landscape and Structural Gaps

The domestic legal system in Suriname, which is still largely based on colonial legislation, fails to recognize Indigenous and Tribal Peoples as distinct legal entities. No statutory framework currently exists that governs Indigenous land tenure or collective rights. This legal absence has far-reaching implications, especially considering the increasing extraction of natural resources—such as gold, oil, forests, and water—in or near traditional ITP territories (Forest Peoples Programme, 2020; BIO-SWEET Consultancy Report, 2024).

2.3 Draft Legislation on Collective Rights

To address these gaps, a *Draft Framework Law on the Collective Rights of Indigenous and Tribal Peoples* was submitted to the National Assembly in 2021. This legislative initiative aims to bring Suriname's legal framework in line with international human rights standards by establishing the foundational principles for protecting the collective rights of ITPs. The proposed law is designed to be complemented by sector-specific laws and to ensure legal certainty for all citizens.

A central challenge addressed in the draft law is the integration of traditional legal customs into a formal legal structure. Customary rights—deeply rooted in oral traditions and cultural practices—require interpretation based on Indigenous understandings rather than Western legal constructs. This makes the codification process complex and necessitates active community engagement to define the nature and scope of such rights (Ministry of Regional Development, 2021).

At the time of writing, the second parliamentary round of debates is pending. Amendments are being prepared by coalition members, and the law is expected to pass by May 2025. Priority legislative areas identified for development upon passage include:

- Legal procedures for Free, Prior, and Informed Consent (FPIC),
- Integration of traditional governance systems into decentralized public administration,
- Establishment of a conflict-resolution mechanism,
- Legal demarcation of Indigenous and Tribal lands.

Ten additional sectoral laws are also expected to be developed or amended to ensure coherence across government policies.

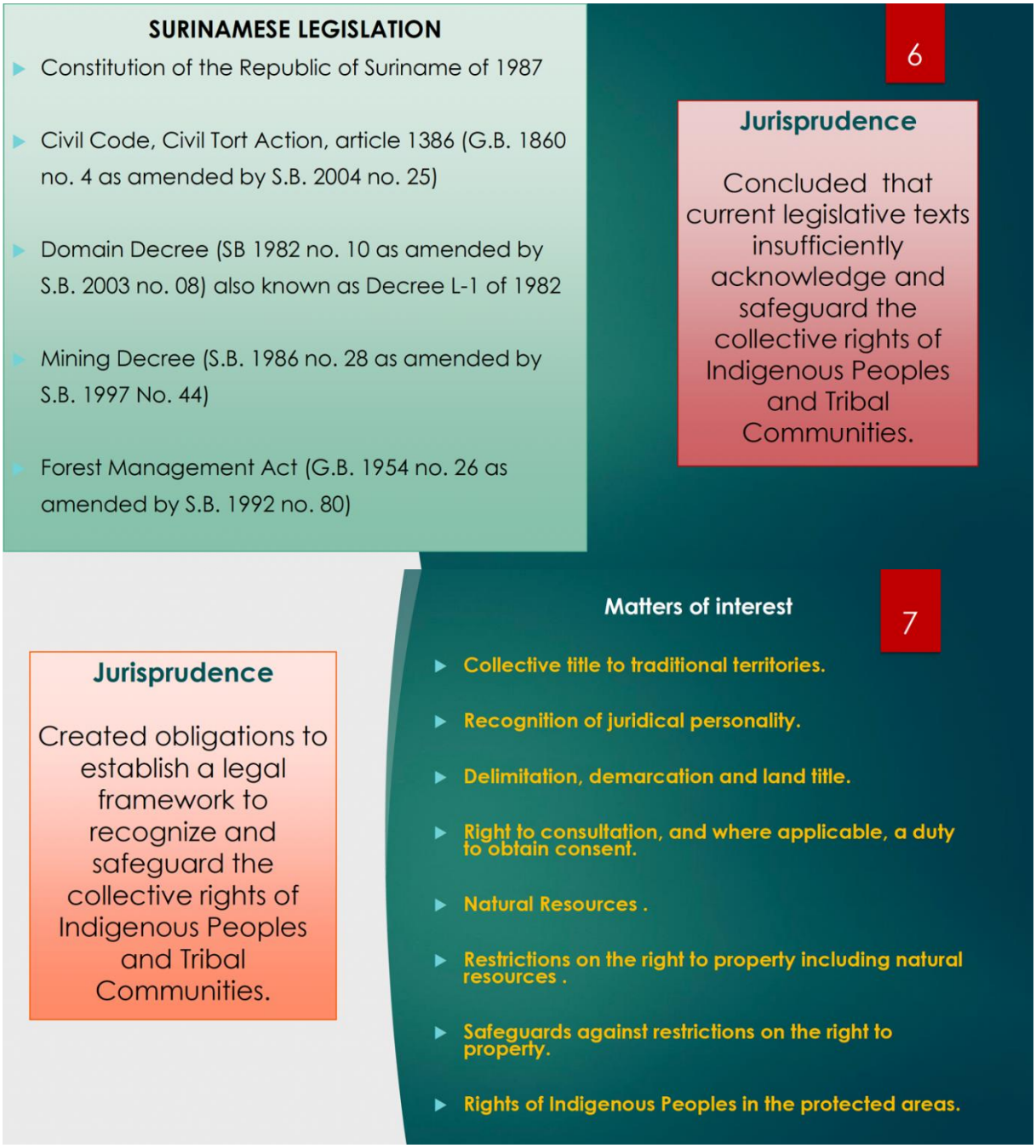


Figure 4: Acts to be designed and or developed

2.4 Current Situation: Policy-Practice Gaps and Challenges

Despite Suriname's formal commitments under international law, the practical implementation of Indigenous rights remains limited. This has been highlighted by multiple recent assessments, including the environmental and social documentation prepared for the BIO-SWEET rural electrification project, which is being implemented in the Sipaliwini district with support from multilateral partners (BIO-SWEET Consultancy Report, 2024).

Key issues are summarized below, aligned with the *Environmental and Social Performance Standard (ESPS) 7* of the Inter-American Development Bank (IDB, 2020):

- **Governance and Participation**: Traditional leadership structures of ITPs are not systematically integrated into local or national governance. Consequently, communities are often unaware of concession-granting processes and policy developments that directly affect their territories.

- **Cultural Heritage and Territorial Rights**: The absence of legally recognized land rights jeopardizes the survival of cultural heritage. Indigenous identity is closely linked to their ancestral lands, including sacred sites, traditional knowledge, language, and natural resource use. These are under threat in the absence of official recognition and protection (BIO-SWEET Consultancy Report, 2024).

- **Education**: Access to quality education in rural Indigenous areas is limited. While primary education is somewhat available, it is often inadequate, and opportunities for secondary or vocational training are scarce.

- **Healthcare**: Although health posts are present across the interior regions, most villages do not have permanent physicians, who are only based in larger towns. This restricts timely access to medical services for many Indigenous communities.

- **Benefit Sharing from Economic Activities**: While models for benefit sharing do exist—particularly in sectors such as logging, mining, and tourism—these arrangements are often limited to paper and are not operationalized equitably. Instances of elite capture and mismanagement have also been reported (BIO-SWEET Consultancy Report, 2024).

- **Environmental Degradation**: Extractive activities such as mining and logging continue to have detrimental effects on Indigenous territories. Communities are often not compensated adequately, and rehabilitation or restoration programs are either lacking or insufficient.

3. Method

In order to answer social and environmental research questions and formulate safeguards, the following action steps have been followed:

3.1. Data gathering via krutus.

Krutus, or community gatherings, are also the traditional engagement method for the Maroons and Indigenous peoples in the East of Suriname. Data was gathered via krutu sessions per cluster of villages with written informed consent. The social and environmental fieldwork was done simultaneously in one krutu session. 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 1).

The questions were pre-structured to cover diverse best practice social and environmental indicators. Open-ended, yes/no and 5 point Likert-scale statement questions (strongly agree/ agree/ neutral/ disagree/ strongly disagree) were used to determine social and environmental metrics of the Maroon at that moment in time. The raw data of the interview results is summarized in Appendix 1. Written informed consent forms during krutu sessions are included in Appendix 2. In the consent forms it is stated in Dutch that the data gathered via the survey, photos or audio recordings, can be used for internal use or publication to third parties, namely IDB. The Maroons main language is Aucaans and Srenan so there was no need for a translator to perform the interviews. An overview of the sample sizes is given in table 2.

Table 1. 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 or have battery powered lights? How many? 2k. Do you need light at night and what do you use? 2l. Where do you fetch your current drinking water? 2m. Are you able to save drinking water? 2n. What is the source of your current bath water? 2o. Where do you bathe?

2p. What alternative water sources do you have?
2q. What is the current telecom operation system in the village
2r. Do you have phone reception here?
2s. Who is responsible for maintaining it? (write down names).
2t. Do you have radio reception in the village?
2u. Do you own mobile phones?
2v. Do you have internet connection?
2w. Have you been 'on' the internet/ do you know what the internet is?
2x. Wired internet or via a phone?

3. Demand assessment

3a. Do you feel you need electricity 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.
3b. 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.
3c. Do you feel you need telephone 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.
3d.Do you feel you need telephone 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.

3d. 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 medical aid if there is a medical emergency in your village?

5. Physical wellbeing: leisure/devide dependancy

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. 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.
6d.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 own a radio of would love to own a radio?
7d. How many of you have no interest in owning a radio?
7e. How many of you have ever personally used a computer?
7f. How many of you would love to learn how to use a computer?
7g. 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 this project, 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?
11. Social participation: social networks (feeling supported)
11a. Do you feel excited about the potential of energy? 11b. Do you feel excited about telecom opportunities? Radio/ phone/ internet? 11c. Would you feel more supported if this project 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?
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 behaviour. Traditional use of land./women empowerment.

17a. Do you think men would hunt more, or less, if you had a fridge to save food in?
17b. 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. Where is your fishing ground
20c. Are there park rangers in your village?
Rangers help with forest monitoring and management.
20d. 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. 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 up keep (operation and maintenance) all these new projects yourself?
25c. Would you rather outside people get paid to do the building work? Or woud 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.

27a.What if you do decide to continue with this project: if outsiders come to help with project building, and you get conflicts with them.
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 that it won't fit our way of life
Strongly agree/ agree/ neutral/ disagree/ strongly disagree.
28f. 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.

Table 2. Sample sizes: the number of krutu participants.

Cluster II.

Village	Men	Women	Total	Total Population of the village[2]	Total population interviewed
Abadoekondre	1	0	1	100	1%
Akalekondre	0	1	1	100	1%
Benhattimofo	6	5	11	200	5.5%
Total	7	6	13	400	7.5 %

3.2. Data analysis.

KPI's are metrics used to evaluate whether the environmental theory of change can be met by IDB's energy infrastructure project on tribal Maroon land in the East of Suriname. Figure 3 shows the Key Performance Indicators (KPI's) that were extracted from interview results of identical communities.

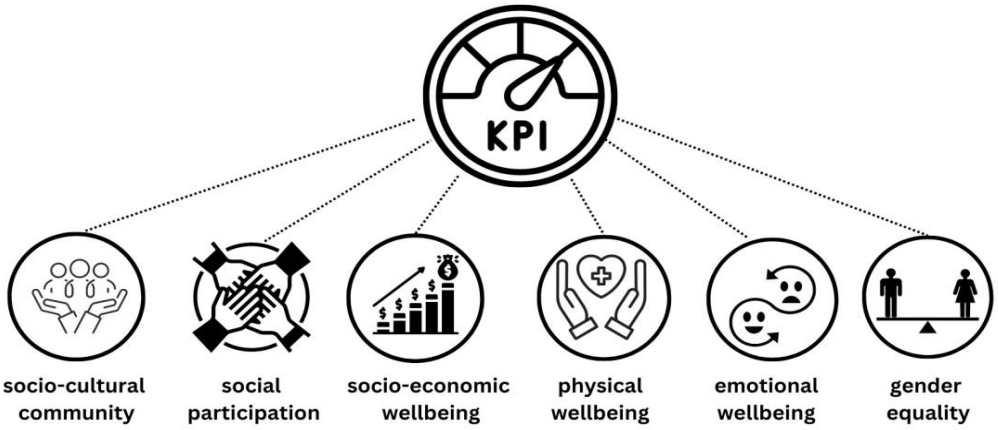


Figure 5. KPI's for the development of energy infrastructure on tribal Maroon land in the East of Suriname.

In order to rate the KPI, a 3-level positive impact analysis was done to see what potential positive impacts could occur (high, medium or low potential positive impact, see table 3).

Table 3. Potential positive impact rating.

Potential positive Impact rating	Description	Proceed with:
High potential positive impact.	Certain to benefit the social group and/or solves a major issue they are dealing with.	Guidelines to enhance or optimize this potential positive impact or opportunity should be formulated.
Medium potential positive impact.	May benefit the social group and/or may solve minor issues they are dealing with.	Guidelines to enhance or optimize this potential positive impact or opportunity should be formulated.
Low potential positive impact.	Can benefit the social group, but may not solve any issues they are dealing with.	Guidelines to enhance or optimize this potential positive impact or opportunity should be formulated.

[2] Numbers of total population of the villages were estimations by the villagers.

From the KPI's, Key Risk Indicators (KRI's) were extrapolated (figure 4). KRI's are metrics that can evaluate potential risks that could negatively impact the environmental theory of change for IDB's energy infrastructure projects on tribal Maroon land in the East of Suriname.

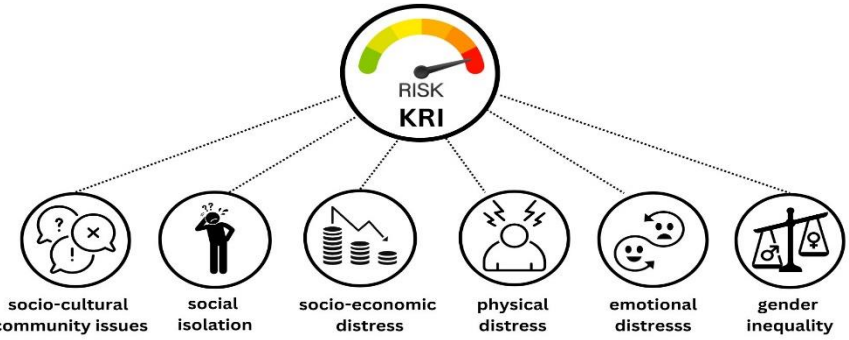


Figure 6. KRI's for the development of energy infrastructure on tribal Maroon land in the East of Suriname.

A risk analysis was carried for these KRI's by:

- Rating the potential negative impact (table 4).
- Rating the likelihood of this negative impact; likelihood is the level of probability that a risk will occur (table 5).
- Evaluating the risk with a risk matrix (risk= potential negative impact x likelihood) (table 6). The potential risks are defined by 4 categories: low risk, moderate risk, substantial risk and high risk.
  The risk per category is described in table 7, with subsequent plan of actions.

Table 4. Potential negative impact rating.

Potential negative Impact rating	Description	Proceed with:
Very high negative impact	Irreparable damage to social functions, processes or cultural items.	Risk analysis
High negative impact	Significant damage to social functions, processes or cultural items.	Risk analysis.
Medium negative impact	Considerable damage to social functions, processes or cultural items.	Risk analysis.
Low negative impact	No or insignificant damage to social functions, processes or cultural items.	Risk analysis.

Table 5. Likelihood rating.

Likelihood	Description
Very likely	Certain to occur
Likely	Can occur
Possible	May occur
Unlikely	Almost never occur

Table 6. Risk matrix.

Likelihood- very likely	**Moderate**	**Substantial**	**High**	**High**
Likely	**Low**	**Moderate**	**Substantial**	**High**
Possible	**Low**	**Moderate**	**Moderate**	**Substantial**
Unlikely	**Low**	**Low**	**Low**	**Moderate**
Negative impact	**low**	**Medium**	**High**	**Very High**

Table 7. Social risk rating and action plan.

Risk rating	Description	Actions
High	Energy infrastructure activities may cause irreparable direct or indirect damage to tribal Maroons' socio-cultural community, social participation, socio-economic wellbeing, physical wellbeing, emotional wellbeing or gender equality.	Risk mitigation: The risk can be avoided, reduced to as low as reasonably practical (ALARP), or transferred. The risk is not acceptable. Safeguards should be formulated.
Substantial	Energy infrastructure activities may cause significant direct or indirect damage to tribal Maroons' socio-cultural community, social participation, socio-economic wellbeing, physical wellbeing, emotional wellbeing, or gender equality.	Risk mitigation: The risk can be avoided, reduced to as low as reasonably practical (ALARP), transferred or retained. The risk may be acceptable. Safeguards should be formulated.
Moderate	Energy infrastructure activities may cause considerable direct or indirect damage to tribal Maroons' socio-cultural community, social participation, socio-economic wellbeing, physical wellbeing, emotional wellbeing or gender equality.	Risk mitigation: The risk can be avoided, reduced to as low as reasonably practical (ALARP), transferred or retained. The risk may be acceptable. Safeguards should be formulated.
Low	Energy infrastructure activities cause no or insignificant damage to tribal Maroons' socio-cultural community, social participation, socio-economic wellbeing, physical wellbeing, emotional wellbeing or gender equality.	Further risk reducing measures may not be needed. Guidelines could be formulated.

4. Results: potential positive impact analysis and risk analysis.

The following tables show the potential positive impact analysis per location.

Table 8. positive impact analysis of cluster I: Abadoekondre, Akalekondre and Benhattimofo

cluster I: Abadoekondre, Akalekondre and Benhattimofo		
Key Performance Indicator	**Potential positive impact rating**	**Comments**
Socio-cultural community		
1.Optimizing their way of life.	**Medium**	**The electricity supply currently comes from the EBS station in Moengo. While electricity is available, it is not optimal, occasionally causing devices to break down without an apparent reason. SWM water has been installed, but it is not yet available inside their homes. Additionally, phone reception is poor. Improved telecom services would provide easier access to the city or nearby villages in case of emergencies.**
2.Engagement method in place.	**High.**	**The traditional krutu method serve as the best way to engage with the villagers. Project purposes, planning and goals can be discussed during krutu's.**
3.Cultural heritage and territories maintained.	**High.**	**There are no restricted areas in the village. With optimal electricity and water in the house, women have less work and more free time to relax. The women would still want to cook on fire to save gas and because it tastes good.**
Social participation		
4. Easy access to the city for family.	**High**	**Yes, they noted that calling or reaching family more easily is one of the reasons why they would like the project to be executed as soon as possible. They have family members that live in the city, Paramaribo and in Moengo. Better lighting and access to energy can contribute to safer travel conditions within and outside villages, which can promote connectivity with urban areas.**
5. Feeling supported.	**High**	**Actual fruition of this project would make them feel very supported. Access to energy can lead to improved education and health facilities, which will benefit social cohesion and support within the villages. The way in which the communities are involved in the electrification project through Free, Prior and Informed Consent (FPIC) also determine how supported the residents feel in the decision-making and implementation.**
6. Willing to accommodate workers to achieve project goals.	**Low**	**The community is open to training opportunities, because they want to learn and maintain these systems themselves. They are willing to accommodate workers to achieve project goals.**
7. Willing to be trained for operation and maintenance.	**High**	**There is a certain willingness within the community to take a training, especially a technical one, because no one in the village has experience with the electricity system. They prefer an accessible training that suits the learning style of the local population.**
8. Increased personal development.	**high**	**The villagers are very eager to get training to be able to maintain the services which would help their personal development. In addition, many residents see an optimal electricity supply and telephone reception as an opportunity for personal growth, for example through better study opportunities (more lighting and access to digital learning platforms).**
9. Increased sense of equal rights.	**high**	**They would like to be up to date with the news like the rest of the world. They do not want to be "held back and live old-fashioned". They want to participate and have access to services like the rest of the country. They are eager to have better access to electricity and also clean water and telecom.**

10. Willing to learn new technologies.	High	They are eager to learn more about the Internet and are open to training on the operation and maintenance of the systems.
Socio-economic wellbeing		
11. Willingness to work for operation and maintenance.	High	They are willing to work for the energy project.
12. Increased business opportunity.	Medium	The women in the communities see the potential to develop tourism, and selling their medicinal products. Perhaps the men do not.
13. Elevation of existing business	High	Optimal electricity can enable participation in a wider range of activities. They can work longer hours if they had optimal(electric) light at night.
14. Use of new tools.	Medium	With a reliable electricity supply, they would be able to use their devices without the risk of damage.
Physical wellbeing		
15. Improved medical care.		No information.
16. Improved health and nutrition status.	High.	With optimal electricity they could preserve food longer and improve their nutritional intake.
17. Improved food security.	High.	With improved energy access they could buy freezers to save food longer and also sell their game. The women would buy a rice cooker for quicker food access if they had the funds.
18. Improved sense of leisure.	Medium	With better access to water and optimal electricity at home, women have more time to relax. However, men will hunt more.
Emotional wellbeing		
19. Improved sense of safety.	High	Better lighting in and around homes would help with general safety and also protection from snakes, if they do appear they can see it in time.
20. Less stress.	High	Access to electricity enables households to generate additional income, such as storing refrigerated food for sale, which helps reduce financial stress. With reliable electricity and good reception, they can access radio, television, and the internet, which are not only educational but also provide entertainment and help reduce stress. Additionally, women have more time to relax when they can use electrical appliances to ease household tasks.
Gender equality		
21. More business opportunity for women.	Medium	With the right support and mindfulness of project investors and other organization, the following business opportunities could be created for women: • Business opportunity: Improved energy access could potentiate the development of tourism which could lead to more business opportunity for women. They could serve as tour guides, cooks, cleaners
22. Improved physical wellbeing for women.	High	The women can use electrical appliances to do part of the daily work.
23.Men having more time for family or household activities.	Low	Men will hunt more and work longer hours.

Table 9. Risk analysis of cluster II: Abadoekondre, Akalekondre and Benhattimofo

cluster II: Abadoekondre, Akalekondre and Benhattimofo	Risk analysis			
Key Risk indicators	**Potential negative impact rating.**	**Likelihood.**	**Potential risk rating.**	**Comments.**
Socio-cultural community issues				
1. Indecision about community ownership models.	**High negative impact**	**Likely**	**Substantial**	**Uncertainty or disagreement about how the community should manage and maintain energy, water and telecom services can lead to delays in project implementation. Men in communities express a desire to pay for maintenance themselves, while women prefer external financing. This can lead to a lack of clear accountability, which can result in systems not being managed properly after installation. they do not decide on an ownership model or plan as a community, project goals could be slowed down and conflict could occur in the community.** **They currently use a model that everyone who uses it should pay for it and that usage are measured per household, just like in the city.**
2. Temporary displacement due to project building activities.	**Low**	**unlikely**	**Low**	**Is unlikely to occur. People will not have to move from their current location due to the construction work of the project.**
Social isolation				
3. Unequal distribution of water, energy or telecom services.	**Low**	**unlikely**	**low**	**The electricity supply to the villages currently comes from the EBS station in Moengo. Although electricity is available, it is not optimal, causing appliances to break down for no apparent reason. SWM water has been installed, but it is not yet available in their homes. In addition, telephone reception is poor. Improved access to services would benefit the communities, as it would the rest of the country.**
4. Lack of local capacity and expertise to sustain maintenance or operation of the systems.	**High**	**Likely**	**Substantial**	**The community is dependent on outside sources for maintenance and technical expertise, which can lead to operational disruptions if these services are not consistently available. The lack of local knowledge or trained personnel to maintain systems such as electricity or**

				water can create dependency on outside experts or outside intervention. There is a need for training in maintaining and operating the system among the communities.
5. Lack of trust due to past false promises.	Low	unlikely	low	They have complete trust in the project.
Socio-economic distress				
6. Lack of paid jobs or employed villagers to upkeep ongoing costs.	Medium	Likely	Moderate	Many people in the communities rely on hustles as a means of income, mainly through Acai sales and land clearing. To cover operational and maintenance costs, they use these sources of income, and those without paid employment pay with their AOV (old age pension) money or ask their children for help. However, women in the community have indicated that they cannot always afford to cover these costs. This reveals the economic distress and limited financial resources available to meet essential needs. The lack of paid employment and workers contributes significantly to socio-economic distress, as there are few opportunities for stable income. This leads to challenges in covering essential expenses, such as maintaining infrastructure (such as electricity and water systems).
7. Inability to buy freezers, electronic devices or other electrical tools.	Medium	Very likely	Substanial	The positive effect of food security with improved energy access is dependent on their ability to buy food chilling equipment such as freezers or fridges. Their ability to cook food quicker for quick food access is depends on their ability to buy cooking devices. The positive effect of better physical wellbeing by reaching medical help quicker is dependent on their ability to buy phones or other electronic devices. Despite having access to electricity, many villagers have appliances that they do not use or that are broken due to the sub-optimal electricity supply. Due to the lack of income, they cannot afford new appliances or appliances to replace the broken ones.
Physical distress				

8. Physical injury while supporting project objectives.	Low	Possible	Low	N.A. right now, but may occur.
9. Noise disturbance at critical locations.	Low	Likely	Low	The villagers are okay with it. Noise should only be avoided near schools.
10. Distance for fetching water too far, especially for the elderly.				N.A./ not answered.
11. Dust production during building activities.	Low	Possible	Low	The villagers are okay with it. Dust should only be avoided near schools.
Emotional distress				
12. Worries and stress about generating the finances for the projects.	Low	Very likely	moderate	Considering the hustle work of the villagers, there can be a sense of uncertainty about how to secure funding for the maintenance. If they do not have enough funds, they will not be able to maintain the services or upkeep the maintenance.
13. Temporary distress due to project building activities.	Low	Possible	Low	Villagers said they would be okay with some distress to reach project goals such as dust or noise production.
Gender inequality				
14. Gender inequality in the ability to pay for and maintain services.	Low	Likely	Low	Men as well as women have job and can help to pay for maintenance or operation costs of energy, water or telecom services. Gender equality is an ongoing process and is something to be taken into account for all villages.
15. Gender inequality in potential job creation.	Low	likely	Low	In the environmental field, only men want to help with project building objectives, the women do not. There could be options for women in the field of tourism.

5. Discussion.

5.1. Socio-cultural characterization.

5.1.a. .Traditional structures

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The traditional governance structure in the Maroon villages of Abadoekondre, Akalekondre, and Benhattimofo is headed by a village captain (*kapitein*), supported by one or two *basja's* (assistants). One village may have multiple captains, reflecting family-based or territorial subdivisions within the community. The captain leads community meetings (*krutu*), arbitrates disputes, and is the intermediary between the community and the government.

Decision-making processes are largely collective, occurring through community-wide *krutu* meetings. These gatherings allow men, women, and youth to express concerns, although final decisions are typically made by the captain in consultation with the *basja's* and respected elders.

Norms and values include respect for hierarchy, elder knowledge, spiritual traditions, and communal cooperation. Cultural customs and behavioral expectations are deeply embedded in oral traditions and practiced daily through rituals, food preparation, land use, and social interactions.

The role of elders is central in governance and cultural preservation. Elders act as advisors to the captains and ensure continuity of traditional knowledge. **Women** have significant influence in domestic, economic, and increasingly in community affairs; however, formal leadership positions are still mostly occupied by men. **Youth** are generally excluded from formal decision-making structures, though their participation is growing due to exposure to urban and digital cultures.

Gender-based vulnerabilities exist, particularly in relation to access to leadership roles, land rights, and formal participation in *krutu* discussions. Social norms sometimes restrict women from attending or speaking in public meetings, though this is evolving with generational shifts.

Table 10. Key stakeholders.

villages	function	familyname & first name
Abadoekondre	**Captain**	**Lantvelt Adonus**
	Basja	**Pinas Lucia**
Akalekondre	**Captain**	**Poeloedja Herman**
	Basja	**Faisel Mario**
	Basja	**Pika Benito**
Benattimofo	**Captain**	**Francis Mamboi**
	Basja	**Francis Agnes**

5.1.b. Household characteristics: traditional gender roles.

In all Maroon[3] communities in Suriname there were historically traditional gender roles: the men hunted to provide food for their family and the women fetched water, cook and take care of the children. But the Maroons living in the north - east of Suriname and belonging to the Aucan tribe are since decades part of the money economy. Besides the traditional tasks, both the men and the women also have other hustles as a means of income: Acai sales, land clearing or a government job.

5.1.c. Belief systems.

The villages Abadoekondre and Benhattimofo are predominantly followers of the Roman Catholique church. Akalekondre belong to the Presbytherian church. Historically the Aucans used traditional shamanic healing methods. In general, even if they are baptized the Aucans still have the knowledge of traditional medicine, but many of them don't use the knowledge anymore, only for villagers and at the request of the basja. There are no known active traditional clinics in those villages.

5.2. Government structures.

The villages have official government workers: below the district commissioners there are board supervisors and assistant board supervisors at the village level. Their official tasks are listed in table11 and table 12.

Table 11. Official tasks of the Board supervisor.

Official tasks of the Board supervisor:
1.Receives assignments and instruction from the district-secretary and in some cases from the district-commissioner.
2.Is tasked with inventorying, discussing, and suggesting solutions administratively in their resort.
3.Monitors the construction, repair, and maintenance of secondary and tertiary roads.
4.Monitors the regular maintenance works; cleaning maintenance of roadsides, squares, strips, cemeteries and, waste sites.
5.Checks the operation of regularly maintenance of civil/build/technical activities in consultation with the Technical Staff.
6.Checks, in consultation with the civil engineering department, the work performance of third parties, according to the specific conditions;
7.Conducts research into permit requests for setting up and exploiting industries, businesses, shops, and retail companies.
8.Checks the compliance of permit conditions of industries, businesses, shops, and retail companies.
9. Conducts research before giving advice to the district-secretary and/or district-commissioner.
10. Is present for meetings/'krutus', with people of the resort and/or villagers to inventorize and give solutions to specific problems.

[3] Maroons are descendants of enslaved people from Africa, who fled and initially lived in tribes in the interior of Suriname.

11. Supervises for optimal waste disposal and cleaning services in their resort.
12. Mediates in simple civil cases.
13. Attends audiences at the district-commissariat.
14. Prepares for visits to their resort from state official and policymakers.
15. Takes care of the administrative processing for documents pertaining to their resort.
16. Regularly prepares reports pertaining to social, cultural, economic, and ecological developments in their resort for the district-commissioner or the district-secretary.
17. Takes care of the proper functioning of the board service in their resort.
18. Is intimately involved in the general, free, and secret elections in their district/resort.
19. Takes care of order in the resort.
20. Stays on top of managerial developments.
21. Delivers advice/opinions to the district-commissioner, district-secretary, and the adjunct district-secretary.
22. Conducts all activities in the extension of their function.

Table 12. Official tasks of the Assistant Board Supervisor.

Official tasks of the Assistant Board Supervisor
1. Makes an inventory, discusses or advises on (possible) solution(s) at the administrative level in his/her jurisdiction;
2. Also supervises the construction, repair and maintenance of secondary and tertiary roads and the regular maintenance and/or cleaning of roadsides, strips, squares, general cemeteries, rubbish dumps, etc.;
3. Also checks the implementation and regular maintenance of various Civil, Construction/Technical activities;
4. Also supervises, in collaboration with the Civil Engineering Department, the proper execution of work by third parties and others in accordance with specifications;
5. Co-investigates(s) license applications for setting up and operating industries, companies, companies, retail companies, etc. and also checks compliance with permit conditions of industries, companies, companies, retail companies, etc.;
6. Be closely involved in organizing the general, free and secret elections in the relevant district/administrative district;
7. Participate in field research before issuing an advice to the Board Overseer;
8. Attends meetings/krutus with resort and/or villagers to make an inventory or possibly propose solutions to various problems and also mediates in simple civil matters;
9. Supervises an optimal waste collection and cleaning service in the relevant resort;
10. Attends co-audiences at the district commissariat;
11. Helps prepare official visits by policy and/or state officials
to the district/administrative resort or resort;

12. Is also responsible for the overall administrative processing of documents from the relevant jurisdiction and is also responsible for the overall order and peace in the district/administrative jurisdiction or jurisdiction;
13. Keeps himself regularly informed of developments in the field of public administration;
14. Regularly reports both orally and in writing to the Board Overseer;
15. Carry out all activities related to the position.

5.3. Demographics.

In table 13 the population number and household info as gathered during krutu sessions.

Table 13. Population and household information per location.[4]

Village	Population and household info
Abadoekondre	Approx. 100 people, 50 housholds.
Akalekondre	Approx. 100 people, 25 households.
Benhatimofo	Approx. 100, people, 30/60 households,

Beyond population size, it is important to highlight the demographic dynamics:

- **Household composition** often includes extended families. Women typically manage household tasks and finances, while men engage in subsistence or wage labor.
- The **age structure** leans young, with many school-aged children and a growing number of adolescents.
- **Migration trends** include seasonal movement to Moengo or Paramaribo for work or education.

As in Section 4.1.a, **traditional leadership**, decision-making, and roles of elders, women, and youth are integral to community functioning. Norms and customs shape social expectations, with roles defined by age and gender. Gender-based exclusion remains a challenge for equitable participation, particularly in community-level decision-making and access to resources.

(Note: Future updates could benefit from disaggregated data on age, sex, and education level if household surveys are conducted.)

5.4. Other socio-cultural observations.

All 3 villages already have electricity via the EBS and water via the SWM and are close to a town, Moengo. Everybody is earning money and is already paying normal tariffs for electricity. There is an elementary school across the village Abadoekondre and in front of the village Benhattimofo. Till 2000 there was also a boarding school established at the school, for children from the surrounding villages.

[4] The numbers are estimations by the villagers.

At the school yard there are also teacher houses, the office of an NGO the Pater Ahlbrinck Stichting (the father Ahlbrinck foundation), a container workshop for drop outs, a workshop for carpenters to make doors and window frames.

After elementary school the children attend school in nearby Moengo.

All three villages—Abadoekondre, Akalekondre, and Benhattimofo—have access to electricity (via EBS) and potable water (via SWM) and are situated in proximity to the town of Moengo. Residents pay standard tariffs for electricity and water.

Education

There are elementary schools in or near each village. In Abadoekondre and Benhattimofo, the schools are located directly across or adjacent to the village. A boarding school was active until the year 2000 to serve children from more remote areas. After completing primary education, children continue their studies in Moengo. Despite basic access, **education levels remain relatively low**, and **literacy rates** are uneven, particularly among older residents and women. Formal **vocational education opportunities are limited**, though small workshops are present.

Health Indicators

Healthcare access is minimal. Residents rely on health centers in Moengo; there are no permanent doctors in the villages. Public health outreach is sporadic. Common health issues include waterborne diseases, malnutrition among children, and chronic illnesses among elders.

Household Income and Livelihoods

Income sources include a mix of formal employment (e.g., government jobs), informal trade (e.g., açaí sales, woodwork), agriculture, and remittances. **Household incomes vary**, with some families living close to the national poverty line. **Livelihood strategies** are often diversified to manage risk, combining traditional land use (hunting, fishing, subsistence farming) with market-based income streams.

Intangible Cultural Heritage

The communities retain rich cultural traditions, including:

- **Traditional knowledge** of medicinal plants and healing, though its usage is declining.
- **Customary law** practiced through community arbitration and the authority of the captain and *basja's*.
- **Ritual and ceremonial practices**, such as ancestral offerings, religious feasts, and *dansi's* (traditional dances), which reinforce communal identity.

However, these practices are under pressure due to external influences, urban migration, and lack of institutional support. The ongoing energy infrastructure project should ensure that it **does not disrupt ceremonial spaces or sacred sites**, and that it promotes **the safeguarding of cultural continuity**, especially for youth engagement.

5.5. Baseline needs assessment.

Table 14 outlines the baseline needs of the villages.[5]

Table 14. Baseline needs assessment.[6]

Baseline needs assessment			
Village	**Energy**	**Water**	**Telecommunications**
Abadoekondre, Akalekondre and Benhattimofo	**The villages receive electricity from Moengo, but the supply is not optimal, often leading to appliance failures. At the boarding school, several refrigerators have already broken down. Despite reporting these issues to EBS, there has been no response, nor is there a formal process to file a claim. Electricity is essential for the village, driving development—particularly for schoolchildren who depend on it for studying. It also plays a vital role in safety. Frequent power outages cause food spoilage, further disrupting daily life. Residents strongly prefer a stable household electricity supply, as they aspire to live in a modern world with reliable power.**	**SWM water has been installed, but it is not yet available in the houses. Residents currently bathe in river and creek water. They feel the need for alternative sources of clean water.**	**Telecom services from Digicel and Telesur are available, but reception is not always strong. Some households have wired internet, while others rely on mobile internet. Radio remains an important source of news and global updates. Improved electricity would enhance access to telecommunications, ensuring better phone connectivity and expanding available options. Greater accessibility to certain activities would also be possible. Residents, especially younger people, are eager to learn how to use new technologies. Nearly everyone is familiar with the internet and Wi-Fi. They believe that having access to telecom services gives them equal opportunities as those in the city.**

[5] The villages have the same cultural-, social- and economic structure.

[6] Even though this project is about electricity, water and telecom belong are also important basic needs aspects.

5.6. Potential positive impact analysis: an overview.

KPI's (figure 3) were used to assess the potential positive impact on the social groups. Table 15, 16 and 17 shows the overview of the positive impact rating and analysis.

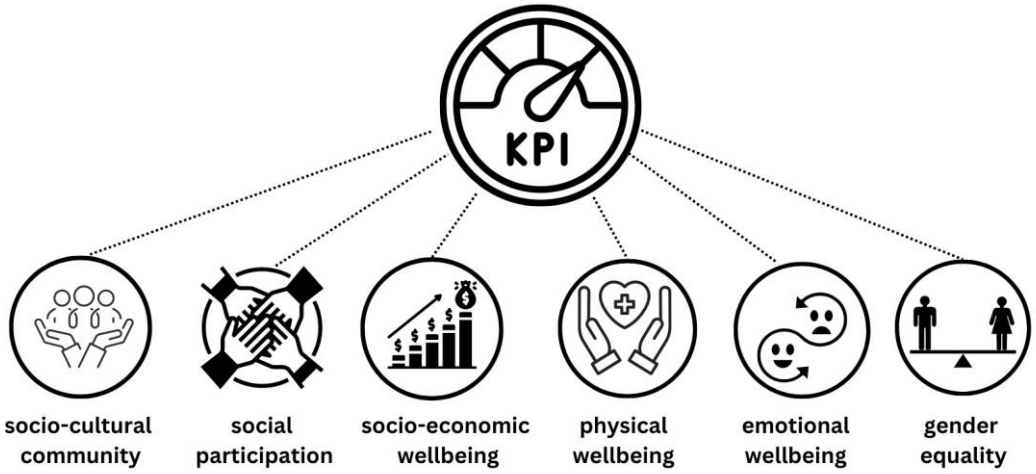

Figure 7. KPI's for the development of energy infrastructure on Maroon land in the North-East of Suriname.

Table 15. Potential social positive impact rating: an overview.

Social Key Performance Indicator	Abadoekondre	Akalekondre	Benhatimofo
Socio-cultural community			
1.Optimizing their way of life.			
2.Engagement method in place.			
3.Cultural heritage and territories maintained.			
Social participation			
4. Easy access to the city for family.			
5. Feeling supported.			
6. Willing to accommodate workers to achieve project goals.			
7. Willing to be trained for operation and maintenance.			
8. Increased personal development.			
9. Increased sense of equal rights.			
10. Willing to learn new technologies.			
Socio-economic wellbeing			
11. Willingness to work for operation and maintenance.			

12. Increased business opportunity.			
13. Elevation of existing business			
14. Use of new tools.			
Physical wellbeing			
15. Improved medical care.			
16. Improved health and nutrition status.			
17. Improved food security.			
18. Improved sense of leisure.			
Emotional wellbeing			
19. Improved sense of safety.			
20. Less stress.			
Gender equality			
21. More business opportunity for women.			
22. Improved physical wellbeing for women.			
23.Men having more time for family or household activities.			

Table 16. Positive impact color legend.

Legend	
	High positive potential impact.
	Medium positive potential impact.
	Low positive potential impact.
	No information.

Table 17. Potential positive impact analysis: an overview.

Potential positive impact analysis overview.		
The scope that was assessed is whether the KPI's benefit the social group and/or solve a major issue they are dealing with, as verbally stated during krutu sessions and by socio-cultural assessment of the location in question.		
Key Performance Indicator	**Positive impact analysis: an overview.**	**Opportunities to enhance this positive impact.**
Socio-cultural community		
1. Optimizing their way of life.	-Abadoekondre, Akalekondre and Benhattimofo electricity, water and phone reception needs to be especially optimized.	
2. Engagement method in place.	The traditional krutu is the best practice engagement method for all villages.	The krutu setting can be used to communicate with the villagers during project building grievances or guidelines for the villagers and their leaders.
3. Cultural heritage and -territories maintained.	Territories for building purposes will be chosen by villagers themselves. There are no restricted areas in the villages. With optimal electricity and water in the house, women have less work and more free time to relax. The women would still want to cook on fire to save gas and because it tastes good.	Being mindful of territories that are not allowed to be used or entered is an important social safeguard.
Social participation		
4. Easy access to the city for family.	The villagers already have phones but the reception is not strong. They noted that calling or reaching family more easily is one of the reasons why they would like the project to be executed as soon as possible. They have family members that live in the city, Paramaribo and in Moengo. Better lighting and access to energy can contribute to safer travel conditions within and outside villages, which can promote connectivity with urban areas.	
5. Feeling supported	All villages would feel very supported.	
6. Willingness to accommodate workers to achieve project goals.	All villages are willing to accommodate workers to achieve project goals.	
7. Willing to be trained for operation and maintenance.	There is willingness to take a training, especially a technical one, because no one in the village has experience with the electricity system. They prefer an accessible training that suits the learning style of the local population.	Recommend that tailor-made training should be created based on their education and knowledge.

8. Increased personal development.	The villagers are very eager to get training to be able to maintain the services which would help their personal development. In addition, many residents see an optimal electricity supply and telephone reception as an opportunity for personal growth, for example through better study opportunities (more lighting and access to digital learning platforms). New opportunities for personal development also arise because women have to spend less time on housework. They could be even more productive with longer energy access (light at night).	
9. Increased sense of equal rights.	The villages strongly agree that they would have an increased sense of equal rights. They want to participate and have access to services like the rest of the country.	
10. Willing to learn new technologies.	All villages are open to learning new technologies.	
Socio-economic wellbeing		
11. Willingness to work for operation and maintenance.	All villages are willing to work for operation and maintenance.	Operation and maintenance by local villagers increase community ownership.
12. Increased business opportunity.	The women in the communities see the potential to develop tourism, and selling their medicinal products. Perhaps the men do not.	Tourism and the sale of medicinal products can be included in socio-economic models to sustain long term maintenance of the project building objectives.
13. Elevation of existing businesses.	In all villages, improved energy water and telecom access could improve their businesses. They can work longer hours if they had optimal(electric) light at night.	

	● This is because with those services' tourism could be developed that could increase the sales of their local products. ● They could expand their current businesses.	
14. Use of new tools.	With a reliable electricity supply, they would be able to use their devices without the risk of damage.	

Physical wellbeing		
15. Improved medical care.	No information.	
16. Improved health and nutrition status.	With optimal electricity they could preserve food longer and improve their nutritional intake. With improved energy access they could save food in the fridge instead of salting it.	
17. Improved food security.	With improved energy access they could buy freezers to save food longer and also sell their game. The women would buy a rice cooker for quicker food access if they had the funds.	
18. Improved sense of leisure.	Most women would experience an improved sense of leisure with water in their houses. With optimal electricity at home, women have more time to relax. However, men will hunt more.	
Emotional wellbeing		
19. Improved sense of safety.	In general, people would feel safer with night at light to prevent accidents and to see potentially dangerous animals such as snakes.	
20. Less stress.	Access to electricity enables households to generate additional income, which helps reduce financial stress. With reliable electricity and good reception, they can access radio, television, and the internet, which are not only educational but also provide entertainment and help reduce stress. Additionally, women have more time to relax when they can use electrical appliances to ease household tasks.	
Gender equality		
21. More business opportunity for women.	With the right support and mindfulness of project investors and other organization, the following business opportunities could be created for women: • Business opportunity: Improved energy access could potentiate the development of tourism which could lead to more business opportunity for women. They could serve as tour guides, cooks, cleaners. They can also sell their traditional medicine.	Women empowerment can improve community ownership models.

22. Improved physical wellbeing for women.	The women can use electrical appliances to do part of the daily work. .	
23. Men having more time for family or household activities.	**Men will hunt more and work longer hours.**	

5.7. Potential risk analysis.

KRI's (figure 4) were used to assess the potential risks that could damage the social groups or cultural functions. Table 18, 19 and 20 shows an overview of the risk rating and analysis.

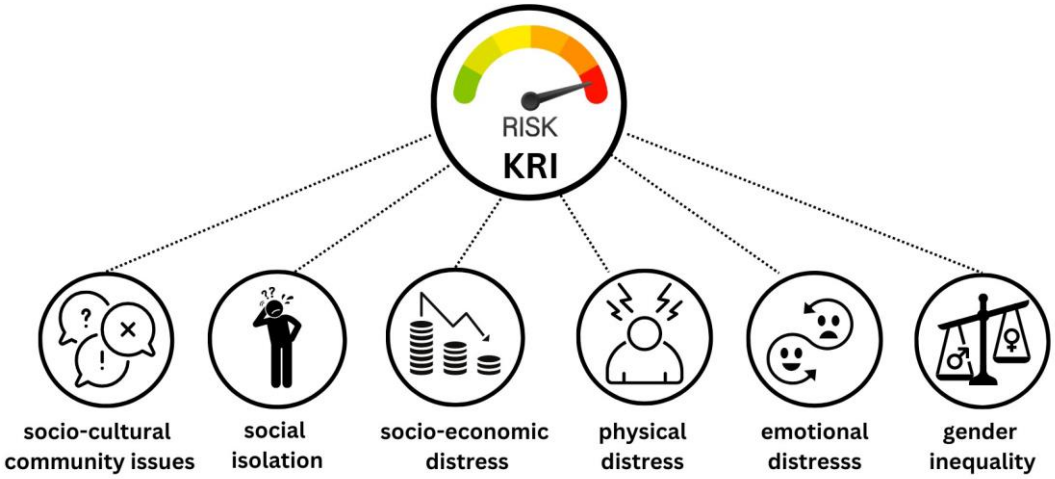

Figure 8. KRI's for solar for the development of energy infrastructure on Maroon land in the North-East of Suriname.

Table 18. Risk analysis rating: an overview.

Social Key Risk Indicator	Abadoekondre	Akalekondre	Benhatimofo
Socio-cultural community issues			
1. Indecision about community ownership models.			
2. Temporary displacement due to project building activities.			
Social isolation			
3. Unequal distribution of water, energy or telecom services.			
4. Lack of local capacity and expertise to sustain maintenance or operation of the systems			
5. Lack of trust due to past false promises.			
Socio-economic distress			
6. Lack of paid jobs or employed villagers to upkeep ongoing costs.			
7. Inability to buy freezers, electronic devices or other electrical tools.			
Physical distress			

8. Physical injury while supporting project objectives.			
9. Noise disturbance at critical locations.			
10. Distance for fetching water too far, especially for the elderly.			
11. Dust production during building activities.			
Emotional distress			
12. Worries and stress about generating the finances for the projects.			
13. Temporary distress due to project building activities.			
Gender inequality			
14. Gender inequality in the ability to pay for and maintain services.			
15. Socio-cultural community issues			

Table 19. Risk analysis color legend.

Legend	
	High risk.
	Substantial risk.
	Moderate risk.
	Low risk.
	No information.

For all risks assessed the recommended risk mitigation strategy is to absorb or transfer the risk by reducing it to ALARP by following the recommended safeguard policies and social best practices outlined in table 20.

Table 20. Potential risk analysis: an overview.

Potential risk analysis.		
The scope that was assessed is whether the KPI's damage the social group, as verbally stated during krutu sessions and by socio-cultural assessment of the location in question.		
Social KRI	**Risk analysis: an overview.**	**Recommended safeguard policies and social best practices.**
Socio-cultural community issues		
1.Indecision about community ownership models.	There is a substantial risk for indecision; The men in communities express a desire to pay for maintenance themselves, while women prefer external financing. This can lead to a lack of clear accountability, which can result in systems not being managed properly after installation. They currently use a model that everyone who uses it should pay for it and that usage are measured per household, just like in the city.	Krutus are needed on a village level to discuss financial ownership models that fit their village. Consent forms that state that they are aware that the operation and maintenance costs are their responsibility, use audio recording if possible.
2.Temporary displacement due to project building activities.	Is unlikely to occur. People will not have to move from their current location due to the construction work of the project.	
Social isolation		
3.Unequal distribution of water, energy or telecom services.	Improved access to services would benefit the communities, and make their opportunities equal as the rest of the country.	Inclusion of every household, sex and age would be a recommended good practice as a social safeguard. Water connection at the household level would be ideal.
4.Lack of local capacity and expertise to sustain maintenance or operation of the systems.	In general, there is no local technical expertise present.	No training is required for the maintenance and operation of that system. This is because EBS will operate the system itself.
5.Lack of trust due to past false promises.	They have complete trust in the project.	Within the informed consent process, considerable effort needs to be taken to inform the inhabitants of the project phases and what they can expect to happen next.
Socio-economic distress		

6.Lack of paid jobs or employed villagers to upkeep ongoing costs.	In the villages, people are already part of the cash economy. Their main income is selling acai and clearing land. The men say they can cover the costs with their income. However, the women indicated that they cannot always cover these costs and that they want to pay them with external funding. This leads to challenges in covering essential expenses, such as maintaining infrastructure (such as electricity and water systems).	Stimulating the local economy and creating new livelihoods with improved energy, water and telecommunications access will ensure the long term sustainability of the project building objectives.
7.Inability to buy freezers, electronic devices or other electrical tools.	Despite having access to electricity, many villagers have appliances that they do not use or that are broken due to the sub-optimal electricity supply. Due to the lack of income, they cannot afford new appliances or appliances to replace the broken ones.	
Physical distress		
8.Physical injury while supporting project objectives.	Physical injury during building work is not applicable right now, but could occur.	Within the FPIC mechanism, what they could expect to include with physical manual labor during project building objectives is recommended.
9.Noise disturbance at critical locations.	The villages would not be okay with noise disturbance close to the school.	Grievance mechanisms are expressed via krutus. The noise disturbance limits are recommended to be taken into account during project building work.
10.Distance for fetching water too far, especially for the elderly.	Not answered.	
11.Dust production during building activities.	The villages would not be okay with dust production close to their school.	Grievance mechanisms are expressed via krutus. The possible dust production location and limits are recommended to be taken into account.
Emotional distress		
12.Worries and stress about generating the	Considering the hustle work of the villagers, there can be a sense of uncertainty about how to secure funding for the maintenance. If they do not have enough funds, they will not be able to maintain the services or upkeep the maintenance.	In the FPIC process, worries of villagers and their leaders should be addressed. It is recommended to give an estimate of the potential maintenance and operational costs.
13.Temporary distress due to project building activities.	Villagers said they would be okay with some distress to reach project goals such as dust or noise production.	The pleminary FPIC process has shown that they would be okay with some temporary distress due to project building objectives.
Gender inequality		

14.Gender inequality in the ability to pay for and maintain services.	Men as well as women have job and can help to pay for maintenance or operation costs of energy, water or telecom services. Gender equality is an ongoing process and is something to be taken into account for all villages.	Gender equality and women empowerment is recommended to be built-in in all project phases.
15.gender inequality in potential job creation.	Only men want to help with project building objectives, the women do not. Indirectly though, with improved energy, telecom and water access there could be potential job creation for women in the field of tourism and sale of traditional medicines.	Creating jobs and compensating women during the project work is recommended. Stimulating women's livelihoods that can be potentiated with improved energy, water and telecommunications access is recommended.

5.8. Social safeguards: a three-phase model.

From the SIA and SRA, a three-phase social safeguards model has been designed to ensure the long-term sustainability of the electricity infrastructure project. Within this model the relevant safeguards take action plans, ownership models and social best practice considerations into account.

The social safeguard model includes the following phases:

Phase 1. Free Prior and Informed Consent (FPIC) safeguards.

- *Early FPIC responses.*
- *False promises and informed consent forms.*
- *Dust production and noise disturbance.*
- *Safeguarded territories.*
- *Grievance mechanism.*
- *Potential physical injury.*

Phase 2. Community Capacity Building (CBB) safeguards: technical capacity.

- *Capacity gap analysis.*
- *Technical capacity training programmes.*
- *Gender equality: women empowerment.*

Phase 3 . CBB safeguards: socio-economic capacities and ownership models

- *Socio-economic factors to consider: willingness to pay potential, current potential to pay and future opportunities that can be potentiated with improved energy, access.*
- *Financial ownership models to sustain operation and maintenance costs.*

5.8.a. Phase 1. Free Prior and Informed Consent (FPIC) safeguards.

Early FPIC responses.

The principle of Free, Prior and Informed Consent (FPIC) refers to the right of Maroon 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 or tribal 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. In this report, early FPIC analysis has been analyzed via the positive impact analyses report with an overview of 23 KPI's in table 35. In general, all inhabitants showed significant willingness to participate in IDB's solar, energy and telecommunications projects, are excited about the opportunity and think that the projects would have a significant beneficial effect on their social group. Table 21 shows a quick overview of the preliminary FPIC considerations per village as stated during initial krutu sessions.

Table 21. Preliminary FPIC per location.

Preliminary FPIC	
Village	**FPIC**
Abadoekondre, Akalekondre and Benhattimofo	**The villagers are very excited about the project goal. They strongly agree that the project will be good for their village although some of them are worried about the costs.**

False promises and informed consent forms.

Social Key Risk Indicator	Abadoekondre	Akalekondre	Benhatimofo
5. Lack of trust due to past false promises.			

From KRI number 5 it is clear that all the villages have trust in this project. To minimize social conflict, it is recommended to clearly explain the project phases and objectives to the inhabitants and their leaders and to explain the project's conditions. The consent form in table 22 is a model to be used during krutu FPIC discussions before starting project building.

The traditional leaders make the final decisions and would need to 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 minimum, to interview a sample percentage of villagers to test their informed consent about their head captains' final decision.

Table 22. Model consent form.

Krutu/interview date:		
I hereby declare that: o **I have been informed about the nature, methods and purpose of the IDB projects.** o **that the inhabitants of [*location name*] have been informed about the nature, methods and purpose of the IDB projects.** **(Optional)** **Krutu date:** **Location:** o **I hereby give [*organization name/ person's name*] consent to install solar panels, telecommunication networks and/or water infrastructure in [*location name*]** o **I will allow project workers to enter the village for the discussed time frame to perform building work.** o **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/ Bassia.**	**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	

Dust production and noise disturbance.

Social Key Risk Indicator	Abadoekondre	Akalekondre	Benhatimofo
9. Noise disturbance at critical locations.			
11. Dust production during building activities.			

KRI nummer 9 and 11 have shown the following instructions from inhabitants in relation to possible dust and noise production: The villages would not be okay with dust production or noise disturbance close to their school.

Safeguarded territories.

The villages have not designated areas where people are not allowed to enter or where work is not allowed.

Grievance mechanism.

In all village 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 (captain/basjas). Table 23 shows the stated preferred grievance mechanism per village.

Table 23.Grievance mechanism per village as stated during krutu sessions.

Grievance mechanism	
village	Grievance mechanism
Abadoekondre, Akalekondre and Benhattimofo	The villagers will let the captain or basja know if grievances should occur.

To ensure the effective handling of grievances during the FPIC process and beyond, the Grievance Mechanism (GM) is designed to be culturally appropriate and accessible to all community members, including vulnerable groups.

Cultural adaptation and accessibility:

- The GM process is communicated in the local language through oral presentations and visual aids.
- Community members can submit complaints orally during meetings or through trusted intermediaries (e.g., captains or youth representatives), to accommodate low literacy levels.
- Grievance forms are available in simplified formats and do not require writing skills.

Customary dispute resolution mechanisms:

- The GM is designed to integrate with local conflict resolution practices, where initial disputes are addressed through traditional structures such as the captain (*kapitein*), *basja's*, and community krutu.
- Only if the issue cannot be resolved traditionally, the case escalates to external channels.

Procedural safeguards:

- The process is entirely cost-free for the complainant.
- Confidentiality is guaranteed throughout the process, and no form of retaliation is tolerated.
- All parties involved in GM handling are trained on non-discrimination and confidentiality principles.

Inclusion of women, youth, and persons with disabilities:

- Dedicated focal points (female and youth representatives) are assigned to ensure safe and trusted access for these groups.
- Meetings are scheduled at convenient times and in inclusive spaces (e.g., near schools, health posts).
- Efforts are made to accommodate persons with mobility or communication difficulties.

Table: Grievance Mechanism Process – Explanation of Steps

STEP	DESCRIPTION	TIMELINE	RESPONSIBLE PARTIES
1. Submission of Complaint	Community members can submit a grievance orally or in writing. Oral complaints can be made during village meetings (krutu) or via trusted persons (e.g., captain, basja, youth/women representatives). No literacy or formal documentation required.	Day 0	Community members, local leaders, grievance focal point
2. Acknowledgment and Registration	The complaint is acknowledged within 2 calendar days and recorded in a grievance log with a unique ID and short description.	Within 2 days	Grievance focal point, FPIC safeguards officer
3. Internal Review and Categorization	The grievance is reviewed to determine its nature, severity, and appropriate resolution path (traditional vs. project-level).	Within 5 days	Grievance team, local leadership, project staff
4. Resolution Attempt via Traditional Authority	The matter is addressed using customary conflict resolution (e.g., via captain, basja, krutu). Most disputes are resolved at this level.	Within 10 days	Traditional authorities (captain, basja), community elders
5. Mediation by Project Team (if unresolved)	If not resolved through customary channels, the case is mediated by the FPIC project team. May include formal meetings or neutral facilitators.	Within 15 days	FPIC Safeguards Coordinator, project grievance committee
6. Final Resolution and Closure	The resolution is communicated to the complainant. If applicable, corrective actions are initiated. The case is officially closed and logged.	Entire process within 30 days max	Project team, local leaders, monitoring body

Responsible persons:

- Community-based grievance focal point
- Local captain (kapitein) or basja
- FPIC Safeguards Coordinator (project team)
- Independent observer (optional)

Key Safeguard Principles (applies to all steps):

- Culturally adapted: local language, oral communication allowed, simple formats
- Cost-free: no fees or penalties to file a complaint
- Confidential: complainant identity is protected
- Inclusive: access for women, youth, persons with disabilities is actively facilitated
- Retaliation-free: complainants are protected from any form of punishment or discrimination

Potential physical injury.

Social Key Risk Indicator	Abadoekondre	Akalekondre	Benhatimofo
8. Physical injury while supporting project objectives.			

KRI number 8 shows that the inhabitants of all locations are willing to help with project building objectives.

5.8.b. Phase 3. CBB safeguards: socio-economic capacities and ownership models.

Socio-economic factors to consider.

Social Key Risk Indicator	Abadoekondre	Akalekondre	Benhatimofo
Socio-economic distress			
6. Lack of paid jobs or employed villagers to upkeep ongoing costs.			
7. Inability to buy freezers, electronic devices or other electrical tools.			
Emotional distress			
12. Worries and stress about generating the finances for the projects.			

The KRI number 6, 7 and 12 show that there are socio-economic factors that need to be addressed in order to sustain the project long-term. From the preliminary krutu sessions, the following socio-economic factors were gathered: the willingness to pay, their current potential to pay and the potential future economic activities that can be potentiated.

Table 24. Socio-economic factors.

Socio-economic factors.			
Village	**Willingness to pay**	**Current potential to pay: Main economic activities to cover operational costs.**	**Potential future economic activities and use of new tools with improved energy, water and telecom access.**
Abadoekondre, Akalekondre and Benhattimofo	They still need to figure out how they could pay for it. The men are ready to pay the cost with their income, while the women prefer funding from outside to pay.	Both men and women are part of the money economy and do economic activities as: clearing land and Acai sale.	○ Tourism ○ Selling traditional medicine ○ Elevation of existing business ○ Game hunt sale

Financial ownership models to sustain operation and maintenance costs.

Social Key Risk Indicator	Abadoekondre	Akalekondre	Benhatimofo
Socio-cultural community issues			
1. Indecision about community ownership models.			

From KRI number 1 it appears that the villages need some more time to discuss the practical application of their ownership models. They currently use a model where everyone who uses it has to pay for it and the usage is metered per household, just like in the city. To reduce the risks they can continue with this payment model.

IPP Monitoring, Evaluation and Reporting (M&E) Framework

To ensure sustainability and community trust in Independent Power Producer (IPP) arrangements, a dedicated M&E mechanism will be established. This mechanism will assess both technical and socio-cultural impacts over time.

1. Socio-cultural indicators to be monitored:

- Level of community satisfaction with electricity services
- Perceived fairness of cost-sharing mechanisms
- Participation of women and youth in energy governance
- Impacts on traditional practices (e.g., night-time ceremonies, study hours for youth)

2. Frequency and methods of data collection:

- **Quarterly community feedback sessions** during krutu meetings
- **Bi-annual surveys** administered orally or visually with local facilitators
- **Incident reports** collected ad hoc through the GM system

3. Roles and responsibilities:

- IPP Operator: collects usage and payment data
- Community Monitoring Committee (CMC): leads socio-cultural surveys
- Safeguards Officer: compiles and analyses data; reports to IDB and national agencies

4. Feedback and corrective actions:

- Results of M&E activities are **shared transparently** with the community
- If discontent or negative impacts are observed, **joint mitigation actions** are developed with community leaders
- A formal **feedback loop** is established with FPIC focal points and technical teams to ensure continuous improvement.

6. Conclusion

This report presents a risk assessment of the development (upgrade) of electricity infrastructure project for the Maroon peoples in the villages of Abadoekondre, Akalekondre and Benhattimofo. All risks are considered to be absorbable by investors by following the recommended safeguards. The potential positive impact of the projects is significant for the overall well-being of the Maroon peoples. The upgrade of this electricity infrastructural project in the villages can play a significant role in initiating sustainable local income generating activities. The electrification project in Abadoekondre, Akalekondre, and Benhattimofo will bring significant social and economic benefits. Improved access to electricity will enhance daily life, ease household tasks especially for women and provide more economic opportunities. Better lighting will also improve safety and mobility.

Villagers are willing to contribute, if needed, to maintenance if provided with accessible training, promoting community ownership. Economically, enhanced energy access will support existing businesses and create new opportunities, particularly for women in tourism and traditional medicine. These communities are already part of the cash economy. Almost every household has an income from a paid job (public or private sector) or a private or family business (agriculture, farming, NTFP sales) to earn money. They know how to manage their income to pay their bills. Because an American company mined bauxite in the area for decades and there were many employment or paid spin-off activities for villagers. After the mining company stopped, many people in the communities rely on hustles as a means of income, mainly through Acai sales and land clearing. To cover operational and maintenance costs, they use these sources of income, and those without paid employment pay with their AOV money (old age pension) or ask their children for help. However, women in the communities have indicated that they cannot always pay these costs. To maximize these positive effects, it is recommended to integrate economic incentives into the project model, adapt training to local needs and ensure a sustainable maintenance structure. This will allow the community to benefit from the improved energy supply in the long term.

Key risks include unclear financial responsibility for system upkeep, potential economic inequality, and temporary inconveniences like dust and noise. Gender disparities persist, with women less involved in construction but benefiting from new business prospects. To maximize benefits and mitigate risks, clear financial agreements, economic support measures, and inclusive participation through krutus and FPIC are essential. Ensuring equal access to services will be key to long-term sustainability.

Concluding remarks.

This report shows a risk assessment of the development of solar panel, water and telecommunications infrastructure projects for the Indigenous peoples in the South of Suriname. All risks are considered to be able to be absorbed by investors by following the recommended safegaurds or have the option to be transferred to third parties. The potential positive impact of the projects are significant for the Indigenous peoples overall wellbeing. ACT-S is committed to play a significant role in creating sustainble local bioeconomies that can be accelerated with improved energy access.

The KPIs and KRIs that are formulated in this document are meant to serve as a dynamic framework and can be referred back to or adjusted when opportunities or risks change during project progression:

Socio-cultural community

- 1. Optimizing their way of life.
- 2. Engagement method in place.
- 3. Cultural heritage and -territories maintained.

Socio-economic wellbeing

- 11. Willingness to work for operation and maintenance.
- 12. Increased business opportunity.
- 13. Elevation of existing businesses.
- 14. Use of new tools.

Social participation

- 4. Easy access to the city for family.
- 5. Feeling supported.
- 6. Willing to accommodate workers to achieve project goals.
- 7. Willing to be trained for operation and maintenance.
- 8. Increased personal development.
- 9. Increased sense of equal rights.
- 10. Willing to learn new technologies

Physical wellbeing

- 15. Improved medical care
- 16. Improved health and nutrition status.
- 17. Improved food security.
- 18. Improved sense of leisure.

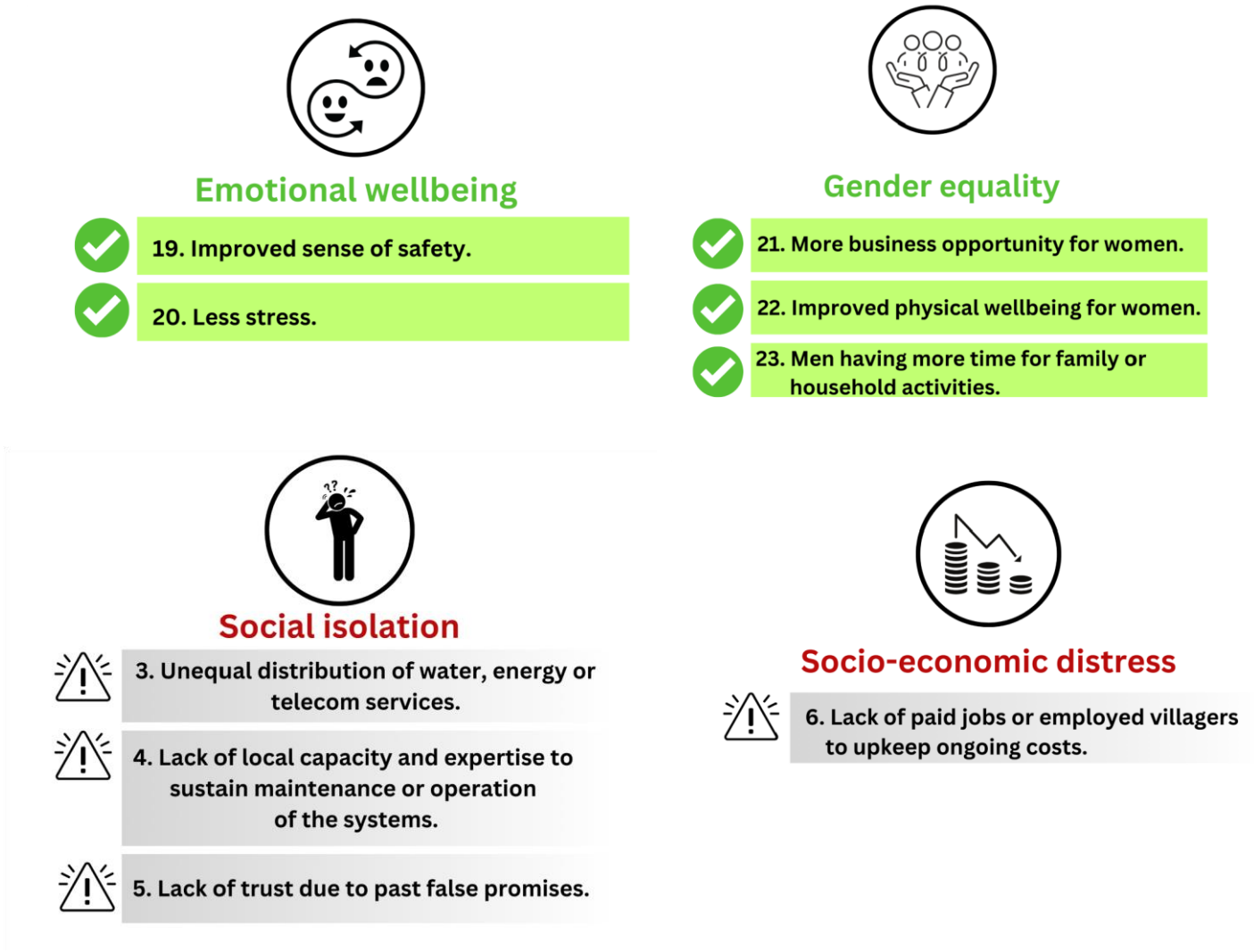

Figure 9. Compiled figures of KPI's and KRI for the sustainable development of solar, water and telecommunications infrastructure for the Indigenous peoples in the South of Suriname.

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Appendix 1. Raw data of interview results.

Interviewer: Nieuwendam J.
Villages: Abadoekondre and Benhattimofo
Men's krutu
Date: March 13th 2025 Translator(s): Nieuwendam J.

Participants: Benhattimofo 6 men and Abadoekondre 1 man

Social Factor: Baseline Village Information

No.	Questions	Responses
1a.	How many people live in your village?	Abdoekondre: Approximately 100 people Benhattimofo: Approximately 200 people
1b.	How many households live in your village?	Abadoekondre: Approximately 50 Benhattimofo: Approximately 60 people
1c.	How many houses?	NVT
1d.	How many males live in this village/ How many females/ How many children?	NVT

Explanation:

- Most of the people of Abadoe kondre are in Paramaribo or Moengo

2. Baseline Energy, Water, and Telecom Usage

No.	Question	Responses	
2a.	What energy systems does your village currently have?	From Moengo.	
2b.	Does the village have a generator?	No	
2c.	If yes, do you use an electric cooking stove?	Yes, the households do have all electric devices, except for air-conditioning. Only one of the household have an airco.	
2d.	Do you use diesel motors for fuel generation?	NVT	
2e.	How much do you need?	NVT	
2f.	And what do you need it for?	NVT	

2g.	**Where do you get the oil from and who pays for it?**	**NVT**	
2h.	**Do you use kerosene fuel for light lamps or power?**	**NVT**	
2i.	**Inside your house or outside your house?**	**NVT**	
2j.	**Do you use candles? How many?**	**Yes**	
2k.	**Do you have battery-powered lights in your homes?**	**Yes, flashlights**	
2l.	**Do you need light at night and what do you use?**	**Yes, candles and battery-powered lights (when there is no electricity supply).**	
2m.	**Where do you fetch your current drinking water?**	**Not specified.**	
2n.	**Are you able to save drinking water?**	**Not specified.**	
2o.	**What is the source of your current bath water?**	**River and creekwater.**	
2p.	**Where do you bathe?**	**Not specified.**	
2q.	**What alternative water sources do you have?**	**SWM water**	
2r.	**What is the current telecom operation system in the village?**	**Telecom provider: Telesur and Digicel**	
2s.	**Do you have phone reception here?**	**Yes, but not it is not optimal.**	
2t.	**Who is responsible for maintaining it? (Write down names.)**	**Not specified.**	
2u.	**Do you have radio reception in the village?**	**Not specified.**	
2v.	**Do you own mobile phones?**	**Yes.**	
2w.	**Do you have internet connection?**	**Yes, but the reception is not optimal.**	
2x.	**Have you been 'on' the internet/ do you know what the internet is?**	**Yes.**	

2y.	**Wired internet or via a phone?**	**Some households have wired internet and other via a phone (mobile internet).**

Explanation:

- There is **electricity** but not optimal, which sometimes causes the devices to break down. At the boarding school there are already refrigerators broken down. This is reported to EBS but they do not respond and there is no possibility to declare.
- **With better electricity, there could be more options and access to telephones and they would work better. There could also be more accessibility to certain activities.**
- Presence of street lighting in the villages
- **SWM water** has been installed, but not yet in the houses.

3. Demand Assessment

No.	Question	Responses
3b.	**Do you feel you need alternative energy options in your village?**	**Yes, we need it.**
3c.	**Do you feel that you need alternative clean water sources?**	**Yes, we need it.**
3d.	**Do you feel you need radio in your village?**	**Yes, we need it.**
3e.	**Do you feel you need telephone service in your village?**	**Yes, we need it.**
3f.	**Do you feel you need internet access in your village?**	**Yes, we need it.**
3g.	**Is light at night important to you?**	**Yes, very important.**

Explanation:

- **Radio is important for news and keeping up what is happening in the world.**
- **Electricity** is very important for the village as it is seen as a catalyst for development, especially for schoolchildren who would be able to study. It also ensures safety.

4. Physical Wellbeing: Health and Nutrition Status, Food Security, and Agricultural Production

No.	Question	Responses

4a.	**How do you currently keep food conserved?**	**Food is conserved by storing in the freezer and also by salting the meat.**
4b.	**How do you feel about storing food and drinks in a fridge?**	**Not specified.**
4c.	**If there were electricity, I would a fridge to store food.**	**Strongly agree.**
4d.	**I will only store my fruits and crops in the fridge.**	**Strongly agree.**
4e.	**I will store hunted game in the fridge/freezer.**	**Strongly agree.**
4f.	**I would love a fridge.**	**Yes.**
4g.	**If you had a fridge or freezer, would you want to save more food as a reserve for the village?**	**Yes.**
4h.	**Has your current drinking water caused illnesses? What kinds?**	**Not specified.**
4i.	**Have people ever gotten seriously sick from contaminated water?**	**Not specified.**
4j.	**Optional: Is diarrhea or pneumonia something villagers often deal with?**	**Not specified.**
4k.	**What water source do you use for your agricultural plots?**	**Not specified.**
4l.	**Do you think that a clean water system will help increase your agricultural crop production? Why?**	**Not specified.**
4m.	**Do you have enough crops in the dry season?**	**Not specified.**

Explanation:

• When there is a power outage, the food spoils

• If they have a refrigerator, they can also sell their game

Telecom:

No.	Question	Responses

4n.	**How do you currently reach the Medical mission if there is a medical emergency in your village?**	Not specified.

5. Physical Wellbeing: Leisure & Device Dependency

No.	Question	Responses
5a.	**Would you like a TV for entertainment?**	**Yes, TV use is desirable.**
5b.	**Would you like radio for entertainment?**	**Yes, radio use is desirable.**
5c.	**Comment on the statement: "No, I do not want a TV or radio, otherwise nobody would want to work."**	**Strongly disagree.**
5d.	**If you had a fridge, would you enjoy drinking cold beverages like Coca-Cola?**	**Not explicitly mentioned, but fridge use is desirable.**

6. Emotional Wellbeing: Safety, Security, Contentment, and Stress Reduction

No.	Question	Responses
6a.	**Will having more light in the village at night make you feel safer? Why?**	**Yes, for general safety, including protection from snakes.**
6b.	**Could you see snakes or other wild animals better with light at night?**	**Yes.**
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."*	**Not specified.**
6d.	**I feel that personal phone access would make me feel safer.** *(Men & Women: Absolutely yes/Yes/Neutral/No/Definitely not.)*	**Not specified.**
6e.	**Listening to the radio would ease my daily stressors in life.** *(i. Yes / ii. Neutral / iii. No / iv. Definitely not.)*	**Yes absolutely. Radio is important for news and entertainment.**
6f.	**What would you want to listen to on the radio?**	**News.**

7. Material Wellbeing: Housing, Possessions & Independence			
No.	**Question**	**Responses**	
7a.	**Would you eventually like electricity access right to your house, or would central community lighting be enough? Why?**	**Yes, household electricity is preferred.**	
7b.	**How many of you own a cellphone or would love to own a cellphone?**	**Yes.**	
7c.	**How many of you have no interest in owning a cellphone?**	**Zero.**	
7d.	**How many of you own a radio or would love to own a radio?**	**2 people don't own a radio.**	
7e.	**How many of you have no interest in owning a radio?**	**Zero.**	
7f.	**How many of you have ever personally used a computer?**	**No current computer use.**	
7g.	**How many of you would love to learn how to use a computer?**	**4**	
7h.	**How many of you have completely no interest in learning how to use a computer?**	**3**	

8. Socio-Economic: Covering Operational & Maintenance Costs			
No.	**Question**	**Responses**	
8a.	**With what businesses could you pay for it?**	Hustling with podosiri sales and clearing land. People who don't work would pay it with their AOV money and ask their children to help pay for it.	
8b.	**Would you want to pay for it together as a community?**	**Not specified.**	
8c.	**Or would you rather only those that want to use energy, water, or telecom pay for it?**	**Not specified.**	

8d.	**We'd rather be dependent on outside funding.** ***(i. Strongly agree / ii. Agree / iii. Neutral / iv. Disagree / v. Strongly disagree.)***	**Neutral.**	
8e.	**I do not want outside funding because we can't trust that they always have enough money for us.** ***(i. Strongly agree / ii. Agree / iii. Neutral / iv. Disagree / v. Strongly disagree.)***	**Strongly agree.**	
8f.	**We want to pay for the maintenance costs ourselves.** ***(i. Strongly agree / ii. Agree / iii. Neutral / iv. Disagree / v. Strongly disagree.)***	**Strongly agree.**	
8g.	**We want to learn how the installations work.** ***(i. Strongly agree / ii. Agree / iii. Neutral / iv. Disagree / v. Strongly disagree.)***	**Strongly agree.**	
8h.	**Have you ever been promised funding for water or electricity before? By whom or what organization/political party?**	**No.**	

Explanation:

- No one in the village works at EBS, so technical training is needed.

9. Socio-Economic: Sustainable Business Opportunities

No.	Question	Responses	
9a.	**Do you see tourism as a business opportunity for your village?**	No.	
9b.	**If yes, do you think more energy, access would allow more tourists to visit your village?**	**NVT.**	

10. Innovation & Elevation of Business Opportunities

No.	Question	Responses	
10a.	**Would you work longer hours if you had (electric) light at night?**	**Yes.**	
10b.	**How would you use phones if you could take them to work/daily activities?**	**Not specified.**	

	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? Work on other things or relax?**	**Not specified.**	

11. Social Participation: Social Networks & Feeling Supported

No.	**Question**	**Responses**
11a.	**Do you feel excited about the potential of energy?**	**Yes, absolutely.**
11b.	**Do you feel excited about the potential of clean water systems?**	Not specified.
11c.	**Do you feel excited about telecom opportunities? (Radio/ phone/ internet?)**	**Yes, absolutely.**
11d.	**Would you feel more supported if these projects came to your village?**	Not specified.

12. Social Participation: Rights & Equality

No.	**Question**	**Responses**	
12a.	**Would you feel like you have equal rights as people in the city if you have access to water, energy, and telecom?**	**Yes.**	
12b.	**I want equal rights to people in the city.** *(Strongly agree/ Agree/ Neutral/ Disagree/ Strongly disagree.)*	**Strongly agree.**	
12c.	**I think having energy give me equal rights.** *(Strongly agree/ Agree/ Neutral/ Disagree/ Strongly disagree.)*	**Strongly agree.**	

13. Independence: Personal Development & Education

No.	**Question**	**Responses**	
13a.	**Will energy create extended study hours? Would children be able to study more with light?**	**Yes.**	

13b.	**Do you think more elementary school teachers would come to the village if you had energy, water, and telecom?**	**Yes.**	
13c.	**Men: How important is clean water in the village for you?** *(Very important / Not so important / Unimportant.) Why?*	**NVT**	
13e.	**Would you want your kids to learn about the internet here as well?**	**Not specified.**	
13f.	**Adults: Would you like to receive training via video calls?** *(Strongly agree/ Agree/ Neutral/ Disagree/ Strongly disagree.)*	**Not specified.**	

14. Independence & Self-Determination (Decision-Making Process)

No.	Question	Responses	
14a.	**How would the village decide if this project is feasible?**	**Not specified.**	
14b.	**Would you vote to ensure all villagers agree with the terms?**	No, in the krutu the majority decides.	
14c.	**What would the role of the captain be in this process?**	Captain gives the final decision	

15. Socio-Cultural: Traditional Knowledge & Socio-Economic Opportunities

No.	Question	Responses	
15a.	**Would you like to share your knowledge of traditional medicine with outsiders?**	**Yes, but only for villagers and at the request of the basja.**	
15b.	**Do you see selling medicinal products as a business opportunity?**	**Not specified (NVT).**	

16. Socio-Cultural: Maintaining a Traditional Way of Living

No.	Question	Responses	
16a.	**Do you think energy, water, and telecom projects would change you as a person?**	**Not specified (NVT).**	
16b.	**Would you rather live as you do now?** ***(Strongly agree/Agree/Neutral/Disagree/Strongly disagree.)***	**Not specified (NVT).**	

16c.	**Would you want to call family members in the city? *(Strongly agree/Agree/Neutral/Disagree/Strongly disagree.)***	**Not specified (NVT).**
16d.	**I wouldn't want my children to watch TV, I'd rather they play outside. *(Strongly agree/Agree/Neutral/Disagree/Strongly disagree.)***	**Both watching TV and resting.**

17. Socio-Cultural: Gender Roles & Culture Shifts

No.	Question	Responses
17a.	**Would women have less work if water access were closer?**	**Not specified (NVT).**
17b.	**Would men hunt more or less if they had a fridge to store food?**	**Yes, they would hunt more.**
17c.	**Men: Would you give your wife a cellphone? *(Elaborate.)***	**Not specified (NVT).**
17d.	**Women: Would you want to use a cellphone? *(Elaborate.)***	**Not specified (NVT).**
17e.	**Women: Would you switch to an electric stove? What would you do with your extra time?**	**Not specified (NVT).**

18. Socio-Cultural & Environmental: Restricted Areas

No.	Question	Responses
18a.	**Are there areas where outsiders should not build or walk? *(Spiritual/Personal property/Other.)***	No, but for safety reasons hunting is not allowed in the village area.
18b.	**Can you mark these areas on a map?**	**Not specified (NVT).**

19. Environmental: Flooding & Climate Impact

No.	Question	Responses
19a.	**Can you mark on a map where flooding occurs during the rainy season?**	**No flooding reported.**

20. Environmental: Wildlife Protection & Ecosystem Changes

No.	Question	Responses
20a.	Where are your hunting grounds?	Everywhere.
20b.	Can you mark them on a map?	Not specified (NVT).
20c.	Where are your fishing grounds?	Everywhere.
20d.	Can you mark them on a map?	Not specified (NVT).
20e.	Are there park rangers in your village?	No
20f.	Are there people interested in becoming park rangers?	(NVT).

Explanation:

- **SBB helps with the monitoring and management of the forest.**

21. Environmental: Deforestation & Water Protection

No.	Question	Responses
21a.	Baseline water quality measurements?	Not specified (NVT).
21b.	Are you okay with deforestation for the solar, water, and telecom systems? *(Strongly agree/Agree/Neutral/Disagree/Strongly disagree.)*	Not specified (NVT).

22. Environmental: Waste Management & Pollution

No.	Question	Responses
22a.	Where do you discard fuel carriers?	Not specified.
22b.	Are fuel carriers returned to the city?	Not specified.
22c.	Where do you discard empty batteries or old motors?	Not specified.

Explanation:

• **Environmental waste**: There is no garbage collection service in the village because the bridge is broken.

23. Environmental: Use of Local Materials

No.	Question	Responses

23a.	If you used less wood for cooking due to electric appliances, would you use wood for other purposes? Like what?	Yes, to save gas and because it tastes good.
23b.	Would you help find materials to build project objectives?	Yes.

24. Environmental: Research & Biodiversity Monitoring

No.	Questionnaire	Responses
24a.	Would you allow scientific researchers to assess the impact on wildlife and biodiversity?	Yes, no objections.

25. Socio-Economic & Local Employment

No.	Question	Responses
25a.	Would villagers like to work on the energy project?	Yes.
25b.	Would you like to maintain these systems yourself?	Yes.
25c.	Would you prefer locals to do the building work instead of outsiders?	Yes.
25d.	Would you prefer outsiders for operation and maintenance?	No.
25e.	Would you accommodate outside workers in your village?	Yes.
25f.	Would you like training to maintain the new systems?	Yes.

26. Grievance Mechanism: Environmental Concerns

No.	Question	Responses
26a.	Would you be okay with noise and dust during construction?	Yes.

26b.	**Are there places where noise/dust should be avoided (e.g., school)?**	**Schools.**	
26c.	**Who would you report environmental grievances to?**	Basja/Captain	

27. Grievance Mechanism: Social Conflicts

No.	Question	Responses	
27.	**If conflicts arise with outsiders during the project, who would you tell?**	**The Captain/Basja, DC in Moengo or Police**	

28. Concluding Statements

No.	Question	Responses	
28a.	**I am content with things as they are (no need for energy/telecom).** i. Strongly agree ii. Agree iii. Neutral iv. Disagree v. Strongly disagree	**Option v.** **Strongly disagree.**	
28b.	**I am looking forward to the project.** i. Strongly agree ii. Agree iii. Neutral iv. Disagree v. Strongly disagree	**Option i.** **Strongly agree. They desire to live in the modern world with electricity**	
28c.	**I am worried about finances for this project.** i. Strongly agree ii. Agree iii. Neutral iv. Disagree v. Strongly disagree	**Option iii. Neutral.**	
28d.	**I am worried about deforestation due to this project.** i. Strongly agree ii. Agree iii. Neutral	**Option v. Strongly disagree.**	

	iv. Disagree v. Strongly disagree		
28e-h.	**Concerns about gender roles, lifestyle changes, wildlife, and trust in the project.**	Suralco also makes a lot of noise but that is not a problem. So no worries and trust in the project.	
28i.	**Is full access (24 hours a day) to electricity good** **If yes, why?** **If no, why?**	Yes, because we can use radio and tv for entertainment. In addition, the refrigerator can be used to store meat and other things longer**.**	

Interviewer: Nieuwendam J.
Villages: Akalekondre and Benhattimofo
Women's krutu
Date: March 13th 2025 Translator(s): Joseph M.

Participants: Akalekondre 1 woman and Benhattimofo 5 women

1. Social Factor: Baseline Village Information of women in Akalekondre and Benhattimofo

No.	Questions	Responses
1a.	**How many people live in your village?**	**Akalekondre: Approximately 100 people Benhattimofo: Approximately 200 people**
1b.	**How many households live in your village?**	**Akalekondre: Approximately 25 people Benhattimofo: Approximately 30**
1c.	**How many houses?**	**NVT**
1d.	**How many males live in this village/ How many females/ How many children?**	**NVT**

2. Baseline Energy, Water, and Telecom Usage

No.	Question	Responses	
2a.	**What energy systems does your village currently have?**	**EBS From Moengo.**	
2b.	**Does the village have a generator?**	No	

2c.	**If yes, do you use an electric cooking stove?**	**Not specified.**	
2d.	**Do you use diesel motors for fuel generation?**	NVT	
2e.	**How much do you need?**	NVT	
2f.	**And what do you need it for?**	NVT	
2g.	**Where do you get the oil from and who pays for it?**	NVT	
2h.	**Do you use kerosene fuel for light lamps or power?**	NVT	
2i.	**Inside your house or outside your house?**	NVT	
2j.	**Do you use candles? How many?**	Yes, when there is no electricity	
2k.	**Do you have battery-powered lights in your homes?**	Yes	
2l.	**Do you need light at night and what do you use?**	**Yes**	
2m.	**Where do you fetch your current drinking water?**	**SWM**	
2n.	**Are you able to save drinking water?**	**Nee.**	
2o.	**What is the source of your current bath water?**	**SWM.**	
2p.	**Where do you bathe?**	**Not specified.**	
2q.	**What alternative water sources do you have?**	**River**	
2r.	**What is the current telecom operation system in the village?**	**Telecom provider: Telesur and Digicel**	
2s.	**Do you have phone reception here?**	**Yes, but not it is not optimal.**	
2t.	**Who is responsible for maintaining it? (Write down names.)**	**Not specified.**	

2u.	**Do you have radio reception in the village?**	**Not specified.**	
2v.	**Do you own mobile phones?**	**Yes.**	
2w.	**Do you have internet connection?**	**Yes, but the reception is not optimal.**	
2x.	**Have you been 'on' the internet/ do you know what the internet is?**	**Yes.**	
2y.	**Wired internet or via a phone?**	**Via phone (mobile internet).**	

Explanation:

- There is no optimal electricity. As a result, people cannot use all the devices. They break down and cannot buy new ones.

3. Demand Assessment

No.	Question	Responses	
3b.	**Do you feel you need alternative energy options in your village?**	**Yes, we need it.**	
3c.	**Do you feel that you need alternative clean water sources?**	**Not specified.**	
3d.	**Do you feel you need radio in your village?**	**Yes, we need it.**	
3e.	**Do you feel you need telephone service in your village?**	**Not specified.**	
3f.	**Do you feel you need internet access in your village?**	**Yes, we need it.**	
3g.	**Is light at night important to you?**	**Yes, very important.**	

4. Physical Wellbeing: Health and Nutrition Status, Food Security, and Agricultural Production

No.	Question	Responses
4a.	**How do you currently keep food conserved?**	**Food is conserved by storing in the fridge.**
4b.	**How do you feel about storing food and drinks in a fridge?**	**Not specified.**

4c.	**If there were electricity, I would a fridge to store food.**	**Strongly agree.**
4d.	**I will only store my fruits and crops in the fridge.**	**Strongly agree.**
4e.	**I will store hunted game in the fridge/freezer.**	**Not specified.**
4f.	**I would love a fridge.**	**Yes.**
4g.	**If you had a fridge or freezer, would you want to save more food as a reserve for the village?**	**Yes.**
4h.	**Has your current drinking water caused illnesses? What kinds?**	**Not specified.**
4i.	**Have people ever gotten seriously sick from contaminated water?**	**Not specified.**
4j.	**Optional: Is diarrhea or pneumonia something villagers often deal with?**	**Not specified.**
4k.	**What water source do you use for your agricultural plots?**	**River water.**
4l.	**Do you think that a clean water system will help increase your agricultural crop production? Why?**	**Not specified.**
4m.	**Do you have enough crops in the dry season?**	**Not specified.**

Telecom:

No.	Question	Responses
4n.	**How do you currently reach the Medical mission if there is a medical emergency in your village?**	Not specified.

5. Physical Wellbeing: Leisure & Device Dependency

No.	Question	Responses
5a.	**Would you like a TV for entertainment?**	Not specified.

5b.	**Would you like radio for entertainment?**	Not specified.	
5c.	**Comment on the statement: "No, I do not want a TV or radio, otherwise nobody would want to work."**	Not specified.	
5d.	**If you had a fridge, would you enjoy drinking cold beverages like Coca-Cola?**	Not specified.	

6. Emotional Wellbeing: Safety, Security, Contentment, and Stress Reduction

No.	Question	Responses
6a.	**Will having more light in the village at night make you feel safer? Why?**	Not specified.
6b.	**Could you see snakes or other wild animals better with light at night?**	Not specified.
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."*	**Not specified.**
6d.	**I feel that personal phone access would make me feel safer.** *(Men & Women: Absolutely yes/Yes/Neutral/No/Definitely not.)*	**Yes.**
6e.	**Listening to the radio would ease my daily stressors in life.** *(i. Yes / ii. Neutral / iii. No / iv. Definitely not.)*	**Yes.**
6f.	**What would you want to listen to on the radio?**	**News.**

7. Material Wellbeing: Housing, Possessions & Independence

No.	Question	Responses	
7a.	**Would you eventually like electricity access right to your house, or would central community lighting be enough? Why?**	**Yes, household electricity is preferred.**	

7b.	**How many of you own a cellphone or would love to own a cellphone?**	Not specified.	
7c.	**How many of you have no interest in owning a cellphone?**	Not specified.	
7d.	**How many of you own a radio or would love to own a radio?**	Not specified.	
7e.	**How many of you have no interest in owning a radio?**	Not specified.	
7f.	**How many of you have ever personally used a computer?**	Not specified.	
7g.	**How many of you would love to learn how to use a computer?**	No one.	
7h.	**How many of you have completely no interest in learning how to use a computer?**	The children and adults.	

8. Socio-Economic: Covering Operational & Maintenance Costs

No.	**Question**	**Responses**	
8a.	**With what businesses could you pay for it?**	Not specified.	
8b.	**Would you want to pay for it together as a community?**	**Not.**	
8c.	**Or would you rather only those that want to use energy, water, or telecom pay for it?**	**Yes.**	
8d.	**We'd rather be dependent on outside funding. *(i. Strongly agree / ii. Agree / iii. Neutral / iv. Disagree / v. Strongly disagree.)***	**Strongly agree. We prefer funding from outside.**	
8e.	**I do not want outside funding because we can't trust that they always have enough money for us. *(i. Strongly agree / ii. Agree / iii. Neutral / iv. Disagree / v. Strongly disagree.)***	**Disagree.**	

8f.	**We want to pay for the maintenance costs ourselves. *(i. Strongly agree / ii. Agree / iii. Neutral / iv. Disagree / v. Strongly disagree.)***	**Disagree.**	
8g.	**We want to learn how the installations work. *(i. Strongly agree / ii. Agree / iii. Neutral / iv. Disagree / v. Strongly disagree.)***	**Disagree.**	
8h.	**Have you ever been promised funding for water or electricity before? By whom or what organization/political party?**	**Yes, but sometimes we can't pay it.**	

9. Socio-Economic: Sustainable Business Opportunities

No.	Question	Responses	
9a.	**Do you see tourism as a business opportunity for your village?**	Yes.	
9b.	**If yes, do you think more energy, access would allow more tourists to visit your village?**	**Yes.**	

10. Innovation & Elevation of Business Opportunities

No.	Question	Responses	
10a.	**Would you work longer hours if you had (electric) light at night?**	**Yes. But there is no optimal electricity**	
10b.	**How would you use phones if you could take them to work/daily activities? Would you take them with you to your workplace?**	**Not specified.**	
10c.	**If you didn't have to fetch and cook water, what would you do with freed-up time? Work on other things or relax?**	**Not specified.**	

11. Social Participation: Social Networks & Feeling Supported

No.	Question	Responses	
11a.	**Do you feel excited about the potential of energy?**	**Yes, it was already promised to us.**	

11b.	**Do you feel excited about the potential of clean water systems?**	Not specified.
11c.	**Do you feel excited about telecom opportunities? (Radio/ phone/ internet?)**	**Yes.**
11d.	**Would you feel more supported if these projects came to your village?**	Not specified.

12. Social Participation: Rights & Equality

No.	Question	Responses
12a.	**Would you feel like you have equal rights as people in the city if you have access to water, energy, and telecom?**	**Yes.**
12b.	**I want equal rights to people in the city.** *(Strongly agree/ Agree/ Neutral/ Disagree/ Strongly disagree.)*	**Strongly agree.**
12c.	**I think having energy give me equal rights.** *(Strongly agree/ Agree/ Neutral/ Disagree/ Strongly disagree.)*	**Strongly agree.**

13. Independence: Personal Development & Education

No.	Question	Responses
13a.	**Will energy create extended study hours? Would children be able to study more with light?**	**Yes.**
13b.	**Do you think more elementary school teachers would come to the village if you had energy, water, and telecom?**	**Yes.**
13c.	**Men: How important is clean water in the village for you?** *(Very important / Not so important / Unimportant.) Why?*	**NVT**
13e.	**Would you want your kids to learn about the internet here as well?**	**Not specified.**
13f.	**Adults: Would you like to receive training via video calls?** *(Strongly agree/ Agree/ Neutral/ Disagree/ Strongly disagree.)*	**Not specified.**

14. Independence & Self-Determination (Decision-Making Process)

No.	Question	Responses	
14a.	**How would the village decide if this project is feasible?**	**The captain makes the decision.**	
14b.	**Would you vote to ensure all villagers agree with the terms?**	No.	
14c.	**What would the role of the captain be in this process?**	Captain gives the final decision	

15. Socio-Cultural: Traditional Knowledge & Socio-Economic Opportunities

No.	Question	Responses	
15a.	**Would you like to share your knowledge of traditional medicine with outsiders?**	**No, but they want to help.**	
15b.	**Do you see selling medicinal products as a business opportunity?**	**Yes.**	

16. Socio-Cultural: Maintaining a Traditional Way of Living

No.	Question	Responses	
16a.	**Do you think energy, water, and telecom projects would change you as a person?**	**Yes.**	
16b.	**Would you rather live as you do now? *(Strongly agree/Agree/Neutral/Disagree/Strongly disagree.)***	**Not specified (NVT).**	
16c.	**Would you want to call family members in the city? *(Strongly agree/Agree/Neutral/Disagree/Strongly disagree.)***	**Not specified (NVT).**	
16d.	**I wouldn't want my children to watch TV, I'd rather they play outside. *(Strongly agree/Agree/Neutral/Disagree/Strongly disagree.)***	**Both watching TV and playing outside.**	

17. Socio-Cultural: Gender Roles & Culture Shifts

No.	Question	Responses	

17a.	**Would women have less work if water access were closer?**	**Ye, there is no transportation to go hunting, everything has to be bought**
17b.	**Would men hunt more or less if they had a fridge to store food?**	**Not specified (NVT).**
17c.	**Men: Would you give your wife a cellphone? *(Elaborate.)***	**Not specified (NVT).**
17d.	**Women: Would you want to use a cellphone? *(Elaborate.)***	**Not specified (NVT).**
17e.	**Women: Would you switch to an electric stove? What would you do with your extra time?**	**Yes, if there is no gas bomb.** **Go for a walk or relax in their free time.**

18. Socio-Cultural & Environmental: Restricted Areas

No.	Question	Responses
18a.	**Are there areas where outsiders should not build or walk? *(Spiritual/Personal property/Other.)***	No.
18b.	**Can you mark these areas on a map?**	**Not specified (NVT).**

Explanation:

- The village is sometimes affected by flooding.

19. Environmental: Flooding & Climate Impact

No.	Question	Responses
19a.	**Can you mark on a map where flooding occurs during the rainy season?**	**Not specified.**

20. Environmental: Wildlife Protection & Ecosystem Changes

No.	Question	Responses
20a.	**Where are your hunting grounds?**	**Cottica river.**
20b.	**Can you mark them on a map?**	**Not specified (NVT).**
20c.	**Where are your fishing grounds?**	Cottice river
20d.	**Can you mark them on a map?**	**Not specified (NVT).**

20e.	**Are there park rangers in your village?**	**No**	
20f.	**Are there people interested in becoming park rangers?**	**(NVT).**	

Explanation:

- **They can't hunt or fish because there is no boat and they don't make boats anymore.**

21. Environmental: Deforestation & Water Protection

No.	Question	Responses	
21a.	**Baseline water quality measurements?**	**Not specified (NVT).**	
21b.	**Are you okay with deforestation for the solar, water, and telecom systems? *(Strongly agree/Agree/Neutral/Disagree/Strongly disagree.)***	**Disagree.**	

22. Environmental: Waste Management & Pollution

No.	Question	Responses
22a.	**Where do you discard fuel carriers?**	**Not specified.**
22b.	**Are fuel carriers returned to the city?**	**Not specified.**
22c.	**Where do you discard empty batteries or old motors?**	**Not specified.**

Explanation:

• **Environmental waste**: There is garbage collection

23. Environmental: Use of Local Materials

No.	Question	Responses
23a.	**If you used less wood for cooking due to electric appliances, would you use wood for other purposes? Like what?**	**They would use both.**
23b.	**Would you help find materials to build project objectives?**	**No.**

24. Environmental: Research & Biodiversity Monitoring

No.	Questionnaire	Responses	

24a.	Would you allow scientific researchers to assess the impact on wildlife and biodiversity?	Yes, no objections.

25. Socio-Economic & Local Employment

No.	Question	Responses
25a.	Would villagers like to work on the energy project?	Not specified.
25b.	Would you like to maintain these systems yourself?	Not specified.
25c.	Would you prefer locals to do the building work instead of outsiders?	Not specified.
25d.	Would you prefer outsiders for operation and maintenance?	Not specified.
25e.	Would you accommodate outside workers in your village?	Not specified.
25f.	Would you like training to maintain the new systems?	Not specified.

26. Grievance Mechanism: Environmental Concerns

No.	Question	Responses
26a.	Would you be okay with noise and dust during construction?	Yes.
26b.	Are there places where noise/dust should be avoided (e.g., school)?	Schools.
26c.	Who would you report environmental grievances to?	Not specified.

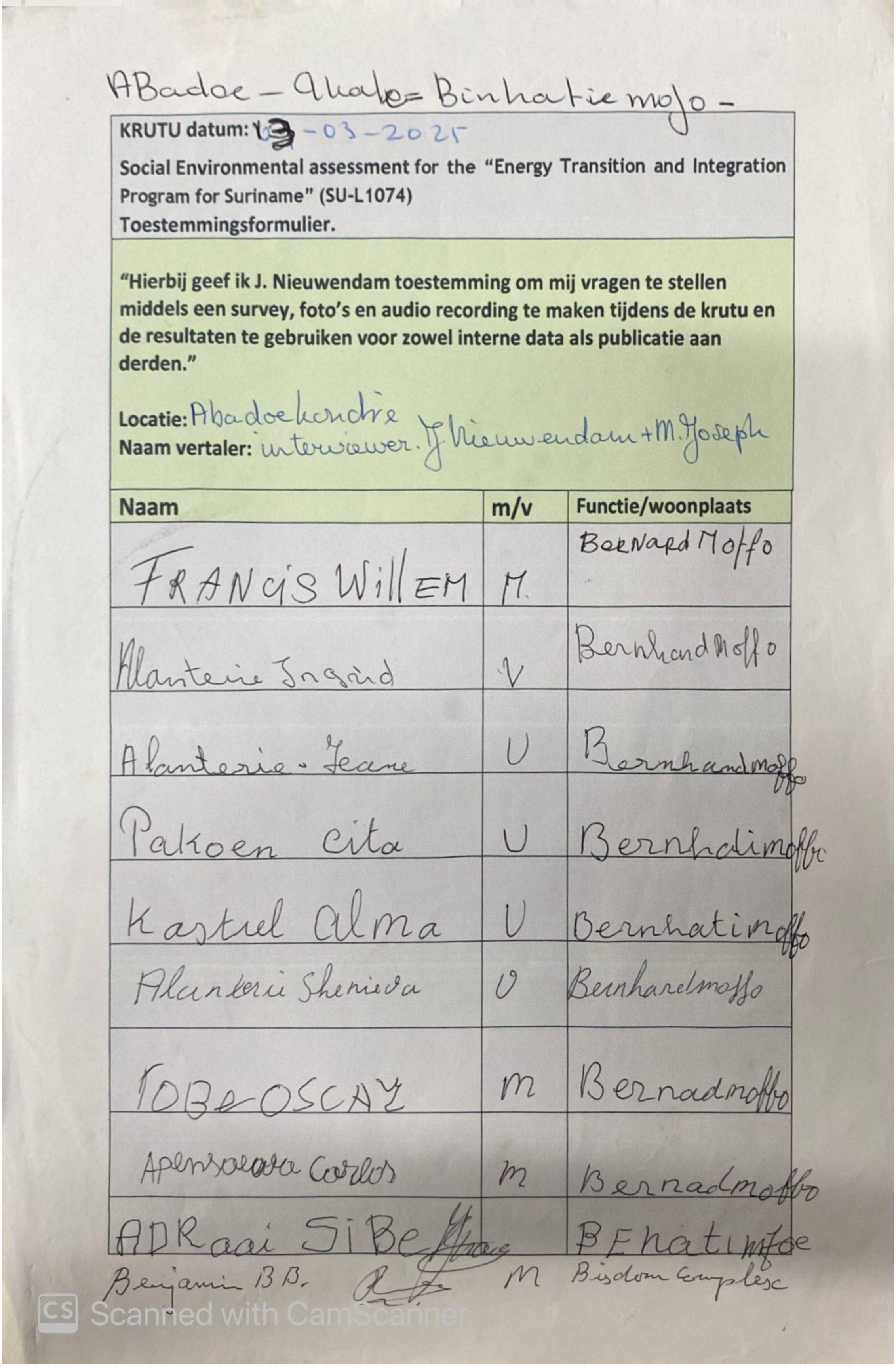
27. Grievance Mechanism: Social Conflicts

No.	Question	Responses
27.	If conflicts arise with outsiders during the project, who would you tell?	The Captain/Basja, DC in Moengo or Police

28. Concluding Statements

No.	Question	Responses	
28a.	**I am content with things as they are (no need for energy/telecom).** i. Strongly agree ii. Agree iii. Neutral iv. Disagree v. Strongly disagree	**Option v.** **Strongly agree.**	
28b.	**I am looking forward to the project.** i. Strongly agree ii. Agree iii. Neutral iv. Disagree v. Strongly disagree	**Option i.** **Strongly agree.**	
28c.	**I am worried about finances for this project.** i. Strongly agree ii. Agree iii. Neutral iv. Disagree v. Strongly disagree	**Option iv. Disagree.**	
28d.	**I am worried about deforestation due to this project.** i. Strongly agree ii. Agree iii. Neutral iv. Disagree v. Strongly disagree	**Option iv. Disagree.**	
28e-h.	**Concerns about gender roles, lifestyle changes, wildlife, and trust in the project.**	No concerns and trust in the project.	
28i.	**Is full access (24 hours a day) to electricity good** **If yes, why?** **If no, why?**	Yes, they could do more activities in the house.	

Appendix 2. Written consent forms.



ABadoe – Akalo= Binhatie mojo –

KRUTU datum: [illegible]-03-2025

Social Environmental assessment for the "Energy Transition and Integration Program for Suriname" (SU-L1074)
Toestemmingsformulier.

"Hierbij geef ik J. Nieuwendam toestemming om mij vragen te stellen middels een survey, foto's en audio recording te maken tijdens de krutu en de resultaten te gebruiken voor zowel interne data als publicatie aan derden."

Locatie: Abadoekondre
Naam vertaler: interviewer. J. Nieuwendam + M. Joseph

Naam	m/v	Functie/woonplaats
FRANCIS WillEM	M.	BeRNARd Moffo
Alanterie Ingrid	V	BernhardMoffo
Alanterie. Jeane	V	Bernhandmoffo
Pakoen cita	V	Bernhdimoffo
Kastrel alma	V	Bernhatimoffo
Alanterii Sheniedra	V	Bernhardmoffo
TOBE OSCAY	m	Bernadmoffo
Apensoeara Carlos	m	Bernadmoffo
ADRaai SiBe		BEhatimfoe
Benjamin B.B.	M	Bisdom Complex

Roshana Ishaak	EBS	Senior HSEQ officer
Eric lobo	EBS	" " "
Raafenberg Maria	PAS	ontwikkelingwerkster.
Boengboedor Dolensa	Akale	V Akalekondre.
Dakoen Elton	Dakoen.	Benhart mofo
Wilkens Benno	Benno	Abadukondre

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