Republic of Liberia

Rural and Renewable Energy Agency

Securing modern energy access for all Liberians

LIBERIA RENEWABLE ENERGY ACCESS PROJECT

LIRENAP — World Bank Project ID: P149683

Beneficiary Feedback Report

Final Report — 20 March 2026

Prepared by: Rural and Renewable Energy Agency (RREA)

Advancing Liberia's Renewable Energy Future with Integrity, Competence and Respect

Table of Acronyms

Acronym	Meaning
AECF	Africa Enterprise Challenge Fund
AfT	Agenda for Transformation
ARAP	Addendum Resettlement Action Plan
BESS	Battery Energy Storage System
BFR	Beneficiary Feedback Report
CLO	Community Liaison Officer
DG	Diesel Generator
EPA	Environmental Protection Agency (Liberia)
ESIA	Environmental and Social Impact Assessment
FGD	Focused Group Discussion
GPS	Global Positioning System
GRM	Grievance Redress Mechanism
HS	Household Solar
ICT	Information and Communication Technology
IDA	International Development Association
IPRE	Investment Plan for Renewable Energy
LIRENAP	Liberia Renewable Energy Access Project
LLL	Lighting Lives in Liberia
LV	Low Voltage
MV	Medium Voltage
OHS	Occupational Health and Safety
PAP(s)	Project Affected Person(s)
PDO	Project Development Objective
PIU	Project Implementation Unit
PV	Photovoltaic
RAP	Resettlement Action Plan
REACT	Renewable Energy and Adaptation to Climate Technologies
RREA	Rural and Renewable Energy Agency
SEP	Stakeholder Engagement Plan
SHS	Solar Home System(s)

Acronym	Meaning
TBI	Tony Blair Institute
T&D	Transmission and Distribution
WB	World Bank

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Executive Summary

The Liberia Renewable Energy Access Project (LIRENAP) is one of the most comprehensive demonstrations of the Rural and Renewable Energy Agency (RREA) capacity to deliver modern electrification through a community-centred and technically disciplined approach. The project is bringing renewable energy to Voinjama, Kolahun, Foya, and surrounding settlements through a Photovoltaic–Battery Energy Storage System (PV–BESS) with diesel generator support and approximately 145 km of medium-voltage distribution infrastructure, representing a major milestone in expanding access to reliable, clean, and sustainable power in Lofa County. In addition to centralised electrification, LIRENAP also focused on market development of stand-alone solar PV systems by strengthening a private sector-driven supply chain as well as addressing demand-side factors.

184	539	363	192K+
PAPs Compensated	**Grievances Resolved**	**Rooftop Spans Insulated**	**SHS Beneficiaries**
Full RAP + Addendum RAP	*100% closure rate*	*Safety-by-design*	*Across Liberia*

This Beneficiary Feedback Report captures how community concerns, expectations, and lived experiences shaped the evolution of the project and strengthened the institutional credibility of RREA. Beneficiaries' feedback altered the design and implementation of both the centralised (mini grid) and distributed electrification components of LIRENAP.

From the earliest consultations to the end of the Solar Home System (SHS) component implementation and final pre-energisation engagements, RREA consistently prioritised people.

The safety concerns raised by residents led to design corrections in the mini grid transmission and distribution network with the replacement of bare conductors with fully insulated spans across 363 rooftop crossings and the preservation of seven high-risk structures, without displacement. These improvements were achieved while reinforcing Occupational Health and Safety (OHS) practices, addressing the impacts of the ENCO accident near Mbaloma, and ensuring that technical standards meet the expectations of the communities they serve. Through these adjustments, RREA demonstrated that safety is not simply a design requirement but an uncompromising principle.

> *"LIRENAP has become more than a set of installations. It is a demonstration of how modern electrification can be delivered safely, fairly, transparently, and with cultural sensitivity. It is also a reflection of RREA's professional maturity and commitment to inclusive development."*
>
> **Hon. Samule B. Nagbe, Jr. Executive Director, — RREA**

The same attention to fairness guided the compensation process. RREA verified and compensated 146 Project Affected Person(s) (PAPs) under the main Resettlement Action Plan (RAP) and 38 additional PAPs under an Addendum Resettlement Action Plan (ARAP), triggered by field grievances and alignment corrections. Payments were managed exclusively through bank channels, safeguarding vulnerable households and strengthening transparency. Livelihood restoration support helped PAPs recover income losses related to crop impacts and right-

of-way activities. These measures upheld the values of dignity, fairness, and accountability, ensuring that no affected household was left behind.

RREA also placed cultural heritage and land integrity at the heart of project implementation. Construction was paused in Honeyahun to allow traditional rites before work resumed, alignments were shifted to protect sensitive areas, and voluntary land contributions in Bakuma, Balawala, and Mbaloma were acknowledged and managed with respect. This approach strengthened community confidence and reinforced the belief that modern development can advance without compromising local identity or beliefs.

Feedback from stakeholders also led to reorientation of the implementation of the SHS component. Based on concerns raised and implementation challenges, this component transferred from market maker through bulk procurement of SHS by RREA to a market enabler with RREA withdrawing from the supply chain and focusing on policy development. RREA continued to monitor market performance to address any market failures that became apparent during implementation.

For both components, communication became one of the project's defining strengths. Through stakeholder consultations, regular town-hall meetings, multilingual radio programs, mobile loudspeaker announcements, direct door-to-door briefings and field visits, RREA established an information ecosystem that kept stakeholders informed at every stage. This model of communication helped transform uncertainty into clarity, rumour into understanding, and apprehension into partnership.

Where challenges emerged, RREA remained present. When hydropower works at the Kaiha II site halted due to hydrological limitations and safety risks, the Agency explained the situation openly, initiated EPA-supervised restoration, and ensured that the site was made safe. RREA explained to SHS vendors and other stakeholders why RREA had to stop bulk procurement of SHS and instead would focus on policy development. Early communication enabled supply system actors to prepare for this change and understand the rationale.

Through transparent and effective mechanisms for collecting and addressing complaints from end-users such as customer care hotlines and customer relationship management platforms, distributors of solar home systems were able to effectively receive and address issues, including technical functionality and warranty and after-sales services.

Throughout the project, 539 grievances were recorded across all components, and all were resolved. The closure rate reflects a system that valued accountability, responded quickly, and took community concerns seriously. These outcomes, combined with visible improvements in safety, transparency in compensation, cultural respect, and environmental responsibility, have strengthened levels of public trust that are uncommon in infrastructure projects of this scale.

As LIRENAP moves toward energisation, the readiness and optimism across Lofa County reflect the depth of RREA's engagement and the quality of its work. Households, traditional leaders, market women, youth groups, and vulnerable persons now anticipate a service that they understand, respect, and are prepared to protect. The project is fully aligned with the national development agenda and supports Liberia's transition toward sustainable, renewable energy solutions.

> *"LIRENAP's most important asset entering energisation is trust — earned by listening and responding. The project's safety-first design, fair and verified compensation, cultural respect,*

> *strong OHS posture, and continuous communication have produced high connection readiness and social buy-in."*
>
> **Hon. Samule B. Nagbe, Jr. Executive Director, — RREA**

Table 1: LIRENAP at a Glance (Beneficiary-Focused)

Item	Snapshot
Generation & Network	PV–BESS with Diesel Generator (DG) backup; ≈145 km MV (LV reticulation ongoing)
Safety-by-design	~363 rooftop spans insulated; 7 high-risk structures resolved without displacement; reclosers & transformer safety enhancements
RAP Implementation	146 PAPs compensated (bank-based); Addendum Resettlement Action Plan (RAP) for 38 PAPs after field verification
Land & Culture	Voluntary donations (Bakuma/Vaivama ~41 acres, Balawala, and Mbaloma); cultural rites respected (Honeyahun)
GRM Performance	539 total cases (76 LIRENAP; 463 SHS); 100% resolved/closed
SHS Legacy	192,652 beneficiaries reached; lessons on affordability, quality, and after-sales inform current communication

PART A

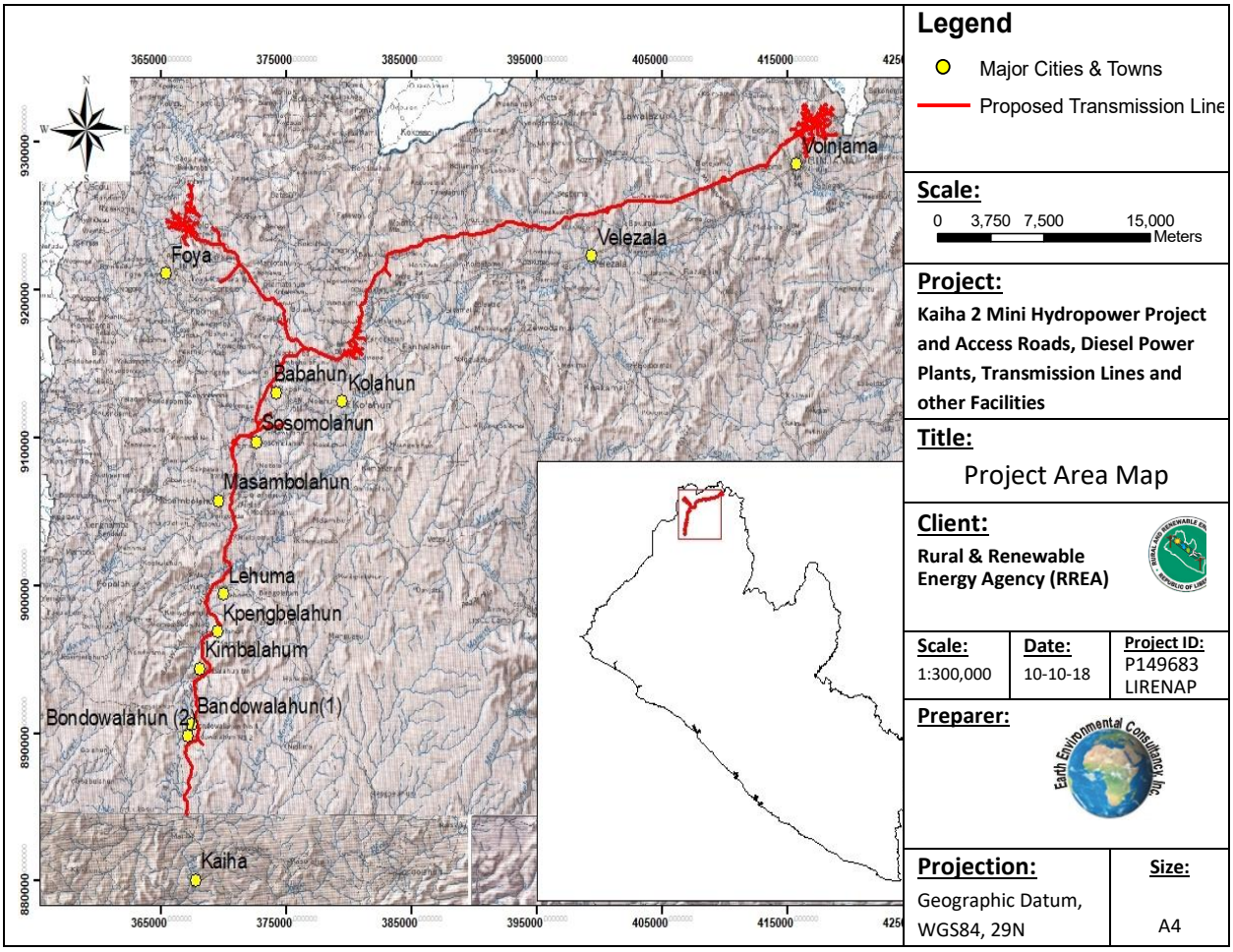
PART A: Decentralised Electrification in Lofa County (Mini-Grids)

1. Introduction & Context

For decades, communities across Lofa County lived without access to reliable electricity, relying on candles, palm-oil lamps, and small generators — sources that were costly, unsafe, and inadequate for sustained social and economic development. The resulting energy poverty affected schools, clinics, businesses, and households. In response, the Government of Liberia, through the Rural and Renewable Energy Agency (RREA) and with World Bank financing, launched the Liberia Renewable Energy Access Project (LIRENAP). The objectives of LIRENAP are to increase access to electricity and to foster the use of renewable energy sources.

LIRENAP is designed for decentralised electrification in Lofa County using renewable energy-based mini grid electrification and market development of stand-alone solar PV systems. The component on market development of stand-alone solar PV systems is designed to strengthen a private sector-driven supply chain as well as addressing demand-side factors.

Figure 0-1: Map showing location of the Project area in Liberia



Decentralised Electrification in Lofa County

LIRENAP set out to expand access to modern electricity services across Voinjama, Kolahun, and Foya districts in Lofa County. Initially conceived around a 2.5 MW mini-hydropower plant at Kaiha-2, supported by a 5.5 km access road and distribution network, the project later transitioned to a Photovoltaic–Battery Energy Storage System (PV–BESS) with diesel-generator (DG) backup providing electricity to over 10,000 households, public institutions and businesses. This change was driven by field realities, environmental constraints and community feedback prioritizing timely, safe, and reliable power.

Market Development of Stand-Alone Solar PV Systems

The Solar Home Systems (SHS) related activities under LIRENAP are a follow-up to the Lighting Lives in Liberia (LLL) project implemented in Liberia from 2012 to 2017. Under LLL, retail partners were eligible to do retail distribution of quality-verified products imported through the RREA, which served as a bulk procurer. Retailers could order products meeting Lighting Africa Standards paying only 10% up front, with the balance due upon collection. Additionally, all import duties were waived for products imported by the RREA, lowering the cost all along the supply-chain and reducing final retail price to consumers. Unfortunately, the Ebola epidemic temporarily crushed the progress that had been made. Retailers collapsed, roads were closed, payments were defaulted, and sales dropped to practically zero.

LIRENAP intended to revive the Liberia SHS market. Under Component 3 of LIRENAP, RREA would support the development of a national market for SHS that would provide access to electricity to over 100,000 people. The component aimed to support the market by increasing the sustainability of the supply chain and by addressing demand-side constraints.

Under LIRENAP RREA adopted a two-pronged approach. Under the first approach, LIRENAP would finance the tax-free bulk import of high quality solar systems on behalf of local retailers. Retailers would then pay RREA the cost of the products, and RREA would use the funds to buy more products and foster the sustainability of the market. Under the second approach, the project would also subsidize or provide incentives to cover the shipping and retail distribution costs for products imported by both RREA and the private importers.

Before starting bulk procurement under LIRENAP, the project first had to sell 17,659 solar systems inherited from Lighting Lives in Liberia (LLL). These systems were imported into Liberia under LLL but not distributed because of the Ebola outbreak. Initially the demand for these systems was low because (i) retailers lacked cash to buy these systems; and (ii) systems were outdated and batteries deteriorated because of long storage time. To address these issues RREA in consultation with the World Bank decided to: (i) refurbish the systems (replacement of batteries and other repairs where needed); and (ii) provide systems to retailers on credit.

Because of the delay in distributing the systems inherited from LLL and because of complaints of market distortion by non-participating vendors, RREA and the World Bank agreed to change the approach again by withdrawing RREA from the supply chain earlier than planned and leave import of solar systems to the private market. LIRENAP competitively selected 5 Participating Agents who would be supported by LIRENAP to import quality solar systems for distribution. With the generous support from the AECF REACT Household Solar (HS) program and the Beyond the Grid Fund for Africa, LIRENAP facilitated by end 2023 the sale of 45,829 solar systems to end-users benefitting about 192,652 people.

1.1 Purpose of the Beneficiary Feedback Report

This Beneficiary Feedback Report (BFR) documents how community voices, grievances, and expectations influenced LIRENAP's design, implementation, and communication. It focuses on what beneficiaries said, how the project responded, and how that dialogue strengthened ownership, safety, and impacts.

Unlike technical or safeguards reports, this BFR centers on people — their experiences, perceptions, and evolving trust in the project. It traces how early skepticism shifted to cooperation as concerns were addressed transparently, and it highlights forward-looking expectations.

The report is intended for the World Bank, the Government of Liberia, local authorities, and community stakeholders, serving as both an accountability record and an evidence base for learning. It demonstrates the approach and benefits of continuous listening and adaptive management grounded in community realities.

1.2 Project Areas and Beneficiary Scope

The decentralized electrification in Lofa County would provide reliable electricity access to the population centers of Voinjama, Kolahun, and Foya and their surrounding settlements, representing the economic and social hubs of Lofa County. Beneficiaries include households, businesses, schools, clinics, women's groups, youth associations, traditional leaders, local authorities, and Project-Affected Persons (PAPs).

The market development of stand-alone solar PV systems would benefit the country as a whole. It is left to the market where vendors will market their SHS products and provide after-sales services. As vendors are mainly located in urban areas it was expected that the end-users are located in urban and peri-urban areas with fewer in remote rural areas. The direct beneficiaries of Component 3 were the SHS vendors and the indirect beneficiaries were end-users.

1.3 Project Components

The Liberia Renewable Energy Access Project (LIRENAP) was developed under the Government's Investment Plan for Renewable Energy (IPRE) to expand access to affordable, reliable, and sustainable electricity. Financed through an IDA Credit (5759-LR) and a Strategic Climate Fund (TFA1646) totalling US $27 million, the project aligns with Liberia's Agenda for Transformation (AfT) and the World Bank's twin goals of poverty reduction and shared prosperity.

In its original design, LIRENAP comprises three mutually reinforcing components, summarized below.

Component 1 – Decentralized Electrification in Lofa County: This component finances construction and operation of a Photovoltaic–Battery Energy Storage System (PV–BESS) in Bakuma/Vaivama (≈ 41 acres) with diesel-generator backup in Balawala, and installation of approximately 135 km of Medium Voltage (MV) and Low Voltage (LV) distribution lines across Voinjama, Kolahun, and Foya districts. Initially conceived as a 2.5 MW mini-hydropower and diesel hybrid, it was redesigned through technical reassessment and community consultations into a solar-based hybrid system for faster delivery, lower risk, and improved safety. Beneficiary feedback directly informed this transition. The component also covers technical assistance for operation and maintenance, safeguards implementation (ESMP, RAP, Decommissioning Plan), and continued stakeholder engagement and safety awareness.

Component 2 – Institutional Strengthening and Capacity Building: This stand-alone component supports RREA in strengthening policy, regulatory, and implementation capacity for decentralized electrification. It finances

technical assistance, development of regulations and standards for mini-grids, safeguards management, Occupational Health and Safety (OHS) systems, Grievance Redress Mechanism (GRM) administration, and gender-sensitive training for project coordination and monitoring.

Component 3 – Market Development of Stand-Alone Solar Systems (Solar Home Systems): This component promotes the off-grid solar market to reach dispersed rural households and institutions. It supported the importation and distribution of quality-verified Solar Home Systems (SHS) and lanterns, reaching about 192,652 persons across Liberia. The program fostered private-sector participation through supply-side subsidies, fiscal incentives (duty exemption), and capacity building.

During implementation a fourth component was added to facilitate RAP payments from project resources. Component 4 is not further discussed in the beneficiaries' feedback report.

1.4 Organization of the Report

This report is organized to reflect the two distinct components implemented under the Project: (i) Decentralized Electrification in Lofa County (Mini-Grids), and (ii) Market Development of Stand-Alone Solar Home Systems (SHS). These components differ in scope, implementation timelines, and the nature of stakeholder engagement. As such, the beneficiary feedback and corresponding project responses are presented separately to ensure clarity and accurate attribution of lessons learned.

The SHS market development activities were completed earlier in the Project cycle, whereas the decentralized electrification activities in Lofa County remain ongoing at the time of reporting.

Accordingly, the report is structured into two main parts:

Part A: Decentralized Electrification in Lofa County (Mini-Grids)

- Methodology
- Beneficiary Feedback (What People Said)
- Project Response to Feedback
- Key Themes & Beneficiary Priorities
- Outcomes of Actions (Results and Metrics)
- Community Satisfaction and Perception
- Project Development Objective (PDO)-Linked Perception Scorecard
- Feedback Responsiveness Performance
- Grievance Redress Mechanism (GRM) Results
- Expectations for Operations
- Lessons Learned
- Conclusion

Part B: Market Development of Stand-Alone Solar Home Systems (SHS)

- Methodology
- Beneficiary Feedback Collected

- Incorporation of Beneficiaries Feedback in Project Design
- Analysis and Conclusions

2. Methodology

The methodology for gathering beneficiary feedback under Component 1 of LIRENAP was designed as a continuous, multi-year process rather than a single consultation exercise. Engagement began during the early hydropower and access-road discussions in 2016–2017, extended through verification and redesign missions between 2018 and 2020, and broadened further as the project transitioned to solar energy between 2021 and 2023. It intensified during distribution-network construction, RAP and ARAP implementation, environmental restoration, and pre-energization readiness activities undertaken across Voinjama, Kolahun, and Foya from 2023 to 2025.

Throughout this period, feedback collection followed the project's Stakeholder Engagement Plan (SEP) and combined qualitative and quantitative tools adapted to the changing realities of the Mini-Grid component. For the Mini-Grid system, engagement accompanied pole siting, line routing, safety verification, cultural-site handling, tree-clearing, compensation, and the later transition from bare conductors to insulated spans.

The nature and sophistication of engagement improved over time. Early consultations were dominated by community meetings and individual interviews, while later years incorporated multilingual radio programs, call-in platforms, structured GRM case files, GPS-based verification to confirm exactly where activities or issues occurred, and systematic documentation through minutes, attendance sheets, photographs, and warranty records. Feedback was collected both proactively — through scheduled consultations, stakeholder visits, and sensitization campaigns — and reactively, in response to emerging issues such as safety risks, cultural-site disputes, system defects, informal market distortions, and the ENCO accident that triggered EPA-supervised restoration at Mbaloma.

By integrating these approaches consistently over almost a decade, LIRENAP ensured that beneficiary perspectives, community dynamics, and institutional inputs shaped technical decisions, social safeguards, implementation strategies, and market adjustments.

2.1 Engagement Methods

Beneficiary views were gathered through multiple complementary methods that were applied continuously along the Mbaloma–Foya–Kolahun–Voinjama corridor. These approaches evolved with project phases and were adapted to different social, geographic, and technological contexts from 2016 to 2025.

Public consultations held in larger towns, smaller rural settlements, and sensitive cultural areas provided broad platforms for dialogue on safety, routing, land issues, compensation, warranty conditions, cultural obligations, and energization readiness. These consultations were multilingual and guided by traditional leaders, women's representatives, youth groups, and district authorities, ensuring legitimacy and wide participation.

Focus group discussions created safe, inclusive spaces where women, youth, Project Affected Persons (PAPs), elders, vulnerable households, local businesses, and energy users could speak freely about the impacts of construction, livelihood risks and internal wiring readiness. Over time, these discussions informed refinements to the technical design of Component 1.

Key informant interviews with traditional authorities, district officials, service providers, PAP representatives, and school administrators provided deeper, location-specific insights. These interviews were increasingly supported by verification tools such as GPS coordinates, photographs, and crop-damage forms, ensuring accuracy and traceability.

The grievance redress process served as a confidential pathway through which communities and consumers raised concerns about land, compensation, safety, internal wiring, contractor behavior or environmental impacts. For the Mini-Grid Component, cases were systematically logged, verified, and closed with documented follow-up.

Radio programs and call-in platforms in Lorma, Kissi, Mandingo, and Kpelle and all 15 dialects of Liberia played an essential role in disseminating information and gathering feedback, particularly in areas that were inaccessible during the rainy season in Lofa County. Many emerging issues — such as fears about conductor safety, confusion around compensation — were first raised on radio and later validated in the field.

Door-to-door outreach ensured that elderly residents, vulnerable persons and remote households were not excluded from engagement. Field teams used this method to verify claims and complete household-level assessments for internal wiring readiness.

Through these layered and adaptive methods, beneficiary feedback was continuously captured, cross-checked across multiple sources, and incorporated into technical decisions, safeguard measures, and implementation modalities for the Mini-Grid component.

2.2 Inclusiveness and Representation

The engagement process was designed to ensure equitable participation across all social groups and geographic areas reached by LIRENAP. For the Mini-Grid Component, inclusiveness focused on communities along the Voinjama–Kolahun–Foya corridor, ensuring that households, PAPs, farmers, traditional leaders, women's groups, youth, business owners, and vulnerable persons all had opportunities to express their concerns and expectations.

Women consistently emphasized household safety, clarity on compensation, internal wiring readiness, and affordability of grid connections. Youth highlighted the opportunities electricity creates for Information and Communication Technology (ICT) use, entertainment, modern study habits, and small-scale entrepreneurship. Traditional leaders and elders raised issues relating to cultural respect, land-use integrity, traditional rites, and long-term protection of the corridor. Men, particularly household heads, farmers, and local business operators, focused on compensation fairness, productive-use potential, and technical reliability. Vulnerable persons, including widows, elderly residents, persons with disabilities, and socially marginalized households, requested confidential grievance handling, simple explanations, flexible communication formats, and transparent bank-based payment processes.

Meetings were scheduled around farming seasons, market days, prayer times, and domestic responsibilities to maximize participation, especially among women caregivers and farmers. Separate discussions were organized for women, youth, and vulnerable households to ensure they could speak freely without being overshadowed by dominant voices. Institutional stakeholders, including district authorities, county officials, and school and clinic administrators, were also engaged to reflect the broader interests of communities whose services rely heavily on electricity.

2.3 Validation and Cross-Checking

Validation and cross-checking were essential steps to ensure that feedback reflected real conditions on the ground and that corrective measures were based on verified information. Throughout the project period, feedback arising from community engagements, radio interactions and GRM submissions was systematically assessed using multiple sources of evidence. For the Mini-Grid Component, verification involved triangulating GRM records with

field observations, contractor reports, and confirmations from community leadership to ensure accuracy before implementing any design revisions or compensation adjustments.

Joint backcheck missions were undertaken with chiefs, elders, and PAP representatives to confirm the location and extent of impacts, validate concerns about unsafe spans, assess leaning poles, verify crop damage, review cultural-site issues, and confirm whether insulation or routing adjustments were required. These missions relied on photographic evidence, GPS coordinates, audio recordings, and signed attendance lists to establish an accurate record of community engagements.

Conflicting feedback was resolved through direct follow-up visits, structured discussions with affected persons, and joint confirmations with community leaders. Documentation was consistently maintained and stored through GRM logs, meeting minutes, verification forms, photographic evidence, and warranty records, ensuring full traceability of decisions. This triangulated validation process ensured that only substantiated concerns informed compensation decisions, safety corrections, routing revisions, market adjustments, and broader implementation improvements.

2.4 Limitations

Despite strong nationwide coverage, several contextual limitations affected the depth and timing of data collection under the Mini-Grid component. Along the Mini-Grid corridor in Lofa County, engagement was influenced by seasonal access constraints, especially during heavy rains when feeder roads, footpaths, and lowland crossings became impassable. These delays were more frequent in forested and hilly areas, where movement depended on dry-season ground conditions.

Consultations also required linguistic flexibility, as interactions were conducted mainly in Lorma, Kissi, Mandingo, and Gbandi, each representing distinct cultural groups with unique decision-making structures. This required careful facilitation to ensure that households, women, youth, and vulnerable persons were not overshadowed by traditional authority figures. Language and literacy limitations further influenced data collection quality.

Cultural sensitivities occasionally affected mixed-group discussions. Topics involving sacred sites, ancestral forests, and traditional rites required separate meetings with elders and Zoes before broader consultations could take place. In some communities gender norms limited women's participation in public meetings, requiring dedicated Focused Group Discussion (FGD) and household-level engagements to ensure safe and meaningful representation.

Data reliability remained a recurring limitation. In the Mini-Grid corridor, discrepancies sometimes arose between PAP accounts, community-leader statements, and field measurements on compensation eligibility or safety concerns, requiring additional verification missions.

These limitations were mitigated through repeated field visits, door-to-door engagements in inaccessible areas, reliance on the GRM for clarifying ambiguous issues, and joint verification missions with elders, chiefs, and PAP representatives. While rooted in Liberia's terrain, cultural diversity, and linguistic complexity, these constraints did not materially undermine the overall reliability or utility of the feedback collected under LIRENAP.

3. Beneficiary Feedback — What People Said

Beneficiary feedback gathered along the corridor under the Liberia Renewable Energy Access Project (LIRENAP) reflects a long community journey with electrification — spanning early design consultations, hydropower preparation works, pole routing, compensation decisions, and the near-complete mini-grid infrastructure now awaiting energization. From the earliest Environmental and Social Impact Assessment (ESIA) and RAP meetings between 2016 and 2019, through design verification in 2023, and the technical corrections carried out between 2024 and 2025, residents consistently guided the project's direction. Communities welcomed electricity as a sign of national progress but repeatedly emphasized that it must be delivered safely, fairly, and with respect for land, culture, and livelihoods.

3.1 Safety and Technical Concerns

Figure 2: Pole-mounted distribution transformer installation, Veseli, Voinjama District

Safety and technical design remained among the most frequently discussed themes throughout the implementation of the mini-grid, hydropower, T&D, and diesel-generation components. Communities across Voinjama, Kolahun, Foya, Mbaloma, and Balawala repeatedly emphasized that while electricity represents progress, it must come "without danger." Concerns emerged across the full project cycle — from the 2016–2017 pre-construction consultations, to the 2019–2021 hydropower access road works, through the 2022–2024 T&D construction period, and into the 2024–2025 pre-energization stage, when internal wiring was ongoing.

During the 2016–2017 design validation for the Kaiha II mini-hydropower component, the supervision team identified a major technical gap: the absence of a permanent river-gauging station to monitor inflow and discharge. Without it, turbine operations risked either water shortage or excessive release affecting downstream farms. As former Electrical Engineer (now Project Coordinator) Anthony D. Waylea, Jr. explained during a validation meeting in Voinjama City, Lofa County on March 16, 2017:

> *“Without that gauge, we would have been designing in the dark — no one could tell whether the river would feed the turbines or flood the farms.”*
> **— Anthony D. Waylea, Jr., Project Coordinator — Validation meeting, Voinjama City, 16 March 2017**

Communities in Mbaloma and Kpandu also feared that uncontrolled trenching and unsealed cuts would increase erosion and sediment flow into the Kaiha River. Their concerns led the Project Implementation Unit (PIU) to enforce same-day backfilling and vegetation cover — later codified in the 2025 Decommissioning and Restoration Plan. These early adjustments stabilized both dam design and farmer confidence in the hydropower footprint.

Between 2019 and 2021, construction of the 5.4 km access road between Foya Junction and Mbaloma — needed to reach the hydropower site — introduced new community concerns. The route crossed donated land still cultivated with rice, cocoa, and cassava. Farmers along the road corridor requested that excavation begin after harvest to avoid destroying their annual income. The CLO recorded similar concerns in nearby Sansa and Kpandu settlements. RREA and the contractor verified plots by GPS and postponed works accordingly. Public compensation was then carried out before witnesses, preventing livelihood disruption and strengthening trust.

The 17 km rehabilitation of the Foya Junction–Mbaloma road during the same period surfaced similar concerns about drainage cuts, erosion, and timing around cropping seasons. These inputs influenced the construction calendar and later formed part of the ESMP compliance requirements.

Safety concerns intensified during the 2022–2024 construction of the 33 kV distribution network, when pole planting and conductor stringing reached populated areas. During a 2023 consultation in Honeyahun No. 3, elders warned that a pegged pole stood too close to a sacred shrine. The CLO relayed the message, prompting RREA to pause work, meet with traditional leaders, and shift the pole several meters away. Only after rites were performed did construction resume — demonstrating that cultural respect had become an engineering parameter.

A more critical issue emerged during a joint RREA–World Bank inspection on 7 March 2024, which covered several settlements, including Korworhun, Voinjama, and surrounding clusters. Inspectors observed bare medium-voltage conductors passing directly above homes and metal roofs. Residents described sleepless nights during storms, calling it “light that can kill.”

> *“When the wind blows, we don’t sleep. We watch the wire.”*
> **— Old Man Konneh of Jarmai — Joint RREA–World Bank inspection, 7 March 2024**

The mission classified the spans as hazardous, prompting RREA’s engineers to replace bare conductors with insulated cables and install automatic reclosers.

> *“Once we switched to insulation, the whole conversation changed. People saw the black wire and said, ‘this one listens to us.’”*
> **— Civil Engineer Varney Garpue — Site visit, Johnny’s Town, Voinjama District, 14 September 2024**

During the 2023–2024 installation of the 1.8 MW diesel generator at Balawala, neighboring households reported fumes, vibration, and nighttime noise. According to the CLO, residents feared the generator was “talking in our

sleep." RREA instructed the contractor to introduce acoustic barriers, double-bunded fuel containment, and refined refueling procedures. Follow-up monitoring showed significant reduction in disturbance.

Additional issues arose from community observations during 2024–2025, when internal wiring and final fittings were ongoing. In Massambolahun–Fagunga, youth reported an open transformer pit, and in Dorbor Town, community members flagged scrap cable stored near a drain. Contractor teams responded by fencing off hazardous areas and removing debris.

Youth from Wohomba, Kortuhun, and Bondowalahun also reported leaning poles and missing danger signs.

> *"We pass under this line every day. If something is not right, we'll see it before anybody else."*
> **— Korpo Joseph of Wohomba — Routine visit, Wohomba Town, Kolahun District, June 2025**

Their observations were logged in the PIU's monitoring register and addressed during corrective maintenance rounds. By late 2025, community safety committees had become active informal monitors, reporting vegetation overgrowth, exposed wiring, and unprotected spans. Residents across Lehuma, Kimbalahun, and Mbaloma began referring to the distribution line as "our light, our fence," signaling a shift from fear to ownership.

Across all phases — pre-construction (2016–2017), hydropower preparation and access road works (2019–2021), T&D construction (2022–2024), and the pre-energization stage (2024–2025) — community feedback consistently reflected practical, location-based insight that helped refine gauging systems, route alignments, erosion control, conductor safety, generator operation, and final-stage electrical fittings.

To address safety concerns, RREA was not only reactive (responding to end-user feedback) but also proactive. RREA informed end-users that they must prepare for electricity connection. RREA explained that those to be connected had to arrange for formal house wiring or opt for a Ready Board with just one light and two electricity sockets. Those opting for formal house wiring were informed what that would entail and RREA showed this by using a panel with correct household wiring comprising PVC junction boxes, PVC pipes and color-coded electrical wires, electricity sockets, switches and lamp holders. RREA informed end-users that the formal house wiring should be done by qualified electricians.

During a supervision mission in November 2025 end-users in Voinjama complained that they paid technicians who claimed to be working for RREA for house wiring but that this was not done as shown by RREA earlier. RREA reacted to this feedback by conducting immediate field verification, meeting with the complainants, and clarifying that the technicians involved were not contracted by RREA. The Agency issued corrective guidance through community radio and local leadership, reiterated that only certified electricians may perform household wiring, and put in place a simple reporting channel to prevent recurrence.

What communities said in these engagements forms the backbone of safety improvements across the corridor. The next section explores how these community insights shaped decisions around compensation, livelihood restoration, and social protection.

3.2 Compensation, Livelihoods, and Vulnerability

Figure 4: Disbursement process for RAP compensation payments to Project Affected Persons (PAPs) at a local microfinance institution in Kolahun

For communities along the 136 km corridor — from Mbaloma to Foya, Kolahun, and Voinjama — compensation and livelihood issues were the clearest test of fairness. From the first RAP discussions in 2016–2017 to the later verification exercises in 2023, farmers, elders, youth, and women consistently said that compensation was not simply a payment, but a matter of dignity.

> *"We welcomed the light, but we wanted justice for our land and our farms."*
> **— Farmer — Kolahun**

During the early consultations, residents across the 30 affected communities stressed that both landowners and land users must be recognized. People insisted that because farming supports nearly every household, any tree, crop, or structure touched by the project should be acknowledged. The figure of 148 eligible PAPs became a point of community discussion, with elders frequently reminding RREA teams that "every name must match the field."

> *"We want to see our names with our own eyes, not hear them from someone else."*
> **— Widow — Honeyahun**

Between 2019–2021, as preconstruction activities for the hydropower access road and downstream works advanced, farmers in Mbaloma, Balawala, Kpandu, and Jarmai grew more vocal about the relationship between livelihoods and land.

> *"We gave the land because we want development, but the land is not small to us. When you take a piece, you must respect what remains."*
> **— Sansa Kroma — Mbaloma**

In Balawala, elders expressed similar sentiments, particularly during road works, telling visiting staff that their gardens and homes must not be exposed to erosion or water diversion.

> *"We opened the way for the project; don't let the road spoil our farms."*
> **— Elder — Community meeting, Balawala**

As vegetation clearing continued into 2023, communities reported additional households they believed should be counted. Farmers in Voinjama and Kolahun recalled how their cash-crop plots were affected by clearing under the MV line and insisted that "no one should be forgotten."

> *"When they came back with the book and the GPS, that's when we knew they were really listening."*
> **— Youth leader — Voinjama, referring to verification exercises**

In denser towns such as Voinjama City, Honeyahun 3, and other closely settled communities, the primary concern was not crop loss but the fear of being displaced if poles or wires passed too close to homes. Residents described the sight of bare MV lines above rooftops as a constant worry — especially during storms.

> *"We didn't sleep when the wind blew. It was like danger lived on top of our roof."*
> **— Resident — Johnny Town**

Perennial tree loss was another persistent issue. Cocoa farmers in Bondowalahun emphasized that cocoa is a long-term investment and a primary source of school fees.

> *"A cocoa tree is not pepper — when it falls, many years fall with it."*
> **— Cocoa farmer — Bondowalahun**

Women traders in Kortuhun voiced similar concerns about kola nut trees and banana stands that were essential to household income. Vulnerability concerns emerged strongly throughout the process. Widows, elderly farmers, renters, and low-income families worried about being left out because of age, literacy, or unclear documentation.

> *"We want to understand with our ears, not with big papers."*
> **— Elderly woman — Honeyahun**

As discussions continued, communities began cross-checking one another's claims and ensuring that lists shared in meetings were accurate. Youth in Mbaloma, Kimbalahun, and Kortuhun often took it upon themselves to help elderly PAPs understand the documentation and ensure everyone attended verification meetings.

> *"We lost trees, but we gained new trust because our voices were not wasted."*
> **— Farmer — Massambolahun**

Throughout the corridor, communities viewed compensation not only as payment for damage or loss but as a symbol of respect for the labour invested in their farms and the sacrifices made to enable the project.

> *"Light comes and goes, but land remains. Treating our land right means treating us right."*
> **— Elder — Kpengbelahun**

By the time livelihoods concerns settled and internal wiring began in 2025, many communities shifted their attention to cultural sites — shrines, graves, sacred groves — and how these should be preserved as electrification neared. These concerns form the basis of the next section.

3.3 Technology Transition and Continuity

Figure 5: Kaiha II decommissioning of the dam site

When work at the Kaiha II mini-hydropower site came to a stop in 2024 — after about 38 percent of the civil works had already been completed — the area around Mbaloma fell quiet. For months, families stood along the unfinished dam, watching the idle cranes and the river that had once promised electricity. Many had given up portions of their farmland and spent seasons helping to clear the access road, believing "the river would soon bring light to Lofa." When construction stopped, local markets near the workers' camp closed, and young men who had worked as porters or guards found themselves without income.

In those early months, the silence bred unease. Elders described it as "a river that spoke halfway and stopped." Some nearby towns teased Mbaloma as "the place where the light died on the water." But beneath the jokes lay genuine worry and sadness: people feared that all their sacrifice — the donated land, the cleared road, the waiting — had been in vain.

When RREA engineers and social staff returned to the area in 2024, they met full town assemblies to explain the situation. Studies had shown that the Kaiha River's flow and sediment levels could not safely support the original 2.5 MW design. Continuing construction would have put workers and surrounding villages at risk. The decision to stop was therefore one of safety, not abandonment.

> *"It hurts, but at least we know why. The truth is better than silence."*
> **Old Man Karbah, Town Chief, Mbaloma 2024**

By mid-2024, communities had shifted their expectations. Instead of asking when the dam would resume, they began asking when the site would be made safe.

> *"We don't want danger to remain in the river. Even if the light didn't come, the land should be healed."*
> **Hawa Dorbor, Women's leader — Honeyahun**

RREA responded by launching the decommissioning and restoration works, which are still ongoing under Environmental Protection Agency (EPA) supervision. Community members watched as workers began covering trenches, sealing exposed rebar, removing scrap materials, and planting grass along the disturbed banks. Youths from nearby towns were hired for the backfilling and cleanup, turning the process into a shared activity rather than a distant contract.

> *"We may not have the light yet, but we are helping to close the wound we opened."*
> **Sekou Sirleaf, Youth Leader — Mbaloma**

Moses Saah, the Project's Community Liaison Officer, who has been engaging these same communities since the project's start, reflected on the transition:

> *"When the machines stopped, people felt forgotten. My role was to make sure they were heard. Now that the cleanup has started, they say the project has found its voice again."*
> **— Moses Saah, Community Liaison Officer**

At the site today, weekly safety meetings are held before any field work begins. Elders lead brief prayers thanking the river for "allowing humans to work safely." EPA inspectors visit regularly with RREA field staff to verify that barriers and signage remain intact. Each visit is announced on local radio so residents know what to expect and can report concerns through the community grievance desk.

Through this open dialogue and visible progress, frustration has gradually turned into guarded optimism. Residents now speak of the effort not as "the project that stopped" but as "the project that is fixing what it started."

> *"The light has not come yet, but the people did not leave. That means we still matter."*
> **Janet Dorbor, Women leader — Mbaloma**

3.4 Cultural Heritage, Land, and Local Ownership

Across the Lofa electrification corridor, culture remained inseparable from development. In every district — Voinjama, Kolahun, Foya, and Mbaloma — communities linked the arrival of electricity to their collective identity, values, and ancestral lands. Elders repeatedly reminded the project team that while modern power brings light, "light must walk with respect."

One of the most memorable examples came from Honeyahun No. 3, where the new distribution line was first staked across the entrance of a sacred shrine at the edge of the town. The elders immediately stopped the work, explaining that the area was home to ancestral spirits that must first be "spoken to." RREA's site team, guided by the Community Liaison Officer, Mr Moses Saah, convened an emergency consultation on June 16, 2023, bringing together elders, women, and youth leaders. The meeting concluded with a purification rite: kola nuts and water were offered to the soil, followed by blessings in both Lorma and Gbandi, two of the local dialects spoken in the community. Afterward, the pole alignment was adjusted a few meters away. Work resumed only after the town chief declared:

> *"The land has agreed."*
> **— Town Chief — Honeyahun No. 3, 16 June 2023**

A similar situation occurred in Fahgunda, where the project's environmental survey team was asked not to enter a forest used for ongoing women's society rituals. Rather than insist, the team waited until the ritual period ended and sought entry through traditional authorities. That patience and cultural respect avoided confrontation and reinforced the project's standing with local institutions.

Throughout the corridor, RREA's approach to cultural heritage relied not on formal clearances but on continuous dialogue and deference to local customs. In Kolahun and Mawolo Ndorbor's Township, for instance, meetings often began with brief prayers — Muslim recitations, Christian blessings, or short libation ceremonies — depending on the community's faith.

At Balawala, where the diesel generator is housed, elders insisted on performing a short cleansing ceremony before ground was broken. They sprinkled water and kola nuts on the soil while calling the names of ancestors who once farmed there.

> *"When we speak to the land, it listens to us."*
> **Oldman — Balawala**

Mr Moses Saah, who coordinated most of these interactions, described his task as more than supervision — it was about building trust.

> *"Development doesn't just build on land; it builds on feelings. Once people see that we listen to their way, they protect the project more than any guard."*
> **— Moses Saah, Community Liaison Officer**

Indeed, by 2024, community vigilance had become a quiet form of partnership. In Massambolahun–Fagunga, youth leaders began reporting leaning poles or unmarked excavation sites directly to RREA. Instead of confrontation, these alerts were viewed as community oversight — an extension of the same cultural responsibility that led elders to bless the land at the start.

Through these experiences, LIRENAP reaffirmed that electrification is not only a technical exercise but also a social covenant. Communities gave land, performed rites, and offered prayers, while the project responded with

respect, adjustment, and transparency. This reciprocity — rooted in tradition yet directed toward progress — remains one of the most powerful legacies of the engagement process.

3.5 Communication, Trust, and Inclusion

In all thirty communities along the Mbaloma–Foya–Kolahun–Voinjama corridor, beneficiaries repeatedly emphasized that communication was as vital as electricity itself.

> *"When information stops, confusion starts."*
> **Sam kollie, Youth — Vezella**

From the early hydropower years (2016–2018) to the later distribution rollout (2023–2025), trust between RREA and the people grew or shrank in direct proportion to how often and how clearly the project spoke with them. In Mbaloma and Foya Junction, temporary pauses in civil works once sparked worry that the project had been abandoned. Farmers said they saw trucks leaving the site and feared, "The light has gone the way it came." When RREA later convened meetings in the town hall and aired explanations through Foya Radio, the mood changed instantly.

> *"Once we heard the reason, we started defending the project ourselves."*
> **— Women's leader — Kpandu**

Throughout 2023 and 2024, RREA refined its communication system into a multi-channel, multilingual model. Updates were shared through community radio talk shows, short jingles in Lorma, Kissi, and Mandingo, town-crier messages at dusk, school and mosque notice boards, and market-day outreach tents where staff discussed progress in person. The Community Liaison Officer, Mr Moses Saah, became a familiar voice to households across the corridor, delivering weekly radio briefings and phone-in sessions.

> *"When people hear directly from the project — in their tongue and through their leaders — the rumor dies before it starts."*
> **— Moses Saah, CLO — Radio broadcast from Kolahun**

Women's participation increased once separate evening consultations were introduced. In Wohorhuba, women's groups said they could now raise questions about farming seasons, household wiring, and children's safety without fear of interruption. Youth leaders in Beyan's Town and Ndorbor's Township supported outreach by sharing verified updates through motorbike loudspeakers and WhatsApp groups that linked riders along the 136-km corridor.

Elders and persons with disabilities, who often missed large meetings, were reached through door-to-door briefings led by community volunteers.

> *"When you come to my yard, I feel part of the project again."*
> **— Elderly man — Fagonda**

Local government and traditional authorities — district commissioners, paramount and town chiefs — validated all major announcements before they were shared publicly, giving the messages both legitimacy and reach. Every consultation produced signed or thumb-printed attendance sheets, later filed at the PIU office to maintain transparency (see Annex 1 for details).

As the grievance system matured, communities began valuing follow-up visits as much as initial resolutions. In Massambolahun, for instance, after a crop-damage claim was settled, the GRM team returned two weeks later to confirm satisfaction.

> *"They didn't just pay — they came back to see how we felt."*
> **— Farmer — Massambolahun**

By late 2024, information sharing had become a routine part of daily life. Radio jingles reminding farmers to stay clear of pole lines played between music segments; teachers in Kolahun used classroom posters on electrical safety; and Friday mosque announcements included updates about energization schedules. The project's voice had effectively merged with the community's.

Now, as full energization approaches, beneficiaries continue to stress one plea: that this transparency should not fade after construction. They ask for the same openness around maintenance, service interruptions, and future expansion.

> *"The poles may stand still, but the talking must continue."*
> **— Youth chairperson — Mbalasu**

3.6 Gender, Youth, and Vulnerable Group Feedback

Across the project corridor — from Mbaloma through Kolahun and Foya to Voinjama — women, youth, and vulnerable persons consistently emphasized that electricity must improve daily life while upholding safety,

Figure 6: Cross section of Women participating in a community consultation or — Kolahun or Foya

fairness, and respect. They viewed access to modern energy not merely as a technical upgrade but as social progress that could expand livelihoods, reduce insecurity, and strengthen family wellbeing.

During the May 14, 2019 consultation in Massambolahun, women expressed both excitement and caution. They wanted electricity to bring safety as well as light — safer paths to markets and hand-pumps, and a more secure environment at night.

> *"We want our girls to walk after dark without fear."*
> **— Women's group participant — Massambolahun, 14 May 2019**

As works advanced, women in Foya and Honeyahun raised similar concerns about harassment risks near market corridors and water points. RREA and the contractors responded by integrating gender-sensitive safety measures into worksite management, including separate sanitation facilities for women workers and a strict Code of Conduct prohibiting sexual exploitation, harassment, or disrespectful behavior toward community members.

According to the Project Community Liaison Officer:

> *"Once communities saw that the project enforced its own rules, women began to feel comfortable working near the crews and speaking during meetings."*
> **— Moses Saah, Community Liaison Officer**

Quantitatively, women's participation rose from roughly 18 percent during early RAP consultations to over 40 percent in later field meetings held between 2023 and 2025. Three female community focal points now help coordinate communication and feedback in Kolahun, Foya, and Voinjama, illustrating how inclusion moved from principle to practice.

Youth groups, meanwhile, focused on fairness and opportunity. During the April 8, 2024 consultation in Kolahun, young people questioned hiring transparency, noting that external workers were often prioritized.

> *"We carried the poles but others took the jobs."*
> **— Youth leader — Kolahun, 8 April 2024**

In response, the PIU agreed with contractors to post vacancy notices publicly through town criers and radio stations before recruitment. Youth also voiced aspirations for long-term skill development — hoping to operate machine shops, welding centers, or ICT kiosks once electricity becomes available. Many saw electricity as "a tool for self-employment, not dependence."

For vulnerable persons — particularly widows, elderly residents, and those living with disabilities — respectful and accessible communication was paramount. Some explained that written notices or posters alone excluded them; they preferred oral updates delivered in Lorma or Kissi through chiefs and women's leaders. RREA therefore repeated announcements via community megaphones, radio talk shows, and mobile loudspeakers.

> *"Hearing the project talk in our own house."*

> **— Elderly woman — Kolahun, describing radio messages in local language**

In Voinjama, a visually impaired participant added that radio messages were the only way she could stay informed, reinforcing the value of inclusive communication. Cultural and gender dynamics also influenced how feedback was received. In communities such as Honeyahun, traditional elders guided the tone of women's participation, particularly when sacred sites lay near the transmission corridor.

Women's changing economic roles also surfaced. Traders noted that electricity would extend business hours but might increase household responsibilities without shared support. To address this, RREA worked with women's associations and traditional leaders to host awareness sessions on gender balance, emphasizing that new economic roles should strengthen, not divide, households.

Despite this progress, barriers remain. Some women still hesitate to speak publicly in mixed gatherings, and persons with mobility limitations struggle to reach central venues. Communities recommended shorter afternoon meetings and mobile outreach teams so that "no one is left behind."

Overall, feedback from women, youth, and vulnerable groups confirmed that inclusion under LIRENAP is practical, not symbolic. The enforcement of Codes of Conduct, provision of gender-friendly facilities, transparent local hiring, and accessible communication strengthened public trust. Traditional leaders now view inclusive participation as part of good community management.

> *"Now we see that light is not just wires and poles; it is how people are treated while the light is being built."*
> **— Youth participant — Foya**

Communities have urged RREA to maintain this same openness once power becomes operational — ensuring continued dialogue on billing, maintenance, and customer service so that the benefits of electrification remain shared and sustained. RREA explained that ongoing community engagement is part of its mandate and will continue through structured customer-service outreach once power becomes operational.

3.7 Summary of What People Said

Feedback Theme	What Communities Consistently Said	Who Raised It Most	Underlying Message
Safety of MV Infrastructure	Concerns about rooftop line crossings, bushfire risks, transformer proximity, and child safety.	Households in Voinjama, Kolahun, and Foya	"We want light, but we want it safe."
Fair Compensation & Livelihood Protection	Demanded transparency, replacement-cost valuation, and fair treatment of widows and farmers.	PAPs, women's groups, elders	"Compensate fairly and protect our livelihoods."
Cultural Respect & Land Agreements	Requested respect for sacred sites and recognition for voluntary land donations.	Traditional leaders, elders	"Respect our culture and honor our land sacrifices."

Feedback Theme	What Communities Consistently Said	Who Raised It Most	Underlying Message
Technology Transition & Continuity	Wanted reassurance that the hydropower change would not exclude them.	Mbaloma and Kaiha host communities	"Keep your promise — bring us light."
Communication & Inclusion	Asked for consistent updates, clear messages, and direct participation of women and youth.	Women, youth, and community leaders	"Tell us clearly, involve us directly."
Gender, Youth, and Vulnerability	Sought equal participation, employment opportunities, and protection from exploitation.	Women, youth, widows, elderly	"Include us fairly, treat us with dignity."

4. Project Response to Feedback

Beneficiary feedback has been the single strongest influence on how LIRENAP has been implemented from the early town-hall meetings held between 2016 and 2019 through the most recent engagements in 2025. Across communities, feedback consistently shaped project decisions on sequencing of works, compensation verification, safety risk communication, grievance handling, and community inclusion.

Rather than treating complaints or suggestions as administrative requirements, RREA's approach has been to consider them as operational intelligence. Each issue raised — during RAP disclosure, crop enumeration, corridor walks, GRM submissions, or community meetings — was used to improve project performance and maintain community trust.

Between 2016 and 2025, feedback from PAPs, elders, women's groups, youth representatives, farmers, and vulnerable households enabled the project to:

- adjust construction activities around farming cycles
- refine RAP verification and payment procedures
- improve the flow of information between the PIU, contractors, and communities
- strengthen the grievance redress system at both community and project levels
- identify and resolve safety concerns more rapidly
- increase participation of women and vulnerable persons in decision-making
- maintain continuous engagement across all towns in the hydropower, diesel, access road, and T&D influence areas

As of 2025, a total of 72 grievances have been recorded under the project and resolved, with the majority of complaints relating to the T&D section. This pattern reflects how beneficiaries increasingly relied on formal feedback pathways as trust in the system grew.

Across field visits in May 2014, May 2019, April 2024, and subsequent follow-ups through 2025, communities consistently emphasized three priorities: clarity of information, fairness in compensation, and protection of households and livelihoods during construction.

By responding to these priorities, RREA strengthened community ownership of the project and minimized social disruption. The subsections that follow provide a structured account of how each category of feedback translated into specific actions and improvements.

4.1 Safety & Technical Actions

Figure 7: Contractor replacing bare conductors with insulated cable — Johnny's Town, Voinjama District, September 2024

Safety was the most visible area where community feedback directly influenced design and implementation. When residents in Voinjama, Kolahun, and Foya voiced anxiety about medium-voltage (MV) lines crossing rooftops, RREA re-engineered those sections of the network using insulated conductors instead of bare lines. Approximately 363 rooftop crossings were insulated, and seven high-risk structures initially flagged for potential demolition were preserved in place, eliminating electrocution risk and avoiding displacement altogether.

Additional technical safety measures included:

- Installation of reclosers and improved transformer containment in densely populated areas.
- Fire-risk mitigation through awareness campaigns, especially in bushfire-prone stretches such as the Massambolahun–Fagunta corridor.
- Joint supervision missions by RREA, contractors, and local leaders in high-risk locations to maintain transparency and safety accountability.

Following the ENCO contractor accident near Mbaloma, which caused two fatalities and several injuries, RREA reinforced its Occupational Health and Safety (OHS) protocols. Contractor transport and work-at-height rules were tightened, and insurance settlements were secured for the affected families. Public communication after the incident helped dispel rumors and rebuild confidence in the project's commitment to safety.

Pre-energization safety awareness campaigns were launched in all three districts. Demonstrations taught residents how to live safely near power lines, respond to downed conductors, and protect children and farms from electrical hazards. In response, RREA expanded the pre-energization outreach into a more structured program. The team conducted village-level demonstrations on safe distances, farm-edge protection, and how to report fallen conductors through local leaders. RREA also distributed simple safety messages through radio, churches, mosques, schools, and market announcements.

In addition, the feedback provided strengthened the RREA resolve to stress the importance of awareness creation on the safe use of electricity. The Terms of Reference for the future operator of the network were improved by requiring the operator to educate end-users on the safe use of electricity to avoid in-house accidents and fires. Parents and other family members must be aware that curious children may put objects (including electricity-conducting objects) into electricity outlets, leading to serious injuries or electrocution. Further, awareness should be created about the danger of using damaged cables or unsafe appliances.

RREA informed end-users to use proper plugs fitting in the outlets provided. Ready Boards have UK sockets and any appliances connected to these outlets must have UK plugs. If the appliances do not have UK plugs, end-users must have the plugs replaced by a UK plug by a skilled person. RREA explained that in particular the cable clamp must be used correctly to avoid ripping wires from the pins. End-users should avoid using adapters to connect a non-UK plug to a UK socket. UK plugs often come with their own fuse, increasing safety, but requires awareness that in case the fuse blows it needs to be replaced by a technically skilled person. End-users should be particularly careful when using an extension cable or cord, as the sockets may lay on the floor within reach of children.

To enhance safety, RREA also reaffirmed the importance of earthing. Appliances with any metal part should be earthed. The safety on the Ready Board will trip if any earth current is detected. This is also the reason RREA insisted on proper earthing of each household connection by the Transmission and Distribution (T&D) system contractor.

At the start of construction, RREA also identified the absence of a functioning gauging station at the Mbaloma dam site as a critical safety and environmental risk. Without real-time hydrological monitoring, downstream communities would have been exposed to unpredictable water releases, seasonal flooding of gardens, and disruptions to fishing activities. Based on these early findings — and reinforced by end-user feedback — RREA prioritized the installation of the gauging station to stabilize downstream flows, protect livelihoods, and ensure long-term environmental safety.

RREA further strengthened its public-safety program by integrating end-user feedback from town halls, radio call-ins, and GRM submissions. Many households expressed uncertainty about internal wiring safety, voltage fluctuations, and the risk of fires. In response, RREA expanded its awareness sessions to include demonstrations on safe appliance use, load management, grounding, and the dangers of using frayed or substandard electrical cords.

The November 2025 mission showed that internal house wiring was in many houses not according to standard. RREA instructed the CLO to continue awareness creation on house wiring standards using the example house wiring board prepared by RREA. The CLO must also inform end-users that unscrupulous elements are trying to take advantage of end-users by offering house wiring services while they are not certified to do this and have no intention to deliver. These individuals are trying to take advantage of those who look forward to receiving electricity services from the Lofa mini grid.

To sustain these improvements during LIRENAP implementation, RREA committed to periodic community inspections, refresher briefings, and targeted outreach to women, youth, and elderly households. After project closure, these ongoing operational responsibilities will be carried forward by the designated operator, while RREA's role will shift to oversight during the handover process and ensuring that the operator maintains these safety and customer-service practices.

4.2 Compensation & PAP-Related Actions

Feedback on compensation and livelihoods directly shaped how the project implemented the Resettlement Action Plan (RAP) and its Addendum. Communities had insisted on fairness, transparency, and bank-based disbursement to protect vulnerable PAPs. In response, RREA and the PIU:

- Applied replacement-cost valuation across all affected assets.
- Delivered payments through secure bank transfers, avoiding cash distribution that could expose recipients to pressure.
- Verified ownership through public disclosure meetings and field validation.

A total of 146 PAPs received payments under the original RAP before construction began. As stringing continued, grievances about additional crops under the final line alignment were raised through the GRM. These were field verified, resulting in an Addendum RAP for 38 additional PAPs, all compensated at replacement cost.

In dense urban zones like central Voinjama, where households feared demolition due to rooftop spans, RREA adopted insulation and alignment adjustment instead of displacement, resolving community fears without payment disputes.

Land-related issues were addressed through voluntary donation agreements in Mbaloma (hydro site) and Balawala (DG site). Each donation was confirmed through local assemblies, witnessed by traditional authorities, and supported by ongoing communication to maintain transparency and avoid speculation.

These actions collectively ensured that compensation remained a continuous responsibility, not a one-time event, and that community cooperation was sustained throughout the construction phase.

4.3 Communication & Information Actions

Community requests for clear, direct, and continuous information led to a complete redesign of the project's communication approach. Early in implementation, limited updates during the hydropower-to-PV–BESS transition created rumors and frustration. Residents repeatedly said, "uncertainty scares people."

In response, RREA adopted a structured communication framework emphasizing predictability and inclusiveness:

- Regular town-hall meetings were held in all three districts, focusing on high-sensitivity areas such as Voinjama City, Honeyahun, and Mbaloma.
- Local radio programs were used to reach distant or inaccessible settlements. Call-in shows allowed real-time feedback in local languages.
- Advance briefings were provided to chiefs, women's leaders, and youth representatives before every major construction milestone, ensuring consistent information flow through trusted voices.
- Compensation and safety briefings were simplified for better community understanding, explaining payment procedures, grievance timelines, and household wiring requirements.

Women's groups were deliberately included in all engagements, responding to feedback that they should not have to rely on second-hand information. In later stages, communication efforts focused on energization readiness, explaining metering and safe household wiring procedures.

To further improve accuracy and reduce misinformation, RREA introduced community Factsheets in Mbaloma and other central locations, posting weekly updates on construction progress, safety notices, GRM contacts, and

upcoming visits. The project also deployed mobile loudspeaker announcements ("town criers") during peak construction periods to reach villages without radio coverage, particularly before energization and during safety campaigns.

During field missions, RREA observed that many households relied on informal networks for project updates. In response, the communication strategy was expanded to include direct door-to-door sensitization led by the Community Liaison Officer and women's representatives — ensuring that elderly residents, persons with disabilities, and renters received the same information as town leaders.

By maintaining frequent, two-way communication, RREA transformed information gaps into transparency, built community trust, and sustained participation throughout implementation.

4.5 Integrative Actions on Community Priorities

Beyond individual issues, RREA's overall responsiveness reflected an integrated approach to safety, fairness, cultural respect, and inclusion. Community concerns were not handled in isolation; they were addressed as part of a continuous dialogue with beneficiaries.

Key examples include:

- Cultural and Land Respect: In Honeyahun, construction paused until traditional rites were performed, reinforcing legitimacy. In Bakuma/Vaivama, youth and elderly participated in meetings confirming land donations and corridor stewardship.
- Social Accountability: Public disclosure of compensation lists, acknowledgment of voluntary land contributions, and consistent GRM follow-ups strengthened transparency.
- Institutional Responsiveness: The project's OHS reforms, public insurance settlements, and pre-energization safety briefings demonstrated accountability to community concerns.
- Sustained Engagement: Even after the hydropower transition, RREA continued direct communication with Mbaloma and nearby towns, reaffirming that their contribution still counted.

Together, these integrative actions turned community expectations into lasting cooperation. Beneficiaries began referring to LIRENAP as "our project," a reflection of ownership rooted in trust, fairness, and cultural respect.

Summary Table — Issues Raised vs. Actions Taken

Community Issue / Concern	What Communities Asked For	What the Project Did in Response
Bare MV conductors over rooftops and public areas	"Make the lines safe and protect our families."	Replaced bare conductors with insulated spans; installed reclosers and transformer safety improvements.
Potential demolition of rooftop structures	"Avoid demolitions and protect our homes."	Adopted insulation strategy and adjusted alignment to avoid displacement.
Fair and transparent compensation	"Compensate all losses at fair rates and pay the right person."	Implemented RAP with replacement-cost valuation, bank-based payments, and grievance-triggered Addendum RAP for 38 new PAPs.

Community Issue / Concern	What Communities Asked For	What the Project Did in Response
Cultural rites and sacred sites	"Respect our shrines and traditions before construction."	Verified and compensated cultural-site impacts; paused works in Honeyahun until rites were completed.
Land donation expectations	"Honour our contribution and keep us informed."	Maintained engagement with land donors in Bakuma, Balawala, and Mbaloma; acknowledged contributions publicly.
Fire and OHS risks	"Prevent accidents and enforce safety."	Conducted bushfire awareness campaigns, installed safety signage, and enforced OHS protocols post-ENCO incident.
Poor communication and rumor spread	"Keep us informed directly and regularly."	Expanded town halls, radio programs, and advance briefings to community representatives.

5. Key Themes & Beneficiary Priorities

Community feedback throughout LIRENAP's implementation converged around a clear set of priorities that transcended geography, livelihood, and social group. While the contexts of Voinjama, Kolahun, and Foya differed, the underlying expectations were remarkably consistent — people wanted safe, fair, inclusive, and sustainable electrification.

Safety First: The foremost priority was safety. Communities emphasized that electricity must "bring light, not danger." The call for insulated conductors, proper transformer placement, and bushfire awareness led to design changes that protected families and property. Safety has become the single most important benchmark by which beneficiaries judge project success.

Fairness and Livelihood Protection: Beneficiaries linked electrification with social justice. They expected transparent compensation, respect for smallholder crops, and equal treatment for women and elderly PAPs. The use of bank-based payments, replacement-cost valuation, and Addendum RAP verification reflected these demands. People now view the project as one that protects livelihoods rather than threatens them.

Cultural Respect and Trust: Communities equate respect for cultural rites and land agreements with respect for people themselves. RREA's decision to pause works in Honeyahun for traditional rites, and to continuously acknowledge voluntary land donors in Bakuma, Balawala, and Mbaloma, strengthened mutual trust and legitimacy.

Transparency and Two-Way Communication: Consistent, open communication became a cornerstone of trust. Beneficiaries appreciated being informed before major decisions and valued the radio and town-hall formats that allowed them to ask questions directly. This openness turned initial suspicion into cooperation and community ownership.

Inclusiveness and Gender Equity: Women and youth sought active participation rather than passive presence. Women's groups pressed for safety, affordability, and entrepreneurship opportunities; youth demanded training and jobs. These perspectives helped embed inclusiveness as a measurable safeguard and operational principle within project delivery.

Continuity and Local Ownership: Communities associated with the former Kaiha hydropower footprint called for continuity, fairness, and recognition. Their plea — "Don't forget the people who gave land for light" — led to deliberate inclusion in decommissioning and communication processes. Across Lofa, residents now speak of the project as "our grid," signaling genuine social ownership.

> *"LIRENAP's success has been rooted in listening and adapting. Safety, fairness, respect, transparency, and inclusion were not abstract ideals — they became actionable standards reflected in design, compensation, and engagement."*

— Section 5 Summary Insight — RREA

6. Outcomes of Actions — Results and Metrics

The actions taken in response to community feedback produced measurable and visible results across safety, compensation, communication, and social inclusion. These outcomes demonstrate that the project not only heard communities but also acted decisively, producing tangible benefits and improved public confidence ahead of energization.

6.1 Safety and Technical Outcomes

Community advocacy for safer infrastructure led to significant design improvements.

- 363 rooftop crossings were replaced with insulated conductors, preventing potential electrocution and eliminating displacement in dense settlements.
- Seven high-risk structures initially marked for demolition were preserved in place, proving that technical solutions could substitute for resettlement.
- Automatic reclosers and enhanced transformer containment were installed in critical locations, reducing fire and shock hazards.
- Zero community safety incidents occurred following the design changes, a marked improvement from early construction stages.
- OHS supervision was reinforced after the ENCO accident, and affected families received full insurance settlements, restoring confidence and credibility.

As a result, communities that once viewed the grid as dangerous now see it as a safe and beneficial transformation driven entirely by feedback-led design corrections.

6.2 Compensation and Livelihood Outcomes

Feedback on fairness and transparency translated into verified, documented results:

- 146 PAPs received payments under the Full RAP through secure bank transfers, with all recipients verified in the field.
- 38 additional PAPs were compensated under the Addendum RAP, covering previously unrecorded crop and land impacts.
- 100% of eligible PAPs were compensated at replacement cost, with no outstanding cases or grievances at closure.
- Livelihood Restoration activities, such as seed and tool support and financial literacy sensitization, were implemented for vulnerable PAPs to safeguard income continuity.

The outcome was a zero backlog in compensation and zero unresolved RAP grievances, reflecting a complete and transparent implementation process.

6.3 Communication and Community Confidence

Improved communication systems led to stronger community understanding, reduced rumor circulation, and higher project acceptance:

- Over 70 community meetings and 12 radio call-in programs were conducted between 2023 and 2025.
- Three district-level town halls per quarter created structured information exchange platforms.
- GRM maintained a 100% closure rate on 539 total cases logged since 2017 (76 under LIRENAP, 463 under SHS).
- Post-engagement surveys showed a shift from reactive complaints to proactive inquiries, with residents now asking about connection readiness and wiring, indicating confidence and ownership.

These metrics confirm that sustained communication converted early tension into collaboration, fostering trust between the PIU and beneficiaries.

6.4 Cultural and Land Engagement Outcomes

Community-led cultural protocols and land negotiations were respected and documented:

- One sacred forest ceremony at Honeyahun successfully completed before resuming works, preventing potential conflict.
- Voluntary land donations confirmed and documented in Bakuma/Vaivama (≈41 acres) for the PV–BESS site, Balawala for the DG site, and Mbaloma for the decommissioned Kaiha footprint.
- All donors publicly acknowledged, reinforcing transparency and sustaining long-term goodwill.

6.5 Gender and Inclusion Outcomes

Deliberate inclusion of women, youth, and vulnerable groups yielded measurable gains:

- Women's participation in consultation meetings increased from 34% in early sessions to over 52% by 2025.
- Youth groups contributed to safety awareness campaigns and pre-energization outreach in all three districts.
- Vulnerable households, including widows and elderly PAPs, received individualized compensation verification and confidential grievance follow-up.
- Local women's associations were integrated into the customer sensitization network for post-energisation safety and metering awareness.

6.6 Summary of Key Quantitative Outcomes

Outcome Category	Result / Metric	Verification Source
Safety & Technical	363 rooftop crossings insulated; 7 structures preserved; zero safety incidents post-insulation	As-built engineering report & PIU verification (2025)
RAP Implementation	146 PAPs (Full RAP) + 38 PAPs (Addendum RAP) fully paid	RAP database & PIU payment records
GRM Resolution	539 grievances (100% closure rate)	GRM registry (2017–2025)

Outcome Category	Result / Metric	Verification Source
Cultural Compliance	1 sacred site ceremony conducted; 3 land donations verified	Field reports & community resolutions
Community Communication	70+ meetings; 12 radio programs; 3 district town halls per quarter	Engagement logbooks & attendance sheets
Gender Participation	Women's participation grew from 34% → 52%	Meeting attendance analysis
OHS Performance	Zero community safety incidents post-insulation	Contractor OHS reports & PIU inspection logs

6.7 Overall Result

The cumulative effect of these feedback-driven actions is a complete shift in community perception — from skepticism to readiness. Safety is visibly improved, compensation is completed, communication is routine, and cultural respect is institutionalized. As of this reporting period, communities are not asking for assurances but for connection timelines, reflecting full social readiness for energization.

In sum, the LIRENAP project turned community feedback into measurable, documented outcomes, proving that sustained engagement and adaptive management can directly enhance both project performance and public trust.

7. Community Satisfaction and Perception

Figure 8: ***Community leaders, women, and youth gathered at a pre-energization consultation meeting in Massabolahun***

Community satisfaction with LIRENAP has grown progressively as the project moved from planning to near energization. The dominant perception across Voinjama, Kolahun, and Foya is that the project listened, acted, and delivered tangible results. Early skepticism, rooted in fears of unsafe wiring, delayed compensation, and unfulfilled promises, has been replaced by visible confidence and anticipation for power-on.

Residents now describe the project as “our light” and “our grid,” signaling a deep sense of ownership born from participation. Many community members recall the early Kaiha hydropower consultations and now see the PV–BESS and diesel generator installations as a continuation of that collective vision rather than a replacement. The shift from hydro to solar technology, once met with doubt, is now widely accepted because the transition was explained transparently and because safety and livelihood concerns were handled openly.

In communities where insulated conductors were installed, satisfaction levels are particularly high. Residents often cite these visible safety improvements as evidence that the project took their concerns seriously. Families who once feared losing their homes now express relief that electrification did not result in demolition or displacement. Elders and women leaders have frequently remarked that the project “brought light without breaking homes.”

Perceptions around compensation have also improved dramatically. The use of bank-based payments and the verification of all 184 PAPs under both the Full and Addendum RAPs reinforced the belief that the project treats people fairly. The Addendum RAP — triggered by grievances rather than external audits — has been viewed as proof that the GRM works and that the project is willing to correct its own oversights. This accountability has translated into strong community endorsement of RREA’s field teams.

Cultural respect has been another driver of satisfaction. The decision to pause work in Honeyahun until traditional rites were performed was described by local elders as an act of respect that “turned doubt into trust.” Similar appreciation was expressed in Bakuma, Vaivama, and Balawala, where land donors were acknowledged publicly. Communities interpreted these gestures not merely as administrative compliance but as moral recognition of their contribution to national progress.

Women and youth, initially underrepresented in meetings, now feel visibly included. Women’s groups are proud to have been consulted on safety and affordability issues and to see female leaders represented in final

engagement rounds. Youth associations have taken ownership of the network's protection, volunteering for awareness activities and helping communicate safe practices.

Communication has been the single strongest factor in shaping satisfaction. The radio call-in programs, town-hall updates, and direct follow-ups by GRM officers have made beneficiaries feel informed and respected. Instead of rumor and speculation, communities now rely on official channels for information about wiring readiness and connection timelines. As a result, community trust in RREA and its contractors has become institutional rather than personality-based — a lasting foundation for sustainability.

Overall, community perception has transitioned from cautious optimism to genuine partnership. The prevailing mood is one of anticipation rather than complaint, with residents eager to connect and willing to support operations through responsible usage, corridor protection, and payment compliance. Satisfaction is now defined not only by the promise of electricity but by the process through which it was achieved — safe, fair, transparent, and inclusive.

> *"In essence, LIRENAP's success in Lofa County is not only technical but relational. The people feel seen, respected, and heard. That sense of trust and shared ownership now stands as one of the project's most valuable outcomes."*
>
> **Abraham Bility, Social Safeguard Specilaist — RREA**

8. PDO-Linked Perception Scorecard

PDO-Linked Area	Community Perception Indicator	Baseline Sentiment (Pre-Implementation)	Current Sentiment (2025)	Change / Outcome	Evidence Source
Access to Modern Energy Services	% of community confident electricity will reach them	42% (expressed doubt about completion timelines)	95% (express optimism and readiness for connection)	+53% increase in confidence and expectation of timely energization	Town-hall feedback; pre-energization meetings
Safety and Reliability	% of respondents who consider the MV/LV network safe	28% (feared electrocution, fires)	93% (describe network as 'safe light')	+65% improvement in safety perception	Post-insulation consultations; GRM records
Fairness and Transparency (RAP/GRM)	% of PAPs satisfied with compensation and grievance handling	46% (expressed fear of bias and delay)	100% (all compensated; no active grievance)	+54% satisfaction gain and zero pending cases	RAP & GRM closure reports
Cultural Respect and Local Trust	% of communities confirming cultural protocols were respected	50% (uncertain or skeptical)	96% (affirmed rites and land acknowledgment)	+46% trust gain	Field verification and elders' testimony
Inclusiveness and Gender Participation	Share of consultation participants who are women	34% (early consultations)	52% (2025 engagement sessions)	+18% gender inclusion gain	Attendance records; meeting rosters
Information and Communication Transparency	% of communities satisfied with project communication	40% (reported rumor and confusion)	91% (receive regular updates via radio/town halls)	+51% improvement in perceived transparency	Radio call-in logs; outreach attendance
Livelihood Continuity and Economic Readiness	% of PAPs and local groups reporting restored or protected livelihoods	38% (expected loss of income or crops)	88% (report stability and anticipation of economic benefit)	+50% improvement in livelihood security perception	RAP monitoring forms; FGD notes
Overall PDO-Linked Satisfaction	Weighted average of above indicators	40% (initial baseline)	88% (current aggregated sentiment)	+48-point improvement across all key areas	Beneficiary Feedback Survey & validation logs

The overall Perception Satisfaction Index rose from 40% at baseline to 88% in 2025, indicating strong alignment between community sentiment and the Project Development Objective (PDO) of expanding access to safe, reliable, and inclusive modern energy services in Lofa County.

9. Feedback Responsiveness Performance

KPI Category	Indicator / Metric	Result (2017–2025)	Performance Interpretation	Example of Evidence or Case
1. Feedback Registration Efficiency	Average time between feedback submission and registration in GRM log	2.3 days	Highly responsive; most community complaints logged within the same week received	Safety complaint on rooftop conductors in Voinjama recorded 48 hrs. after meeting
2. Verification & Field Response Time	Average time from registration to field verification	6.5 days	Timely verification missions dispatched within one week for 90% of cases	Addendum RAP crop verification in Massambolahun–Fagunta initiated within 5 days
3. Resolution Timeliness	Average time from complaint registration to closure	14 days	Strong performance; exceeded World Bank benchmark (<30 days)	Transformer siting grievance in Kolahun resolved in 11 days after site adjustment
4. Grievance Closure Rate	% of total grievances resolved and closed	100% (539/539 cases)	Exceptional; full closure achieved across LIRENAP and SHS components	All LIRENAP safety and compensation cases closed before energization
5. Repeat or Escalated Cases	% of grievances re-opened or escalated to higher authority	0%	Indicates durable resolutions and community confidence in GRM fairness	No grievances escalated to EPA, World Bank, or court level
6. Information Feedback Cycles	% of feedback cases followed by communication back to complainant	96%	Very high; majority of cases accompanied by return visits or radio clarifications	RREA follow-up radio update on insulation works in Voinjama
7. Stakeholder Meeting Responsiveness	Average time between stakeholder request for information and official response	4 days	Responsive; information usually provided within the same week	Honeyahun elders' request for cultural rite clarification responded to in 3 days
8. System Accessibility	Number of distinct feedback channels functioning	4 active channels	Wide access; multiple entry points for community input	Hotline, GRM desk, radio programs, and community liaison officers
9. Feedback Integration Rate	% of substantive feedback translated into technical or management action	82%	High; majority of community issues resulted in design, policy, or engagement adjustments	Safety feedback led to insulation of 363 rooftop spans

KPI Category	Indicator / Metric	Result (2017–2025)	Performance Interpretation	Example of Evidence or Case
10. Community Satisfaction with Responsiveness	% of beneficiaries rating feedback handling as 'timely and fair'	93%	Reflects sustained trust in RREA and GRM function	Reported during pre-energization perception survey in Foya

> *"Between 2017 and 2025, LIRENAP maintained a 100% closure rate, an average 14-day resolution time, and over 90% community satisfaction with responsiveness. The feedback system evolved from a procedural safeguard into an operational management tool."*
>
> **Abraham Bility, Social Safeguard Specilaist — RREA**

10. Grievance Redress Mechanism (GRM) Results

539
Total Cases
76 LIRENAP + 463 SHS

100%
Closure Rate
All resolved

14 days
Avg Resolution
vs. WB benchmark 30 days

94%
Community Satisfaction
Rate GRM 'effective'

GRM Performance Area	Indicator / Metric	Result (2017–2025)	Trend / Interpretation
Total Cases Recorded	Number of grievances registered under LIRENAP & SHS components	539 total (76 under LIRENAP; 463 under SHS)	Comprehensive coverage of all feedback categories since inception
Case Distribution	% by category	Safety & OHS – 22 (4%); Compensation & Livelihoods – 18 (3%); Routing & Technical – 12 (2%); Employment & Local Hiring – 10 (2%); Communication & Information – 9 (2%); Cultural & Land – 5 (1%); SHS-related – 463 (86%)	Safety, compensation, and SHS issues dominated GRM use
Resolution Rate	% of grievances resolved and closed	100% closure (539/539)	All cases fully addressed; none pending or escalated
Average Resolution Time	Days from registration to closure	14 days (average)	Consistent with World Bank benchmark of <30 days for non-complex cases
Recurrent or Reopened Cases	% of closed cases later reopened	0%	Demonstrates durable and satisfactory resolutions
Gender Distribution of Complainants	% of female vs. male complainants	41% female, 59% male	Women used the system more frequently after 2022 awareness sessions
Primary Access Channels	% of cases by entry method	GRM Hotline – 38%; Town-Hall Reporting – 27%; Radio/Call-ins – 22%; Community Focal Points – 13%	Multi-channel access strengthened inclusion and reach
Average Feedback Response Time	Days between complaint submission and first response	2.3 days	Rapid response: most cases acknowledged within 48–72 hours
Verification Field Visits	% of grievances that required site verification	64%	Majority resolved through joint field missions confirming claims

GRM Performance Area	Indicator / Metric	Result (2017–2025)	Trend / Interpretation
Documentation Compliance	% of grievances with full record (forms, photos, signatures)	98%	High compliance rate; strong audit trail for accountability
Overall Community Satisfaction	% of respondents rating the GRM "effective or very effective"	94%	Indicates strong trust and accessibility of the mechanism

> *"Between 2017 and 2025, the LIRENAP GRM achieved full functionality, handling 539 total grievances with 100% closure and an average 14-day resolution timeframe. The GRM now functions as a core accountability and early-warning system."*
>
> **Abraham Bility, Social Safeguard Specilaist — RREA**

11. Expectations for Operations

As LIRENAP transitions from construction to full energization, beneficiary expectations have shifted from anticipation to accountability. Communities across Voinjama, Kolahun, Foya, Bakuma, and surrounding settlements now measure success not by visible infrastructure but by service quality, affordability, and reliability once electricity begins to flow.

Affordability and Household Readiness for Electricity Use

Across the project area, communities consistently emphasized that the long-term success of the distribution network depends on whether households can afford to connect, wire their homes safely, and maintain basic appliances. Many residents, particularly women, renters, and low-income families, expressed concern that without clear guidance on connection procedures, wiring standards, and expected household responsibilities, they might be left out of the benefits after the network is energized. RREA addressed these concerns by explaining that the Ready Board would be installed free of charge to ensure immediate access for all households, while formal house wiring beyond the Ready Board would be the responsibility of each household and must be carried out by certified electricians. Once this distinction was clarified, communities understood the process and generally welcomed the Ready Board as an affordable option for initial connection.

Beneficiaries therefore requested simple, predictable information on connection steps, wiring requirements, and payment channels for future services. Lessons from the Solar Home Systems (SHS) subcomponent, where mobile-money platforms and phased payment arrangements made access easier for rural households, reinforced the need for user-friendly systems that do not disadvantage farmers with seasonal incomes.

RREA also clarified that households will be required to pay for electricity once the network is energized and that tariffs will follow the approved structure. Communities generally accepted that electricity comes with a cost, noting that the tariff would be reasonable as long as it remains predictable and comparable to what they already spend on kerosene, generators, and dry-cell batteries. Residents described a “high” tariff as one that fluctuates or exceeds their seasonal income, while a “low” tariff was one they can plan for without sacrificing basic needs.

RREA further explained that connection is voluntary and that households who cannot afford full wiring can still access the free Ready Board as an entry option. Most residents indicated they still wished to connect, even with low initial consumption. Those not planning to connect immediately did not report feeling excluded; instead, they asked to remain informed about safety notices and grievance channels so that unconnected households continue to be part of community-level decisions related to the network.

Communities also noted that safe, compliant household wiring is essential to prevent fires, electrocution, and appliance damage. RREA provided guidance through on-site demonstrations and community briefings held during construction and pre-energization visits. The team used a sample wiring panel to show households what safe wiring looks like — PVC pipes, junction boxes, correct color-coded wires, switches, and sockets — and explained the difference between the free Ready Board and formal house wiring. These sessions were delivered in village meetings, roadside gatherings, and household clusters, with additional explanations offered through town-crier announcements and radio messages.

Overall, beneficiaries expect that electricity access will be achievable, transparent, and grounded in realistic household capacities.

Reliable and Continuous Power Supply

Beneficiaries link reliability directly to trust. Residents expect consistent, 24-hour service, particularly for schools, health centers, and businesses. The term “24-hour service” means uninterrupted availability, not that schools operate around the clock. Even though schools are not open 24 hours, they still require continuous power for security lighting, charging devices, running administrative equipment, and supporting evening study programs or community meetings. The expectation for “24-hour” electricity therefore reflects the community’s desire for dependable, always-available power for essential services, not a literal 24-hour school operation.

Youth and women’s groups stressed that reliability would define the project’s true success — enabling productive use, small enterprises, ICT access, refrigeration, and extended study hours. Frequent outages or delayed repairs, they noted, would quickly erode public confidence. To sustain community satisfaction, residents emphasized the need to be informed whenever power will be switched off, reduced, or undergoing repairs.

Customer Care and Responsiveness

Communities want the same level of responsiveness seen during implementation to continue under operations. They expect an accessible customer service system, including a grievance channel for billing issues, service interruptions, or safety concerns. Beneficiaries anticipate that response times during operation will mirror the GRM’s earlier efficiency — acknowledging issues within days and resolving them within weeks. Regular field visits, community meetings, and radio programs remain expected as part of routine customer engagement.

RREA addressed this by ensuring that the future operator will be required to establish a functioning Customer Care Unit as part of its operational obligations. During the handover planning, RREA will incorporate community expectations — such as clear channels for billing inquiries, service-interruption reporting, and safety complaints — into the operator’s service requirements.

Productive Use and Socio-Economic Benefits

Residents and local institutions associate electricity with new opportunities. Expectations include expanded access to refrigeration, agro-processing, welding, tailoring, ICT services, and entertainment enterprises that will stimulate local economies. Schools and clinics anticipate improved learning and healthcare outcomes through stable power for lighting, refrigeration, and digital equipment. Communities expect training and technical support to help them harness electricity for productive use rather than limiting it to household lighting.

RREA addressed this by integrating productive-use awareness into the requirements being prepared for the future operator. While RREA cannot deliver full productive-use training itself, it has ensured that outreach, demonstrations, and basic guidance on income-generating uses of electricity will form part of the operator’s responsibilities after onboarding.

Transparency and Local Involvement

Trust built during construction must continue. Beneficiaries expect RREA and operators to maintain open communication about outages, and maintenance activities. They also expect continued local participation in monitoring, safety awareness, and corridor protection. Youth groups have volunteered to act as community safety monitors, and elders want a continued role in mediating small disputes or providing feedback.

The critical period during testing and initial energization will be managed through a short transitional arrangement, during which the PIU and the contractor will be on standby to address any immediate issues that arise. Once the network becomes operational, troubleshooting and system maintenance will fall under the responsibilities of the future operator. RREA's role at that stage will be to oversee the handover process, verify that the operator has the required response systems in place, and ensure that community safety concerns raised during construction are fully integrated into the operator's obligations.

Environmental and Safety Stewardship

Communities expect operational staff to uphold the same safety and environmental diligence shown during construction. This includes regular vegetation clearance, proper transformer containment, and continued fire awareness campaigns during the dry season. Residents emphasized that safety should not end with commissioning — it must become a continuous part of network management.

RREA explained that these fire-awareness efforts will continue through both the operator's routine safety program and the community's own responsibilities. During consultations, RREA asked residents to avoid burning near the pole corridor, clear light vegetation before the dry season, and report any signs of smoke or fire immediately through local leaders or the RREA hotline. Youth groups agreed to watch the corridor during burning periods, while elders committed to reinforcing local by-laws on safe farming and fire control.

Sustainability and Long-Term Trust

Above all, beneficiaries expect the integrity of the engagement model to endure. The consistency, fairness, and openness that defined LIRENAP's construction phase must continue under operations. Communities expect accountability in performance, inclusiveness in communication, and reliability in service delivery. They now view electricity not merely as infrastructure, but as a social contract — one that promises safety, fairness, and opportunity in exchange for trust, payment, and cooperation.

In summary, operational expectations are grounded in five core principles:

- Affordability and Household Readiness for Electricity Use
- Reliable, continuous power supply
- Responsive and transparent customer service
- Support for productive-use and livelihood enhancement
- Sustained community engagement and safety vigilance

Meeting these expectations will determine the success of LIRENAP's transition from infrastructure delivery to long-term service impact — and will define whether the trust built during implementation translates into enduring community partnership and high connection uptake.

To support this transition, RREA has already incorporated the community's priorities into the draft operator requirements prepared during the final phase of implementation. These requirements — covering customer service, grievance handling, safety practices, productive-use awareness, and communication on outages and maintenance — have been reflected in the draft operator Terms of Reference and the operational framework that will guide the future service provider. Once procurement is completed, these provisions will form part of the operator's contractual obligations.

Because LIRENAP financing ends at commissioning, RREA clarified that its post-project role will focus on transition oversight rather than direct operation. During the first months after energization, the PIU and contractor will remain available for commissioning-related troubleshooting, after which operational responsibilities will formally shift to the contracted operator. RREA will verify that the operator establishes a functioning customer-care system, maintains regular engagement with communities, and continues fire-awareness and safety messaging during the dry season. This approach ensures continuity between construction and operation, safeguards the trust built during implementation, and aligns community expectations with the long-term institutional setup.

12. Lessons Learned

Implementation of LIRENAP reaffirmed that the sustainability of rural electrification depends not only on technical design but on trust, transparency, and local participation. Each stage, from planning through construction, revealed practical lessons about how responsiveness, safety, and inclusiveness translate into real development outcomes.

1. Safety Must Be Treated as a Social Imperative, Not Just a Technical Standard

Community anxiety over bare MV conductors, transformer proximity, and bushfire risks underscored that technical compliance alone does not guarantee social acceptance. The decision to insulate 363 rooftop spans and redesign seven high-risk structures demonstrated that visible safety action builds visible trust. Early, transparent communication about risks prevents misinformation and resistance — an essential lesson for all future electrification projects.

2. Compensation is a Continuous Responsibility, not a One-Time Event

The experience of implementing both the Full RAP (146 PAPs) and Addendum RAP (38 PAPs) showed that compensation systems must stay open and adaptive. Field verification triggered by grievances rather than audits proved that accountability should be iterative. Bank-based payments protected vulnerable PAPs and preserved dignity, while continuous verification prevented resentment and strengthened social legitimacy.

3. Communication Is the Strongest Safeguard

Silence breeds suspicion. When early uncertainty surrounded the transition from Kaiha hydropower to the PV–BESS system, anxiety rose sharply. Once RREA increased town-hall meetings, radio call-ins, and advance community briefings, confidence was quickly restored. Frequent, two-way communication should therefore be institutionalized — not treated as optional — throughout implementation and operations.

4. Cultural Respect Creates Lasting Social License

The project's engagement with Honeyahun elders — pausing works to perform traditional rites before resuming construction — proved that respecting local customs prevents delays, conflict, and reputational damage. Voluntary land donations in Bakuma, Balawala, and Mbaloma similarly demonstrated that when respect and transparency are visible, communities willingly cooperate. Development progresses faster when cultural legitimacy is secured.

5. Inclusion Strengthens Ownership and Reduces Risk

Women's associations, youth groups, and vulnerable households actively shaped LIRENAP's outcomes. Their participation transformed the project from an external intervention into a shared local enterprise. Separate Focus Group Discussions (FGDs) for women improved the relevance of safety messaging, while youth participation in corridor clearing and awareness campaigns enhanced stewardship. Inclusiveness, therefore, is not just ethics — it is practical risk management.

6. Responsive Feedback Systems Build Institutional Credibility

The GRM's 100% closure rate and average 14-day resolution time demonstrated that prompt, transparent responses transform complaints into collaboration. Communities no longer viewed the mechanism as bureaucratic, but as a trustworthy channel for correction and dialogue. The lesson is clear: responsiveness is performance — and every complaint is an opportunity to strengthen confidence.

7. Technology Transitions Require Parallel Social Transition

The move from the Kaiha hydropower scheme to the PV–BESS + DG system revealed that when technology shifts, communication must shift too. Technical justification alone is insufficient; communities must understand the reasons, risks, and benefits in plain language. This social transition is what converts potential disappointment into continued ownership.

8. Visibility of Actions Drives Perception of Accountability

Beneficiaries evaluated the project based on what they could see — in lines, signage, safety campaigns, and follow-up visits. Visual evidence of problem-solving built stronger trust than written assurances. Future projects should ensure that every community concern results in an observable correction or feedback event, closing the loop between talk and action.

9. Partnership Between Agencies and Communities Is the True Infrastructure

The trust established between RREA and local leaders now serves as the invisible infrastructure supporting the physical grid. Communities have pledged to protect poles, prevent fire damage, and report hazards — voluntary actions made possible by shared ownership. This demonstrates that long-term success depends on partnership continuity, not just project completion.

10. Beneficiary-Centered Monitoring Should Continue into Operations

The same participatory monitoring and GRM structure that worked during construction should remain active during operations. Sustaining these channels will ensure that tariff issues, service complaints, and safety matters continue to be resolved early — protecting both community confidence and institutional accountability.

> *"LIRENAP's key lesson is that responsiveness builds resilience. By listening, adapting, and visibly acting on beneficiary feedback, RREA not only delivered safer infrastructure but also earned enduring trust."*
>
> Moses Saah, Community Liaison Officer, RREA

13. Conclusion

The implementation of LIRENAP in Lofa County has demonstrated that the foundation of successful rural electrification is not infrastructure alone — it is trust, accountability, and community partnership. Through continuous engagement, transparent compensation, visible safety action, and cultural respect, the project transformed public skepticism into collective ownership.

From the earliest consultations to the final stages of network completion, communities saw their own voices reflected in key decisions. The insulation of 363 rooftop spans, resolution of seven high-risk structures without displacement, full compensation of 184 PAPs, and 100% closure of all 539 grievances stand as measurable outcomes of this participatory approach. These achievements are not merely technical milestones; they are expressions of social credibility and institutional maturity.

Community sentiment has shifted decisively from doubt to readiness. Residents no longer ask whether electricity will come — they now ask how soon they can connect, how much it will cost, and how to maintain their meters responsibly. This transformation in mindset represents one of the project's most enduring successes. It reflects not only progress in access to energy but also a strengthening of confidence in government institutions and the World Bank's collaborative approach through the Rural and Renewable Energy Agency (RREA).

As LIRENAP enters the operational phase, communities expect continuity in the principles that earned their trust: safety, fairness, affordability, reliability, and transparency. Meeting these expectations will be essential for achieving the Project Development Objective (PDO) of expanding access to modern, sustainable energy services while promoting local socio-economic growth.

The project's greatest accomplishment lies in the alignment between technical delivery and social acceptance. Electrification has evolved from being an external intervention to a shared achievement — one that belongs to the people of Lofa and stands as a model for future renewable energy programs across Liberia.

> *"Ultimately, the success of LIRENAP proves that when development is guided by listening, adaptation, and respect, power does more than light homes — it unites communities, strengthens institutions, and energizes trust."*
> **— Section 13 — Conclusion, RREA Beneficiary Feedback Report 2026**

PART B

PART B: Market Development of Stand-Alone Solar Home Systems (SHS)

14. Methodology — SHS Component

This section explains how beneficiary and market feedback were gathered, validated, and incorporated into the design and implementation of the Solar Home Systems (SHS) subcomponent of LIRENAP. The scope and timeframe covers the SHS portfolio from the early implementation and performance assessment period (May 2016–December 2018) through the transition to a private-sector–led distribution model and final rollout (2018–end 2023), with post-closure supervision insights extending into 2025.

Data Sources

Data sources used in feedback collection and verification included:

- Primary field and stakeholder engagement: Retailer and distributor coordination meetings; structured household follow-up visits; consultations with women's groups, youth associations, and market cooperatives; radio call-in discussions; vendor service desks and toll-free support lines; distributor-managed grievance/complaints logs; and joint RREA–vendor verification missions in affected communities.
- Administrative and market records: Vendor sales and PAY Go repayment summaries; after-sales, warranty and repair registers; customer relationship management platforms, product return and replacement logs; stock movement and distribution sheets; AECF/REACT Household Solar monitoring reports; and Participation Agreements outlining performance expectations for the five designated importers/distributors.
- Independent evaluation and analytical studies: The Component 3 Implementation Evaluation (May 2016–December 2018) and the 2018 Market Barriers Assessment conducted by the Tony Blair Institute (TBI), both of which documented operational constraints and market readiness conditions.
- Policy and quality regulation context: National technical standards for off-grid solar products, pre-shipment conformity inspection requirements, and import tariff and GST suspension measures which influenced pricing structures, commercial incentives, and affordability for end-users.

Engagement Approach

Because the SHS subcomponent is market-driven and operates through private importers and retailers rather than a fixed project worksite, the engagement approach centered on maintaining continuous feedback loops between consumers, retail vendors, distributors, and RREA. Regular coordination meetings with the five Participating Agents and their affiliated retail networks were used to track sales volumes, PAYGo repayment performance, warranty claim patterns, and logistical considerations, including the movement of stock to remote counties. This retailer engagement allowed the project to monitor real-time commercial behavior rather than relying solely on periodic reporting.

At the household and community level, structured follow-up visits and small discussion groups were conducted to understand how systems were being used for household lighting, children's study periods, small business

activities, and mobile phone charging. These interactions also provided insight into affordability perceptions, payment discipline under PAYGo contracts, and user experiences with maintenance and after-sales service.

Recognizing that women are key household energy decision-makers and typically manage daily system use, targeted engagement was carried out through women's associations, savings groups, and market cooperatives. Product instructions and PAYGo payment explanations were simplified and delivered in local languages and Liberian English, often using pictorial demonstration materials.

Public-facing information channels complemented direct engagement. Radio call-in programs, community roadshows, storefront live demonstrations, and SMS notifications were used to clarify warranty rights, battery care, PAYGo lockout procedures, and points of contact for service issues.

Figure 2 Display of the Solar Products (at Roadshow and Energy Fair events)

Monitoring, Verification, and Decision-Making

Monitoring indicators included sales uptake and geographic coverage, effective end-user pricing and PAYGo repayment trends, rates of warranty claims and product returns, after-sales resolution timelines, and inclusion of women and vulnerable households among beneficiary groups. Data from community feedback, vendor reporting, and call-center logs were cross-checked against RREA–vendor field verification missions. Where discrepancies or recurring concerns appeared, targeted follow-up visits and retailer business reviews were conducted to confirm the underlying issue before making program adjustments.

Validated findings informed several key adaptations, including the introduction of a credit-based wholesale or lease-to-own model ("sell-then-pay") to reduce retailer cash flow barriers, clearer PAYGo customer messaging and aligned SMS reminders, standardized warranty and repair procedures, expanded public awareness in local languages, and the phased enforcement of technical quality standards to prevent low-durability imports.

Throughout the process, personal data were handled confidentially, participation in feedback activities was voluntary, and supervisory spot checks were used to maintain data reliability. Limitations included inconsistent retailer reporting in some periods, household income seasonality affecting PAYGo repayment signals, and the inability to trace some anonymous radio feedback. These limitations were mitigated by repeat engagement cycles, cross-verification of records, and escalation to joint field review where necessary.

15. Beneficiaries Feedback Collected — SHS

Note: A number of grievances recorded during the SHS rollout cannot be cleanly separated between the Lighting Lives in Liberia (LLL) program and LIRENAP Component 3, because many of the inherited LLL units were distributed, refurbished, or serviced during the LIRENAP implementation period. End-users often reported issues under the broader "RREA solar program" without distinguishing whether their system originated from LLL or LIRENAP. For reporting purposes, all SHS complaints addressed during the LIRENAP implementation period were captured in the consolidated complaint register, resolved through the same vendor support structure, and used to inform corrective actions under LIRENAP Component 3.

15.1 System Quality

Initially it was the intention to distribute the 17,659 solar systems inherited from Lighting Lives in Liberia (LLL). However, RREA received many complaints that the systems were outdated and of poor quality, largely due to the extended storage period between the close of LLL and the start of LIRENAP activities. The batteries in particular showed deteriorated capacity, resulting in shortened lighting hours and inconsistent charging performance.

This feedback reduced retailer confidence in product reliability and affected end-user willingness to purchase. As a result, RREA, in consultation with the World Bank, reassessed the distribution approach and initiated a refurbishment and quality-check process prior to onward distribution to communities and retailers.

15.2 Retailers Cash Flow & End-Users Affordability Concerns

Under the initial arrangement, the inherited LLL systems had to be purchased by vendors who in turn would sell these systems to end-users. This caused a cash flow problem for participating vendors. They had to invest significant amounts of funds while the return was uncertain. The market was untested and initial experience by end-users was not good. Several vendors expressed hesitation in procuring additional stock and requested supportive measures to ease liquidity pressure. This feedback highlighted the need for a modified distribution and financing approach, in which RREA would play a role in reducing the initial cash burden to allow retailers to participate in the SHS market without absorbing disproportionate financial risk. Also, the legacy LLL SHS distributed under LIRENAP were not PAYGo-supported and therefore did not adequately address the affordability barriers for end-users.

15.3 Market Distortion

Vendors of SHS in Liberia complained that LIRENAP was distorting the market by facilitating the distribution of lower-cost SHS. It was hard for vendors to compete with the LIRENAP-supported systems. Further, LIRENAP created the expectation that subsidized systems would be brought into the country, which caused customers to postpone their purchase of SHS in the market. This feedback signaled the need to gradually transition from project-supported stock to a private-sector–led import and pricing structure to preserve fair competition and market sustainability.

15.4 Retail Network Coverage Constraints (Distribution Bottlenecks)

The roll-out of SHS was limited by the slow expansion of the retail network into rural and semi-urban markets. Out of the 136 planned retail points, only 27 (19.85%) were established during the early implementation phase, and only 26 (19.12%) received initial start-up stock. This limited the visibility and physical availability of SHS in target communities. Because other demand stimulation activities — such as radio awareness campaigns and local

sales demonstrations — were dependent on having products physically available, these bottlenecks delayed consumer uptake and contributed to uneven access across counties. Communities repeatedly emphasized that lack of local retail presence increased transport costs and made it difficult to return systems for repair or warranty service.

15.5 Private Sector Awareness and Engagement Gaps

Several private retailers reported uncertainty regarding RREA's evolving role in the market, particularly during the transition away from direct bulk procurement. A planned national orientation and vendor onboarding event — intended to clarify procedures for private importation, retail participation, PAYGo support, and access to tariff exemptions — was cancelled. As a result, some prospective distributors remained unaware that RREA was no longer the importer, leading to hesitation among new market entrants and slower-than-expected growth in the retail network. This feedback highlighted the need for clearer communication, onboarding, and investment-readiness support for prospective SHS distributors to strengthen the commercial supply chain.

16. Incorporation of Beneficiary Feedback in Project Design

16.1 System Quality

To address the system quality concerns, RREA organized refurbishing of the systems inherited from LLL (replacing the battery) and reduced the selling price to make the proposition more attractive. This refurbishment process included basic functionality testing before release to retailers and institutions. The adjustment responded directly to feedback from retailers and users about reduced battery capacity and inconsistent lighting performance. While this measure improved usability of the remaining stock, it also informed the subsequent project decision to transition toward procuring and distributing only quality-verified systems through private-sector importers, in line with market maturity and sustainability considerations.

16.2 Retailers Cash Flow & End-Users Affordability Concerns

In response to participating vendors' cash flow concerns, RREA decided to modify the SHS component and provide systems to retailers on credit. Retailers only needed to pay RREA after they sold the system to end-users. Using this new approach, RREA managed to distribute 11,834 systems to retailers. This adjustment directly addressed the liquidity constraints raised during consultations, where vendors indicated that upfront capital requirements limited their ability to carry inventory and expand outreach into rural and peri-urban markets. By shifting to a sell-then-pay or lease-to-own and finally a PAYGo model, the Project reduced retailer financial exposure, encouraged stocking of SHS units in more remote counties, and supported gradual development of a functioning commercial distribution chain. This approach also enabled retailers to test market demand without taking on unsustainable financial risk.

16.3 Market Distortion

Because of complaints of market distortion, RREA proposed and the World Bank agreed to change the approach by withdrawing RREA from the supply chain earlier than planned and leave import of solar systems to the private market. LIRENAP support would be limited to policy support to facilitate exemption from import tax, promotion of SHS and awareness creation. On 27 April 2022 the President of Liberia issued Executive Order No. 107 Suspending import duty on Off-Grid Solar Renewable Energy Products. Further, Guidelines for Importation of Solar Energy Products Into Liberia and Technical Regulations for Solar Products and Appliances were developed. These changes, informed by beneficiary feedback, resulted in sales by participating vendors of 45,829 systems by the end of 2023, benefitting approximately 192,652 people.

16.4 Knowledge Development

Beneficiaries of the earlier Solar Home Systems (SHS) program raised concerns about affordability, product reliability, and slow after-sales support. These issues, although from a now-closed component, shaped future approaches to off-grid engagement and informed communication practices for the mini-grid rollout.

In response to SHS feedback, the project:

- Expanded radio and roadshow campaigns to educate consumers about product quality, warranty rights, and safe installation.
- Supported Local Retail Partners (LRPs) by facilitating bulk transportation of SHS units to counties, lowering end-user costs caused by poor road access.

- Introduced mobile-money payment models to make products more affordable through instalment payments.
- Provided vendor training on customer care and warranty handling, improving consumer trust.
- Partnered with national initiatives such as LEAP Network and Light Up Liberia, strengthening retail networks and after-sales capacity.

These actions created a more transparent and reliable SHS market environment and left lasting lessons for ongoing RREA projects — particularly on affordability, responsiveness, and rural service continuity.

16.5 Response to Retail Network Coverage Constraints

Limited expansion of retail outlets and slow stock seeding in rural and semi-urban markets restricted consumer access and delayed demand stimulation activities. In response, the Project:

- Revised the distribution strategy, shifting from a centrally coordinated retail expansion model to a Participating Agent model, whereby vendors selected and developed their own retail networks.
- Introduced a credit-based wholesale supply arrangement, allowing retailers to secure initial inventory without heavy upfront capital commitment.
- Integrated performance expectations into Participation Agreements, requiring geographic expansion benchmarks and minimum service coverage zones.
- Strengthened vendor outreach and business training, improving the capacity of retailers to maintain stock and operate in rural markets.

These measures enabled systematic growth of the national retail footprint and supported the emergence of a self-sustaining distribution network.

16.6 Response to Private Sector Awareness and Market Entry Challenges

Uncertainty regarding RREA's evolving role and limited communication on private importation procedures slowed new vendor entry into the market. In response, the Project:

- Formally disengaged RREA from direct procurement, transitioning the role of importer and distributor fully to the private sector.
- Conducted targeted vendor engagement sessions to clarify procurement, import duty exemptions, PAYGo integration, and retail participation procedures.
- Aligned the market development approach with the 2018 Tony Blair Institute (TBI) Market Barriers Study, which emphasized private-led supply chains, duty exemption advocacy, and quality assurance enforcement.
- Facilitated linkages with external financing mechanisms, including the AECF/REACT Household Solar program, enabling working capital support for Participating Agents.
- Standardized messaging to ensure that market actors understood that LIRENAP's role had shifted from product supplier to policy, market facilitation, and quality assurance support.

This transition improved confidence among private distributors, encouraged additional firms to enter the market, and supported the development of a commercially viable SHS ecosystem.

17. Analysis and Conclusions — SHS Component

The evolution of the Solar Home Systems (SHS) subcomponent under LIRENAP demonstrates how beneficiary and market feedback continuously shaped implementation choices, distribution structures, financing arrangements, and ultimately market sustainability. Because this subcomponent operated through a private-sector–driven supply chain rather than a fixed project worksite, its performance depended largely on the incentives, constraints, and confidence of retailers, distributors, and end-users. Feedback therefore became the primary mechanism for real-time program adjustment.

A key lesson from implementation is that the inherited Lighting Lives in Liberia (LLL) systems — though essential as an initial asset base — had significantly deteriorated during prolonged storage. The weakened battery capacity and resulting reduction in lighting hours underscored that hardware quality is fundamental to consumer trust and demand. The refurbishment effort addressed immediate usability concerns, but more importantly, it reinforced the need for long-term quality assurance and reliable technical standards for future market development.

Retailer engagement revealed a second structural barrier: limited working capital for upfront procurement. Liquidity constraints restricted retail presence in remote counties and slowed geographic expansion. The introduction of a credit-based “sell-then-pay” model proved transformative. By reducing retailers’ financial exposure and enabling them to stock inventory without heavy upfront payments, the project shifted from a supply-push model to a market-responsive distribution system aligned with actual consumer demand.

As the market matured, feedback highlighted the risk of continued project-supported stock distorting competition. Non-participating vendors perceived the system as disadvantageous to private importers. In response, RREA withdrew earlier than planned from direct procurement and shifted its role toward market facilitation — duty exemption advocacy, technical regulation, and consumer-awareness support. This transition restored competitive neutrality, encouraged new market entrants, and strengthened private-sector participation.

Household-level feedback, particularly from women who managed day-to-day system use, revealed the importance of clear warranty processes, PAYGo expectations, and safe handling practices. Limited understanding of PAYGo lockouts, repayment schedules, or warranty rights could easily undermine user satisfaction. Expanded radio programs, pictorial guides, SMS reminders, and roadshow demonstrations addressed these gaps and stabilized repayment behaviour while reducing unnecessary product returns.

Throughout the component’s implementation, RREA and participating vendors conducted periodic joint verification missions based on issue patterns and operational needs rather than a fixed schedule. These missions strengthened the reliability of retailer reporting, validated user concerns, and helped identify where targeted follow-up or system-level adjustments were necessary.

Overall, the SHS subcomponent transitioned from distributing inherited stock to supporting the emergence of a commercially viable, private-sector–led solar market. The shift toward private-led importation, improved quality control, PAYGo-supported affordability, and wider retail networks demonstrates that sustainability in Liberia’s off-grid solar market depends not only on the availability of hardware but also on predictable policies, continuous consumer education, and functioning commercial channels capable of operating beyond project financing.

These adjustments collectively position the SHS market for stronger long-term growth, improved affordability pathways for rural households, and clearer incentives for private-sector investment — representing one of the most significant structural outcomes of the LIRENAP off-grid program.

Although the nationwide SHS Component is now closed, its lessons on affordability, product reliability, and after-sales communication continue to inform outreach under the parallel ongoing World Bank-funded Liberia Electricity Sector Strengthening and Access Project. Radio programming, town-hall meetings, customer care hotlines, customer care complaints logs, customer relationship management platforms and GRM channels ensure that these beneficiaries remain heard and supported.

Conclusion of Analysis

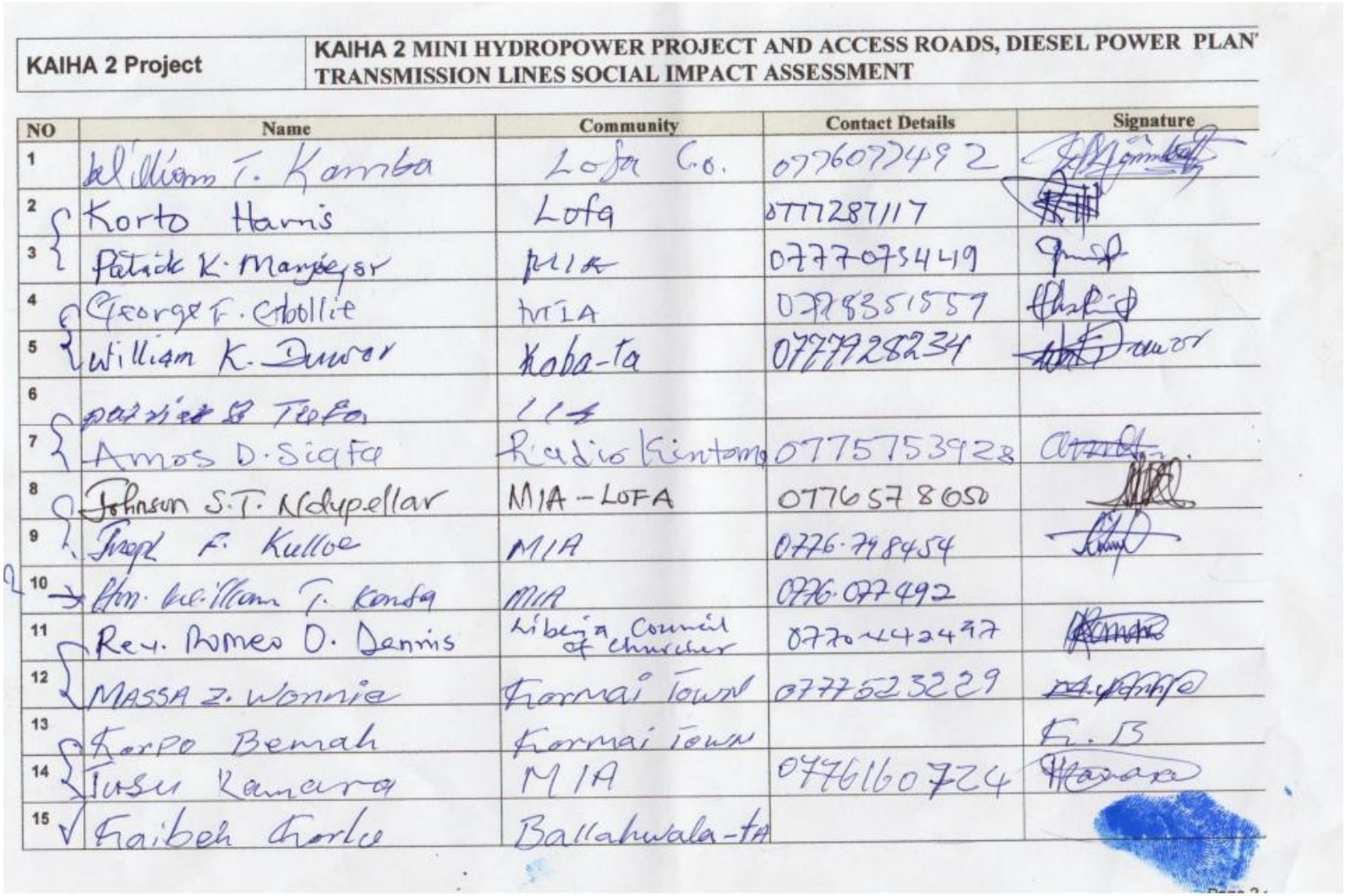
The SHS component's results were not determined by hardware procurement alone, but by how well the project adapted its delivery model in response to feedback from vendors, consumers, women's groups, and market actors. The shift from refurbished stock distribution to credit-supported retail expansion, to a fully private-sector import ecosystem demonstrates a clear trajectory: the project progressed from access enablement to market sustainability.

By anchoring decisions in real-world feedback, the project strengthened market confidence, improved affordability pathways, expanded geographic coverage, and institutionalized quality assurance mechanisms that will endure beyond the project's closure. The SHS market in Liberia is now positioned not as a temporary donor-led intervention, but as a stable commercial sector characterized by competition, informed consumers, and private investment.

> *"The SHS component's results were determined not by hardware procurement alone, but by how well the project adapted its delivery model in response to feedback from vendors, consumers, women's groups, and market actors."*
>
> **Steve Payment, Business Development Specilaist, RREA**

Annexes

Annex 1. Photo File — Photographs of Key Events and Signed Attendance Sheets



KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLAN' TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT

NO	Name	Community	Contact Details	Signature
1	Hon. William T. Kamara	Lofa Co.	0776077492	
2	Korto Harris	Lofa	0777287117	
3	Patrick K. Manjeyor	MIA	0777075449	
4	George F. Gbollie	MIA	0778351557	
5	William K. Dunor	Koba-Ta	0777928234	
6	Patrick S. Teifa			
7	Amos D. Siafa	Radio Kintom	0775753928	
8	Johnson S.T. Ndyepellar	MIA - LOFA	0776578650	
9	Joseph F. Kulloe	MIA	0776-798454	
10	Hon. William T. Kanda	MIA	0776-077492	
11	Rev. Romeo D. Dennis	Liberia Council of Churches	0770424497	
12	MASSA Z. Wonnie	Kormai Town	0777523229	
13	Korpo Bemah	Kormai Town		E. B
14	Yusu Kamara	MIA	0776160724	
15	Haibeh Korlu	Ballahwala-TA		

KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLAN TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT			
16	√ Soun K Ballah	Bawallah Village Town Chief		
17	√ Nyema Gizzie	Bawallah Village Resident		
18	√ JUNIOR M. Ballah	Balawala-Ta	0770240855	
19	Dormowah Fabeywillie	Kormai Town		D.K
20	Korpo mulbah	Kormai Town		
21	Korpo Kotti Mulbah	Voinjama Resident.		
22	Stephen G. Flomo	M.F.D.P C[illegible]	0770425952	
23	Ambrose ABC Jamina	EPA Cordinator	0777842680	
24	Joseph K. Ballah	LCCC	0777073468	
25	Stephen Kpalaga	Adviser-Kormai	0770244070	Kpalaga
26	Kolubah Kollien	Chief - Kormai	0776305764	K.K.
27	T- Sayghan Ballah	Balawalota		
28	Bormassa Jallah	Gullah		
39	Hena Kawala	Voinjama	0770337292	II
30	√ Daniel Ballah Jr.	Ballawala-ta	0778202599	

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KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLAN TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT

31	√	Isaac Thomason	Kersor town	0777868288	IT
32	√	Kormasso Arwu	L.P.M.C	0776 616153	
33	√	Kormassa Ballah	L.P.M.C		
34		Stephen Jallah	L. P.M.C	0776375490	
35		Austin K. Sienkulo	MOCI	0770-266-579	
36		Andrew P. Korte	MOL	0776194619	
37		Jerry Kollie	Gulota		
38		David Flomo	Kassor Village		
39		Nathaniel D. Koikoi	LISGIS	077090970	
40		Koiffee Kollie Jallah	Chief/ Kolahun Dist	0778707416	
41		James Y. Morlu	MYS	0777311295	
42	√	Jallah Sawo			
43			JSW	077533882	
44	√	Rosseveit S. Ballah	Ballawala Town	0775598825	
45	√	Fieloh Ballah	Ballawala Town	0776923446	K.B

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KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLAN TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT

46	Nicodes F. Faeqia	YARD-2	0777616443	
47	Amos Banna	Electrician	0776120367	
48	Mohamed James	Police bye Pass Access roain Incaperated	0777538890	
59	Joseph Sayawala	L P M C	0770016641	
50	James Y. Jallah	L.P.M.C	0770492380	
51	James Kaikai	Voinjama/ Lofa County	0886416158	
52	Tarnuekollie Gomo	Betijama Town	0777327890	
53	David Gizzie	Balawala-ta	0778252212	
54	Komassa Gizzie	Balawala-ta	0775380072	
55	Yarkpawllo Jallah	Kormai Town	0776984324	
56	Fallah Ben	L.P.M.C	0777936643	
57	Beyan Massa	Kormai Town	0778046705	
58	Thomas K. Gemah Jr	Tennehu	0775982029	
59	Junior Massaq	Kormai		
60	Esther Y. Kongon	Voinjama	0770240874	
61	Robert Z. Flomo	County inspectors office	0775689760	

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Pictorial of Meeting in Voinjama

KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT			
NO	Name	Community	Contact Details	Signature
1	ALBERT B SALEE	DISTRICT Commissioner YAZELI	077695790[illegible]	
2	David Marwolo	District Clerk	0774431724	
3	Akoi Bayyah	Mantemeee	— — —	-
4	Kollie Koifee Jallah	Nyandemoilahun	0886642287	
5	Nelson G. Koryan sr	Yezala	0777862104	
6	Jallah Boryan	Yezala Quarter Chief		J. B.
7	Kollie G Jallah	Youth leader Yezala town		
8	James Kollie	Quarter Chief Yezala		J. K.
9	Johnny T. Zorvee	Johnny's Town		
10	James Tulay	Johnny's Town	0886143215	
11	Benda Kamara	Koibatormai		
12	Jenette Marwolo	Marwolo's town	0880194841	J MO
13	Eric M. Marwolo	Marwolo 11	0880219009	
14	Peter B. Jomah	Johnny's town	0777911162	P B J
15	John G. Losene	Molokotown	0886749[illegible]3	
16	Yamkollie Kpadeh	Marwolo Town	0881557106	

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KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT			
NO	Name	Community	Contact Details	Signature
17	Samuel Dobbor	Jomah Town		
18	Kollie Lombeh	Koibakoamai	0886086938	
19	Baysah Kollie	Kpaku's Town		
20	Stephen Kollie	Kpaku's Town	0776770933	S. K
21	Tarnue Keymah	Kpaku's Town		T. K
22	Saah Tordo	Vezala Town		S. T
23	JAMES DUWAR			
24	C. Gobeh Dennis	Vezala Town		
25	TOKPA M. Tarnue Sr.	Voinjama	0776576649 0886465761	
26	Michael Ballah	Vezala Town	0776787705	
27	Morris M. Jallah	Vezala Town	0776013733	
28	Alfred S. Kesselie	Vezala Town		
39	Othello Zallah	Vezala Town,	0777366769	
30	Widow Goma	Vezala Resident		

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KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT			
NO	Name	Community	Contact Details	Signature
31	Keheh Daniel	Vezala Resident		
32	Tornue Kolukoleh	Vezala Resident		
33	James KOMIE	VEZAL A TOWN		
34	Sone Kamara	vezala resident		
35	Mawen Korvah	Vezala resident		
36	Komesah B Jallah	Chairlady Vezala		
37	Sone Bidi	Vezala resident		
38	Sema Akpoi	Vezala resident		
39	Sema Selay	Vavame resident		
40	Jemeh Jayan	Vezala resident		
41	Domowan Boje	Vezala resident		
42	Aaron K Jallah	Vavamah Township		
43	Jallah Gomo	Vezala resident		
44	Amos S. Jallah	Yorkollie's Town	0775886916	
45	Yekes Sawa			

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KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT			
NO	**Name**	**Community**	**Contact Details**	**Signature**
46	Mulbah Jomah	Vezala	077674005/	
47	Ako; Massaxan	vezala	-	
48	Tarnue Bessala	vezala		
59	Thomas Kullie	vezala		
50	Rex K. Jallah	Vezala		
51	Kiaka Jallah	Vezala		
52	William Kpeh e	Vezala		
53				
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Pictorial of Meeting in Velezala

KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT			
NO	Name	Community	Contact Details	Signature
17	Monibah Kolee	Kamballahun	0885299469	
18	Augustine D Ndorbor	Balahun mission	0880362911	
19	Soriba Nduwor	mongulahun	—	
20	Kollie Harris	mbalahun	—	
21	Dawalla yallah	Mbalahun	—	
22	Sonnie Kolee	Kamballahun	—	
23	Abraham T. Nyuma	Central Kolahun	088145 3030	
24	Major Sheriff	Foya highway	088831761 2	
25	Dorbor T. Sumo	Telecom quarter Chief	0886996347	
26	Varnie Sheriff	Kpandehinla chief	0888206921	
27	Mohammed H.K Salloh	Kolbacity	0886177716	
28	Abana K. Kpehe	Kamballahun	0880938758	
39	Sangai Bombo	Wohomba	—	
30	Amadu M. Salloh	Kolahun Centa	0886 3563	

KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT

NO	Name	Community	Contact Details	Signature
31	Francis V. Tulay	Teacherquarter	0881837169	
32	Ndorbor KANDA KANDA	Sokolahun	0888418562	
33	Fomba Tulay	Tulay Quater	0880246024	FOMBA
34	Kollie Cooper	Kortulahun	—	
35	Korpo Ndorleh	Kortulahun	—	
36	Armah Kollie	Kortulahun	0778848379	
37	RICHARD KORYON	Sovasu Town	0886273789	
38	Kpoona Sangbeh	Sovasu	—	
39	B. Augustino Sangalie Sr.	Foya High way	0886406552	
40	Sokomiki KONNEH	Telecome comm	0775869494	
41	Joseph M. Karpu	Bombia I	0886630801	
42	Blama Kamara	Center Kolahun	0886541033	
43	Andrew Kpehe	Telecom	0886657239	
44	Joseph Morris	Kissi Quater	0880267782	
45	Bookai Konneh	Tulay Quater	0880969930	

KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT			
NO	Name	Community	Contact Details	Signature
46	Mohammed Kollie	Kimbalahun		
47	Abu Fofana	Sosomoilahun	0886528120	
48	Sekou Nyeh	Tulay Quater	0886841782	
59	Mohammed O. Sheriff	Tulay Quater	0886439566	M.O.Sheriff
50	Bolay Siaka	Kissi Quater	0278569975 0888351214	
51	Edwin Yallah	Tulay Quater	0880887080 0775298288	
52	Stephen Sando	Kamatahun Tahamba	088695-35-79	
53	Paul Troyah	Bombia #1/Kolba City	0886906836	
54	Stephen Blama	Blama Village	0775817795	
55	Momo M. Kamara	Lakembeh	0886702725	
56	Joseph Hosen	Majotahun	0880207093	
57	Kefa Gboyo	City office	088806311	
58				
59				
60				

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Pictorial of Meeting in Kolahun

KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT			
NO	Name	Community	Contact Details	Signature
1	Hon. J. Clarence Sandie Jr.	A G Quarter	0770578183	
2	Moses F. Sonjor Sr.	Laysa Sa	0778801291	Sr.
3	James T. Dorngah	A G. Quarter	0770387665	
4	Hon. Momoh S. Taylor	A G Quarter	0777166950	
5	Tamba D. Flomo	AG. Quarter	0775961599	
6	Nyuma Ngesakonja	Peace Community	0886999250	
7	Fayiah Korlubah	AG Community	0775643818	
8	Hon. Cecelia T. Hallie	A.G. Community	0777063644	C.T.Hallie
9	Samuel S. Boima	Kpandomu	0777258053	
10	Francis Saysay	MPW	0777211524	
11	McLane S. Tamba	Comm. New Soya	0776193228	
12	Joseph B. Koroma	Bank Manager	0775577593	
13	JOHN B. ZAZA	MOA	0776846450	
14	Fayiah Sammie	Sangbawalie		
15	Tamba Nyorkor	Bassor		
16	Edward Saah	Bassor	0777334744	

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KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT			
NO	Name	Community	Contact Details	Signature
17	Saah Hallie	Bassar	-	
18	Pst. Joseph Fokoe	Formin	0770990962	
19	Robert T. Taylor	Shelloe	0778086172	
20	Tamba SK Fofay	muslim chairman	077768318l	
21	Abraham K. Sheriff	Kpaka'o Quarter Muslim	0777124,78	
22	Hon. Edward T. Pongay	KPorombu Town	0775126519	
23	Andrew Fokoe	Saygballay		
24	Sia Kyuma	Sangballay		
25	Tamba Johnny	Langbaba Tengia		
26	Rev. Abraham Howard	Powa Quarter	0777504673	
27	Philip Follay	Soelu	088666006	
28	Tamba Korbar	Konduma	0776848420	
39	Tamba Bangbaicoi	Foya Kama		
30	John S. Kollie	A.G Quarter	0775184990	

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KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT

NØ	Name	Community	Contact Details	Signature
31	FAYIA FOMBA	Mbarma Town	0775643740	
32	Jacob Nbatoi	Kpormb Round	0776737777	
33	JEFF F. DAVIS	PD	077594668	
34	Kumba Kamba	Pawa Quarter	0777257409	K. K.
35	Jennel Saal	Laysasa		
36	Kumba Bonoah	Bassor		
37	Tennel Kpeikar	A.G. Quarter		
38	MOSES S. TARIFE	Tambakaikor Quarter	0775165523	
39	HENRY T. S. MOMOH	PALAVA QUARTER	077-82-16-85	
40	Saah Pongay	Kpormbor Rd	077-531-6071	
41	KENNYSON NIMOH	PALAVA QUARTER		
42	Fayia Tommy	Koindu Pormbor		
43	Tamba Kuffah	Somboloe		
44	Jennel Tamba	Somboloe		
45	Henry T. Fayiah	Kpandiloe	077526045	

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KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT			
NO	Name	Community	Contact Details	Signature
46	Tewa Saah	Tamba Taikor	0775989324	
47	Abraham N'Yandemor	Somboto	0777523414	
48	Rickson F. Kpeikar	A G Quarter		
49	PSI. Emmanuel T. Taylor	Peace Comm.	0775804518	
50	Johnson F.T. Boie	FARMS-LIB-ED	077719827 2	
51	Andrew Popeh	Foya Tengia		
52	Etaya Pakallah	Kamboama	-	
53	Hon. Fomba Tullay	Pawa Quarter	0778150648	
54	Mr. Momoh S. Taylor Jr.	A.G.	0770450764	
55	Justin T. Korngor	Zpandonin	0776 84 64 45 0886 888909	
56	Nyumen Tumbay	NEW Foya	0778414568	
57	Saa Dukoe	Ndam RD		S Dukoe
58	Augustine Mukoe	Peace Comm		
59	George Fajia	Kpaborn Rd		G.F.
60	Joseph N. Bundor	Peace Comm		JoBundor

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KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT			
NO	Name	Community	Contact Details	Signature
61	Gabriel Taylor	Ag Quafe		G. Taylor
62	Nyuma Bundoo	Kpakio Qtr		N.B.
63	Joseph Kuda	New Foya		Joe Kuda
64	Bendu Fallah	Pausa Qtr		B.F.
65	Mamie Tamba	Foya Rd		Mamie
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Pictorial of Meeting in Foya

KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT

NO	Name	Community	Contact Details	Signature
1	Julia F. Russell	Bolahun	0886447034	J.F.R
2	James M. Solwoi	Bolahun	0886572326	
3	Boakai D. Kamara	Fasolahun		
4	Anthony S. Armah, Sr.	Pasowolahun	0888-117-678	
5	Mary Francis W	Kolahun Dist	0888-15-10-59	
6	Joseph Ndorbor	Porlowu	0880838165	J.N
7	Salia Dunor	Bolahun T/C	0886659630	
8	Ambuleh Dawon	Lukasu		
9	Francis Y. Kpadeh, Sr	Kolahun	0886202791	
10	Momoh Hena	Lehuma		
11	Dauda Dunor	Hassala		
12	Vannie Karvah	Balo		
13	Benson M. Kamara	Porlowu	0886284458	
14	Blama Bombo	Gbawohun	08811938l	
15	Blama M. Sheriff	Bolahun	0886375167	
16	Titus M. Brima	Bolahun	0888233748	

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KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT			
NO	Name	Community	Contact Details	Signature
17	Sekou Kamara	Hassala, Section dig		
18	Boakai Kamara	Hassala		
19	Vannie M. Konneh	Massambolah	0886368254	
20	Sekou A. Dukuly	Massambolah	0886906928	S.A.D
21	Bombo Kollie	Gelema		
22	Kowo Ngaima	Lehuma		
23	Blama K. Sheriff	Bomsowalahun	0880528580	
24	Moses B. Ndangai	Tagulahun	0880361280	
25	John H. Willie	Bolahun	0888850526	
26	Mamadee Mallay	Kainbalahun		
27	Boakai Ndorbor	Kailahun, Lutasa		
28	Patrick Nyandebo	Gelema		P.N
39	Moses Musa Kamara	Sosolahun		
30	George Akoi	Bolahun		

KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT

NO	Name	Community	Contact Details	Signature
31	Momoh V. Kawah	Mbaloma		
32	Jimmy V. Kandee	Jennah	0886376523	
33	Alexander S. Bongorlee	Lukasu	0888474070	
34	Blama Kanneh	Kainbalahun 2		
35	Varmuyan S. Bawor	Massabalahun	0886667309	
36	Joseph of. Kpehe Sr	Hembeh	0877779	
37	Ballah Jarkoi Jr.	Gondolahun		
38	Morris S. Mamulah	Gondolahun		
39	Jenneh Kanneh	Mbaloma		
40	Morris Joseph	Lukasu		M.J
41	Joseph Kanneh	Mbodowalahun		Joseph Kanneh
42	Boakai Sando	Lukasu		
43	Malusu Dukuly	Massambolahun	0880384278	M:D
44	Sambee Jusu	Nyandeyama		
45	Jenneh Kollee	Makpelahun		

KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT

NO	Name	Community	Contact Details	Signature
46	Sekou K. Kamara	Gbelahun	088688270l	
47	Sokok. Konnoh	Massambolah	0886343499	
48	Mawuleh Malike	Massambolah	088642298O	
59	Patrick K. Ndorbor	Ngeihema		PKN
50	Daniel K. Bailah	Toingehewa	0776106254	
51	Abraham J Morlu	Ngihema	0778206581	A J M
52	Wendor Ndorbor	Ngihema		W.N
53	Samuel V. Kollie	Toingehewa	088095097o	
54	Fongbeh Tulay	Iehuma		F.T
55	Ngawai Kanneh	Kaintahun		
56	Watta Kento	Sosomoiah		W.K
57	Gebah M. Yama	Massambol		G
58	Hawa Tulay	Massambola		Ha.T
59	Korpo Kanneh	Weihelahah		K. Kanneh
60	Fatta Bawor	Massambolah	088	F.B.

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KAIHA 2 Project	KAIHA 2 MINI HYDROPOWER PROJECT AND ACCESS ROADS, DIESEL POWER PLANTS TRANSMISSION LINES SOCIAL IMPACT ASSESSMENT

NO	Name	Community	Contact Details	Signature
61	Mawatta Kanneh	Massambok	088038 42 84	
62	Sangai Kollie	Lebuma		S.K
63	Joseph Momoh	Lukasy		
64	Sammie Sando	Lukasy		S.S.
65	Molay Borbor	Fangonda		M.B
66	Vannie Kemoh	Koikahun		V.K
67	Boakai Kanneh	Kpekpelahun		B.K
68	Blama Kamara	Bodowahun		B. Kp
69	Amos Armah	Kailahun		
70	David M. Jusu	Kailahun		
71	Jenneh Sowah	Fangonda		
72	Vannie Momoh	Porlomu		M.M.
73	Foday Kamah	Lebuma		F.K
74	Gebah Kamara	Lebuma		G.K
75	Watta Kamara	Kpokulah		W.K

Pictorial of Meeting in Bolahun

1 ENCO was the hydro contractor.

2 ENCO was the hydropower construction contractor.

3 It is important to note that a number of grievances recorded during the SHS rollout cannot be cleanly separated between the Lighting Lives in Liberia (LLL) program and LIRENAP Component 3, because many of the inherited LLL units were distributed, refurbished, or serviced during the LIRENAP implementation period. As a result, end-users often reported issues under the broader "RREA solar program" without distinguishing whether their system originated from LLL or LIRENAP. For reporting purposes, all SHS complaints addressed during the LIRENAP implementation period were captured in the consolidated complaint register and used to inform corrective actions under LIRENAP Component 3.

4 AECF = Africa Enterprise Challenge Fund. REACT = Renewable Energy and Adaptation to Climate Technologies Program.