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# Terminal Evaluation

## Stimulating Progress towards Improved Rural Electrification in the Solomons (SPIRES)

Solomon Islands

TE Timeframe: Nov 2024-Jan 2025

### UNDP –Global Environmental Facility Project

UNDP PIMS ID Number: 6089
GEF ID Number: 9787

Region and Country: Asia and Pacific, Solomon Island
GEF Focal Area: Climate Change-Mitigation (CCM)
Strategic Program: CCM-1 Program 1-Promote innovation and technology transfer for sustainable energy breakthroughs for decentralized power with energy usage
Implementing partner: Ministry of Mines, Energy, and Rural Electrification

# Terminal Evaluation Report

(Final)

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***Disclaimer***

*The findings, interpretations, and conclusions expressed in this Terminal Evaluation Report are of the TE Consultant, hence do not necessarily reflect the official views of donor agency viz. GEF, technical agency viz. UNDP and MMERE. For more information, please contact at Dr. Dhruba Gautam, International Evaluator at drrgautam@gmail.com.*

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# List of acronyms and abbreviation

| | |
|---|---|
| ADB | Asian Development Bank |
| $CO_2$ | Carbon dioxide |
| CSO | Civil society organization |
| CTA | Chief Technical Advisor |
| DREI | De-risking Renewable Energy Investment |
| EE | Energy efficiency |
| EIA | Environmental impact assessment |
| EPA | Environmental Protection Act |
| ESMP | Environmental and social management plan |
| FGD | Focused group discussion |
| GAP | Gender action plan |
| GCF | Green Climate Fund |
| GEEW | Gender Equality and Empowerment of Women |
| GESI | Gender equality and social inclusion |
| GHG | Greenhouse gas |
| GRES | Gender Results Effectiveness Scale |
| IP | Implementing Partner |
| IPP | Independent Power Producer |
| IRENA | International Renewable Energy Agency |
| KII | Key informant interviews |
| LDC | Least developed country |
| M&E | Monitoring & Evaluation |
| MDPAC | Ministry of Development Planning and Aid Coordination |
| MECDM | Ministry of Environment Climate Change Disaster Management and Meteorology |
| MFMR | Ministry of Fisheries and Marine Resources |
| MHMS | Ministry of Health and Medical Services |
| MMERE | Ministry of Mines, Energy, and Rural Electrification |
| MTR | Mid-term review |
| NDC | National Development Strategy |
| NDC | Nationally Determined Contribution |
| NIM | National Implementation Model |
| OFP | Operational Focal Point () |
| PB | Project board |
| PIF | Project identification form |
| PIR | Project Implementation report |
| PMU | Project management unit |
| PPG | Project preparation grant |
| PPP | Public-private partnership |
| PV | Photovoltaic |
| PwD | Persons with disabilities |
| O&M | Operation and maintenance |
| RCC | Resilience and Climate Change |
| RE | Renewable energy |
| RESCO | RE Service companies |
| RTA | Regional Technical Advisor |
| SES | Social and environmental safeguard |
| SESP | Social and Environmental Standards Plan |
| SIEA | Solomon Islands Electricity Authority |
| SIG | Solomon Island Government |
| SINEP | National Energy Policy |
| SINU | Solomon Islands National University |
| SoHS | Solarization of Head of State Residences in PIDF member countries |
| SPIRES | Stimulating Progress towards Improved Rural Electrification in the Solomons |
| TE | Terminal evaluation |
| ToC | Theory of change |
| ToR | The terms of reference |
| TWG | Technical working group |
| WB | World Bank |

# Executive summary

## 1.1 Project description

This report presents the findings of the terminal evaluation (TE) of the "Stimulating Progress towards Improved Rural Electrification in the Solomons" (SPIRES) project, hereinafter referred to as "the project." It summarizes the key findings, conclusions, recommendations, and lessons learned from that evaluation and covers four years of implementing the project from November 12, 2020. The project received CEO Approval on 3 August 2020, and the Inception Workshop was held on 23-24 March 2021, marking a key milestone in its launch. The project concluded on November 12, 2024 (See Table 1).

Table 1: Project information

| Project Details | | Project Milestones | Dates |
|---|---|---|---|
| **Project Title** | Stimulating Progress Towards Improved Rural Electrification in the Solomon | PIF Approval Date: | 29 Nov 2017 |
| **UNDP Project ID (PIMS #):** | PIMS 6089 | CEO Approval of this Project Date | 3 August 2020 |
| **GEF Project ID:** | 9787 | PD Signature Date: | 12 Nov 2020 |
| **UNDP Quantum Business Unit, Award ID, Project ID:** | BU: UNDP-FJI<br>Project ID: 00097073<br>Award ID: 00097073.2 | First disbursement date in Atlas | 29 April 2021 |
| **Country/Countries:** | Solomon Islands | Inception w/s date | 23-24 Mar 2021 |
| **Region:** | Asia-Pacific | MTR clearance slip date: | 23 June 2024 |
| **Focal Area:** | Climate Change-Mitigation | TE completion date: | 10 Jan, 2025 |
| **GEF Operational Programme or Strategic Priorities/Objectives** | CCM-1 Program 1 Promote innovation and technology transfer for sustainable energy breakthroughs for decentralized power with energy usage | Planned operational closure date: | 12 Nov, 2024 |
| **Trust Fund:** | GEF Trust Fund | | |
| **IP (GEF Executing Entity):** | Ministry Mines, Energy and Rural Electrification/Government of Solomon Islands | | |
| **NGOs/CBOs involvement:** | n/a | | |
| **Private sector involvement:** | n/a | | |

| Financial Information | | |
|---|---|---|
| **PDF/PPG** | At approval (US$) | At PPG/PDF completion (US$) |
| **GEF PDF/PPG grants for project preparation** | 100,000.00 | 100,000.00 |
| **Co-financing for project preparation** | 0 | 0 |
| **Project** | At CEO Endorsement | At TE (as of Q4 2024) |
| **[1] GEF** | 2,639,726 | 2,605,673.80 |
| **[2] Government:** | 16,425,531 | 9,794,894* |
| **[3] UNDP Contribution** | 100,000 | 59,585.05 |
| **[4] Private Sector:** | 0.00 | 0.00 |
| **[5] NGOs:** | 0.00 | 0.00 |
| **[6] Total co-financing [1 + 2 + 3 + 4 + 5]:** | 19,165,257.00 | 12,460,152.85 |

*This 9,794,894 includes US$ 7,415,229 in cash, US$ 1,879,665 in-kind, and US$ 500,000 as loan under MMERE (Source: Project's data 2024)

a. Brief overview of the evaluation purpose and objective: The TE aimed to assess the project's achievements against its original objectives, draw lessons to enhance sustainability, and improve future UNDP programming. It also promoted accountability and transparency by evaluating the project's overall accomplishments through OECD-DAC evaluation criteria.

b. Summary of the evaluation scope: The project aimed to expand rural access to electricity in the Solomon Islands by promoting low-carbon technologies in support of the national rural electrification program. The evaluation assessed the project's goal of reducing greenhouse gas (GHG) emissions in the energy and end-use sectors. The TE engaged key stakeholders, including government ministries, the private sector, academia, NGOs, and CSOs, who play vital roles in policy advocacy, capacity building, and project design.

c. Main areas of inquiry of the evaluation: The evaluation assessed all four project components: (i) improvements to RE and rural electrification policies, regulations, and planning; (ii) promotion of RE and rural electrification initiatives; (iii) application of RE technologies to support rural socio-economic development; and (iv) capacity-building for renewable energy (RE) and energy efficiency (EE).

d. Methodology and data collection method: The evaluation adhered to the *Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects (2020)* and adopted a summative approach to assess the project's outputs and outcomes. Data collection methods included document reviews, and use of project monitoring data. During the field mission (November 29–December 7, 2024), evaluation tools viz. key informant interviews (KIIs), focus group discussions, direct observation, the most-significant-change

technique, and the gender results effectiveness scale, were used. Stratified sampling method was used to identify the samples. Gender considerations were integrated throughout, with gender equality and the empowerment of women (GEEW)-focused questions included in 33 KIIs, 11 of whom were women. A total of 27 documents were reviewed, and gender-disaggregated tools ensured gender equality and social inclusion (GESI) was prioritized. Qualitative data were analyzed using content analysis, with triangulation enhancing reliability and validity. Ethical standards were upheld, and the evaluation provided evidence-based findings.

## 1.2 Summary key findings

| Eva. criteria | Summary of findings |
|---|---|
| Relevance | The project was closely aligned with national priorities, supporting key policies like the National Energy Policy and the National Development Strategy, and contributing to rural electrification and renewable energy targets. Despite challenges in policy work due to its complexity and the need for collaboration with development partners, the project laid a strong foundation for future policy development. Its adaptability to political, legal, economic, and institutional changes ensured compliance with regulations and cost-efficient solutions, enhancing sustainability and relevance. Additionally, the project integrated gender equality goals, promoting women's economic empowerment and leadership, fostering an inclusive approach that significantly boosted its social impact. |
| Coherence | The project demonstrated strong internal coherence within UNDP by leveraging synergies across rural electrification, RE, and EE initiatives, supported by robust stakeholder coordination. It also aligned effectively with regional and international efforts, such as World Bank and ADB energy projects, ensuring complementarity, fostering collaboration with local communities, and amplifying its overall impact. |
| Effectiveness | The project successfully advanced UNDP and national energy priorities, achieving all four planned outcomes and eighteen outputs despite challenges like remote locations, logistical hurdles, and the COVID-19 pandemic. It reached 1,527 beneficiaries (89.1% of the target), including 500 women, 25 perosn with disabilities (PwDs), and 2 lesbian, gay, bisexual, trans, intersex or queer (LGBTIQ+) individuals, through the installation of four Solar PV systems. The project enhanced rural electrification, improved quality of life, and fostered stakeholder engagement in sustainable energy initiatives while contributing to key policies such as the RE Roadmap and Rural Electrification Policy. Efforts to establish institutional and financial frameworks, including a public private partnership (PPP) model, earned positive feedback and strengthened government collaboration. However, delays in De-risking Renewable Energy Investment (DREI)assessments and feasibility studies hindered scale-up planning, and limited maintenance of demonstration projects, as noted by 72% of key informants, highlights the need for stronger data management, sustainability strategies, and long-term planning. |
| Efficiency | The project demonstrated efficient resource allocation, adhering to Solomon Island Government (SIG) procurement protocols and ensuring transparent financial management, as confirmed by 64% of key informants. Despite slight disparities between planned and actual spending, particularly for solar PV installations, training, and policy work, no concerns about financial mismanagement were raised, highlighting strong accountability measures. Despite challenges like slow progress and resource constraints, the project met its original deadline of November 12, 2024. Efficient implementation of the monitoring plan and timely data transfer to the Implementing Partner (IP) ensured task completion, though further refinements are needed. |
| Sustainability | The project demonstrates promising financial sustainability, with SIG, development partners, and I/NGOs committed to supporting rural electrification. Integration into government plans, strong community ownership, and mechanisms such as operation and maintenance (O&M) funds and fee collection systems bolster funding prospects. Notably, 96% of key informants emphasized ongoing efforts to establish PPPs and document financial mechanisms, complemented by strategic partnerships and local bank engagement. Socio-political risks are minimal, with rural electrification prioritized nationally and supported locally, while strong stakeholder ownership enhances prospects for long-term outcomes. Institutionally, the project has advanced RE policy integration and local technician training, though progress on policy reforms remains slower than anticipated. Governance structures, including the Project Board (PB) and Technical Working Group (TWG), ensure accountability and stakeholder collaboration, fostering sustainability. Environmentally, the project mitigated disaster risks with robust installations and safe waste disposal. Compliance with Environmental Portection Agency (EPA) regulations and developing a concrete waste management plan could enhance environmental sustainability. |
| Impact | The project successfully reduced environmental stress by replacing diesel generators with solar power systems, lowering GHG emissions, and promoting clean energy alternatives, demonstrating a scalable model for sustainability in remote areas. It improved quality of life and reduced reliance on fossil fuels, leading to long-term environmental and socio-economic benefits in rural communities. Additionally, the project strengthened energy policy and governance frameworks, supporting the development of an RE policy and advocating for reforms. Beyond environmental impacts, the project also fostered socio-economic improvements, providing reliable energy for education, healthcare, and village tourism, while creating income-generating opportunities and driving development in underserved areas. |

| | |
|---|---|
| Cross-cutting issues | The project effectively integrated a human rights-based approach, promoting stakeholder participation and addressing the needs of marginalized groups, including PwDs, through comprehensive needs assessments. It made significant strides in advancing gender equality by empowering women in leadership and technical roles through gender-inclusive solar committees, which boosted economic opportunities and challenged gender norms. The project also strengthened climate resilience by equipping women with technical and business skills, enhancing sustainable energy use, and advancing climate action. Adhering to SES standards, it implemented targeted mitigation measures with the support of an social and environmental safeguards (SES) specialist, ensuring alignment with UNDP's Country Program and IP priorities. While stakeholders recognized the project's transformative impact on PwDs, they highlighted the need for earlier integration of disability inclusion during the design phase to address their multifaceted vulnerabilities. |

## 1.3 Summary of conclusions

**a. Relevance:** The project was highly relevant, closely aligning with national priorities like the National Energy Policy and National Development Strategy, and supporting rural electrification and RE targets. Its adaptability to political, legal, and economic changes ensured regulatory compliance and enhanced sustainability, while reinforcing its alignment with evolving government priorities. The project also successfully integrated gender equality goals, promoting women's empowerment and leadership in line with national policies, fostering an inclusive approach that significantly enhanced its social impact.

**b. Coherence:** The project made significant contributions to UNDP and national development priorities, aligning with energy goals and capacity-building initiatives. However, logistical challenges and mismatches between activities and budget disbursement limited the achievement of some outcomes. Despite external challenges like the pandemic and remote locations, the project reached 1,527 beneficiaries (89.1% of the target) and mobilized stakeholders, creating synergies across sectors, though improvements in data management and sustainability strategies are needed for long-term impact. Progress was made in developing key energy policies, but not all policies were completed on time, with strong government interest in advancing them. The project also advanced institutional and financial frameworks, introduced a PPP model, and engaged banks, with the Solomon Islands Government now collaborating with agencies to drive rural electrification forward.

**c. Efficiency:** The project demonstrated transparent financial management and strict adherence to SIG procurement protocols, ensuring efficient resource use and successful outcomes. Despite overspending in outcome 3.2, the project maintained strong accountability, with key informants noting no concerns about financial mismanagement.

**d. Sustainability:** The project demonstrates strong potential for sustained financial support beyond GEF assistance, with commitments from SIG, development partners, and I/NGOs. The IP, in collaboration with the PB and TWG, has established O&M funds, defined pricing terms, and streamlined fee collection, ensuring long-term sustainability. Efforts to develop PPPs and financial mechanisms, noted by 96% of key informants, are complemented by strategies to scale up financing through partnerships and local engagement. Stakeholder ownership remains high, with key government and sector actors committed to sustaining outcomes, though broader engagement with additional stakeholders like the Ministry of Finance and academic institutions is needed to further strengthen the project's long-term sustainability.

**Table 2: Evaluation rating**

| 1. Monitoring & Evaluation (M&E) | Rating |
|---|---|
| M&E design at entry | S |
| M&E plan implementation | MU |
| Overall quality of M&E | MS |
| **2. Implementing Agency (IA) Implementation & Executing Agency (EA) Execution** | **Rating** |
| Quality of UNDP Implementation/Oversight | MS |
| Quality of IP Execution | MS |
| Overall quality of Implementation/Execution | MS |
| **3. Assessment of Outcomes** | **Rating** |
| Relevance | S |
| Effectiveness | MU |
| Efficiency | MU |
| Overall Project Outcome Rating | MS |
| **4. Sustainability** | **Rating** |
| Financial | ML |
| Socio-political | L |
| Institutional framework and governance | L |
| Environmental | ML |
| The overall likelihood of sustainability | L |
| **Overall rating** | **MS** |

**e. Impact:** The project contributed significantly to environmental sustainability by replacing diesel generators with solar power systems, reducing GHG emissions, and promoting clean energy alternatives, creating a scalable model for renewable energy adoption in remote areas. Additionally, it facilitated socio-economic improvements in underserved communities by providing reliable energy for education, healthcare, and tourism, generating income opportunities, and strengthening local economies and overall quality of life.

**f. Cross-cutting issues:** The project's gender-responsive design, supported by a robust Gender Action Plan (GAP), effectively promoted women's empowerment and equitable participation, though initial implementation gaps were addressed through reviews, orientations, and capacity-building initiatives. While the absence of a dedicated GESI focal

point created some gaps, periodic gender inductions helped bridge this, emphasizing the need for enhanced capacity-building and dedicated resources for future gender equality efforts. The project also adopted a human rights-based approach, ensuring marginalized group participation, including women in leadership roles, though the lack of disaggregated data limited its full assessment of impacts on PwDs. The project's positive contributions to climate change action and environmental risk mitigation further strengthened national and local capacities, highlighting the importance of disability inclusion from the outset in future projects.

**Based on the overall analysis, the evaluation rating is determined to be "Moderately Satisfactory" (See Box 2).**

## 1.4 Synthesis of the key lessons learned

A summarized version of the 12 key lessons is presented below:

1. Proactive human resource management and planning are critical to mitigating staff turnover. Retention strategies, capacity-building, and timely recruitment minimize disruptions and ensure project continuity. Establishing a Project Management Unit (PMU) early and leveraging advanced headhunting improves hiring outcomes.
2. Inception workshops provide an effective platform for reviewing and realigning project strategies. They accelerate implementation by adjusting targets, budgets, and roles based on stakeholder engagement. Revisiting site feasibility and clarifying stakeholder roles further enhance project efficiency.
3. Successful adoption of new technologies requires conducting awareness campaigns, practical training, and continuous capacity-building. Combining concise theoretical sessions with practical drills ensures good comprehension and retention. Tailored initiatives such as linking committees to sector-specific training strengthen institutional capacity.
4. Conducting rapid market assessments before procurement enhances efficiency and reduces delays. Flexibility in vendor evaluation tailored to local contexts streamlines decision-making. UNDP's involvement helps to streamline processes, fostering efficiency and progress.
5. Regular project board meetings help track progress, identify challenges, and strategize follow-up actions. Including stakeholders such as the Ministry of Finance and Treasurer, and private sector strengthens decision-making. Circulating meeting minutes and maintaining feedback logs enhance accountability.
6. Engaging Civil Society organizations (CSOs) and media in policy processes builds support for advocacy, trust, and stakeholder participation. The transparent sharing of project updates secures additional resources and reinforces sustainability. Though time-intensive, CSO involvement fosters sustained cooperation and rational enforcement.
7. The meaningful participation of women in governance mechanisms drives empowerment and effective decision-making. Initiatives like gender-friendly livelihoods and localized training enhance women's confidence and engagement. Mobilizing gender officers and periodically updating plans strengthen gender integration.
8. Clear procedures and tracking mechanisms ensure the success of co-financing initiatives. Regular updates and active PB meeting participation enhance transparency and stakeholder engagement. Defined tracking tools create synergy and enable the monitoring of contributions.
9. Accurate baselines and a strategic exit plan are vital for sustainability and guiding future projects. The early development of an exit strategy and documentation of best practices streamline transitions. A thorough baseline reassessment during implementation ensures the measurability of progress.
10. The systematic handover of skills and knowledge secures project momentum beyond the transfer of physical assets. Structured knowledge-sharing mitigates the coordination gaps caused by staff turnover and ensures smoother transitions and long-term continuity.
11. Comprehensive knowledge management amplifies impact and extends stakeholder engagement. Learning workshops and Regional Technical Advisor (RTA) visits before the Project Implementation Report (PIR) facilitate real-time knowledge exchange and alignment. Disseminating best practices through media broadens the reach and visibility of outcomes.
12. Effective documentation and dissemination of project insights through structured reviews enhance replication potential. Step-by-step guidelines and community-level engagement strengthen institutional memory. The systematic sharing of knowledge products builds broad awareness.

## 1.5 Recommendations summary table

The following recommendations are provided for consideration in the next phase, particularly if projects of a similar nature are scaled up.

| Rec# | TE Recommendations | Entity responsible | Time-frame | Priority |
|---|---|---|---|---|
| 1 | Enhance human resource management and capacity-building for effective project implementation and strengthen capacity-building and system sustainability for solar PV systems and use power in productive sectors: | MMERE | Dec 2025 | High |

| | | | | |
|---|---|---|---|---|
| | • Develop a comprehensive plan for staffing, technical capacities, and capacity-building by conducting a needs assessment, consulting stakeholders, and aligning staff requirements with project objectives to ensure expertise is in place.<br>• Map and address local electricians' capacity gaps, including women, by conducting skills assessments, organizing targeted capacity-building sessions, and maintaining a roster of trained electricians for timely mobilization.<br>• Conduct feasibility studies to align installation designs with demand, optimize resource utilization, and engage multidisciplinary teams for data collection, environmental assessments, and resource-efficient plans *(Conclusions # 1, 3, 4, 5. 6, 10, 18, 19, 23, and 24)*. | | | |
| 2 | Integrate resilient solar hybrid systems with disaster risk reduction and waste management:<br>• Conduct a comprehensive feasibility assessment by reviewing prior research, validating findings with technical experts, and engaging stakeholders to identify site-specific opportunities and challenges.<br>• Use the "hazard vulnerability and capacity analysis" tool to assess risks from storms and typhoons, involving communities and disaster experts in mapping hazard-prone areas and incorporating results into solar hybrid system designs.<br>• Partner with insurance companies to offer group insurance packages for vulnerable communities, covering solar hybrid systems, and raise awareness about the benefits of insurance for enhanced resilience *(Conclusion # 19)*. | Energy Division/ MMERE | Nov 2025 | Medium |
| 3 | Promote synergistic resource management and PPP for scaling up solar PV systems:<br>• Foster PPP by mapping relevant agencies, conducting stakeholder consultations, and drafting clear partnership agreements to align roles and responsibilities with shared goals for effective collaboration.<br>• Conduct capacity-building initiatives and cost-benefit analyses of diesel versus solar PV systems by organizing training sessions, analyzing operational costs, and presenting findings through accessible reports and workshops.<br>• Secure green financing through PPP models aligned with RE policies by addressing policy barriers, advocating for reforms, and collaborating with global and regional organizations like IRENA for technical and financial support *(Conclusions # 2, 5, 7, 10, 17, and 18)*. | Energy Division/ MMERE with Solomon Power | Nov 2025 | High |
| 4 | Strengthen gender integration and social safeguard implementation in project activities:<br>• Implement gender and social safeguards by operationalizing the GAP, conducting quarterly assessments, and integrating insights into work plans through a systematic review process with gender focal points.<br>• Conduct workshops on gender-responsive costing and involve government stakeholders in GESI-sensitive planning by designing tailored training modules and providing tools for integrating GESI in budgeting.<br>• Incorporate women's safety audits and scenario-based costing studies in the design phase by engaging local women's groups, mapping risks anticipatorily, and applying findings to enhance project safety measures *(Conclusions # 4, 5, 10, 11, 22)*. | Energy Division/ MMERE with the Ministry of Women, Youth, Children and Family Affairs | Dec 2025 | High |
| 5 | Strengthen policy advocacy and enhance collaboration on RE and electrification efforts:<br>• Review and reform policies and regulatory frameworks by conducting stakeholder consultations, benchmarking global best practices, and collaborating with policymakers to streamline approval processes and increase financing opportunities.<br>• Support the development of legal instruments to enforce policy provisions by engaging legal experts, drafting enforceable frameworks, and aligning them with international RE standards and commitments.<br>• Involve CSOs and media in policy development by organizing public dialogues, leveraging social media campaigns, and equipping CSOs with resources to amplify renewable energy narratives *(Conclusions # 12, 16, and 18)*. | Energy Division/ MMERE, and UNDP | Octo ber/2 025 | High |
| 6 | Improve knowledge management and dissemination and develop a clear sustainability and exit plan:<br>• Compile information on organizations sharing best practices for managing similar technologies by conducting outreach, participating in knowledge-sharing platforms, and establishing partnerships with regional and international experts.<br>• Collaborate with government stakeholders to develop a clear exit strategy and sustainability plan by facilitating joint workshops, identifying long-term ownership structures, and aligning strategies with national policies. | Energy Division/ MMERE, and UNDP | Octo ber/2 025 | Medium |

| | | | | |
|---|---|---|---|---|
| | • Document and share best practices on electricity savings, GHG reductions, job creation, and fossil fuel savings by collecting data, engaging storytellers for user-centric narratives, and distributing reports via accessible platforms *(Conclusions # 3, and 19)*. | | | |



# 2. Introduction

## 2.1 Purpose and objective of the terminal evaluation

The main purpose of this terminal evaluation (TE) was to assess the project's achievements against its original objectives, draw lessons to enhance the sustainability of its activities and support the improvement of UNDP programming. In addition, the TE fostered accountability and transparency by evaluating the extent of the project's accomplishments. The project concluded on November 12, 2024. In line with GEF's evaluation policy, UNDP MCO commissioned this evaluation to assess outcomes, promote learning, and guide future project design.

## 2.2 Scope of the evaluation

The SPIRES project aimed to expand access to electricity in rural areas of the Solomon Islands by promoting low-carbon technologies to support the national rural electrification program. The evaluation focused on assessing the project's goal as "reduced annual growth rate of greenhouse gas (GHG) emissions in the energy and end-use sectors of the Solomon Islands." The evaluation covered most of the project period, specifically the four years from November 12, 2020, to November 12, 2024, and was conducted between November 2024 and January 2025. Key stakeholders included government ministries, the private sector, research institutions, academia, NGOs, and CSOs. These groups were identified as critical users of the evaluation due to their roles in policy advocacy, capacity-building initiatives, research, and designing future projects. Though the project originally intended to install solar PV hybrid and battery energy storage systems at eight sites, it was scaled down to just four sites based on the recommendations of the mid-term review (MTR), which cited time and resource constraints as reasons to downsize.[1] The evaluation assessed all four project components: (i) improvements to RE and rural electrification policies, regulations, and planning; (ii) promotion of RE and rural electrification initiatives; (iii) application of RE technologies to support rural socio-economic development; and (iv) capacity-building for RE and EE.

## 2.3 Methodology

### 2.3.1 Approach:

The TE adopted a summative approach to assess the project's achievement of expected outputs and outcomes. The evaluator thoroughly reviewed the project's progress and accomplishments, evaluating the extent to which the intended five outcomes were realized. The TE also incorporated a formative element to identify lessons learned regarding the design and implementation of future projects. This approach aimed to enhance project designs by leveraging insights and experiences gained during the evaluation process. A constructive and participative approach guided the evaluation, involving close collaboration with the project team and consultations with stakeholders, including the Implementing Partner (IP), beneficiaries, and relevant academic, community service, and private organizations. Interviews and discussions gathered diverse insights, perspectives, and feedback. The TE consultant selected these three methodological approaches because they fostered open dialogue, validated findings, and provided a comprehensive understanding of the project's performance, challenges, and achievements. The TE also analyzed factors contributing to unmet targets, engaging stakeholders to uncover root causes and explore possible remedial actions. These approaches were chosen to accommodate the fact that the consultant had limited time and resources but needed to collect a wide range of data to address the evaluation questions and fulfill its objectives.

[1] In component 3, the total number of solar PV sites was reduced from the originally planned 8 to 4 in May 2024. This decision was driven by time constraints and the limited remaining budget, prompting the PMU and IP to agree on completing only the remaining 4 sites. This reduction is anticipated to impact key target indicators, particularly $CO_2$ reduction levels and job creation, as the project document's targets were set for 8 sites, while only 4 were completed.

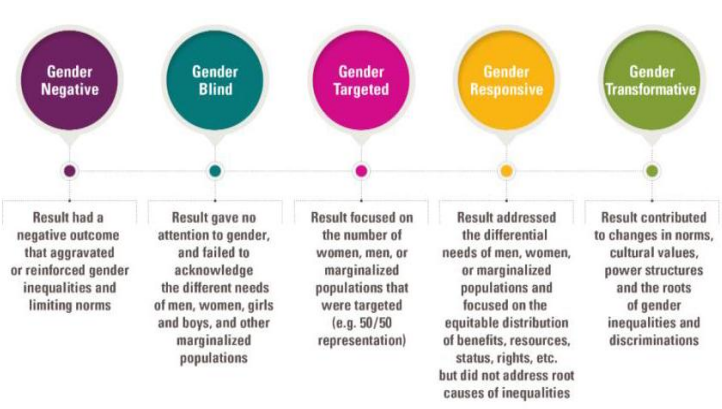
2.3.2 Evaluation process: As part of the evaluation, the TE consultant performed the following tasks to ensure that the data would be high-quality and that the findings, conclusions, and recommendations were credible.

- Understanding the ToR: The terms of reference (ToR) from UNDP MCO were thoroughly reviewed to ensure that the consultant understood them clearly and that the evaluation's purpose and methodology was aligned perfectly with them. The project's resource framework and timeline were also assessed for feasibility, and the ToR were used because they provided clear and actionable guidance (see Annex 1).
- Document review: The TE consultant reviewed key project documents (see Annex 4). Baseline and midterm GEF core indicators were analyzed along with terminal indicators to ensure that there would be a robust evidence base for the evaluation. This approach helped the TE Consultant gain a thorough understanding of the project. In addition, the TE Consultant developed tables to evaluate project results and gender responsiveness.
- Use of project's monitoring data: The TE Consultant utilized the project's management information system and analyzed monitoring data, though the system was found to be somewhat limited in robustness. Gender-disaggregated data from the project's capacity-building events were maintained, providing valuable insights into participation and inclusivity. Additionally, the consultant reviewed "Back-to-Office Reports" prepared by project and program staff following monitoring visits. By leveraging these diverse data sources, the consultant was able to verify and triangulate progress, ensuring a comprehensive and reliable assessment of project performance.
- Inception report development: The inception report outlined the country context, project details, evaluation scope, criteria, and methodology. It included an evaluation matrix, a stratified sampling design (Box 1), and a schedule for key milestones. Feedback from UNDP MCO was used to refine the evaluation matrix

**Box 1: Sampling design:** A stratified sampling method selected 20 of 32 participants to respond in order to ensure that there would be representative coverage of all categories. This approach captured diverse perspectives, particularly from small and varied groups, thereby enhancing the evaluation's accuracy and inclusivity. This method divided participants into distinct groups, or strata, based on shared characteristics (e.g., category) and sampled them proportionally to their representation in the overall respondent pool. By ensuring each category was adequately represented, the approach enhanced the accuracy and inclusiveness of the findings. Stratified sampling was especially valuable for capturing perspectives from smaller or highly diverse categories, ensuring no voices were overlooked in the evaluation.

- Mission preparation: Preparations for the field mission included organizing logistics, finalizing interviewees and site visits, and planning a nine-day mission (November 29–December 7, 2024, including travel) to Honiara, Solomon Islands, and the project site at Ginger Veila Beach Resort (see Annex 2).
- Interaction with project staff and introductory meeting: An initial briefing with UNDP MCO, RTA, and the project team was held online. It was followed by an in-person introductory meeting with the members of the PMU. The PMU presented the project's strategy, achievements, challenges, and bottlenecks and provided valuable insights to guide the evaluation process. This meeting allowed the TE Consultant to gain a comprehensive understanding of the project's strategy, its development process, activities conducted in various phases, and significant adjustments made.
- Direct observation: The TE Consultant employed both participant and non-participant observation methods and assessed the tangible outcomes of physical developments. This approach helped the TE Consultant gain a thorough understanding of the project.
- Most-significant-change technique: The TE Consultant employed the "most significant change" technique to evaluate the project's overall accomplishments and measure the extent of change. This approach helped the Consultant gain a thorough understanding of the project. The tool was used during KIIs and FGDs.
- Use of gender result effectiveness scale method: The project's contribution to GESI-responsive results was measured using the gender results effectiveness scale (GRES), and potential opportunities for developing new projects aimed at addressing key gender gaps were identified (see Figure 1). This approach helped the TE Consultant gain a thorough understanding of the project. In addition, the team developed tables to evaluate project results and gender responsiveness. The Gender Result Effectiveness Scale (GRES) scale was used to evaluate the outcomes of the activities. Gender sensitivity tools, including appropriate language, respect, comfort, and a supportive environment, were rigorously applied to assess attitudes and behaviours regarding gender,

**Figure 1: The Gender Result Effectiveness Scale**



inclusion, and human rights. The following gender-responsive features were incorporated into KIIs, FGDs, and direct observations to ensure high-quality data collection:

- Key informant interviews: TE Consultant was mindful of gender sensitivity, employing gender-responsive language and behavior and adapting the checklist during KIIs.
- Focus group discussions: During the facilitation of FGDs, the TE Consultant was was highly attentive to the participants' sensitivity, ensuring respect for their culture, traditions, and rights. Efforts were made to create a comfortable environment for interviews. Gender-sensitive language and approaches were used throughout the discussions.
- Direct observation: Gender sensitivity and appreciative inquiry approaches were applied while observing activities and interacting with people.

## 2.4 Data collection and analysis

The TE consultant collected primary data through focused group discussion (FGD) and key informant interviews (KIIs) and reviewed secondary information as well (see Section 2.3.2b). The consultant used an agreed-upon checklist and guide questions (see Annex 6), to capture the issues and concerns of project stakeholders and beneficiaries. An evaluation matrix (see Annex 7) was used to collect data. It included questions on the integration of gender equality and women's empowerment in the project's design, planning, implementation, and results (see Box 2).

a. Interaction with stakeholders and beneficiaries: The TE consultant conducted a site visit to Ginger Veila Beach Resort, the only feasible location due to logistical constraints, to interact with community members (see Annex 3), key informants, and observe demonstrations of solar PV systems. FGD was held with the Solar PV Committee. The inclusivity of this FGD was ensured by engaging both men and women. For the remaining three project sites, interactions were conducted with project staff. Both achievements and areas for improvement were documented during these interactions. Key observations from the site visits were also integrated.

b. Focus group discussions: FGDs were conducted with project beneficiaries, largely the user of solar power in Ginger Beach area. FDGs helped evaluate the project's progress and assess significant changes, particularly in terms of effectiveness and impact. The TE Consultant' assessment of GESI mainstreaming covered all aspects of governance systems, procedures, and policies, from the conceptualization of programs and projects to their implementation and M&E. While drafting key evaluation questions for FGDs, gender equality and empowerment of women (GEEW) aspects were carefully integrated, ensuring that gender considerations were incorporated at every stage of the assessment.

c. Key informant interviews: KIIs involved representatives from government ministries, the private sector, academia, NGOs, CSOs, and UNDP teams and they were selected collaboratively by the TE consultant, project team, and UNDP to ensure that diverse perspectives and a gender balance would be included. Gender-responsive tools were used, and data were disaggregated by gender where feasible. Efforts were made to ensure gender balance among interviewees, and the methods and tools used were gender-responsive, meaning they took into account gender equality, women's empowerment, and other cross-cutting themes. A GESI and human rights lens was applied throughout the data-gathering process. To delve deeper, discussions were also conducted to capture women's experiences and measure the sustainability of the initiative, considering prevailing societal norms and values. While drafting key evaluation questions for KIIs, GEEW aspects were carefully integrated, ensuring that gender considerations were incorporated at every stage of the assessment.

KIIs followed a semi-structured format, starting with broad questions to elicit open responses and narrowing down to specific topics requiring deeper insights. Developing a detailed list of evaluation questions (see Annex 6) ahead of time ensured that TE criteria were covered comprehensively. The "most significant change" technique was employed during the field visit to capture key achievements, unintended impacts, and lessons learned, particularly within the project's complex structure and diverse outcomes. By leveraging these methods, the TE consultant aimed to provide a robust, inclusive, and insightful evaluation aligned with project objectives. During the key informant interviews, the responses to the most feasible key evaluation questions and sub-questions were tabulated, with the highest frequencies counted and presented in parentheses. These were then converted into percentages, helping to substantiate the qualitative findings.

Despite several limitations (see section 2.6), the TE Consultant successfully conducted the planned KIIs and FGDs to encompass all stakeholder categories while maintaining quality. He ensured gender sensitivity and addressed human rights issues using tools promoting equality. The lower number of women consulted was due to the predominance of male staff among government stakeholders and solar committees. Nonetheless, the TE Consultant made every effort to include as many women as possible to accurately capture their perspectives.

**Box 2: Addressing cross-cutting themes during data collection and analysis**

The TE Consultant considered gender and human rights throughout the process of data collection, analysis, and reporting by using the following methods.

1. Conducting FDGs both with men and women thoroughly explore women's specific issues and concerns.
2. Ensuring that ethical considerations and tailored methods of data collection were integrated.
3. Employing gender-inclusive language and being aware of potential gender bias in evaluation questions and checklists.
4. Securing informed consent from all FGD participants, clearly explaining the evaluation's purpose, data usage, and procedures before collecting any data.
5. Formulating questions and checklists in a manner that enabled participants to openly share their experiences and perspectives regarding gender and human rights.
6. Avoiding framing questions in a way that assumes the absence of gender or human rights issues.
7. Creating a supportive environment in which participants could comfortably share their experiences, especially when collecting sensitive data on topics like gender-based violence and discrimination.
8. Ensuring that the data collection approach was culturally sensitive and respected human rights principles.
9. Integrating GEEW (Gender Equality and Empowerment of Women) into the evaluation scope by incorporating gender considerations at every stage of the assessment.
10. Using the Gender Results Effectiveness Scale (GRES) to evaluate the project's outcomes, assessing whether they meet the criteria of (i) negative, (ii) blind, (iii) targeted, (iv) responsive, or (v) transformative, along with the rationale for each.

The evaluation included 25 interviewees, of whom 8 were female. Among the key informants, 7 represented Government/Ministries (PB members), two came from the private sector, research agencies, and academia, and another two from International Banks, while 14 were from UNDP project, programme, or regional offices. A total of six people participated in the FGD, including three women. Additionally, 27 different types of documents were reviewed. Each data collection method was strategically analyzed to ensure well-rounded and evidence-based findings.

d. Triangulation: To ensure data validity and reliability, information was cross-verified through triangulation, comparing the results of KIIs, tangible results at project sites, and the "most significant change" technique with documented data. Specifically, the TE Consultant employed a wide variety of data sources and methodologies and meticulously cross-checked and validated them to ensure the inclusivity, accuracy, and credibility of the data and information. Primary information obtained through various tools such as KIIs, FGDs, direct observation, and the most significant change technique was compared to and cross-referenced with documented data. He tested the consistency of the data and other findings obtained through different instruments to identify any factors that might have distorted the results. Once the data was validated, the the TE Consultant tabulated, synthesized, and analyzed it before drawing conclusions. To ensure reliability, exceptional findings were further investigated using "outcome harvesting,[2]" involving targeted follow-ups with key informants for validation. This robust methodology ensured that the results were credible, evidence-based, and well-substantiated.

e. Data analysis: The analysis relied on evidence-based, reliable, and valid data to produce concise and specific findings supported by both quantitative and qualitative information. The TE consultant used three methods: i) descriptive analysis and an examination of activities, partnerships, and delivery mechanisms, (ii) content analysis and identification of trends, themes, and patterns in documents for key evaluation questions, and (iii) thematic analysis and analysis of responses from interviews and observations, categorizing them to highlight key issues and concerns, while analyze the data. The evaluation adopted a three-pronged approach to ensure depth and relevance: the summative approach measured the project's success in achieving its intended outputs and outcomes; the formative element uncovered valuable lessons to inform the design and implementation of future initiatives; and the constructive, participatory approach fostered active collaboration with the project team and meaningful consultations with stakeholders, creating a shared sense of ownership and insight.

[2] Outcome harvesting in evaluation data validation focuses on collecting and verifying specific, meaningful changes that have occurred as a result of an intervention.

The TE Consultant employed a mixed approach for data analysis, which involved analyzing both quantitative and qualitative data and triangulating the findings from each type. For qualitative analysis, a thematic approach will be utilized along with a content analysis tool.[3] Responses will be categorized and grouped based on similarities to identify respondents' key issues and concerns. Quantitative data will be analyzed using Excel tools as necessary.

## 2.5 Ethics

This evaluation was guided by the principles outlined in the United Nations Evaluation Group (UNEG) 'Ethical Guidelines for Evaluations.'[4] The TE consultant upheld high ethical standards, signed a code of conduct, and ensured stakeholders' rights and confidentiality were protected. Data was handled securely and used solely for this evaluation. Explicit consent will be required for any other use. Through ethical rigor and trust-building, the TE provided a fair and objective assessment to guide future improvements.

## 2.6 Limitations of the evaluation

The consultant identified some of the challenges that he faced during data collection as well as the approach he adopted to mitigate (see Table 1 below).

Table 1: Limitations and their mitigation

| Sn | Limitations | Mitigation measures to fill the data gaps |
|---|---|---|
| 1 | Data gaps: The project has an inadequate management information system to maintain data at both the output and outcome levels. *This limits the project's ability to track progress and assess impacts, hindering informed decision-making.* | • The TE consultant conducted a thorough review of secondary information to identify outcome-level results and addressed data gaps through KIIs. However, collecting disaggregated data proved challenging due to their scattered nature, making them difficult to obtain. Only partially disaggregated data was collected. |
| 2 | Unequal involvement of stakeholders: Some stakeholders had only brief involvement in the project, leading to limited institutional memory of the project's overall goals and objectives. *Limited stakeholder involvement risks weakening institutional memory, potentially undermining the project's long-term goals and continuity.* | • To bridge this gap, the TE consultant provided a comprehensive project overview, highlighting how each stakeholder's activities contributed to the overarching project goals before collecting specific data and information. |
| 3 | Use secondary source: Relying on secondary sources for data collection at three inaccessible project sites limited direct observation and in-person discussion. *It may compromise data accuracy, potentially leading to an incomplete understanding of project impacts in inaccessible sites.* | • The TE consultant addressed this limitation by thoroughly reviewing secondary information, conducting targeted online interviews with probing techniques, and engaging extensively with project staff. Ginger Beach Resort was selected for fieldwork to ensure the evaluation would comprise diverse geographical representation, broad programmatic coverage, and varied interventions. |
| 4 | Limited stakeholder availability for the interview: Scheduling interviews posed challenges due to the limited availability of stakeholders who were engaged in multiple tasks. *It may lead to gaps in capturing diverse perspectives and insights.* | • The TE consultant addressed this by adopting flexible interview schedules, including during off-hours. Sharing final schedules in advance ensured effective stakeholder mobilization and enabled engagement with all planned participants, thereby facilitating meaningful, high-quality interactions. |
| 5 | Staff turnover: High staff turnover in the project and among IP reduced the institutional memory of the project's results. *It may undermining the continuity and sustainability of the project's results.* | • The TE consultant collaborated with the PMU and UNDP to identify stakeholders with the most relevant knowledge. Outgoing staff (the earlier Program Manager) was interviewed to recover key project details, and a checklist was used to ensure comprehensive data collection. Coordination with the UNDP Country Office and partner organizations further mitigated the impact of lost institutional memory. |

Potential data gaps from the five identified challenges were effectively mitigated through tailored measures for each issue. All required data and information were collected to the extent possible, ensuring that the

[3] This is the technique usually used to analyse qualitative data.
[4] Access at: http://www.unevaluation.org/document/detail/100. The TE ensured credibility and reliability through a rigorous, evidence-based approach that emphasized collaboration with stakeholders, including project management, government representatives, UNDP offices, regional advisors, and beneficiaries. This inclusive process incorporated diverse perspectives to provide a comprehensive understanding of the project's successes and challenges. The TE leveraged collective expertise to improve data-sharing, documentation, and knowledge-exchange, enhancing the quality and relevance of the evaluation.

evaluation met the required standards of comprehensiveness, timeliness, and depth. More specifically, data limitations were mitigated by triangulating information from multiple sources, ensuring diverse perspectives, and applying rigorous analytical methods to minimize bias and enhance the reliability of findings and conclusions. However, these data limitations had not much impact on the interpretation of findings and the conclusions drawn.

## 2.7 Structure of TE Report

This report is organized into four main chapters, along with an executive summary and 13 annexes. The first chapter sets the stage with an overview of the project background, while the second chapter provides a detailed description of the project. The third chapter, which serves as the heart of the report, presents the evaluation findings, covering three key areas: project design and formulation, implementation, and the resulting impacts. The fourth chapter offers a concise summary of key findings, conclusions, recommendations, and lessons learned, followed by the annexes, which offer additional supporting details.

# 3. Project Description

## 3.1 Project start and duration, including milestones

The project commenced on November 12, 2020, and was completed on November 12, 2024. Key milestones of the project are outlined in Table 2, below.

## 3.2 Development context

The development context is summarized across four key areas:

- Environmental context: The Solomon Islands, an archipelago of 996 islands, is rich in renewable energy (RE) potential, including geothermal, solar, and biomass. Currently, only biomass, solar, and hydropower are utilized. While contributing just 0.01% of global GHG emissions, the country faces significant climate vulnerabilities as an LDC and small island developing state. The government is prioritizing RE and energy efficiency (EE) to reduce reliance on fossil fuels and achieve rural electrification goals. Progress has been made, with increased investments in solar and wind, but challenges like high energy costs, limited infrastructure, and access to remote areas persist, worsened by global oil price fluctuations and COVID-19 disruptions.
- Socio-economic context: Around 80% of the population lives in rural areas, relying on subsistence livelihoods and natural resources. The depletion of natural timber, the primary export, threatens economic stability. Rural areas depend on biomass for energy, while urban areas rely on costly diesel power. Although solar energy use is growing, unmet demand and maintenance issues limit its impact. High tariffs and limited grid coverage hinder provincial economic growth. Despite these challenges, the project has encouraged a shift toward REs, with investments in solar and wind energy aiming to reduce dependence on imported fuels.

Table 2: key milestone of the project

| Sn | Key milestone | Date/Year |
|---|---|---|
| 1 | Approval of PIF | 29 Nov 2017 |
| 2 | Project approval from GEF CEO | 3 August 2020 |
| 4 | Signed by MMERE, MECDM and UNDP | 12 Nov 2020 |
| 5 | Inception workshop | 23-24 Mar 2021 |
| 6 | Expected Operational Closing date | 12 Nov 2024 |
| 7 | Disbursement of first instalment $120,000 | April 2021 |

Source: Project's record, 2024)

- Institutional context: The Solomon Islands Electricity Authority (SIEA) oversees grid-connected electricity, primarily diesel-generated, serving Honiara and provincial centers. With only 30 MW of national capacity (26 MW for Honiara), limited infrastructure and high diesel transport costs drive up electricity expenses. The Ministry of Mines, Energy, and Rural Electrification (MMERE) manages energy policies and tariffs but faces capacity and cost challenges in ensuring equitable energy access.
- Policy context: Despite minimal GHG emissions, the Solomon Islands is highly vulnerable to climate change. The government is committed to ambitious RE and EE initiatives, aiming to enhance rural electrification, reduce fossil fuel dependence, and strengthen climate resilience. These efforts align with global climate goals but face resource and capacity limitations.

## 3.3 Problems that the project sought to address: Threats and barriers targeted

The project contributed to addressing the following four problems:

- Policy, regulatory, and planning barriers: The Solomon Islands faces challenges in advancing RE and rural electrification due to gaps in policy, regulation, and planning. Despite a draft National Energy Policy (2013) and rural electrification targets, progress is stalled by a lack of formal regulations, enforcement

frameworks, and comprehensive planning. Key issues include inadequate policies on RE and EE, insufficient legislative provisions for private-sector participation, and limited stakeholder engagement. These barriers are exacerbated by weak regulatory standards and insufficient political commitment.

- Institutional and financial barriers: Limited capacity and resources within the MMERE have led to fragmented efforts and poorly designed off-grid RE projects. Financial constraints, such as dependency on donor funding, limited private-sector engagement, and land tenure challenges, further impede progress. High upfront costs, logistical difficulties in remote areas, and low rural incomes discourage investment, leaving off-grid communities underserved and reliant on expensive, unsustainable energy sources.
- Technical barriers: Geographic isolation and rugged terrain separate RE sources like hydropower and geothermal from load centers, complicating adoption. Local expertise for designing, operating, and maintaining RE systems is insufficient, and access to high-quality components and opportunities for local engineering firms is limited. These issues stem from inadequate technical capacity and unreliable equipment access.
- Awareness and information barriers: Limited awareness of RE and EE technologies among government staff, private-sector actors, and communities is driven by inadequate data and training opportunities. Inadequate knowledge undermines technical capacity, community participation, and confidence in RE systems. Poor communication infrastructure in remote areas further hampers RE adoption, threatening socio-economic progress and perpetuating reliance on fossil fuels and GHG emissions.

## 3.4 Immediate and development objectives of the project

The immediate objective of the project was to facilitate the achievement of increased access to electricity in rural communities in the Solomon Islands and its development objective (goal) was "reduced annual growth rate of GHG emissions in the energy and energy end-use sector of the country."

## 3.5 Description of the project's theory of change

The theory of change (ToC) of the project focused on advancing the country's energy objectives, with an emphasis on rural electrification as Solomon Islands pursues a low-carbon development pathway. It outlined how the country's contribution to global climate change mitigation, as stated in its NDC, can be enabled. The project facilitated the implementation of key strategies in policy, institutions, finance, technology, and information and facilitated the process of addressing gaps in the adoption of RE and EE technologies in the electricity sector, driving the achievement of the country's rural electrification target. Each of the four project components led to specific outcomes (see Annex 5, section 5.5), which, collectively, contributed to the project's objectives and overall goal. The project designed 19 outputs.[5] The project's activities were designed to overcome barriers in technology, policy, capacity development, and awareness. For each outcome, an alternative scenario was incorporated into five assumptions—conditions were provisioned to realize the desired outcomes. A total of five key drivers were identified to push the project toward its objectives, particularly saving energy and reducing GHG emissions.

The project's ToC illustrated how the project's four strategies collectively led to four project outcomes that worked toward the achievement of the project objective. The assessment also revealed that the project's strategy, as outlined in the project document, remained largely consistent throughout the project's duration. No major modifications were introduced to the project's components, outcomes, or outputs. However, some adjustments were made at the activity level. In sum, the project's ToC is robust, as there is a good correlation among the activities, outputs, outcomes, and overall goal (the impact). In general, the project's indicators for outcomes and impacts are SMART, however, two indicators, such as (i) the percentage of women in community-based RE Service companies (RESCO) receiving moral support from village men to boost their leadership confidence, and (ii) the percentage of successful maintenance or repair work on demonstrations by MMERE and all RE-based rural electrification projects across the country, are inherently "subjective." As a result, measuring their progress proves to be challenging. The ToC followed the following systematic progression, which connects various elements: Outputs → Outcomes → Impact Drivers and

[5] Component 1 includes outputs 1.1 to 1.4, totaling four outputs. Component 2 covers outputs 2.1 to 2.4, also consisting of four outputs. Subcomponent 3.1 encompasses outputs 3.1.1 through 3.1.5, contributing five outputs. Subcomponent 3.2 includes outputs 3.2.1 and 3.2.2, which together make up two outputs. Finally, Component 4 is made up of outputs 4.1 to 4.4, completing the remaining four outputs.

Assumptions → Intermediate States → Impacts. Financial resources were allocated to execute planned activities aimed at overcoming barriers, which in turn were intended to achieve the anticipated 19 outputs.

To conclude, with the careful implementation of sustainable energy and low carbon interventions and other policy commitments, including (i) the continuous commitment, support and active participation of the national and provincial governments towards the achievement of the National Energy Policy (SINEP, 2014), National Development Strategy-NDS (2011-2020), and the country's NDC; (ii) the realization of committed co-financing from the national and local governments in the implementation of project activities and monitoring systems; and (iii) sustained RE-based energy consumption growth at a rate of 6.6% per annum. The project collectively contributed to the "facilitation of the achievement of increased access to electricity in rural communities in the Solomon" which further contributed to the "reduction of the annual growth rate of GHG emissions in the energy and energy end-use sector of the country (overall impact of the project)."

## 3.6 Expected results

The expected results of the project include the achievement of one goal (impact), one objective, and four outcomes, each crafted under four distinct components. Details regarding the objective and the goal and their indicators as well as the four components and four outcomes and their indicators are presented in Annex 5, section 5.3.

Overall, the project's 18 outcome and impact indicators are SMART, yet two stand out as inherently subjective: (i) the percentage of women in community-based RE Service Companies (RESCO) receiving moral support from village men to enhance their leadership confidence, and (ii) the percentage of successful maintenance or repair work on demonstrations by MMERE and other RE-based rural electrification projects nationwide (see section 4.3.1 for details). A summary of the project's indicator achievements, showcasing progress, is also presented in section 4.3.1.

## 3.7 Total resources

The total resources for the project amounted to US$ 19,165,257, with US$ 2,639,726 from GEF, and US$ 16,425,531 from the government, and US$ 100,000 from UNDP. A total of US$ 9,854,479.05 was generated from various agencies, however, the planned co-financing was 16,525,531 (see Table 5 below, section 4.2.3b). This figure indicates that 59.63% of the total planned co-financing was generated.

## 3.8 Main stakeholders: summary list

The project's stakeholders were categorized into government ministries, the private sector, research and academic institutions, and NGOs/CSOs. Key government ministries included MMERE, which leads energy initiatives, and the Ministry of Environment Climate Change Disaster Management and Meteorology (MECDM), which addressed climate concerns, as well as others such as the Ministry of Fisheries and Marine Resources (MFMR), Ministry of Health and Medical Services (MHMS), and Ministry of Development Planning and Aid Coordination (MDPAC), which contributed to policies on fisheries, health, commerce, education, and infrastructure to ensure a coordinated multi-sector approach.

The State-owned agencies involve Solomon Power, and the state utility, all of which have been critical for the technical and operational success of the project. Academic institutions like Solomon Islands National University (SINU) provide research expertise on RE technologies, environmental sustainability, and resource management. NGOs and CSOs, including churches and groups like West Are'are Rokotanikeni Association (WARA) and the Solomon Islands Women in Business Association (SIWIBA), foster grassroots engagement, promote sustainable energy practices, and empower women, thereby enhancing socio-economic development in rural areas. Without the involvement of private investors and companies in the RE sector—whether as technology suppliers, research and development partners, or providers of essential services like operation and maintenance (O&M)—the sector would not have flourished.

## 3.9 Key partners involved in the project

Key partners involved in the project, including UNDP, other joint IP, executing agencies, country counterparts – including the GEF Operational Focal Point – and other key stakeholders. They included MMERE, UNDP CO, UNDP MCO, MECDM, partner SIG ministries, and the provincial governments of Malaita and Makira. Other partners are mentioned in Section 3.8 above.

## 3.10 Context of other-ongoing and previous evaluations

Ongoing and planned initiatives in the Solomon Islands provided a robust foundation for advancing rural electrification and RE. Notable projects included the World Bank's efforts to expand electricity access, enhance Solomon Power's (SIEA) efficiency, and improve rural infrastructure through programs like the Electricity Access Expansion and Sustainable Energy projects. Similarly, the Asian Development Bank (ADB) supported grid-connected solar power and hydropower schemes like the 750 kW Fiu River Project and co-financed the transformative 20 MW Tina River Hydropower Project, reducing reliance on fossil fuels. The Tina River Hydro Project, implemented in collaboration with the MMERE and MECDM—the Green Climate Fund (GCF) focal point in the Solomon Islands—receives significant financial support from the Green Climate Fund. Additional contributions from the EU, SIEA, JICA, and UNICEF included hybrid solar-diesel mini-grids, school electrification, and EE upgrades as well as community-based RE projects. However, challenges such as low public awareness, limited energy conservation efforts, and inadequate policy support threaten the realization of the 35% rural electricity access target and commitments under the NDC. The project facilitated the bridging of these gaps by complementing existing efforts, introducing innovative solutions, and implementing follow-up interventions that bolstered rural electrification and energy access and delivered significant socio-economic and global environmental benefits.

# 4. Evaluation findings

## 4.1 Project design and formulation

### 4.1.1 Analysis of results framework: Project logic, strategy, and indicators

*Finding 1: The project's objectives were aligned with national priorities, including rural electrification and transitioning to a low-carbon development pathway while addressing key barriers within the development context. However, external factors like the COVID-19 pandemic and internal challenges, including staff turnover and inadequate IP capacity, delayed implementation and constrained the achievement of planned outputs.*

*Finding 2: The ToC was clearly defined, strategically comprehensive, and instrumental in guiding project implementation. It identified root causes, barriers, and enablers, and included risk mitigation strategies. It aligned with project goals and national energy objectives.*

*Finding 3: The project contributed to broad development goals, including gender equality and improved governance, but delays in the installation of solar PV systems and limited time for capacity-building affected outcomes. The inclusion of gender-responsive indicators was commendable, but the challenges of data management and the infrequency of PB meetings hindered resource mobilization, policy work, and strategic oversight.*

a. Alignment of project objectives and design with country priorities and feasibility: A total of 80% of key informants revealed that the project's objectives and components were generally clear, practicable, and feasible within the designated time frame and that they were strongly aligned with the country's priorities (see Annex 8). An impressive 71.4% of government officials and PB members (see Annex 8) confirmed that the project's design and formulation were not only clear and practicable but also perfectly aligned with national plans, policies, and priorities, making it both relevant and achievable. There was a well-defined correlation between the development context and the barriers identified, with each project component strategically addressing these barriers and linking directly to the intended outcomes. While the design was initially viable, external factors such as the COVID-19 pandemic delayed many activities. It fully impacted 12 months and partially impacted another 1 month. Internal challenges, including staff turnover within UNDP, the PMU, and the PB (in the absence of proper human resource management and proper retention plan), coupled with the inadequate capacities of IP, further strained the timeline, rendering it inadequate to fully achieve the planned outputs. A total of 48% of key informants noted that staff turnover at the UNDP CO, PMU, and PB affected the project's progress (see Annex 8). The turnover of staff and PB member is summarized in Box 3 below. Despite these challenges, the project maintained a country-driven approach, aligning with national priorities like rural electrification and transitioning to a low-carbon development pathway. It also underscored the Solomon Islands' commitment to global climate change mitigation efforts, as outlined in its NDC.

b. Alignment of outcomes and outputs with the theory of change: A total of 88% of key informants were agreed that the project's outcomes and outputs were well aligned with the ToC (see Annex 8). Indeed,

the outputs were specifically designed to contribute to each outcome. Project's activities were crafted to support 19 outputs which collectively advanced four key outcomes, thereby ensuring a clear connection between the project's objectives and intended results. A thorough review disclosed that the project document provided detailed and clear guidance, outlining the problems to be addressed and offering an in-depth explanation of the ToC. This framework facilitated the achievement of the country's energy objectives, particularly in terms of rural electrification. The ToC was instrumental in guiding the project towards achieving its goals within the broad national development context.

**Box 3: Turnover of staff and PB members**

At the UNDP CO level

- Three Deputy Resident Representative (DRR)/Country Managers oversaw the project during its implementation, but the DRR position was vacant from January to June 2024.
- Two Program Specialists from the Resilience and Climate Change (RCC) Unit provided technical inputs during the project period. However, this position was vacant for over 16 months, including the final six months of the project when critical technical backstopping was required.

At the project level

- The first CTA served from March 2022 to July 2023, after which the position was vacant until February 2024. A new CTA was appointed on 23rd March 2024 and his contract was concluded in August 2024.
- Although the project officially began on 12th November 2020, the Community Liaison Officer was only recruited in the third quarter of 2021.
- A new Project Manager was appointed on 29th June 2023, followed by the recruitment of the Community Liaison Officer and Communication and Monitoring Officer on 17th September 2023. The positions of Project Engineer and Finance and Admin Manager remained consistent throughout. Despite the challenges of staff turnover, the PMU managed to recruit the new set of three staff members within a one-month timeframe.
- The resignation of the Finance and Admin Officer caused delays in financial reporting. The Procurement Officer temporarily assumed the responsibilities of the Finance and Admin Officer and sorted out the back-logs.

At the project board level

- There was minimal turnover among PB members. However, during the project, the PB Co-chair (Permanent Secretary of MECDM) transitioned to the Ministry of Planning and Development Coordination in March 2024, which did not significantly impact the PB's overall decision-making.

*Source: Project's record and consultations (2024)*

c. Theory of change clearly defined and strategically comprehensive: According to 88% key informants, the ToC was clearly defined and robust (see Annex 8). It provided a clear definition of the problem and its root causes, outlined desired outcomes, and included an analysis of both barriers to and enablers for achieving those outcomes. The ToC also incorporated strategies for overcoming barriers, and a focus on specific responses to ensure the project's success. The ToC is still valid, and the project document provides a comprehensive risk assessment. A detailed risk log identified 12 risks, assessed on a scale from 1 to 5 according to impact and probability, and outlined corresponding countermeasures. It is commendable that the PMU has updated the risk log and shared it with UNDP for integration into the Quantum system. According to the 64% key informants, this strategic approach ensured that the project stay aligned with its goals and mitigated potential risks (see Annex 8). The project faces several risks including financial, operational, safety and security, social and environmental, and strategic that undermine the project's implementation pace (see Annex 5, section 5.15).

d. Project's results framework clearly defined and contextually adapted: The project defined its results framework with SMART criteria (see Annex 5, section 5.3). With a few exceptions, the framework remained suitable for monitoring the project's progress throughout its duration. Some modifications to the indicators were suggested in the MTR. These modifications were valid and were aligned with the evolving project context. The project's objectives and outcomes were clearly described. Concise numerical targets and time frames were set for all the SMART indicators. The annual targets defined during the project's design phase supported the planning process. While the framework was slightly modified during the inception workshop, these changes did not affect either the overall outcomes or the indicators. They did, however, alter project activities under Outcome 1. Considering the changing policy context and World Bank commitments, the revisions made during the inception workshop and MTR were well-justified; indeed, they considerably enhanced the project's "value for money." Had the MTR been conducted when originally scheduled, there would have been additional time to further refine and strengthen the project's results.

e. Project's integration of broad development impacts with gender-responsive indicators: The project was designed to capture broad development impacts such as income generation, gender equality, women's empowerment, and improved governance through socioeconomic co-benefits. However, a total of 76% of key informants' perspective, not all of these components have fully matured, primarily due to time constraints (see Annex 8). For instance, delays in solar PV systems installation affected the use of surplus

power in the productive sector to generate income; that said, improvements were, in fact, made over time. The promotion of gender equality and women's empowerment through the formation and institutionalization of solar PV management committees and training was delayed, and the project had limited time for capacity-building, awareness, and institutionalization. Instead, it focused on structural components. Despite these challenges, the project contributed positively to governance by fostering transparency, accountability (see Box 4), and the rule of law.

The project included sex-disaggregated and gender-responsive indicators and targets but faced difficulties in generating and managing sufficient data due to both internal and external challenges, limiting its ability to adequately measure inclusiveness. A total of 80% of key informants said that the National Implementation Model (NIM) governance structure[6] was generally appropriate, with the MMERE leading the project, supported by the MECDM and other relevant ministries. The project was governed by a PB[7] consisting of the MMERE, the MECDM, partner ministries, beneficiary group representatives, and UNDP CO. Senior government officials, including permanent secretaries and the UNDP CO country manager, participated in the PB. However, 72% key informants argued that the absence of the Ministry of Finance and Treasurer, Chamber of Commerce and the Think Tank/the academia on the board hindered resource mobilization and future planning (see Annex 8). More precisely, representatives from the private sector and academia highlighted a critical challenge— the limited engagement of key stakeholders in PB, including the Ministry of Finance, Chamber of Commerce, and academia, which they believe hindered effective resource mobilization and the overall planning process. In addition, only three board meetings were held instead of the planned eight (one every six months). More frequent meetings would have enhanced the project's oversight and strategic direction.

**Box 4: Accountability tools**

To ensure transparency and accountability, the project completed three annual audits, organized four public hearing programs (one at each demo site), and installed four project information boards. A community feedback mechanism was implemented to promote inclusivity in project oversight. Local stakeholders were engaged through review and reflection sessions as well as on-the-job training during the installation of the Solar PV systems. It also created a Facebook page and an official website to share programmatic, administrative, and financial information. Additionally, flyers and brochures were developed and widely distributed to stakeholders and beneficiaries.

### 4.1.2 Assumptions and risks

*Finding 4: The project clearly articulated assumptions and risks in its design. During the project preparation grant (PPG) phase, it identified 12 risks and aligned them with the ToC and results framework. While core assumptions remained valid, new challenges such as the COVID-19 pandemic and travel restrictions emerged and impacted project progress.*

*Finding 5: The project effectively developed countermeasures to mitigate the 12 key risks. Its efforts were supported by capacity development, stakeholder's engagement, and a detailed action plan. Externalities, including the COVID-19 pandemic, natural disasters, political unrest, and other unforeseen challenges influenced project outcomes and required adaptive measures, including SESP, to address.*

a. Articulation of assumptions and risks in the project design: Assumptions[8] and risks were clearly articulated in both the project identification form (PIF) and the project document. During the PPG phase, 12 risks[9] were identified and effectively incorporated into the project design. It was found that the ToC and PRF addressed the underlying drivers and assumptions related to each activity, ensuring alignment with the overall project results. A total of 84% of key informants said that the project had assumed it would secure continued support from national and provincial governments to sustain established mechanisms after its conclusion and that it had made this assumption valid throughout the project tenure (see Annex 8). Then, even as the identified risks and assumptions remained relevant, new threats emerged, particularly the COVID-19 pandemic. Restrictions on shipments and the travel of international consultants posed challenges. A notable 78.5% of project staff and UNDP officials pointed out that unforeseen external factors, such as the COVID-19 pandemic, cyclones, political unrest (including the Honiara riots), and climate change

[6] This role was reflected in a standard basic assistance agreement signed by UNDP with the Government of the Solomon Islands and the Country Programme.
[7] The project board was established to oversee project management, review progress and evaluation reports, and approve programmatic modifications in line with GEF/UNDP procedures. It made consensus-based decisions on project management, recommended project plans and revisions for UNDP and IP approval, and addressed project-level grievances.
[8] Key assumptions included the full support and commitment of state governments and the private sector to replicate the successful outcomes of demonstration projects, a step crucial for achieving long-term goals beyond the project's available funding.
[9] The risks the project faced including inadequate local capacity, delays in policy approval by government agencies, and the economic unfeasibility of RE-based electrification for off-grid communities. Other challenges included the vulnerability of solar installations to climate events, limited community support for off-grid demonstrations, delays in securing co-financing, and inconsistent government support. Low petroleum prices could reduce interest in RE generation, especially as the construction and operation of low-carbon projects poses safety and environmental risks. Land ownership issues and socio-cultural and climate-related factors are other potential barriers to sustainability.

impacts, were not anticipated during the project's design and formulation phase, which posed challenges in the implementation process. Travel restrictions within the country itself further influenced the project's progress, but the core assumptions underpinning the project design remained largely valid.

b. Logical and robust assumptions and risks guided activities and outputs: According to 80% of key informants, the 12 key risks identified by the project remained relevant throughout its implementation (see Annex 8). It was found that the project successfully developed and implemented countermeasures to mitigate these risks, ensuring the smooth execution of activities and minimizing the impacts of the risks. The UNDP SESP assessment also identified four moderate-risk[10] factors with a higher-than-average likelihood of occurrence and a medium potential impact on both people and the environment.[11] To address these, the project devised comprehensive mitigation measures, including parameters for their measurement, monitoring methods, and reporting procedures. Capacity development, stakeholder engagement, and an implementation action plan (including a schedule and a cost estimate of US$ 65,000) were also incorporated, however, their utilization was reportedly low.

c. Relevant externalities integrated into project findings: During the project's tenure, several externalities impacted its implementation. According to 92% of key informants, these included the COVID-19 pandemic, various disaster events such as cyclones, COVID-19, political unrest like the riot in Honiara, and the effects of climate change (see Annex 8). The global economic crisis, rising fossil fuel prices, and political unrest in the year 2021, after the election, also impacted the project's overall performance. These external factors influenced project activities and outcomes, necessitating adjustments and additional measures to mitigate their impacts on progress.

### 4.1.3 Lessons from other relevant projects incorporated into the project's design

#### a. Lessons from relevant projects

*Finding 6: The project effectively incorporated lessons from relevant donor-funded and government energy initiatives, ensuring synergy with existing rural electrification and RE efforts. Insights from past assessments, evaluations, and regional initiatives informed the project's design, while coordination with Solomon Power and other stakeholders facilitated complementarity and the sharing of best practices.*

Alongside donor-funded projects, the MMERE and the MECDM are actively involved in implementing government-funded energy initiatives, where selecting technology suppliers plays a key role. The project was designed to complement and build on existing rural electrification, RE, and EE efforts, leveraging insights from earlier projects and programs. The members of the PB confirmed that the design did indeed incorporate lessons from relevant assessments, evaluations, and experiences associated with other energy projects[12] at various implementation stages. These, along with regional initiatives Solarization of Head of State Residences in PIDF member countries (SoHS)[13] provided valuable learning that informed the project's approach to addressing challenges to accessing energy in rural areas.

The MMERE is advancing its National Energy Roadmap with support from various donors, including JICA. Solomon Power has also facilitated training and licensing for non-utility actors, thereby driving RE initiatives in off-grid areas with standalone systems. As both regulator and implementer, Solomon Power has been overseeing major projects implemented by the World Bank and ADB. According to 72% of key informants, the coordination of these projects has ensured synergy, complementarity, and the sharing of best practices (see Annex 8). More precisely, Multilateral Development Bank (MDB) and International Financial Institution (IFI) viz. the World Bank and Asian Development Bank officials were in full agreement that the project's coordination facilitated essential synergies, ensured complementarity across initiatives, and fostered the exchange of best practices—key factors that strengthened the project's impact. One of the project's best practices under the "Community Service Obligation" was supporting landowning communities and tribes by providing solar electrification for their villages and homes. This initiative adhered to Solomon Power standards and the SIEA Act, particularly in ensuring proper wiring for rural homes.

[10] These included risks related to occupational health and safety standards, the release of pollutants into the environment, land ownership and access issues, and socio-climatic factors.
[11] In compliance with SIG requirements, small-scale solar power plants under 50 kW were exempt from a full EIA. Instead, a waste management plan and community capacity building were required to mitigate potential risks.
[12] These include: (i) electrification projects for boarding schools, modelled after GIZ and European initiatives, (ii) small community-based RE projects like 50 kW mini-hydro systems funded by constituency development funds, (iii) CSO-led community initiatives, including those by religious institutions, (iv) solar PV projects funded by JICA for SIEA, and (v) a five-year UNICEF project (NZD 2.0 million) to electrify primary schools in Guadalcanal.
[13] The Government of India (GoI) funded the project through the India-UN Development Partnership Fund. Fortunately, I was the part of this evaluation.

### 4.1.4 Planned stakeholder-participation

*Finding 7: The project's stakeholder mapping and engagement plan were comprehensive. Stakeholders were selected based on their expertise and alignment with project goals. However, the limited involvement of agencies beyond the MMERE, the MECDM, and Solomon Power, coupled with high staff turnover and capacity gaps, weakened coordination and reduced the broad collaborative impact.*

The project conducted a comprehensive mapping of stakeholders during its design phase, identifying agencies based on their potential impact, ability to influence outcomes, and/or capacity to contribute resources (see Annex 5, section 5.10). The project effectively mobilized four categories of agencies—ministries, the private sector, research agencies and academia, and NGOs and CSOs—each playing a critical role in sustaining renewable energy initiatives. Ministries provided leadership through policy formulation, regulation, and long-term funding support. The private sector drove innovation, investment, and the efficient deployment of renewable energy technologies. Research agencies and academia advanced knowledge, created tailored solutions, and built local capacity, while NGOs and CSOs fostered community engagement, advocated for inclusivity, and ensured equitable access to benefits, promoting long-term acceptance and sustainability. The section 5.10 provided the proposed and actual stakeholders with roles and responsibilities in the tabular form. A total of 84% key informants confirmed that their selection followed inclusive consultations and that they had clearly defined roles to avoid duplication and foster synergy (see Annex 8). A stakeholder engagement plan was developed to align with the project's goals, and stakeholders were selected for their expertise, capacity, networks, and relevance. Key stakeholders included the MMERE, the MECDM, and other ministries of the Solomon Islands Government ministries as well as of provincial governments of Malaita and Makira. During implementation, however, the involvement of agencies other than the MMERE, the MECDM, and Solomon Power was limited. Officials from the Energy Division attributed this limitation to high staff turnover within the PMU and the RCC Unit of UNDP, which disrupted coordination and engagement. The limited capacity of project staff also hindered stakeholder mobilization, weakening opportunities for programmatic synergy and policy advocacy. While some stakeholders were consulted as needed, their roles were limited, thereby reducing the broad collaborative impact envisioned in the design phase. Project staff during interviews further said that agencies initially active in the project often became less engaged during implementation due to factors such as (i) limited ongoing communication, (ii) reduced focus on highlighting their contributions and benefits, or (iii) competing priorities that shifted their attention. Challenges like insufficient capacity-building, limited incentives, or evolving needs that were not fully aligned with the project may have also impacted their sustained participation. Organizational changes, resource limitations, or unclear accountability mechanisms also played a role in this reduced engagement.

### 4.1.5 Linkages between the project and other interventions within the sector

During implementation, the project established linkages with initiatives such as the SoHS project conducted by UNDP MCO and other energy projects. The absence of other GEF-funded energy projects was notable, with UNDP's GEF-funded biodiversity project being the only exception. These inadequate linkages limited the potential for broad programmatic synergy and reduced opportunities to leverage partnerships which could have enhanced impact within the sector.

### 4.1.6 Gender-responsive project design

*Finding 8: The project effectively integrated gender considerations into its design through a robust GAP with clear targets, budgets, and responsibilities, ensuring that women were empowered and participated equitably. During implementation, some gaps emerged, such as prioritizing hardware activities over gender-focused capacity-building. However, periodic gender-focused inductions played a pivotal role in bridging this gap, ensuring a more balanced and inclusive approach.*

*Finding 9: While the project utilized gender expertise in its design, it does not have a dedicated GESI focal point, and reliance on intermittent technical support constrained consistent gender integration. The fact that staff had to assume secondary GESI roles and that capacity-building was limited highlighted the need for dedicated resources and sustained gender expertise during implementation*

a. Integration of gender considerations into the project's design: The project design effectively integrated gender considerations, guided by a comprehensive gender assessment and a robust GAP included in the project document. A total of 88% of key informants acknowledged the GAP's context-specific gender analysis, which prioritized gender equality and women's empowerment, particularly in off-grid village

settings (see Annex 8). The GAP provided a detailed framework for gender-responsive activities, including indicators, targets, budgets, and responsibilities, with strategies to enhance women's roles in low-carbon technologies and climate change mitigation. During the inception workshop, women's feedback led to prioritizing female-headed households and ensuring equitable distribution of solar power. Multi-stakeholder engagement and gender-responsive planning and budgeting were sustained throughout, with balanced stakeholder participation ensuring gender integration in both design and delivery.

b. Alignment of the project with national gender policies and strategies: The project aligned with national gender equality policies and effectively integrated gender considerations into its strategy and ToC. While stakeholders recognized its focus on gender equality as key to achieving environmental outcomes, gaps emerged during implementation, particularly in prioritizing hardware activities like solar PV system installations over community engagement and capacity-building for gender integration. Limited training and insufficient capacity-building hindered a comprehensive understanding of gender-responsive approaches. These challenges underscored the need for greater emphasis on gender-focused software activities to complement tangible outcomes.

c. Utilization of gender expertise in project design: The project design effectively utilized gender expertise, reflected in the robust project documents and GAP. However, the absence of a dedicated GESI focal point within the PMU limited consistent gender integration during implementation. Reliance on intermittent support from the UNDP MCO Gender Officer and limited live technical assistance from the Regional Gender Advisor further constrained progress. GESI roles were secondary responsibilities for staff, which, combined with gaps in expertise, underscored the need for targeted capacity-building and dedicated resources for effective gender mainstreaming.

Box 5: Opportunities: Stakeholder voices

- Opportunity to expand livelihood options with solar power: *"Solar power opens up opportunities like solar-powered freezers for preserving fish, enabling sales in distant markets. Solar dryers can process fruits, vegetables, and copra, adding value to produce. Small solar mills can support food-based enterprises by grinding grains or nuts. Solar charging stations can create service-based income streams, and solar lighting can extend working hours for artisans and small businesses, boosting productivity."*
- Opportunity to scale up with GCF financing: *"There's an opportunity to develop a second phase of the project with GCF financing, targeting all rural boarding schools across the country."*

d. Assign and inform the UNDP gender-marker rating and gender analysis

The project's UNDP gender-marker rating was realistic, reflecting its alignment with gender analysis and national and international gender standards. Although US$ 72,000 was allocated for the GAP, limited time and budget constraints hindered full implementation. A monitoring mechanism tracked GAP activities, but women's participation in electricity supply and use remained limited despite recognition of their key roles in energy management. Marginalized groups, including women, and poor families of indigenous communities, saw limited benefits from sustainable energy solutions and low-carbon technologies. While women in SIG agencies played key roles in raising gender awareness, broader goals like promoting gender equity in low-carbon development and enhancing women's influence in technology remained only partially achieved, highlighting areas for improvement.

### 4.1.7 Social and environmental safeguards

*Finding 10: The project prioritized RE-based systems through compliance with SIG EIA standards and the development of site-specific social environmental management plans (SEMPs) to mitigate risks. The allocated funds were deployed strategically, but some confusion initially created challenges in fully implementing SEMPs. These gaps, however, were effectively addressed through the engagement of an SES consultant, ensuring steady progress.*

The project prioritized supporting RE-based systems to advance the country's energy, environmental, and development goals. These initiatives underwent the national EIA process and then, in line with SIG policy, a SEMP was developed for all medium- to high-risk impacts, detailing corrective measures and ensuring the implementation of appropriate mitigation measures. The project also integrated the principle of free, prior, and informed consent (FPIC), ensuring compliance with SIG EIA standards for both on- and off-grid low-carbon technology projects. It was shared that site-specific environmental and social assessments were conducted for each RE demonstration site. The design, construction, and operation of each system adhered to engineering standards that prioritized structural integrity and climate resilience, and climate scenarios informed feasibility studies and ensured long-term sustainability. The project allocated US$ 65,000 for capacity development and training, stakeholder engagement, and the monitoring and reporting procedures of SEMP. It was said that not all actions outlined in the SESP were able to be fully executed. During the

project tenure, four training sessions were conducted, covering topics such as financial mechanisms, basic financial literacy, safety, and waste management. A total of 91 participants, including 19 women, completed these trainings (see Annex 5, section 5.6).

## 4.2 Project implementation

### 4.2.1 Adaptive management: Changes to project design and outputs during implementation

*Finding 11: Despite adaptive management efforts and the partial implementation of MTR recommendations, delays in recruiting a CTA affected the delivery of technical inputs and the establishment of robust data systems. However, these gaps were effectively mitigated through the expertise and support of the IP's professionals, ensuring continuity and progress.*

The project faced several operational challenges during implementation, particularly in the first year, so it had to undertake several adaptive management actions. DREI assessment and the under/over utilization of the CTA were among the significant hurdles. In particular, delays in recruiting a consultant to carry out the DREI assessment had a significant adverse impact. To mitigate that impact, the project narrowed the scope of the assessment to focus on the technical feasibility of RE solutions, diverging from its initial aim of supporting broad regulatory and financial reforms. The under/over utilization of the CTA affected strategic direction as it limited the provision of project advisory services and technical backstopping to the PMU. Following the expiration of the CTA's contract in March 2023, the position was eventually combined with that of the DREI assessor. This arrangement diluted the CTA's intended focus on removing barriers through policy initiatives and stalled progress in this area. Although the MTR recommended managing the CTA with clear tasks and deliverables to overcome these barriers, the project has struggled to receive adequate CTA services due to delayed recruitment and turnover (see Box 6).

**Box 6: Project adaptations based on the MTR and PIR recommendations**

The MTR made nine recommendations, resulting in significant project adaptations, but three were not fully implemented. First, no CTA was recruited to support DREI and provide technical advice to the PMU due to resource constraints. Second, while a recommendation to establish robust data collection systems for tracking project indicators and co-financing was partially implemented, gaps in data management remained. Third, the suggestion for a no-cost project extension of 6–12 months was not pursued. The remaining six recommendations were operationalized, leading to improved implementation rates without materially altering the project's expected outcomes. These recommendations were systematically broken down into actionable steps and timelines and staff were assigned responsibilities, ensuring that the monitoring process would be well structured. All project changes were meticulously documented, articulated, and approved by the PB before they were executed. A tracking system, including the Evaluation Resource Centre database, enabled the real-time monitoring of the implementation of recommendations, categorizing progress as completed, partially completed, or pending. This mechanism facilitated swift review and corrective actions and enhanced accountability and responsiveness throughout the project lifecycle.

### 4.2.2 Actual stakeholder participation and partnership arrangements

*Finding 12: By effectively mobilizing solar committees and engaging communities, the project was able to progress toward its objectives. The project laid a strong foundation for rural electrification, though there remains some potential to enhance partnerships with the private sector and international actors. Strengthening regulatory reform efforts will further accelerate systemic changes and amplify the project's long-term impact.*

*Finding 13: The GAP ensured the inclusive participation of women and diverse stakeholders, thereby promoting gender-responsiveness. Increasing the number of women-only sessions during workshops presents a valuable opportunity to better address gender-specific challenges and enhance inclusivity.*

a. Project management: The project successfully built strategic partnerships with key stakeholders, including ministries, the private sector, research institutions, academia, NGOs, and CSOs, strengthening their collaboration and alignment with project goals. However, more than 52% key informants noted that while the project adopted a participatory approach through workshops, focus groups, and meetings, some gaps in execution hindered its effectiveness (see Annex 8). Despite fostering trust with and tailoring strategies to the capacities of stakeholders, the project struggled to engage critical institutions to get them to adopt pilot models and create supportive policy frameworks for RE. The limited implementation of the partnership strategy affected the project's ability to overcome challenges and drive transformative change.

b. Participation and country-driven processes: The project effectively mobilized solar committees of demo sites and engaged communities, while national stakeholders contributed according to their defined roles, supporting progress toward the project's objectives. However, despite opportunities to collaborate with international partners like the World Bank and ADB and to leverage the network and funding of the

Ministry of Rural Development for replication, these partnerships remained underdeveloped. In addition, interviewees highlighted that the systematic documentation of best practices was insufficient, efforts to influence regulatory reforms limited, and alignment with the project's role as an enabler of sustainable rural electrification minimal.

c. Participation and public awareness: The project successfully facilitated the selection and mobilization of stakeholders for public awareness programs, thereby advancing progress toward its objectives. However, a total of 88% of key informants highlighted an opportunity to strengthen engagement with institutions that could adopt demonstration pilot models and influence policy and regulatory frameworks for renewable energy applications (see Annex 8). Interaction with entities that could influence regulatory reforms was minimal, so the potential for systemic change was limited. Although the project planned to update the stakeholder engagement plan monthly, this process was not consistently implemented, thus undermining the effectiveness of stakeholder participation and public awareness efforts.

d. Extent of stakeholder interaction: The project initially mobilized stakeholders effectively, following the stakeholder engagement plan, and then renewed its engagement after the MTR. Key examples of engagement include MECDM officials' assisting with GHG emissions calculations and Solomon Power's supporting solar PV system inspections. However, stakeholder interaction during the implementation phase remained minimal, mainly due to limited collaboration between the CTA and the Energy Division via the PMU. Informants also noted that the project missed opportunities to partner organizations like the International Renewable Energy Agency (IRENA), the Pacific Community, the World Bank, and ADB, whose technical expertise could have enhanced the solar PV demonstration sites. Limited interaction and the sharing of best practices hindered the project's ability to leverage these partnerships fully.

e. Gender: The GAP was well-designed and adaptable and offered clear guidance for mainstreaming gender throughout the project. According to 72% of key informants, the project consulted women's groups, NGOs, CSOs, and women's ministries and incorporated their inputs into decision-making. Gender-responsive engagement activities fostered women's participation, ensuring that there was inclusivity in planning and benefit-sharing (see Annex 8). However, the fact that women-only sessions in stakeholder workshops were few limited opportunities to address women's specific challenges directly. A remarkable 93.8% of project staff and UNDP officials highlighted the project's successful integration of women's voices in decision-making processes, ensuring a more inclusive and equitable approach to implementation. While the project did engage diverse stakeholders, 52% key informants still noted that there was room for improvement in targeted approaches that amplified women's voices and achieved equitable outcomes (see Annex 8).

### 4.2.3 Project finance and co-finance

#### a. Project finance

*Finding 14: By maintaining strong financial resource management, the project ensured that its decision-making was timely and transparent. Although there were some delays in the approval of payment and budget utilization because IP's requests were received late, the project demonstrated flexibility in reallocating funds to meet its goals. While there were some minor audit issues, corrective actions were immediately taken to address discrepancies and to improve financial management.*

i. Variances between planned and actual expenditures and the reasons for those variances: The total financial delivery of the project stands at 97%, with no variance between the planned budget and actual disbursements. Expenditures for outcomes 1, 2, 3.1, 3.2, and 4 were 121.00%, 80.8%, 117.2%, 114.30%, and 68.30%, respectively, reflecting the progress in implementing each component. Project management costs have used approximately 77.95% of the planned funds (see Table 3). The financial delivery of the GEF and UNDP budget was 98.70% and 70.10% respectively. The financial analysis reveals an intriguing dynamic: Outcome 4 incurred the lowest expenditure (68.3%), while Outcome 1 recorded the highest at 121.0% of the budget. This highlights opportunities to enhance financial management in future projects, ensuring stronger alignment with the principles of 'value for money.'

ii. Identification of potential sources of co-financing as well as leveraged and associated financing: Resource management efforts focused on educating stakeholders about the financial requirements for replicating the project in new areas. The MMERE/Energy Division contributed to the project through co-financing, ensuring that there will be continued support. However, aside from the MMERE, the project was unable to

adequately mobilize any additional sources of co-financing or leverage any associated financing in the form of cash/grants.

iii. Budget management and fund allocation: The project established strong financial controls that enabled it to make informed budget decisions, and achieve satisfactory project deliverables. It utilized key measures such as the delivery and budget balance report, initially managed through ATLAS and later in Quantum, and manually monitored expenditures against budget categories. Each successive quarterly GEF fund tranche was released only after 80% of the previous tranche had been spent. Although there were delays in approving payments and budget utilization was sluggish for various factors, no allegations of fund mishandling were reported. The project adhered to procurement policies and demonstrated flexibility by reallocating funds to other, well-justified areas.

**Table 3: Planned and actual budget (US$) allocation by output**

| Outcome | ProDoc budget | System Budget (Atlas/Quantum) | Cumulative Expenditure | Delivery (Percent) |
|---|---|---|---|---|
| 1 | 125,000.00 | 151,937.42 | 151,293.17 | 121.0% |
| 2 | 275,000.00 | 263,364.00 | 222,243.85 | 80.8% |
| 3.1 | 164,025.00 | 232,841.94 | 192,298.39 | 117.2% |
| 3.2 | 1,300,000.00 | 1,398,463.97 | 1,486,222.39 | 114.3% |
| 4 | 650,000.00 | 565,944.67 | 443,972.97 | 68.3% |
| PMC* | 125,701.00 | 140,659.00 | 109,643.03 | 87.2% |
| GEF | 2,639,726.00 | 2,753,211.00 | 2,605,673.80 | 98.7% |
| UNDP | 100,000.00 | 63,357.46 | 70,068.25 | 70.1% |
| Total | 2,739,726.00 | 2,816,568.46 | 2,675,742.05 | 97% |

Source: Project's record, 2024. *PMC-Project Management Cost

iv. Due diligence in fund management with regular audits and audit observations: The project demonstrated due diligence in fund management by carrying out regular audits and thorough financial assessments, ensuring compliance with UNDP's Financial Regulations and Rules. Tools such as Quantum and quarterly progress reports were used to monitor financial and result-based outcomes, thereby promoting transparency and accountability. Audits for the fiscal years 2021, 2022, and 2023 were completed, and the 2024 audit is currently in progress. While there were a few audit issues, including under- or over-utilization of the budget, irregular submission of FACE forms, and incorrect salary payments, the project took corrective measures to address each of them (see Table 4). The audit process followed international standards and had a materiality threshold of 10%. The findings were appropriately addressed to improve financial management.

Table 4: Summary of Audit issues

| Year | Issues | Risk level |
|---|---|---|
| 2021 | • Under/ over utilization of budget | Low |
| | • Periodicity of the FACE Forms | Low |
| 2022 | • Over/under utilization of budget | Medium |
| 2023 | • Incorrect salary paid to project manager | Medium |
| | • Bank charges not included in CDR | Low |

Source: Project's Audit reports (2021-2023)

v. Budget revisions and appropriateness and relevance: The project underwent 11 budget revisions, with most adjustments impacting Component 3 to address funding shortfalls. These revisions reallocated funds to ensure the completion of specific activities under this component. A total of 84% of key informants affirmed that these adjustments were appropriate, relevant, and positively contributed to the project's overall performance (see Annex 8).

### b. Project co-finance

*Finding 15: The project identified co-financing opportunities and secured some contributions but faced some challenges in tracking and documenting in-kind contributions. While tracking mechanisms and barrier-removal planning could be further strengthened, there is a clear opportunity to enhance co-financing potential moving forward, unlocking additional funding to fully achieve project goals.*

i. Reported co-financing from all sources: Since its inception, apart from GEF, the project has leveraged US$ 9,935,030.50 in resources, contributing to its objectives. The government (MMERE) added US$ 9,864,962.25 (cash-US$ 7,485,297.25, in-kind-US$ 1,879,665, and loan-US$ 500,000) and UNDP allocated US$ 70,068.25 (see Table 5).

While the project effectively identified co-financing opportunities and secured in-kind and cash contributions, execution was hindered by inadequate tracking mechanisms for co-financing. Although cash co-financing was easily tracked, in-kind contributions were inconsistently documented, impacting the overall realization of co-financing. Despite strong planning, the absence of defined tracking procedures limited the full potential of co-financing even though 84% of key informants confirmed that co-financing arrangements were clear (see Annex 8). The sources of co-financing with details (name of co-financier, type of co-financing, co-financing amount confirmed at CEO Endorsement/approval, investment mobilized, and materialized co-financing) are presented in Annex 5, section 5.9.

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ii. Reasons for differences in the levels of expected and actual co-financing: The project's actual co-financing amounted to just 59.63 % of the originally planned figure. The co-financing gap is (largely in cash) was primarily due to an insufficiently planned approach to removing barriers to electrification, which limited co-financing efforts. In addition, not having a tracking system contributed to the project's missing opportunities for reporting. Factors like a low government budget, high staff turnover, and shifting priorities further complicated the mobilization of co-financing mobilization. These challenges, including difficulties in engaging committed agencies during implementation, highlighted the need for greater effort in maintaining stakeholder visibility and sustaining engagement.

**Table 5: Co-financing amount other than the GEF (planned vs. actual status)**

| Co-financing (type/source) | Government/IP (US$) | | UNDP(US$) | | Total (US$) | |
|---|---|---|---|---|---|---|
| | Planned | Actual | Planned | Actual | Planned | Actual |
| Grants/cash | 15,466,306 | 7,415,229 | 100,000 | 59,585.05 | 15,566,306 | 7,474,814.05 |
| Loans/concessions | - | 500,000 | - | - | | 500,000 |
| In-kind support | 959,225 | 1,879,665 | - | - | 959,225 | 1,879,665 |
| Total | 16,425,531 | 9,794,894 | 100,000 | 59,585.05 | 16,525,531 | 9,854,479.05 |

Source: Project's records, 2024

iii. Integration of external funds into the overall project and their effects on project outcomes: The project successfully leveraged in-kind contributions that involved significant participation from school management, students, and local communities in the installation of solar PV systems in two schools. Their roles included managing local materials and transporting solar components. The external funds were effectively integrated into the project, enhancing its outcomes and contributing to the sustainability of the initiative.

### 4.2.4 Monitoring & evaluation: Design at entry (*), implementation (*), and overall assessment of M&E (*)

#### a. M&E design at entry

*Finding 16: The project's M&E plan was comprehensive at the design stage, incorporating baseline data, SMART indicators (except two indicators), and clear evaluation mechanisms aligned with project objectives. However, limited early oversight by the PMU and IP affected monitoring effectiveness. Improved coordination with the UNDP program team and senior management later addressed these issues. GEF projects often set end-of-project targets without annual milestones, making it difficult to track progress and assess the timely achievement of objectives.*

- M&E plan and monitoring results: The project's M&E plan was deemed adequate as it incorporated key UNDP-GEF components such as inception workshops, PB meetings, PIRs, audits, an MTR, a terminal evaluation, and a final report. However, project's oversight, mainly through the IP and the PMU, was limited. Regular coordination through fortnightly meetings among MMERE, the CTA, and the PMU ensured some collaboration. Since June 2024, enhanced oversight from the UNDP Program Team and weekly meetings involving senior management and the RTA improved monitoring and coordination, offering timely project updates.
- Mainstream M&E plan in baseline, SMART indicators, and evaluation mechanisms: The project's M&E plan integrated a baseline, SMART indicators (except two indicators described in section 3.5, the Theory of Change), and data analysis systems, forming a strong foundation for M&E. This framework was designed well to track progress and assess the results in achieving the project's objectives, ensuring alignment with goals and supporting informed decision-making during implementation. However, some gaps remained. GEF projects typically set targets only for the end of the project, without defining annual targets or milestones. This created challenges in gauging the project's progress on an annual basis and made it difficult to assess whether progress was falling short of the planned objectives. Another challenge was ensuring periodic M&R of several indicators. The project proactively developed an action plan to enhance tracking and accountability, demonstrating a commitment to addressing these gaps. While the PMU staff faced capacity limitations, there remains an opportunity to strengthen their skills and update the indicators more

effectively, aligning them with a realistic action plan that considers resource requirements, available capacities, and clear timelines.

- Articulation of baseline and implementation framework and assurance of M&E Plan in GEF OFP: The project's baseline, methods, timeframes, and stakeholder responsibilities were clearly defined in the implementation framework, ensuring that project execution had a strong structured approach. The M&E plan also outlined the GEF Operational Focal Point (OFP)'s involvement throughout the TE process, thus ensuring continued engagement and communication with key stakeholders during this critical phase.

**Rating-M&E design at entry:** The project's M&E plan was comprehensive at the design stage, incorporating baseline data, SMART indicators (except few indicators), and clear evaluation mechanisms aligned with project objectives. Therefore, the "M&E design" is rated as "satisfactory."

### b. M&E implementation

*Finding 17: Overall, the quality of M&E was good. Although sufficient funds were allocated for M&E activities, resource mismanagement and delays in site commissioning limited monitoring effectiveness and hindered the collection of gender-disaggregated data to some extent. Inadequate M&E orientation for the PMU team from IP and resource constraints at demonstration sites highlighted the need for stronger capacity-building efforts. The inadequate M&E training to PMU staff from IP also undermined affected systematic data collection for indicators and tracking tools. While the M&E design and implementation largely met expectations, there are some areas of improvements.*

i. Sufficient M&E budget in the project document and M&E Plan: The project allocated US$ 87,000 for M&E activities, which was considered sufficient to effectively implement the planned actions. Both the project team and the UNDP Programs Team, with the RTA's consultation, closely monitored the budget to address off-track indicators and ensure alignment with project goals. The PMU team said that they did not receive adequate orientation on M&E from the IP, which affected their capacity to monitor effectively. However, monitoring challenges were compounded by delays in commissioning demo sites, with the first two completed only in October 2023. Issues like illegal wiring and short circuits in the Rokera Provincial Secondary School were not resolved quickly due to the team's focus on constructing other demo sites. Efforts were made to collect data and conduct training, such as a trip to the Huananawa site, but resources were stretched thin. Ginger Beach was commissioned in June 2024, and monitoring activities for this site were good, while work on the Nangu site remains ongoing.

ii. Assurance of systematic data collection for specified indicators and tracking tools: The project collected data on specified indicators and GEF/LDCF/SCCF tracking tools/core indicators, ensuring compliance with reporting requirements. Due to limited M&E training for staff, the project's efforts to generate gender-disaggregated data were not sufficiently effective. That said, gaps in the disaggregation for categories like PwDs remained. Environmental and social risk monitoring was adequate, and the ToC remained valid. PIR self-evaluation ratings mostly aligned with the findings of the MTR and the TE. The quality of M&E was good overall, but some indicators have insufficient disaggregated data, and improvements were needed in communication processes and the timeliness of reports.

**M&E-implementation Rating:** The implementation of M&E was solid overall, but a few gaps impacted its effectiveness. Despite allocating sufficient funds for M&E activities, delays in site commissioning constrained monitoring efforts and hampered the collection of gender-disaggregated data. Moreover, inadequate M&E support from the Implementing IP to PMU disrupted systematic data collection for indicators and tracking tools. While the M&E efforts largely met expectations, these moderate shortcomings reveal room for improvement. Consequently, the M&E Implementation is rated as "moderately unsatisfactory."

**Overall quality of M&E Rating:** Based on the assessment of both 'M&E design at entry' and 'M&E plan implementation,' the overall quality of M&E is rated as 'moderately satisfactory.' This rating reflects moderate-level shortcomings and the fact that the M&E design and implementation did not fully meet the desired expectations.

## 4.2.5 UNDP oversight (*) and implementing partner execution (*), overall project implementation/execution (*), coordination, and operational issues

*Finding 18: UNDP provided strong technical assistance and effective oversight during the project. Despite challenges posed by prolonged vacancies at the RCC Unit and PMU, UNDP provided good technical assistance and oversight. However, the absence of the RCC Program Specialist and CTA for an extended period affected some oversight and implementation. The IP demonstrated strong execution quality overall, though more precise fund utilization would have minimized risks and ensured*

*timely completion of all project activities within budget. Despite challenges from high staff turnover at the PMU, the project remained adaptable, and these hurdles provided valuable lessons for improving future execution quality.*

a. Quality of UNDP oversight: A comprehensive review of secondary data and KIIs highlights UNDP's critical role in providing technical assistance for quality assurance of the project. As per the spirit of NIM, UNDP's office in the Solomon Islands provided inputs on quality assurance of the project and budget oversight, ensuring they aligned with the approved work plans. Annual PIRs, which were found technically sound, were instrumental in identifying issues and sharing them with the PB and GEF. While UNDP excelled in project initiation and proposal development, challenges arose during the oversight and completion phases due to prolonged vacancies in key positions at the UNDP's office in the Solomon Islands, notably the RCC Program Specialist. There was high staff turnover at the PMU. Despite these challenges, 92% of key informants acknowledged the strength of IP's annual reporting, risk management, and responsiveness to emerging issues, all traits that ensured its robust oversight of environmental and social risks (see Annex 8). Further, according to over 28.5% of key informants, the project's annual reporting mechanism and effective risk management practices played a key role in ensuring smooth project implementation. These practices helped identify issues early and facilitated timely mitigation through a win-win approach (see Annex 8).

**Rating-quality of UNDP implementation/oversight:** UNDP's implementation oversight was commendable, delivering solid support despite significant challenges. Prolonged vacancies in the RCC Unit and PMU tested continuity, yet UNDP stepped up with effective technical assistance and oversight to bridge the gaps. That said, the sporadic inputs from the RCC Programme Specialist and CTA over an extended period led to inconsistencies in quality during project execution, leaving some oversight and implementation gaps. Still, these challenges were skillfully navigated, minimizing their overall impact. As a result, UNDP's implementation and oversight performance is rated as 'moderately satisfactory.'

b. Quality of execution by implementing partners: The IP effectively executed agreed-upon project activities within the planned budget (though revised several times). In doing so, they operated independently under UNDP oversight. UNDP provided technical and administrative support whenever challenges that could impact project quality arose. No key informant reported any concerns regarding the project's implementation or oversight quality. The MMERE was instrumental in managing daily operations and ensuring that delivery was timely and results-focused. A total of 84% of key informants commended IP's efficient use of funds, transparent procurement, and effective contracting of services (see Annex 8). More specifically, 88% of key informants said that the transparency of the project's procurement processes, noting that this approach bolstered its credibility and efficiency throughout the implementation phase (see Annex 8). While COVID-19 and frequent staff turnover in the PMU caused delays, there were no issues of financial mismanagement or favoritism. The high turnover of staff at the PMU initially confused and impacted the quality of the project's execution. However, the situation was managed by strategically mobilizing IP staff to fill the gaps, a solution expressed by 88% of key informants (see Annex 8). Risk management was good. It was supported by strong annual reporting and adherence to UNDP's SESP.

**Rating-quality of IP execution:** The IP execution quality was generally good, but overspending introduced risks that contributed to delays in some of the activities. High staff turnover at the PMU added complexity to the situation. However, the IP demonstrated resilience by mobilizing internal staff to address these gaps and maintain progress. Despite these efforts, the challenges left room for improvement. As a result, the quality of UNDP implementation and oversight is rated as 'moderately satisfactory.'

**Rating-overall quality of implementation/execution:** Based on the overall assessment of UNDP implementation/oversight and IP execution, the overall quality of implementation/execution is rated as 'moderately satisfactory' as several areas require improvement to meet the overall expectations.

### 4.2.6 Risk management

*Finding 19: The project maintained a robust risk management framework through SESP. It effectively addressed new and existing risks through systematic tracking and mitigation measures. Despite infrequent updates to the "SES," PIR (2024) identified moderate risks that could impacted the overall performance of the project, if not addressed timely.*

a Few risks that needs attention: The project faces financial risks if the government, partners, or stakeholders are unable to meet co-financing commitments, which could limit funding for key activities. Operational risks are low, particularly concerning the construction and operation of demonstration and replication projects. Safety and security risks related to disagreements with indigenous peoples over land use are minimal. However, moderate social and environmental risks exist, including the potential impact of

climate change—such as heavy rainfall, sea level rise, and flooding—disrupting activities, along with transportation incidents due to the remote project sites. Strategic risks are low to moderate, mainly due to limited PMU engagement with local communities and insufficient progress on policy and regulatory reforms for rural electrification by MMERE and other stakeholders. Overall, the project carries a "Moderate" risk rating in PIMS+.

b. Address the new and existing risks in PIRs and the MTR: The project effectively addressed new and existing risks through robust tracking and mitigation mechanisms. Risks were reviewed quarterly and updated in UNDP's Quantum risk log, while PIRs and the MTR assessed challenges and outlined management responses. The PIRs also ensured oversight of environmental and social risks. They were guided by the SESP. The SES Specialist played a crucial role in identifying and managing these risks and implementing mitigation measures to minimize their impacts. Advanced tools like the Risk Dashboard in PIMS+ were also employed to prioritize, monitor, and manage risks systematically. Action plans, too, were developed and diligently followed.

c. Proper maintenance of project risk register: The project maintained a risk register throughout its implementation, categorizing risks into five key areas: financial, operational, safety and security, social and environmental, and strategic. A total of 12 risks were identified, assessed, and ranked on a scale from 1 (low impact) to 5 (high impact). Countermeasures and feasible treatments were proposed for each identified risk. In the views of 88% of key informants, this systematic approach strengthened risk management and promoted compliance with established safeguards throughout project implementation (see Annex 8). Representatives from both the private sector and academia were also unanimous in recognizing the successful implementation of safeguard measures, which played a crucial role in maximizing the social and environmental benefits of the project. However, while this comprehensive framework was in place throughout the implementation phase, very few risks were consistently updated in quarterly progress reports. For other risks, there was a gap in monitoring. The ESMP was robust. It addressed moderate to high risks with clearly defined mitigation measures, monitoring systems, capacity-building efforts, and strategies promoting stakeholder engagement. Despite these gaps, the framework adopted a structured approach to risk management and provided valuable tools to mitigate any adverse project impacts effectively. On a positive note, the ESMP was robust. It addressed moderate to high risks with clearly defined mitigation measures, monitoring systems, capacity-building efforts, and strategies promoting stakeholder engagement. Regarding SES, the Specialist played a key role in identifying potential risks, managing them effectively, and implementing mitigation measures to reduce their impact.

d. Project board kept informed of updates on and escalations of risks: The PMU proactively kept the PB informed about new and evolving risks, thereby enabling the PB to assess the likelihood of those risks, identify their potential impacts, and propose mitigation measures. The regularity of this communication ensured that the PB could engage in timely and informed decision-making to address emerging challenges. The project board's structure is outlined in Annex 5, Section 5.2.

### 4.2.7 Social and Environmental Standards

*Finding 20: The project effectively managed safeguards, thereby maintaining a "low risk" rating and ensuring compliance with environmental and social standards. The SES Specialist played a key role in identifying potential risks, managing them effectively, and implementing mitigation measures to reduce their impact. However, the limited frequency of SESP revisions and prioritization challenges indicated that there was some room for improvement in updating safeguards and risk management measures in response to emerging issues.*

a. Effectiveness of safeguards management measures and lessons learned: The evaluation of safeguards management measures indicated that the project maintained a "low risk" rating under the SESP, a rating signaling that the anticipated adverse environmental or social impacts were minimal. As discussed in the earlier section, the SES Specialist played a key role in identifying potential risks, managing them effectively, and implementing mitigation measures to reduce their impact. While periodic assessments of the SESP were mandated, detailed evaluations were not consistently conducted. A total of 92% of key informants emphasized that effective safeguards management contributed to the project's success by maximizing social and environmental benefits and minimizing potential risks (see Annex 8). Key measures included the development of site-specific environmental and social management plans (ESMPs) and adherence to health and safety protocols, measures that ensured the project was in compliance with environmental and social standards. Lessons learned underscored the value of proactive risk identification, continuous monitoring,

and active stakeholder engagement in adapting to emerging challenges and enhancing the overall effectiveness of safeguards.

b. Revisions of the original SESP and adjustments of risk ratings and management measures: The project adhered to UNDP's safeguards policy and applied the SES to integrate sustainability into its activities. Over the project's duration, the SESP was revised very few times. The iterative approach to updating the SESP reflects the project's commitment to aligning with UNDP's sustainability goals and addressing emerging challenges in a dynamic implementation environment. In 2023, UNDP supported the social and environmental safeguard (SES) process by hiring an SES Consultant and developing an SES Action Plan. While the plan could benefit from more regular updates to enhance its effectiveness, the utilization of the Geotechnical Investigation Report in addressing the SES stands out as a significant strength, demonstrating its practical value.

c. Assessment of the project's grievance redress mechanism: In the views of 84% of key informants the project's grievance redress mechanism was effectively operationalized and it provided stakeholders with a transparent and accessible platform for raising concerns (see Annex 8). Regular monitoring ensured that complaints were resolved promptly, thereby fostering trust among stakeholders. The mechanism addressed both social and environmental issues, reflecting its alignment with UNDP's SES. A total of 68% of key informants expressed confidence in the system, commending its responsiveness and the timely resolution of grievances, both characteristics that contributed to maintaining project integrity and stakeholder satisfaction (see Annex 8).

## 4.3 Project Results and Impacts

### 4.3.1 Progress towards the objective and expected outcomes

*Finding 21: The project reduced 116.47 tons of CO2 emissions across three sites, with Hunanawa contributing the majority of that volume. However, the shortfall in demo sites was due to unrealistic bidding specifications that strained resources. The project board approved a scaled-back approach, reducing the number of demonstration sites.*

*Finding 22: The project made progress in improving rural electricity access. It completed solar PV installations at three of the planned five four sites and its efforts to enhance RE and EE policies are continuing. However, delays in equipment transport and the untimely availability of key technicians prevented the demo sites from being completed on schedule.*

The evaluation of the SMART criteria for 18 outcome and impact-level indicators is detailed in section 3.6. A color-coded system was used for clarity: green for "completely achieved," yellow for "partially achieved," and red for "not achieved." Table 6 provides a quick overview of the assessment, revealing that 4 indicators were fully achieved, 10 were partially achieved, and 4 were not achieved. Notably, indicators under Outcome 4 demonstrated strong success, while Outcome 1 indicators showed limited progress, followed by those under Outcomes 2 and 3.1. Several external factors, outlined in section 6, played a significant role in hindering progress on some indicators, highlighting challenges beyond the project's control.

**Table 6: Summary of indicator-wise progress**

| Indicators | Baseline (2017) | Midterm Target (2023) | End Target (2024) | Nov, 2024 |
|---|---|---|---|---|
| **Goal-level indicators** | | | | |
| 1. Cumulative incremental GHG emission reduction from the electricity sector in rural areas, tons $CO_2$ | 0 | 6,376 | 19,147 | 116.47 |
| 2. National electric energy consumption index, ktoe/US$ GDP | 6.42 | 6.20 | 5.87 | 6.49 |
| **Objective-level indicators** | | | | |
| 1. Cumulative incremental fossil fuel savings due to sustainable energy and low carbon interventions implemented, toe | 0 | 697.6 | 2,095 | 55.90 |
| 2. % electricity access in rural areas, % | 5% | 15% | 25% | 6% |
| 3. No. of new jobs created due to enhanced electricity access in off-grid areas. | 10 | 60 | 200 | 20 |
| **Outcome 1 level indicators** | | | | |
| 1. No. of implemented off-grid rural electrification projects facilitated by the approved and enforced energy access, RE, and EC&EE policies | 0 | 2 | 5 | 3 |
| 2. No. of designed and implemented pilots on the implementation of applicable policy and regulatory framework for rural electrification | 0 | 1 | 2 | ~ |
| 3. No. of formulated, approved, and implemented rural electrification plans. | 5 | 7 | 9 | 5 |
| **Outcome 2 level indicators** | | | | |
| 1. No. of formulated and recommended institutional and financing mechanisms that support the enhanced implementation of rural electrification initiatives. | 0 | 2 | 2 | 3 |

| | | | | | |
|---|---|---|---|---|---|
| 2. | No. of rural electrification initiatives facilitated by adopted and enforced institutional and financial mechanisms. | 0 | 2 | 2 | 0 |
| **Outcome 3.1 level indicators** | | | | | |
| 1. | No. of planned and implemented rural electrification projects in both on-, and off-grid areas that are based on the findings are recommendations of conducted DREI assessments of RE-based electricity generation options. | 0 | 2 | 5 | 0 |
| 2. | No. of follow-up rural electrification, sustainable energy, and low carbon technology application projects in on-, and off-grid areas. | 0 | 4 | 6 | 3 |
| 3. | Percentage of successful maintenance or repair work on demonstrations by MMERE and all RE-based rural electrification projects in the country | 0 | 50% | 100%* | 25% |
| **Outcome 3.2 level indicators** | | | | | |
| 1. | No. of successfully installed and operational systems of the implemented demonstrations of RE-based electricity generation and low carbon technology application in the off-grid areas. | 0 | 2 | 5 | 3 |
| 2. | No. of RE and EE technologies application projects designed and financed for implementation as influenced by the results and outcomes of the demonstrations | 0 | 4 | 9 | 2 |
| 3. | Percentage of women in community-based RE Service companies (RESCO) morally supported by village men to build their confidence in leadership | 0 | 25 | 50 | 25 |
| **Outcome 4 level indicators** | | | | | |
| 1. | No. of trained national and local government personnel that can ably plan and evaluate energy access, sustainable energy, and low carbon application projects. | 0 | 2 | 4 | 6 |
| 2. | No. of local firms that can capably provide technical and maintenance services for rural electrification and low carbon technology application projects. | 1 | 1 | 3 | 3 |

Source: Project's records and KIIs (2024)

### 4.3.2 Relevance (*)

The relevance of the project was evaluated in terms of the following headings.

*Finding 23: The project was closely aligned with national priorities. It, for example, supported key policies such as the National Energy Policy and the National Development Strategy and contributed to rural electrification and RE targets, complementing the long-term development goals of the Solomon Islands. Progress in policy matters, central to component 1, faced some challenges due to the inherent complexity of policy work and the need for collaboration with other development partners. Nevertheless, the project made significant contributions, laying a strong foundation for future policy development and collaboration.*

*Finding 24: The project adapted effectively to political, legal, economic, and institutional changes, ensuring compliance with regulations and promoting cost-efficient solutions. Its flexibility enabled it to align itself with evolving government priorities, thereby enhancing its sustainability and relevance.*

*Finding 25: The project integrated gender equality goals, aligning with national policies to promote women's economic empowerment and leadership. By incorporating gender-sensitive strategies, it fostered an inclusive approach to development that enhanced the project's social impact.*

#### a. Alignment with national priorities

i. Policy harmonization: Overall, according to the views of PB members, the project was closely aligned with the Solomon Islands' national priorities and effectively supported the country's development goals. Its objectives were in line with the national focus on expanding electricity access, advancing RE, and enhancing EE (see Box 7).

**Box 7: Summary of policy provisions**

- The project was based on the Solomon Islands' SINEP (2014) and the National Development Strategy (NDS 2011-2020).
- It supported the country's 2020 rural electrification and 2030 RE electricity targets.
- The project design aligned with the objectives of the MMERE Corporate Plan (2016-2018), supporting its vision, mission, and strategic directions.
- The NDS emphasizes regulatory reform, capacity-building, and partnerships with the private sector to advance the energy sector and promote RE sources.
- The National Development Plan (NDP 2016-2035) focuses on rural electrification through solar and hydropower, with specific strategies for large and outer islands that align well with the project's objectives.
- The project aligned with the Solomon Islands' NDC, which targets net-zero emissions by 2050 and focuses on RE and energy-efficient technologies, including solar PV and hydropower.

ii. Project responsive to political, legal, economic, institutional, and other changes in the country: The project was responsive to the political, legal, economic, and institutional changes in the Solomon Islands. Politically, it aligned with evolving government priorities, such as RE expansion and rural electrification. Legally, the project adhered to updated regulations and environmental standards and worked closely with government bodies to stay compliant. Economically, it adapted by prioritizing cost-efficient solutions, leveraging local resources, and fostering economic resilience through job creation and affordable energy

access. Institutionally, the project remained flexible, aligning with restructuring as well as emerging energy frameworks, ensuring effective coordination and policy alignment. This multi-dimensional adaptability safeguarded the project's sustainability and relevance in a dynamic environment.

iii. Project in line with national and local strategies to advance gender equality: The project reflected the goals of the National Gender Equality and Women's Development Policy 2016–2020, which emphasizes gender equality as being central to economic and social progress. By integrating key gender policies such as the Gender Equality and Women Development, the Family Protection Act, and the National Youth Policy, the project addressed economic empowerment and leadership, ensuring that women's roles and contributions were valued and promoted in the project's design and implementation. This approach fostered an inclusive and equitable development process.

b. Alignment with UNDP's and GEF's strategic priorities: The project was closely aligned with the strategic priorities of both UNDP and GEF because its foundation resonated with the UNDP's plan and relevant GEF strategic goals, particularly CCM 1 Program 1. The project also followed the UNDP Strategic Plan, Country Program Document, United Nations Development Assistance, the United Nations Sustainable Development Cooperation Framework (UNSDCF), the SDGs, and GEF's strategic programming. At the regional level, the initiative was consistent with UNDP's Strategic Plan's output, which emphasizes the adoption of solutions to ensure universal access to clean, affordable, and sustainable energy. A resounding 85.7% of government officials and PB members highlighted that the project was seamlessly aligned with the strategic priorities of the SIG, UNDP, and the GEF, underscoring its strong relevance to both national and international development goals (see Table 7). It also supported the RE targets set for LDCs. Furthermore, it directly contributed to SDG-7, which advocates for access to affordable and clean energy for everyone. However, an assessment reveals that it also supported nine other SDGs in various ways. The project also contributed to SDG 7 and its five targets and six indicators (see Annex-5, section 5.4). This highlights the project's broader impact, effectively advancing multiple SDGs while maintaining a central focus on SDG 7. It also made a good contribution to the ToC for the Solomon Islands' country program outcome.

Table 7: Alignment with UNDP and GEF strategic priorities

| Agency | Alignment |
|---|---|
| UNDP | • UNDAF/Country Program Outcome: Strategic Plan Outcome 5- Countries can reduce the risks of conflict and natural disasters, including those from the climate change.<br>• UNDP Strategic Plan Output-Solution adopted to achieve universal access to clean, affordable and sustainable energy.<br>• The UNSDCF (2023–2027) for the Pacific region fosters collaboration between the UN and Pacific nations, including the Solomon Islands, to advance sustainable development goals. It prioritizes climate change resilience, economic growth, and social inclusion, with tailored UN actions addressing national priorities. Complementing this, the Solomon Islands National Energy Policy (SINEP) 2019–2030 focuses on improving energy access, promoting renewable energy, enhancing energy efficiency, and strengthening governance in the energy sector. |
| GEF | • CC-1; Program 1: Promote timely development, demonstration, and financing of low-carbon technologies and mitigation options. |
| The project | • Goal: "Reduced annual growth rate of GHG emissions in the energy and energy end-use sector of the country."<br>• Objective: "Facilitation of the achievement of increased access to electricity in rural communities in the Solomon Islands." |

c. Stakeholder engagement: This project demonstrated strong stakeholder engagement throughout its formulation and implementation. According to 92% of key informants, that relevant stakeholders actively participated in the project, thereby ensuring that diverse perspectives were considered, particularly through the mechanism of in-depth consultations that informed its direction (see Annex 8). Representatives from the private sector and academia were also unanimous in recognizing that the project's success was largely due to the active engagement of key stakeholders, ensuring the initiative was in sync with local needs and reinforcing its relevance. The project was designed to meet the needs and interests of all targeted stakeholder groups. These consultations ensured that the project was responsive to the unique needs of different communities and people, fostering inclusive and locally relevant intervention.

d. Relevance to and complementarity with other initiatives: Various agencies have contributed significantly to the energy sector in the Solomon Islands. The International Development Bank, through ADB and WB, supported energy sector reforms, solar micro-grids in provincial centers, and energy-related studies, policies, and tariff assessments. More precisely, International Development Bank officials also emphasized

that the project's relevance was particularly evident in its direct support of ongoing energy sector reforms, enhancing its strategic value and alignment with wider development goals.

UN agencies, such as UNICEF, were active in four provinces—Makira, Tonmatu, Central, and Western. Diplomatic missions and international development agencies like JICA developed roadmaps, while Italy continued to support solar home systems after Turkey ended its assistance in 2014. Local government and constitutional funds bolstered rural electrification by being used to install solar power in schools and health centers. A total of 96% of key informants said that the project was highly relevant and complementary to these ongoing initiatives (see Annex 8). Specifically, an impressive 78.5% of project staff and UNDP officials affirmed that the project effectively complemented other ongoing initiatives, fostering synergies and amplifying its overall impact in the energy sector, further solidifying its relevance (see Annex 8). During its design, it also incorporated lessons learned from similar projects. Noteworthy examples include the World Bank's efforts to expand electricity access, improve the efficiency of Solomon Power, and enhance rural infrastructure through programs such as the Electricity Access Expansion and Sustainable Energy Projects. Other significant initiatives included the ADB's Tina River Hydropower Project, as well as collaborative efforts by the European Union, SIEA, JICA, and UNICEF. These latter projects focused on hybrid solar-diesel mini-grids, school electrification, EE upgrades, and community-based RE projects.

**Rating-relevance:** The project demonstrated strong alignment with national priorities and policies, showcasing its adaptability to political, legal, economic, and institutional shifts. Its flexibility allowed it to remain closely aligned with evolving government priorities, ensuring sustained relevance. By integrating gender equality goals, the project reinforced national efforts to advance women's economic empowerment and leadership. Furthermore, it laid a solid foundation for long-term policy development in the renewable energy sector of the Solomon Islands. Based on this comprehensive alignment, the project's relevance is rated as "Satisfactory."

### 4.3.3 Coherence

*Finding 26: The project strengthened internal coherence within UNDP initiatives by leveraging synergies in rural electrification, RE, and EE efforts. Stakeholder coordination and cooperation were consistently strong, with coordinated efforts involving local governments and regional collaborations.*

*Finding 27: The project ensured complementarity and added value by aligning itself with key regional and international initiatives, such as the World Bank's and the ADB's energy projects. It fostered integration and collaboration with stakeholders and local communities, enhancing its overall impact.*

a. Strengthening synergies and enhancing the internal coherence of UNDP initiatives: A total of 96% of key informants claimed that the project effectively strengthened synergies and internal coherence within UNDP initiatives by leveraging existing and planned efforts in rural electrification, RE, and EE in the Solomon Islands (see Annex 8). Coherence was a defining feature of the project, with 71.4% of government officials and PB members affirming that it successfully enhanced synergies within UNDP initiatives, ensuring seamless alignment and coordination across related programs and activities. According to 68% of key informants, the UNDP Country Office in the Solomon Islands provided oversight by conducting regular board meetings, engaging with technical working groups (TWGs), and arranging missions to project sites but frequent staff turnover at RCC posed some challenges (see Annex 8). Stakeholder cooperation during implementation was consistently strong. Precisely, representatives from both the private sector and academia unanimously agreed that regular board meetings and active involvement with TWGs played a crucial role in maintaining coherence and fostering effective project governance. A total of 85.7% of project staff and UNDP officials recognized that high staff turnover at the RCC unit of UNDP CO created challenges in sustaining consistency and coherence throughout the project's implementation.

b. Ensuring complementarity, coordination, and added value in multi-actor efforts: The project aligned with key regional and international initiatives, including World Bank-funded Electricity Access Expansion and Sustainable Energy Projects, ADB's Solar Power Development and Provincial RE Project, and the EU's EDF-11 support. The Tina River Hydro Project is being implemented in collaboration with MMERE and MECDM, the GCF focal point in the Solomon Islands, with a significant portion of its financing provided by the GCF. A total of 92% of key informants said that the project also fostered integration and collaboration with stakeholders such as SIEA, local communities, and the UNDP Pacific-Solomon Islands Office through consultations, technical workshops, and development activities (see Annex 8). The project ensured complementarity and coordination and added value by aligning its interventions with ongoing rural electrification, RE, and EE initiatives in the Solomon Islands. It also fostered collaboration with key stakeholders like SIEA, local communities, and the UNDP Pacific-Solomon Islands Office through

consultations and technical workshops, thereby amplifying its impact. International Development Bank officials emphasized that the project's strong integration and collaboration with key stakeholders, such as Solomon Power/SIEA, local communities, and the UNDP CO, ensured a unified approach, ultimately improving project outcomes.

c. Project's internal coherence: Senior officials at the ministry highlighted how this project has advanced rural electrification targets through effective coordination, resource sharing, and lessons learned. Notable collaborations, such as the Fiji MCO's Solarization of Head of State Residences project, have strengthened government capacities, solarizing the president's residence and implementing small-scale solar PV and mini-hydropower systems for schools and communities. While no other energy projects are currently underway by UNDP, the integration of renewable energy solutions has complemented other sectors like rural electrification, climate resilience, and livelihoods, fostering collaboration and resource-sharing across projects. This internal coherence has streamlined efforts, enhanced cross-project learning, and maximized impact by ensuring renewable energy solutions contribute to the broader goals of ongoing initiatives.

### 4.3.4 Effectiveness (*)

*Finding 28: The project made significant contributions to UNDP and national development priorities, with strong alignment to energy goals and capacity-building initiatives. However, the project's remote locations on outer islands and the complex logistical hurdles posed some barriers along with the pandemic in achieving certain outcomes.*

*Finding 29: Despite external challenges such as the COVID-19 pandemic, the project achieved all four planned outcomes and eighteen outputs with minimal deviation. It successfully mobilized stakeholders and created synergies across sectors though data management and sustainability strategies need to be improved. The project aimed to reach 1,712 people through four Solar PV systems but reached 1,527 (89.1% of the target), with 500 women, 25 PwDs, 2 LGBTIQ+, and the rest men among the beneficiaries.*

*Finding 30: The project played a transformative role in advancing rural electrification by introducing innovative approaches that extended energy access to underserved communities. This not only improved the quality of life in rural areas but also generated essential data to support policy advocacy. These efforts have laid a strong foundation for sustainable energy policies and fostered greater stakeholder engagement in promoting electrification.*

*Finding 31: The project implemented strategies to enhance in policy advocacy and engaging a wide range of stakeholders, including the private sector and local communities in an effective manner. These efforts facilitated and raised awareness about climate-resilient, low-carbon development in off-grid areas. However, developing and implementing supportive policy frameworks has proven challenging, requiring regular coordination among multiple agencies—a feat that isn't always achievable.*
*Finding 32: The project contributed to the development of key energy policies, including the RE Roadmap and the Rural Electrification Policy. During evaluation consultations, the Solomon Islands Government expressed a strong interest in advancing policies through evidence-based advocacy and the mobilization of relevant agencies.*

*Finding 33: The project made strides toward establishing institutional and financial frameworks for rural electrification, including plans to introduce a PPP model. It also played a pivotal role in engaging banks and formalizing financing mechanisms, earning positive feedback in the process. Encouragingly, the Solomon Islands Government has now begun collaborating with multiple agencies to drive the rural electrification agenda forward.*

*Finding 34: The project did not plan or implement rural electrification projects based on the findings of DREI assessments due to delays in executing key activities, such as techno-economic feasibility studies. In addition, follow-up projects for scale-ups and replications were not formally planned, and the maintenance of demonstration projects remains limited as claimed by 72% of key informants (see Annex 8).*

*Finding 35: The project successfully installed and operationalized three solar PV systems, and a fourth is nearing completion. These laid a strong foundation for sustainable energy management. The success of these demo sites hinges on securing resources for ongoing operations and maintenance (O&M) from the IP, providing regular training for local technicians, and establishing a well-defined, functional O&M fund and mechanism.*

*Finding 36: Six SIG personnel were trained in energy access and planning sustainable energy projects, and solar committees were equipped with basic O&M to support energy projects. This training strengthened the local capacity for managing and sustaining energy initiatives.*

An assessment of the project's effectiveness across all five outcomes revealed that its overall progress was moderately satisfactory, considering several internal challenges and external factors. However, the pace of progress in the project's final six months was remarkable. With MMERE, the nodal agency of SIG, already

allocating financial resources and demonstrating strong commitment during interviews, the existing gaps are expected to be addressed soon. The project's time and resources were primarily invested in establishing a solid foundation, which required significant effort but has now set the stage for accelerated progress. A summary of outcomes is presented in Table 8, with further details on how the project advanced despite numerous challenges in the following sections.

**Table 8: Project outcome wise level of effectiveness**

| Project outcome | Demonstrated effectiveness |
|---|---|
| 1. Enforcement of approved policies rules and regulations to support enhanced application of cost-effective RE technologies for electricity generation in the off-grid areas in the Solomon Islands | The project successfully facilitated three of four planned off-grid rural electrification projects, supported by approved energy access, RE, and EE policies. However, delays in establishing the policy and regulatory framework for rural electrification prevented the design and implementation of pilot projects under the framework. The project also supported five out of nine planned policies, though the approval and implementation of rural electrification plans were beyond its scope, with MMERE responsible for their continuation. Stakeholders noted that the project laid a strong policy foundation, leaving a significant footprint that MMERE and other partners are now building upon to strengthen these initiatives further. |
| 2.Enforced improved institutional and financial mechanisms in the integrated planning and implementation of rural electrification and RE-based energy production in the off-grid areas | The project successfully formulated and recommended three institutional and financing mechanisms (exceeding the target of two) to support rural electrification initiatives. However, delays in policy formulation and approval meant these mechanisms could not yet facilitate rural electrification projects. MMERE officials noted that these mechanisms would be implemented promptly once the policies are enacted, with progress on policy enactment reported as positive. |
| 3.1 Increased confidence in, and application of, RE technologies and RE-based power generation to support socio-economic development in off-grid areas | In the absence of a DERI assessment, the planned number of rural electrification projects in both on- and off-grid areas could not be fully implemented. Of the four planned follow-up projects on rural electrification, sustainable energy, and low-carbon technologies, three were successfully completed. Delays in finalizing and installing the Solar PV scheme, due to logistical challenges, resulted in only 25% of maintenance or repair work on demonstrations being successfully carried out. While physical progress appears limited, the foundational work and MMERE's strong commitment suggest that future progress could surpass initial targets. |
| 3.2 Adoption and implementation of climate resilient and low carbon electricity applications in increasing access to electricity in off-grid areas. | The project successfully installed and operationalized RE-based electricity generation and low-carbon technology systems in three off-grid demonstration schemes (target: 5). Additionally, two RE and EE technology application projects were designed and financed, influenced by demonstration results (target: 9). The percentage of women in community-based RE Service Companies (RESCO) receiving moral support from village men to boost leadership confidence reached 25% (target: 50%). Delays in site selection, installation, and commissioning hindered progress on these targets. However, consultations with MMERE officials revealed strong enthusiasm and commitment to advancing these goals beyond the project's timeline. |
| 4. Enhanced awareness and knowledge of the government, private sector and communities on the cost-effective application of RE and EE technologies and practices | The project trained six national and local government staff to effectively plan and evaluate energy access, sustainable energy, and low-carbon technology projects, exceeding the target of four. Additionally, three local firms were equipped to provide technical and maintenance services for rural electrification and low-carbon technology projects, meeting the target. |

a. Contributing to country program outcomes, SDGs, and national development priorities: The project made contributions to UNDP's Country Program outcomes and outputs, the SDGs, the UNDP Strategic Plan, GEF strategic priorities, and national development goals (see also Section 4.3.2). Key factors that supported the achievement of the intended outcomes and outputs included strong alignment with national energy priorities, bold commitment from UNDP and the IP, timely decision-making support from the PB, dedicated project staff, effective planning, and capacity-building initiatives. However, several challenges hindered the achievement of some intended outcomes and outputs. A total of 96% of key informants highlighted significant challenges, including logistical hurdles and the steep costs of transporting materials to the remote and widely dispersed outer islands (see Annex 8).

b. Aligning the planned and achieved outcomes and outputs of the project: The project achieved all four planned outcomes and 19 outputs through the implementation of various activities at different scales (see Annex 5, Section 5.11). However, external factors such as the Pandemic impacted the project's ability to fully achieve some of the anticipated outcomes and outputs. All the key informants (100%) revealed that the pandemic initially caused considerable delays in organizing training sessions, mobilizing staff and consultants at demo sites, and transporting essential materials (see Annex 8). These setbacks collectively impacted the timely achievement of the project's outputs and outcomes. Despite these hurdles, the project's strategic adaptations successfully navigated the challenges, ensuring it stayed on course. As a result, the overall results showed minimal deviation from the expected outcomes.

c. Identifying key achievements and areas for improvement in the project

Key achievements: The project played a pivotal role in transforming the energy sector in the Solomon Islands by operationalizing key energy initiatives and strengthening the capacity of the MMERE and other

relevant agencies, particularly in rural electrification. Specifically, an impressive 85.7% of key informants praised the project for its transformative impact on the energy sector in the Solomon Islands, which not only increased access to RE but also enhanced institutional capacities, highlighting its effectiveness (see Annex 8).

It also successfully mobilized and coordinated energy stakeholders, creating synergies across the energy nexus and altering government perspectives on energy sector development. At the micro level, the project became a model for the "energy nexus" concept. It guided the government in rural electrification and connected energy to key sectors such as education, tourism, and health. It helped reduce GHG emissions by replacing diesel generators with solar PV systems and thereby reduced costs as well. On the policy side, the project generated crucial data to support policy modifications and advocacy. It collaborated with key agencies such as Solomon Power, which provided technical expertise.

**Box 8: Project's strengths: Stakeholder voices**

- Technical expertise in implementation: *"The project's strength lies in being coordinated by the technical team within MMERE, ensuring technical rigor and contextual relevance."*
- Addressing rural energy gaps: *"This project stands out for its unique focus on rural settings, delivering a novel type of electrical system that addresses the acute gaps in SIG's service delivery in these areas."*
- Promoting energy nexus through collaboration: *"By working collaboratively with sectors like agriculture, fisheries, health, education, and tourism, the project successfully fosters an energy nexus approach in the Solomon Islands."*
- Strengthening policy support mechanisms: *"The project supported critical policy work, including reviewing the SINEP, preparing the electricity bill for Parliament, and revising the RE framework. However, broader policy efforts needed additional support mechanisms within the Energy Division to engage development partners effectively from the start."*
- Value of early legal advisory support: *"Engaging a Legal Advisor from the beginning could have significantly advanced policy-related components and streamlined legislative processes."*
- Filling rural energy baps: *"While the ADB and World Bank have focused on urban solar power with Solomon Power, this project's strength is addressing critical rural energy gaps identified by SIG, which remains an underserved priority."*
- Demonstrating significant impact despite small scale: *"This is a small project, but its impacts on specific sites are substantial. For instance, at Rokera Provincial Secondary School in Malaita, it helps save up to SBD400,000 in fuel costs for lighting. These savings can be redirected to support other critical areas of development, both structural and non-structural, as well as cognitive initiatives to enhance educational performance."*
- Improving management for future projects: *"This is a pilot project, and based on the lessons learned, MMERE will enhance the management of similar projects in the future. As MMERE is mandated to advance rural electrification, these improvements will contribute to achieving national electricity access targets."*

Areas of improvement: Establishing effective data collection and management systems is essential for monitoring project performance and ensuring alignment with targets. Including gender and socio-economic data within these systems enhances the visibility and impact assessment of the project. Sustainability can be achieved by implementing solid O&M strategies, providing technical training to local solar committees, and introducing small tariffs to support rural electricity schemes. Aligning the project with the Rural Electricity Strategy and national energy policies offers a structured approach to developing energy while promoting RE expansion linked to livelihoods and income generation. The result was broad socio-economic benefits. Furthermore, an economic analysis comparing diesel and solar PV systems underscores the savings and long-term advantages associated with solar power. Surplus energy is to be directed toward income-generating activities, thereby maximizing socio-economic returns. Site selection focused on creating economic opportunities for rural communities such as solar dryers and solar-powered fisheries.

**Box 9: Areas for Improvement: Stakeholder voices**

- Strategic site selection for economic impact: *"The project could prioritize site selection that creates economic opportunities and markets for rural farmers and communities, such as solar dryers and solar-powered fisheries centers, for larger impacts."*
- Streamlining administrative processes: *"To avoid project delays, there's a need for greater uniformity in administrative processes between the hosting agency and the PMU."*
- Enhancing data sharing for better progress measurement: *"The MECDM played a key role in the project, but data-sharing issues on the online portal made it difficult to measure progress against the indicators in the results framework."*
- Strengthening co-financing and TWG engagement: *"Limited resource leveraging as co-financing resulted from insufficient engagement of the TWG during implementation, compounded by gaps in the PMU's technical capacity."*

d. Assessing the achievement of project results and expected outcomes: Overall, the project aimed to achieve its desired results and outcomes through the careful execution of defined activities. Despite strategic efforts and numerous initiatives, the project fell short of achieving its 19 outputs and four intended

outcomes. Due to a combination of internal factors and external challenges (outlined in Section 'e' below), it was unable to fully realize all the anticipated outcomes, and goals. For a more detailed analysis of the extent to which the project met its outcomes, please refer to Annex 5, section 5.11.

e. Addressing constraining factors and mitigating risks in project implementation: Risks were effectively identified and managed throughout the project's cycle. The risk register in the Quantum system was regularly updated, and the project team actively monitored and assessed risks based on their severity. According to 92% of key informants, the project adhered to mitigation measures to minimize their impact, ensuring that no significant risks remained to undermine the project's overall performance (see Annex 8). More precisely, representatives from both the private sector and academia unanimously agreed that no significant risks remained to undermine the project's performance, underscoring the effectiveness of the risk management strategies and mitigation measures implemented throughout its execution.

The constraining factors were categorized into six main areas: socio-economic, financial, political and capacity-building, geographical, environmental, and institutional (see Annex 5, section 5.12). To overcome the project's challenges, several key measures were implemented. These included conducting comprehensive baseline assessments and continuous data collection to address socio-economic data gaps. Financial management was enhanced by streamlining the procurement process, engaging suppliers early, and ensuring timely fund disbursement. Innovative logistical strategies, such as local partnerships, helped reduce the high cost of transporting materials to remote sites. To improve staff performance, a robust induction and capacity-building program was introduced at a later stage, ensuring that PMU staff understood the project's site-specific challenges. The project design was flexible enough that it could adapt to unforeseen challenges, such as changes in the energy landscape and pandemic-related disruptions. Finally, institutional coordination was strengthened by ensuring that there was consistent oversight from UNDP and by improving communication among stakeholders to maintain alignment and project continuity.

f. Exploring alternative strategies for enhancing project effectiveness: The project implemented several key strategies to maintain its effectiveness. These included reviewing and improving policy, planning, and regulatory frameworks to accelerate electrification in off-grid areas and developing institutional and financial mechanisms for supporting integrated rural electrification. The project also facilitated cost-effective demonstrations of electrification schemes by engaging the private sector, CSOs, NGOs, and local communities. Information, communication, and education activities were also conducted to raise awareness about climate-resilient, low-carbon development in off-grid areas.

g. Promoting gender equality and human rights in project design and implementation: The project made significant strides in achieving positive GESI outcomes by implementing targeted initiatives designed to ensure the equal participation and empowerment of marginalized groups. Specifically, it provided women, indigenous people, PwDs, and LGBTIQ+ with fair access to training and job opportunities (even though their numbers are still small relative to their populations). Through inclusive policies and practices, the project addressed socio-economic disparities and promoted diversity. Stakeholders, during discussion, said that by enhancing skills, promoting entrepreneurship, and advocating for inclusive policies, the project effectively contributed to reducing inequalities and empowering marginalized communities, thereby fostering sustainable energy sector. In the 88% key informant's views, the project made significant contributions to gender equality and women's empowerment by integrating a human rights-based approach throughout its design and implementation, but at varying levels (see Annex 8). It actively involved women in decision-making, including participation in solar committees and RESCO, and ensured that they had equal access to energy resources. Precisely, effectiveness was demonstrated as 78.5% of project staff and UNDP officials reported that the project adopted a human rights-based approach throughout its design and implementation, ensuring inclusivity, equity, and a focus on marginalized communities (see Annex 8).

A total of 84% key informants expressed that gender-responsive strategies addressed women's specific needs in off-grid areas, offering them skills, training, and economic opportunities, which supported their economic empowerment (see Annex 8). They further said that the project (i) successfully implemented gender-responsive strategies, effectively addressing the unique needs of women in off-grid areas and supporting their economic empowerment, and (ii) emphasized human rights by promoting equal access to energy and ensuring that marginalized groups, particularly women, benefited from electrification efforts.

The project aimed to serve a population of 1,712 through the installation of four Solar PV systems but ultimately reached 1,527, achieving 89.1% of the target. Among the beneficiaries, 500 were women, 25 were persons with disabilities (PwDs), two identified as LGBTIQ+, and the remaining were men (see Annex 5, section 5.7). At the project sites, local communities were mobilized to organize and manage the solar PV systems. Among the 518 participants, 199 (38.4%) were women (see Annex 5, section 5.6). They were engaged through key informant interviews, focus group discussions, provincial meetings, community meetings, school administration meetings, and consultations with community leaders.

**Table 9: GRES Outcome and their rationale**

| Outcome | Gender | | | | | Rationale |
|---|---|---|---|---|---|---|
| | Negative | Blind | Targeted | Responsive | Transformative | |
| 1. Enforcement of approved policies rules and regulations to support enhanced application of cost-effective RE technologies for electricity generation in the off-grid areas in the Solomon Islands | | | ■ | | | Policy-related activities recognize gender inequalities and address them through focused actions, using gender-disaggregated data to ensure inclusive, evidence-based programming, though they may not fully tackle systemic barriers. |
| 2.Enforced improved institutional and financial mechanisms in the integrated planning and implementation of rural electrification and RE-based energy production in the off-grid areas | | | ■ | | | Gender inequalities are addressed in institutional and financial mechanisms using gender-disaggregated data to ensure inclusive, evidence-based programming, though some gaps remain. |
| 3.1 Increased confidence in, and application of, RE technologies and RE-based power generation to support socio-economic development in off-grid areas | | | ■ | | | Gender inequalities in socio-economic development actions in off-grid areas are addressed using inclusive data, though some improvements are still needed. |
| 3.2 Adoption and implementation of climate resilient and low carbon electricity applications in increasing access to electricity in off-grid areas. | | | ■ | | | Climate-resilient, low-carbon electricity initiatives address gender inequalities through focused activities, using gender-disaggregated data for inclusive, evidence-based programming, though systemic barriers remain partially unaddressed. |
| 4. Enhanced awareness and knowledge of the government, private sector and communities on the cost-effective application of RE and EE technologies and practices | | | | ■ | | RE and EE technologies reduce gender inequalities and promote equality by addressing systemic barriers, integrating gender analysis at every stage to ensure inclusive benefits for diverse gender groups |

After a thorough analysis of gender results effectiveness scale (GRES) in relation to the five project outcomes, four outcomes fall under the 'targeted category,' while one is categorized as 'responsive.' See Table 9 in detail. Collaborating with stakeholders, the project developed a comprehensive gender action plan focused on empowering women and vulnerable communities. An affirmative approach was taken to enhance the knowledge and skills of women, resulting in significant training and skill development opportunities. Stakeholders applauded this approach to reaching previously underserved groups and crossing gender stereotypes. This approach led to several "unanticipated effects." For example:

- Women's access to solar energy has improved their economic opportunities, enabling them to engage in income-generating activities such as small-scale production, storage and evening market sales.
- Access to clean energy has reduced the time and physical burden on women and girls previously spent gathering traditional fuels, allowing more time for education and community participation.
- Solar-powered lighting has also enhanced safety for women and children at night, contributing to their overall well-being and sense of security.
- In Ginger Beach area, the project's interventions helped to boost the tourism activities.
- Increasing gender and social inclusivity unexpectedly improved community cohesion and overall resilience, as diverse perspectives contributed to more innovative problem-solving and decision-making. These efforts also empowered marginalized groups in ways that went beyond the project's original objectives, fostering broader social and economic benefits and enhancing the overall well-being of the community.

**Rating-effectiveness:** The project made valuable contributions to UNDP and national development priorities, particularly in advancing energy goals and capacity-building. Strengthening data collection and enhancing

technical training, it has set the stage for achieving long-term socio-economic benefits in future initiatives. While notable progress was made in establishing institutional and financial mechanisms for rural electrification, there is still untapped potential to drive further advancements by engaging local banks and formalizing financing frameworks. These efforts, once realized, will greatly solidify the foundation for sustainable electrification initiatives. The project is actively moving in this direction by mobilizing relevant stakeholders. Despite these strides, some shortcomings against expected outcomes remain, resulting in an effectiveness rating of 'moderately unsatisfactory.'

### 4.3.5 Efficiency (*)

*Finding 37: The project allocated resources effectively, but there was a slight disparity between planned and actual spending, particularly for solar PV installations, technical training, and policy work. A total of 64% key informants noted the project's transparent financial management and adherence to SIG procurement protocols, ensuring efficient resource use. However, the spending disparity led to some challenges, however, project's commitment to transparent financial management and strict adherence to SIG procurement protocols ensured the efficient use of resources in achieving its outcomes. Notably, none of the key informants raised concerns about financial mismanagement, reflecting the project's strong accountability measures.*

There were some variances between planned and actual expenditures across results and outputs. As detailed in section 4.2.3(a), the project's total expenditure by the end of November 2024 was 97%, which was a strong performance despite challenges such as COVID-19, external factors, and staff turnover at both the project and UNDP levels. The GEF portion had a 98.7% expenditure rate, while project management costs were limited to 87.2%. Notably, there were slight variations in the budget, with higher expenditures in outcomes 1, 3.1, and 3.2, while expenditures in the other two outcomes were slightly lower (see Table 10).

Although there were some variations, they did not significantly impact the cumulative progress of the project. The project management costs were kept to just 87.2%, reflecting a strong commitment to the 'value for money' approach. During stakeholder consultations, no agencies raised concerns about financial mishandling, and the overall audit outcomes indicated no 'severe risk.' Given the context, including geographical challenges (with project sites located on outer islands) and the unexpected logistical costs for procuring and transporting materials, the project demonstrated impressive efficiency. In terms of both resource allocation and cost-effectiveness, as well as project management, the project performed efficiently despite these challenges.

**Table 10: Outcome-wise delivery rate and reasons for over and under-utilization of budget**

| Outcome | Delivery (Percent) | Reasons for over and under-utilization of budget |
|---|---|---|
| 1. Enforcement of approved policies rules and regulations to support enhanced application of cost-effective RE technologies for electricity generation in the off-grid areas in the Solomon Islands | 121.0 | The project board approved unused funds from outcomes 2 and 4, recommending that they be directed toward intensive policy-related work. This is expected to drive long-term growth in the renewable energy sector. |
| 2. Enforced improved institutional and financial mechanisms in the integrated planning and implementation of rural electrification and RE-based energy production in the off-grid areas | 80.8 | COVID-19 caused delays in the thorough assessment of solar PV demo sites and their installation, which in turn delayed improvements in institutional and financial mechanisms for integrated planning and implementation. |
| 3.1 Increased confidence in, and application of, RE technologies and RE-based power generation to support socio-economic development in off-grid areas | 117.2 | The project board approved the unused funds from outcomes 2 and 4, suggesting they be used for intensive efforts to support socio-economic development in off-grid areas. |
| 3.2 Adoption and implementation of climate resilient and low carbon electricity applications in increasing access to electricity in off-grid areas. | 114.3 | The project board approved the unused funds from outcomes 2 and 4, recommending they be allocated to intensive efforts aimed at increasing electricity access in off-grid areas. |
| 4. Enhanced awareness and knowledge of the government, private sector and communities on the cost-effective application of RE and EE technologies and practices | 68.3 | The task of raising awareness and building knowledge among the government, private sector, and communities about the cost-effective application of RE and EE technologies was significantly impacted by the pandemic, which restricted gatherings, training sessions, and meetings. |

One reason for the lower expenditure was the delay in receiving installments from UNDP, caused by several technical issues with the financial disbursement process. As per the procedure, the FACE form and supporting documents must be reviewed by the CO Programme Team, CO Finance, and the MPO Team in Fiji before being signed by the DRR/RR, which took longer than expected. Additionally, during the transition from Atlas to Quantum in 2023, there were delays in fund disbursements. The planned quarterly disbursement schedule was disrupted as teams familiarized themselves with the new Quantum system,

leading to errors and further delays in timely fund transfers, which also impacted the project's implementation timeline.

a. Resource allocation and cost-effectiveness:

The project demonstrated strong efficiency through its strategic resource allocation and cost-effectiveness, ensuring optimal use of available resources to achieve key outcomes. By prioritizing timely and cost-effective delivery, the project successfully met its planned objectives while maintaining budgetary discipline. When compared to similar projects, the cost-time efficiency was commendable, reflecting well-planned execution. A key highlight was the focus on investing in gender equality and human rights, recognizing their long-term value in fostering sustainable, inclusive growth. This investment not only benefited marginalized groups but also laid the foundation for continued progress, ensuring that the project's outcomes would have lasting, positive impacts on these communities.

i. Efficient and strategic use of resources to achieve outcomes: The project effectively allocated financial, human, institutional, and technical resources to achieve its outcomes. Most funds were directed toward solar PV system installation, technical training, and policy work. As of November 2024, the project had achieved 97% of its total budget, with good expenditure rates across all outcomes except for two, 71%, where spending was lower than planned (see Table 3). In the views of 72% of key informants, the project's implementation strategy, led by the PMU, was effective because it accelerated certain activities to meet outcomes within the budget, while transparent financial management and adherence to SIG procurement protocols ensured alignment with project objectives (see Annex 8). A strong 71.4% of government officials and PB members also highlighted the project's transparent financial management and strict adherence to SIG procurement protocols, which were instrumental in ensuring alignment with project goals and optimizing resource use (see Annex 8).

ii. Timely and cost-effective achievement of planned outcomes: In general, the project achieved its key milestones such as PIF approval, CEO endorsement, ProDoc signing, and the inception workshop without significant delays. However, as discussed in the above sections, the project encountered some delays in achieving its intended outcomes. Cost-effectiveness was ensured through clear objectives, robust management, and effective risk mitigation. Board members said that community and government involvement reduced operational costs and enhanced sustainability. The project mobilized co-financing from stakeholders, including cash and in-kind contributions, optimizing resources and partnerships. While financial audits identified five issues (two medium risks and three low risks), all were addressed through corrective actions. Challenges included declining project ownership due to shifting stakeholder priorities, though SIG maintained its commitment. The 2024 audit is scheduled for January 2025. Due to implementation delays, the overall cost was impacted by increased material and logistics expenses.

iii. Cost-time efficiency compared to similar projects: While no direct comparison was possible with similar other projects regarding cost, time, and outcomes, 76% of key informants indicated that the project's unit cost for training was lower than that of similar initiatives by other development agencies in the Solomon Islands (see Annex 8). More specifically, International Development Bank officials lauded the project's training programs as highly cost-effective, noting that they outperformed similar initiatives from other development agencies in the Solomon Islands, illustrating the project's efficiency in resource allocation. Strategies such as bulk purchasing helped minimize overhead and operational costs. In addition, the use of local and eco-friendly materials contributed to the project's resource efficiency.

iv. Value of investing in gender equality and human rights: The project strategically allocated resources to integrate gender equality and human rights in its measures to provide RE services to people. In the views of 84% of key informants, by investing in inclusive practices and targeted interventions such as policy development, capacity-building, technology transfer, and institutionalizing project activities, the project empowered marginalized groups and enhanced women's roles in decision-making processes (see Annex 8). Precisely, efficiency was evident to 57.1% of project staff and UNDP officials, who emphasized the project's effectiveness in advancing policy development, capacity-building, and technology transfer, which significantly strengthened local ownership and ensured long-term institutional sustainability (see Annex 8). These efforts addressed systemic inequalities, thereby improving access to clean energy services, particularly for underserved populations. Key outcomes included improving community resilience, enhancing livelihoods

through the use of energy in productive sectors, promoting equitable energy policies, and fostering sustainable socio-economic development in remote island communities.

v. Investing in gender equality and human rights for sustainable benefits: Providing adequate resources to integrate gender equality and human rights into this project ensured both immediate and long-term benefits for communities in the outer islands. According to 76% of key informants, addressing systemic inequalities and empowering marginalized groups enhanced social inclusion, boosted economic participation, and ensured equitable access to clean energy services (see Annex 8). These investments fostered strong, resilient island communities by improving energy security, supporting livelihoods, and promoting gender-balanced decision-making.

vi. Prioritizing resource allocation for marginalized groups: Prioritizing resource allocation for marginalized groups has been vital for fostering equity and inclusion in delivering RE services. A total of 96% of key informants believe that by focusing on the most vulnerable of populations in the outer islands, the project addressed systemic barriers and improved access to clean and affordable energy (see Annex 8). In supporting this statement, representatives from both the private sector and academia unanimously agreed that the project successfully targeted vulnerable populations in the outer islands, overcoming systemic barriers to energy access and fostering greater socio-economic inclusion. This targeted approach enhanced energy equity empowered marginalized groups both socially and economically, and promoted sustainable livelihoods. Ultimately, it contributed to building resilient and inclusive communities, ensuring that the benefits of RE were shared equitably, and long-term development outcomes.

### b. Project management and timeliness

*Finding 38: Despite facing challenges such as slow progress and resource constraints, the project successfully met its original deadline on November 12, 2024. The efficient implementation of the monitoring plan and timely transfer of data to the IP upon closure ensured that key tasks were completed though some refinements are still needed.*

The project was highly efficient in its management and delivery, even with necessary extensions, which allowed for the thorough completion of all key activities. The project management structure proved to be efficient, effectively coordinating resources and efforts to achieve the desired results. Financial resources were utilized wisely, ensuring that every investment contributed directly to the project's success. Additionally, the good M&E systems played a critical role in tracking progress, enabling timely adjustments and enhancing overall effectiveness. This structured approach ensured that the project consistently met its goals and delivered strong outcomes.

i. Project extensions: The MTR recommended a six-to-twelve-month no-cost extension to address the slow progress in outcomes 1, 2, and 4. Following the IP's recommendations, UNDP submitted an extension request to GEF; however, the request was not approved. Completing activities by the planned end date of November 2024 was challenging, though there were funds to finalize the remaining tasks if efficiently managed. The project implemented the monitoring plan and ensured timely data transfer to the IP upon project closure.

ii. Efficiency of the project management structure in delivering results: The project management structure, guided by the Project Document, PB, and UNDP's NIM guidelines, was effective in delivering results. PB members expressed that MMERE and other SIG ministries ensured implementation, while UNDP provided oversight and strategic support. Competitive procurement and adherence to international standards ensured transparency and sound financial management. Despite holding only three of the planned eight PB meetings and challenges such as costly local procurement and limited stakeholder orientation, momentum was maintained through "acceleration plans" addressing gaps caused by staff turnover. Strengthening engagement with key stakeholders like the Ministry of Finance and Treasurer, Chamber of Commerce, and academia could further enhance sustainability. The PB played a critical role in monitoring progress, approving changes, and ensuring compliance. Alignment with the original goals, confirmed through annual work plans analysis, highlighted the project's adaptability and impact.

iii. Use of project's financial resources: The project's financial resources were generally managed judiciously, though some PMU staff noted delays in budget availability. This stemmed from adherence to the financial protocol, which requires that 80% of planned funds and 100% of previous advances be spent before new

installments are released. For instance, UNDP Solomon Islands relied on the clearance of financial reports by the Regional Bureau and relevant HQ units. This ensured strict compliance with the 80/100 rule, aligned with UNDP and GEF policies and procedures. In fact, delays occurred when the IP submitted financial reports late. In such cases, UNDP, following established policies, postponed fund disbursement until all compliance requirements were fully met.

iv. Effectiveness of M&E systems in project management: The project effectively implemented the standard UNDP/GEF M&E systems, ensuring efficient management and the monitoring of progress against established outcomes. While no requests for an extension were made, the M&E system played a crucial role in evaluating the remaining tasks and providing necessary oversight. The project adhered to UNDP's Program, Operations, Policies, and Procedures (POPP) for reviews and reporting, with quarterly assessments tracking progress. During the tenure of the project, there were two oversight visits from the UNDP CO, one from the UNDP Regional Office, and a national-international joint media visit during the solar PV system commissioning.

**Rating-efficiency:** The project demonstrated effective resource allocation, though expenditures were unevenly spent across outcomes. Despite this, its commitment to transparent financial management and strict adherence to SIG procurement protocols ensured efficient resource utilization. However, delays in implementation caused by staff turnover highlighted areas needing improvement. Given these factors, the project's efficiency is rated as 'moderately unsatisfactory,' with room for further refinement.

### 4.3.6 Overall Project's Outcome (*)

**Rating-Overall project outcome:** Given the satisfactory rating for relevance and moderately satisfactory ratings for both effectiveness and efficiency, the overall project outcome is also rated as 'moderately satisfactory.'

### 4.3.7 Sustainability

The sustainability of the project was assessed considering the following parameters:

#### Financial (*)

*Finding 39: The likelihood of sustaining financial resources after GEF assistance ends is promising, as SIG, development partners, and I/NGOs are committed to providing support. The integration of project components into government plans and strong community ownership of solar PV systems enhance the chances of sustaining rural electrification efforts. Aligned with the NIM mandates, the IP, in collaboration with the PB and TWG, has been instrumental in establishing O&M funds, defining pricing terms, and streamlining fee collection and utilization, paving the way for sustainable funding solutions. Notably, 96% of key informants highlighted ongoing efforts to develop PPPs and document financial mechanisms (see Annex 8). These initiatives are complemented by strategies to scale up financing through strategic partnerships, market-driven adoption, and the active engagement of local banks and entrepreneurs.*

a. Financial resources for sustaining benefits after GEF assistance comes to an end: The likelihood of having sustained financial resources after GEF assistance ends is promising, with potential support from SIG, development partners, bilateral agencies, and I/NGOs. The SIG, through ministries like the MMERE, MECDM, and MoE, prioritizes rural electrification and has aligned with NDC targets to install solar in 40 sites by 2030, while it was said that provincial authorities in the education, health, and tourism sectors plan to allocate funds in future budgets. They were impressed by the significant savings in the cost of fuel at Rokera Provincial Secondary School.[14] Capacity-building efforts, including sustainability training and a course in the installation and maintenance of solar PV at SINU, enhanced the skills of stakeholders and increased awareness of RE funding mechanisms. Empowered local solar committees, supported by elected leaders' financial commitments and strong community ownership, further bolster sustainability. The integration of project components into government plans ensures that there will be ongoing SIG support as long as rural electrification remains a priority that attracts interest from development partners and I/NGOs in expanding similar initiatives in other provinces. According to 84% of key informants, the project has transformed rural communities, delivered impactful benefits, and fostered a strong sense of ownership of solar PV systems (see Annex 8). More precisely, a notable 71.4% of government officials and PB members recognized the project's profound impact on rural communities, emphasizing the critical role of fostering a strong sense of ownership over solar PV systems in ensuring the sustainability of its benefits in the long run (see Annex 8).

[14] Solar power helped Rokera Provincial Secondary School in Malaita save up to SBD 400,000 in fuel cost for lighting. This money can now be used to support other important areas of development in the school.

b. Opportunities for financial sustainability: Opportunities for financial sustainability are promising but require further development to secure long-term project results once GEF assistance comes to an end. Key elements for sustainability include O&M funds, under which solar power users agree to pay fees for upkeep. The pricing structure, fee collection mechanisms, and utilization plans are yet to be finalized. However, with the IP tasked with defining these parameters and executing them in collaboration with relevant agencies such as Solomon Power, 88% of key informants perceive minimal risks. This coordinated approach is expected to streamline processes and ensure practical, sustainable operation (see Annex 8).

c. Factors needed for an enabling environment for continued financing: In the opinion of the 84% of key informants, creating an enabling environment for continued financing requires completing the policy work needed to unlock sustainable funding pathways and sharing knowledge with development partners and stakeholders through the concise documentation of project outcomes (see Annex 8). The prospects for sustained financing hinge heavily on advancing enabling policy initiatives. Officials from the World Bank and Asian Development Bank emphasized the need to finalize essential policy frameworks to foster a supportive environment for long-term funding. They also expressed their commitment to collaborating with the IP and UNDP on future policy development. A total of 64% of key informants expressed that this collaborative momentum not only strengthens the foundation for effective financial management but also paves the way for a continuous and stable flow of resources (see Annex 8).

Disseminating best practices, lessons learned, and cost-benefit analyses (for example, diesel generators and solar PV systems) across stakeholders and communities can further build support for RE initiatives. Leveraging media platforms, including TV, radio, and social media, can amplify awareness of RE benefits. A clear exit strategy, combined with a roadmap from the Energy Division to consolidate and package the remaining work, will be crucial for ensuring long-term sustainability.

d. Financial and economic mechanisms for ongoing benefits: The project tried to establish financial and economic mechanisms to sustain benefits post-GEF assistance through solar committees and community capacity-building. Training covered O&M, tariff-setting, and addressing technical issues. The Ginger Beach solar committee, for example, has already raised SBD 2000 for O&M and deposited it in a bank account in Honiara. A total of 72% of key informants also highlighted that surplus solar power has begun to fuel various livelihood initiatives, generating additional income streams (see Annex 8). However, the business models for the completed demonstration sites are still in the pipeline, awaiting the active engagement of public-private partnerships (PPPs). The efforts to scale up financing through strategic partnerships, market adoption, and involvement of local banks and entrepreneurs require further attention. To enhance financial sustainability, key measures include strengthening O&M funds, improving record-keeping for governance, and developing operational guidelines for fund management. The project has effectively leveraged SIG resources to support these initiatives.

**Box 10: Sustainability: Stakeholder voices**

- Building capacity for solar PV maintenance: *"MECDM and MMERE, through the Energy Division, have supported SINU in developing a solar PV installation and maintenance course. Additionally, at all project sites, users of power have agreed to pay fees for O&M, ensuring sustainability."*
- Applying best practices for sustainability: *"The Energy Division will sustain this project by incorporating its best practices into national rural electrification initiatives across the country."*
- Leveraging other projects to sustain efforts: *"Ongoing and pipeline projects under the ADB, World Bank, European Union, and national school electrification programs will directly or indirectly sustain this project's initiatives."*
- Expanding electrification to boarding schools: *"The Energy Division has already budgeted for the electrification of two boarding schools in 2025, applying the systems designed by this project."*

**Rating-Financial sustainability:** The prospects for sustaining financial resources after GEF assistance are promising, supported by commitments from SIG, development partners, and I/NGOs. The integration of project components into government plans and strong community ownership of solar PV systems further bolster the potential for long-term rural electrification efforts. Key sustainability elements—such as O&M funds, pricing strategies, fee collection, and utilization—are being actively managed by the IP and relevant stakeholders, aiming to establish durable funding pathways. While PPP frameworks are still under development and financial mechanisms are being formalized, scaling up financing will require greater focus on strategic partnerships, market integration, and engagement with international development banks and entrepreneurs. Encouragingly, rising interest from development partners signals opportunities for enhanced collaboration and investment in the sector. Based on this assessment, the financial sustainability rating is 'moderately likely,' reflecting both encouraging progress and significant risks to long-term viability.

### Socio-economic (*)

*Finding 40: No immediate socio-political risks threaten the longevity of the project's outcomes as rural electrification is a national priority with strong local support. The alignment of the project with national development goals and climate change mitigation priorities ensures its continued relevance, however, there are still some risks of disputes.*

*Finding 41: Stakeholder ownership of the project is strong, with key government and policy knowledge sector actors committed to sustaining its outcomes. Consistent engagement and the involvement of additional stakeholders like the Ministry of Finance and Treasurer and academic institutions could enhance the project's long-term sustainability.*

a. Social and political risks to the longevity of the project's outcomes: In the views of all key informants (100%), there are no immediate or foreseeable socio-political risks threatening the longevity of the project's outcomes, as rural electrification is a national priority in the SIG, with strong support from local beneficiaries and close alignment with national development goals (see Annex 8). A total of 88% of key informants further emphasized that climate change mitigation, which is prioritized by both national and state governments and supported by SIG's commitment to the UNFCCC, outweighs concerns regarding GHG reductions (see Annex 8). The selection of schools, health centers, and tourism sites for demonstrations reflected community priorities, so the likelihood of disputes is minimal. Tailored training for local electricians so that they can support O&M further enhanced socio-economic sustainability. Continued monitoring of socio-political stability is suggested to maintain alignment with government priorities and ensure long-term benefits.

b. Stakeholder ownership and its impact on the sustainability of outcomes: Stakeholder ownership is strong, with key players such as the MMERE, MECDM, Solomon Power, and UNDP demonstrating a commitment to sustaining project outcomes. Integration of the project's initiatives within the MMERE ensured robust government ownership. The PB effectively guided progress, though inclusivity could improve by involving representatives from the Ministry of Finance and Treasurer, and academia (for example, SINU). According to 80% of key informants, TWGs provided valuable support though engagement from some stakeholders slowly declined after the inception phase due to staff turnover and limited follow-up from the PMU and UNDP CO (see Annex 8). Consistent stakeholder engagement and strong connections are crucial for long-term sustainability. The project improved energy-related data management through monitoring and assessment, enhanced the visibility of the RE sector among government and private stakeholders, and contributed to the energy nexus in the country. A total of 88% of key informants further opined that by expanding RE in rural areas, collecting testimony about its impact, and supporting the growth of national development measures, the project solidified its role as a bridge to future RE initiatives (see Annex 8).

c. Public and stakeholder awareness supports long-term objectives: Public and stakeholder awareness that supports the project's long-term objectives is strong, and the project is visible at the national, provincial, and local levels. Local communities have shown ownership of RE systems and expressed willingness to contribute small tariffs for O&M. The project effectively leveraged platforms like its website and Facebook page to disseminate knowledge and engage stakeholders. That said, further efforts are needed to overcome capacity barriers and strengthen individual and institutional capabilities for managing RE systems. Awareness-raising activities, including orientations, training, and workshops, played a pivotal role in building sustained support for project outcomes.

d. Ongoing documentation of lessons learned by the project team: The project has documented some key lessons and included them in progress reports, including quarterly and annual reports and PIRs. This documentation needs to be improved in its thematic depth, and quality of content quality and needs to be disseminated more broadly. The project supported landowning communities and tribes by delivering solar electrification aligned with Solomon Power and the SIEA Act. The company was fulfilling its obligation to perform community service. A total of 56% of key informants highlighted that there was more awareness about RE and its productive applications (see Annex 8). Demonstration sites, for example, provided 24/7 electricity for activities like refrigeration, ice-making, small businesses, and the like. Strong ownership was fostered through the involvement of ministries such as Environment, Fisheries, Health, Education, and Agriculture, embedding RE benefits across sectors.

e. Transfer of successful aspects to future beneficiaries and stakeholders: The project effectively transferred key technical aspects to stakeholders and future beneficiaries, fostering replication and scaling up opportunities. In the views of stakeholders, its approach was well-received across the national, provincial, and local levels, with communities showing strong ownership and initiating discussions on resource

allocation for the O&M of solar PV systems. According to 64% of Key informants, success was driven by the dedication of PMU staff, pre-implementation planning, active participation of communities and schools in logistics, and the technical expertise of local contractors to carry out installations with on-the-job training (see Annex 8). The project's considerable visibility and high stakeholder engagement established a robust foundation for future replication and broad adoption.

f. Duration of gender results (short-term vs. long-term): The project achieved significant gender results both in the short and the long term through its inclusive approach. In addition, it engages diverse groups across caste, class, and ethnicity. In the short term, it ensured the active participation of various groups, while its establishment of inclusive solar committees with a strong representation of women will ensure sustainability in the long term. In addition, RE policies were developed and modified to support gender inclusivity, thereby creating a foundation for sustained and equitable benefits and promoting long-lasting gender equity in the energy sector, as reflected by 76% of key informants (see Annex 8). Both private sector and academia representatives also unanimously pointed out that the revision of RE policies to incorporate gender inclusivity laid a solid foundation for equitable access and long-term gender equality in the energy sector.

**Socio-economic sustainability Rating:** There are no immediate socio-political risks threatening the longevity of the project's outcomes, as rural electrification is a national priority with strong local support. The project aligns with national development and climate change mitigation goals, ensuring its continued relevance, though some risk of disputes remains. Stakeholder ownership is strong, with key government and sector actors committed to sustaining the outcomes. There are minimal socio-economic risks to sustainability. Based on this assessment, the socio-economic sustainability rating is 'likely.'

### Institutional framework and governance sustainability (*)

*Finding 42: The project has strengthened institutional sustainability by supporting the integration of RE policies and training local technicians in long-term maintenance. However, slower-than-expected progress on policy and regulatory reforms indicates the need for continued focus on scaling up these components. However, with the dedication of IP and the enthusiasm of development partners, these efforts are poised to evolve into systematic, and sustainable frameworks.*

*Finding 43: The project established effective governance structures and identified champions to promote sustainability, thereby ensuring accountability and knowledge transfer. Stakeholder engagement has been defined, driven by the project document's clear delineation of representation within the PB and TWG. This structured approach ensures each stakeholder plays a pivotal role in streamlining and advancing the project's objectives.*

a. Impact of legal frameworks and policies on sustaining project benefits: The project, which was implemented under the NIM, faces no institutional and governance risks because, the UNDP Country Office and the regional office played a key role in supporting budget revisions and ALS requests, aiming to strengthen institutional capacity. However, despite these efforts, institutional capacities have yet to reach their full potential. Thanks to the project, no concerns were raised regarding the mishandling of project funds. However, policy-related barriers, particularly endorsement procedures at the state level, need to be revisited. The project supported the development and integration of RE policies, regulations, and guidance. The PMU successfully advocated for policy approval, while institutional sustainability was strengthened by training local technicians to provide long-term O&M support. There are no significant risks to institutional frameworks, and leaders can adapt to future changes. Policy work has advanced access to energy, with initiatives like solarizing national hospitals (with support from IRENA) and offices, expanding energy roadmaps (with funding from JICA), and supporting a national energy summit to promote RE. The project also transferred technology and technical know-how to rural communities and schools, opening new avenues for learning and improvement. However, progress in introducing policy and regulatory reforms has been slower than expected. Thus, strengthening this component is necessary for further scaling up by the SIG and development partners.

b. Establishment of governance structures for accountability and knowledge transfer: The project established frameworks, policies, and governance structures to ensure that there will continue to be accountability, transparency, and knowledge transfer after it closes. In 76% of key informants' views, it created enabling conditions, including the formulation of policies and investment plans, to support an increase in rural electrification and ensure the sustainability of off-grid RE power generation (see Annex 8). A remarkable 85.7% of key informants also observed that the project's strategies are being seamlessly integrated into future energy planning, with a focus on ensuring the lasting sustainability of institutional frameworks and coordination mechanisms (see Annex 8). The SIG's commitment to reforming energy

policy and incorporating economic, social, technical, and environmental sustainability parameters anchors the project's likely long-term success. According to 56% of key informants, the project also developed knowledge products to facilitate the transfer of technical knowledge, thereby further strengthening its accountability and transparency mechanisms (see Annex 8).

c. Development of self-sufficient institutional capacity after the project closes: The project developed institutional capacity by training local people and solar committee members in the O&M of solar PV systems. It also increased expertise in RE policy matters through training, seminars, and workshops. Stakeholder capacity was strengthened by sharing information on project progress and updates. Specific training was provided to two individuals from each site for immediate O&M. A total of 80% of key informants said that long-term capacity-building was emphasized to ensure the continuous dissemination of information and the strengthening of knowledge, with a focus on mitigating climate change and reducing GHG emissions (see Annex 8). This approach will ensure that the project aligns with the priorities of the SIG and UNDP.

d. Identification and engagement of champions to promote sustainability: The project identified and engaged champions to promote sustainability. At each site, it established solar committees whose focus was the upkeep of installed PV systems. Key champions included solar committee members, RESCO members, Energy Division staff, trained individuals from thematic ministries and government agencies, as well as the staff of UNDP and other relevant agencies. While linkages with other stakeholders were made as needed, they were limited, and the promotion and visibility of the project were not consistently maintained. The project also involved contractors with A-grade licenses from Solomon Power for installations. The energy regulator Solomon Power ensured that sites complied with the Australia and New Zealand standards before the project handed over sites to the solar committees. It verified the quality of the sites through detailed inspection and testing before commissioning and handing over.

e. Consensus on post-project actions and project leadership to future governance changes: The project achieved consensus among stakeholders, including government representatives, regarding post-project actions. It was said that solar committee members possess a thorough knowledge and understanding of the actions required at various stages for the smooth O&M of a solar PV system. Government stakeholders are also aware of the tasks needed to ensure the sustainability of the solar PV systems and will be able to contribute to a unified approach for continued success after the project's closure. In the views of 72% of key informants, the project leadership can adapt to future institutional and governance changes, including potential shifts in local or national political leadership (see Annex 8). Project strategies are designed to be effectively incorporated and mainstreamed into future planning, thereby ensuring the scalability and replication of the solar hybrid system even after the project is closed.

f. Mainstreaming of project strategies into future planning: According to 96% of key informants, the project's strategies are being effectively mainstreamed into future energy planning with a strong focus on ensuring the long-term sustainability of institutional and coordination structures (see Annex 8). It aligns with the National Energy Act and its regulations as well as the country's national development strategy. It complements rural electrification, RE, and EE investment plans as well as the SIG's NDC. This integration ensures that the project's impacts will be sustained over the long term.

g. Institutional changes supporting gender equality and human rights: Institutional changes in the Solomon Islands are increasingly supporting gender equality and human rights by integrating these concerns into national energy policies and frameworks. The government has made strides in promoting gender inclusivity through legislative reforms and the establishment of gender-sensitive policies across various sectors, including energy, education, and health. In the views of 80% of key informants, notable initiatives, such as increasing female representation in decision-making roles and addressing gender-based violence, reflect a growing commitment to human rights (see Annex 8). These institutional changes created an enabling environment for gender equality and human rights and thus fostered a more inclusive and equitable society.

**Rating-Institutional framework and governance sustainability:** The project has strengthened institutional sustainability by supporting the integration of RE policies and training local technicians for long-term maintenance. However, slower-than-expected progress on policy and regulatory reforms highlights the need for continued focus on scaling these components. Effective governance structures were established, and champions were identified to promote sustainability, ensuring accountability and knowledge transfer. While stakeholder engagement was strong, there remains a gap in fostering more consistent visibility and connections

with a broader range of stakeholders. However, stakeholder commitment to advancing the sector has been strong, with prioritized efforts driving progress. Based on this assessment, the rating for institutional framework and governance sustainability is 'Likely,' as there are moderate risks to sustainability.

### Environmental (*)

*Finding 44: The project effectively mitigated environmental risks, particularly from natural disasters, by ensuring robust installations and safe waste disposal practices. However, some necessary measures, such as the installation of an anti-lightning apparatus and proper fencing to protect the solar PV system, are missing as they were not within the ProDoc. While stakeholders are committed to waste disposal, no concrete plan has been developed. Compliance with EPA[15] regulations could support the long-term environmental sustainability of the project.*

a. Environmental factors that do not undermine future project benefits: The project addressed environmental risks effectively, particularly regarding natural disasters such as typhoons, salinization, droughts, flash floods, and landslides. While severe weather, particularly tropical storms and typhoons, could affect the installation of solar panels, the project has ensured that installations are robust. However, some necessary measures, such as the installation of an anti-lightning apparatus and proper fencing to protect the solar PV system, are still missing. The project also tried to reduce energy consumption and GHG emissions and implemented safe disposal practices for old appliances and lamps, thereby minimizing the environmental impact. Though stakeholders are committed to waste disposal, no concrete plan is in place. Policies for waste disposal violations are to be included in site-specific environmental assessments for future projects.

b. Project activities that support outcome sustainability: The project took significant steps to ensure the safe disposal of RE/EE equipment in compliance with EPA regulations, thereby reducing potential environmental harm. It was found that people are well-versed in proper installation, storage, and disposal procedures. However, if they ignore these regulations, environmental risks could increase. However, implementing EPA regulations remains a challenge, as it is a complex task that could pose environmental risks at any time.

**Environmental Sustainability Rating:** The project effectively mitigated environmental risks, particularly from natural disasters, by ensuring robust installations and safe waste disposal practices. While stakeholders are committed to waste disposal, no concrete plan has been developed. The absence of an anti-lightning apparatus and proper fencing to protect the solar PV system poses a risk unless appropriate mitigation measures are implemented. Compliance with EPA regulations could support the long-term environmental sustainability of the project. However, implementing EPA regulations remains a challenge and could pose environmental risks at any time. Based on this assessment, the rating of environmental sustainability is 'moderately likely,' as there are moderate risks still associated with it.

**The overall likelihood of sustainability Rating:** With financial sustainability rated as 'moderately likely,' socio-political sustainability marked as 'likely,' and both institutional framework and governance, as well as environmental sustainability, assessed as 'moderately likely,' the overall likelihood of sustainability is assessed as 'likely.'

## 4.3.8 Country ownership

*Finding 45: The project aligns with the national goals of reducing GHG emissions increasing rural electricity access and reinforcing the Solomon Islands' climate commitments and broad development objectives. This alignment has supported its NDC and contributes significantly to global climate change mitigation efforts.*

- Alignment of project concept and outcome with national plans: The project aligned with the Solomon Islands' national plans, particularly the SINEP (2014) and the National Development Strategy (2011–2020). Its goal of reducing GHG emissions and increasing access to rural electricity supports national targets for RE, EE, and broad development objectives while at the same time contributing to the country's commitments under its NDC for global climate change mitigation.
- Integration of project outcomes into national plans and involvement of stakeholders in project processes: The project's outcomes have been integrated into national plans for off-grid energy, RE adoption, and sustainable electricity access. Key stakeholders, including government officials, civil society organizations, development partners, and academia, were actively involved in all stages, thereby boosting ownership and addressing concerns. TWG was established to ensure coordination and effective governance and to offer technical assistance as and when required.

[15] Solomon Islands provisionally applies the EU-Pacific EPA from 17.5.2020

- Government's financial commitment to the project and approval of policies and regulatory frameworks: The government demonstrated financial commitment through relevant ministries and supported the project by reviewing and amending policies related to RE and rural electrification. It also facilitated policy reviews and corrective measures, ensuring that regulatory frameworks aligned with the project's objectives were developed and approved.

### 4.3.9 Gender equality and women's empowerment

*Finding 46: The project successfully empowered women and marginalized groups by ensuring their involvement in leadership and technical roles. Gender-inclusive solar committees played a key role in improving economic opportunities and challenging gender norms.*

*Finding 47: The project contributed to environmental and resilience outcomes by equipping women with technical skills and improving their business expertise. Women's involvement in solar O&M boosted community resilience, promoted sustainable energy use, and strengthened their role in climate action.*

a. Effectiveness of the project in advancing gender equality and women's empowerment: According to 84% of key informants, the project effectively engaged women and marginalized groups (see Annex 8). Specifically, it ensured their involvement in key activities, decision-making, and leadership roles. Capacity-building, including training in solar O&M, empowered women with technical skills and increased participation in RE projects. An impressive 71.4% of government officials and PB members also recognized the project's success in engaging women and marginalized groups, emphasizing their active participation in decision-making processes, leadership roles, and key project activities (see Annex 8). The installation of solar PV systems improved women's economic opportunities by supporting small businesses and eco-lodge operations. They further opined that gender-inclusive solar committees, which included good representation of women, empowered women to lead, voice concerns, and challenge gender norms, all changes that advance gender equality and empowerment.

b. Contribution of gender results to environmental, climate, and resilience outcomes: The project's gender initiatives contributed to environmental and resilience outcomes by equipping women with skills in RE and sustainable practices. Training programs enhanced women's expertise in maintaining solar PV systems and managing businesses. Women's increased involvement in solar O&M improved community resilience while also linking women to market opportunities through women-led enterprises such as fisheries, promoting sustainable energy use, and advancing gender equality in climate action.

c. Contribution to closing gender gaps in resource access and control: The project helped close gender gaps in access to energy resources by providing training in financial and technical skills, facilitating small-scale businesses, and empowering women to lead energy governance. A total of 76% of key informants said that gender-inclusive solar committees allowed women to influence decisions, ensuring equitable access to energy services and improving socio-economic opportunities (see Annex 8). All these steps promoted gender equality. Representatives from both the private sector and academia also unanimously praised the project's achievement in ensuring equitable access to energy services, which in turn enhanced socio-economic opportunities and fostered greater inclusivity.

d. Assessment of the project's gender results (OECD criteria) and scale of those results: The project achieved significant short- and long-term gender results, including skill development, income generation, and increased leadership and participation. The project did not seem to have any significant negative impacts on gender equality though there is a need for continued efforts to ensure that responsibilities and capacity-building are balanced. In the views of 88% of key informants, the project's gender initiatives were relevant, efficient, and sustainable and had positive impacts on women's livelihoods, leadership, and socio-economic resilience (see Annex 8). International Development Bank officials also wholeheartedly acknowledged the project's gender-focused initiatives, commending their relevance, efficiency, and sustainability, and noting the significant improvements in women's livelihoods, leadership, and socio-economic resilience. More precisely, a notable 71.4% of project staff and UNDP officials also emphasized how the project effectively strengthened the socio-economic resilience of women, through targeted interventions such as policy development, capacity-building, and the integration of gender-centric activities into institutional frameworks (see Annex 8).

e. Use of the gender results effectiveness scale: The project achieved GESI results by empowering marginalized groups, including women, indigenous people, and PwDs. Training, job opportunities, and advocacy for inclusive policies in the RE sector fostered socio-economic equity. The integration of GESI principles and the development of a GAP ensured long-term impact, reduced inequalities, promoted diversity, and increased women's participation in project activities.

### 4.3.10 Cross-cutting issues

*Finding 48: The project successfully integrated a human rights-based approach, promoting stakeholder participation and addressing the needs of marginalized groups through thorough need assessments. It made notable progress in advancing gender equality and women's empowerment. Additionally, the project contributed to climate change action by mitigating environmental risks and strengthening national and local capacities. It contributed to local populations by improving energy access and generating jobs. It also adhered to SES standards and implemented targeted mitigation measures, thanks to the dedicated guidance of an SES specialist. 76% key informants expressed that these initiatives aligned well with UNDP's Country Program and IP's priorities, advancing inclusive growth, climate resilience, and sustainable development (see Annex 8). While the project successfully addressed the concerns of PwDs for their transformational change, stakeholders emphasized the need for disability inclusion from the project design phase, considering PwDs' multi-faceted vulnerability and marginalization.*

- *Human rights:* The project adopted a human rights-based approach, ensuring diverse stakeholder participation and addressing the needs of marginalized groups such as women, indigenous peoples, PwDs, minorities, vulnerable groups, and youth. It focused on awareness-raising and capacity-building in RE while mitigating human rights risks, with no reported violations. The demonstration sites were selected in close coordination with the government, following the ProDoc's guidance and a needs assessment, ensuring a smooth process without issues.
- *Gender equality and empowerment of women (GEEW):* The project made notable progress in promoting gender equality and women's empowerment, benefiting women, men, youth, and marginalized groups in both expected and unexpected ways. It fostered positive changes in women's leadership and empowerment, aligning with GESI policies. The careful assessment of GEEW revealed that it has contributed to project's outcomes to advance gender equality by formulating gender-responsive strategies and their proper implementation. It was because gender was treated as a cross-cutting theme throughout the evaluation, ensuring it was considered in the design, implementation, and analysis to capture the project's impact on gender equality and empowerment. However, it faced some challenges in ensuring equal participation across certain groups and committees at the demo site level. On a positive note, the initiative significantly enhanced gender sensitization, paving the way to address these gaps effectively.
- Stakeholders highlighted the need for gender integration in energy policies to drive more effective initiatives. The project explored RE's potential to support women's economic empowerment and address gender and disability-related disparities. Future projects could enhance gender equality by mainstreaming gender, conducting safety audits, promoting women's leadership, and utilizing tools like the "gender and age marker toolkit."
- *Disability:* The project tried to engage PwDs at four demo sites, leading to positive impacts and some transformative changes. The installation and use of solar PV systems, combined with participation in various training programs, led to significant positive impacts and transformational changes for PwDs. These interventions improved their access to reliable energy, enhancing daily life and independence. Additionally, the training programs equipped PwDs with valuable skills, increasing their confidence and enabling greater participation in economic and community activities, ultimately fostering empowerment and inclusion. For future projects, stakeholders recommended capacity-building workshops to improve staff sensitivity to Gender Equality and Disability and Social Inclusion (GEDSI), along with facilitating the collection of GEDSI-sensitive data. Additionally, compiling and disseminating disability-related clauses from policy documents, such as the Pacific Framework for the Rights of Persons with Disabilities, could further support inclusive development for PwDs in the project's design phase.
- *Climate change action:* The project demonstrated positive outcomes for climate change action, with no evidence of environmental risks undermining the sustainability of its outputs. In fact, it contributed to the country program's climate change mitigation efforts and strengthened national and local capacities through review-and-reflection sessions. By employing an environmental mainstreaming framework across all solar PV system components and incorporating it into O&M training for end-users, the project effectively mitigated potential environmental risks. No adverse environmental impacts were reported, and any potential risks were addressed through the SES. The project also contributed to climate change adaptation by providing reliable, sustainable energy sources that reduce dependency on fossil fuels and enhance energy security in vulnerable areas and supported resilience by powering essential services, such as water pumping, healthcare, and communication, while mitigating GHG.

- *Positive and negative effects of the project on local populations:* The project positively impacted local populations by generating income, creating jobs, and improving energy access, as assured by 76% of key informants (see Annex 8). It ensured transparency through the signing of warehouse lease agreements and community consent letters and supported UNDP priorities such as poverty alleviation, climate change mitigation, and disaster recovery. Governance mechanisms were maintained by the MMERE. However, the limited induction and follow-up on SESP for PMU and UNDP staff pointed to gaps in capacity-building.
- *Alignment of project objectives with UNDP Country Program priorities:* The project aligned with UNDP's CPD, which focuses on inclusive growth and inequality reduction during the Solomon Islands' recovery from COVID-19 and transition from LDC status. It also supported the Multi-Country Program Document (2023-2027), which promotes sustainable development and resilience and contributed to the Blue Pacific Continent strategy and the 2030 Agenda for Sustainable Development.
- *Contribution to disaster preparedness, and climate change action:* Solar PV systems enhance disaster preparedness and climate change action by reducing reliance on fossil fuels and emissions. These systems, in the views of 72% of key informants, are designed to withstand the sorts of extreme weather phenomena encountered in the Solomon Islands (see Annex 8). Representatives from both the private sector and academia also unanimously agreed that the systems installed were specifically designed to withstand extreme disaster events, ensuring that the benefits of the project remain uninterrupted even during natural calamities. Thus, they support a reliable supply of energy while advancing climate change mitigation and adaptation through resilient designs, regular maintenance, and contingency planning.
- *Benefits to disadvantaged and marginalized groups:* The project-introduced solar PV systems provided reliable and affordable energy to marginalized groups. In the views of 80% of key informants, these systems reduced energy costs and supported small businesses, education, healthcare, and communication, thus fostering socio-economic development and promoting inclusivity in underserved areas (see Annex 8). They also praised the project for its success in reducing energy costs, making RE more accessible to marginalized groups, including single women, PwDs, and LGBTIQ+ communities of the rural areas.
- *Contribution to poverty reduction and livelihood support:* A total of 84% of key informants (84%) opined that the solar PV systems contributed to poverty reduction by providing clean, RE, reducing reliance on fossil fuels, and supporting income-generating activities (see Annex 8). More precisely, a significant 85.7% of government officials and PB members also acknowledged that the project played a pivotal role in generating income and creating jobs by enhancing energy access, thus driving the socio-economic development of rural communities (see Annex 8). They improved access to essential services, fostered long-term livelihoods, and promoted environmental sustainability in vulnerable communities.
- *Integration of a human rights-based approach:* The project prioritized equitable access to clean energy for marginalized groups and, in doing so, fostered inclusive practices and participatory decision-making. This approach empowered communities; upheld fundamental rights to energy, health, and economic opportunities; and contributed to social equity and sustainable development, as claimed by the 80% of key informants (see Annex 8). Specifically, a strong 64.2% of project staff and UNDP officials also confirmed that the project was instrumental in upholding fundamental rights to energy, health, and economic opportunities, thereby empowering marginalized communities and advancing social equity (see Annex 8, also refer to Annex 5, section 5.14 for details).
- *Poverty/environment nexus of sustainable livelihood issues:* In the Solomon Islands, poverty and environmental degradation are closely intertwined, as many communities rely on natural resources for their livelihoods. Unsustainable practices such as overfishing, deforestation, and land degradation exacerbate poverty by depleting resources essential for subsistence and income generation. The project contributed to intensifying this nexus, threatening food security, housing, and infrastructure in vulnerable communities. Promoting sustainable livelihoods that balance environmental conservation and economic development is crucial to breaking the cycle of poverty and resource depletion.
- *Crisis prevention and recovery issues:* It was found that RE is key to crisis prevention and recovery by offering sustainable solutions that enhance resilience to climate-related disasters and energy insecurity by reducing dependence on vulnerable energy infrastructures and ensuring a reliable power supply during emergencies. Learning from the past, in post-crisis recovery, RE systems, such as solar and wind, provide quick, off-grid solutions that support essential services, promote economic recovery, and reduce environmental impacts. RE also fosters sustainable development by creating jobs, improving access to clean energy, and empowering vulnerable communities, ensuring a more inclusive and robust recovery process.

### 4.3.11 GEF Additionality

*Finding 49: The project's outcomes, particularly in reducing $CO_2$ emissions and supporting RE solutions, demonstrate strong GEF additionality and environmental benefits. Its sustainability can be ensured through continued O&M, capacity-building, and community ownership, as well as legal, institutional, and socio-economic advancements.*

a. Relevance of outcomes to incremental reasoning: The project's outcomes, particularly the incremental environmental benefits, are highly relevant in demonstrating GEF additionality. The implementation of RE solutions, such as solar PV systems, reduced $CO_2$ emissions and supported broader environmental goals. Verifiable quantitative data, including emissions reductions and improved energy access, provide clear evidence of the project's contribution to global environmental benefits. According to 68% of key informants, positive outcomes, such as enhanced policy frameworks and stakeholder engagement, reflect the creation of a supportive environment for sustainable energy (see Annex 8). An impressive 85.7% of government officials and PB members also emphasized that the project successfully created a favorable environment for sustainable energy development, aligning with GEF's goals to promote RE solutions and mitigate GHG emissions (see Annex 8). These results reinforce the project's alignment with GEF objectives and its contribution to mitigating climate change.

b. Attribution of outcomes to the GEF contribution: The project's outcomes are directly attributed to GEF contributions, as evidenced in M&E documents. In the views of board members, these documents demonstrate causality by linking GEF-supported interventions, like the installation of solar PV systems, to measurable environmental improvements, including GHG emissions reductions and a transition to RE sources. The rationale for GEF involvement—focusing on sustainable energy solutions and climate change mitigation—is validated through the project's measurable outcomes, establishing a clear connection between GEF funding and achieved environmental benefits.

c. Sustainability of project outcomes: The project provides strong evidence of sustainability across legal, institutional, financial, socio-economic, and innovation dimensions. A total of 92% of key informants said that the integration of solar PV systems has reduced reliance on fossil fuels and is likely to continue due to maintenance, capacity-building efforts, and community ownership (see Annex 8). Representatives from both the private sector and academia agreed unanimously that the project played a crucial role in decreasing dependence on fossil fuels by incorporating RE systems into rural communities, thereby driving environmental sustainability. International Development Bank officials also unanimously underscored the importance of strong community ownership of solar PV systems, ensuring the long-term sustainability of the project and reinforcing GEF's commitment to fostering local empowerment and resilience. Specifically, a notable 64.2% of project staff and UNDP officials agreed that promoting community ownership of RE systems was essential for the project's sustainability and for achieving GEF's additionality objectives (see Annex 8). Actions like sustainable energy policy development and gender-inclusive governance structures further ensure the longevity of outcomes. The project also scaled up RE adoption, influenced legal and regulatory reforms, improved institutional capacity, and fostered financial mechanisms for long-term sustainability. They further expressed that socio-economic benefits, including the empowerment of marginalized groups and livelihood improvements, are expected to persist with the innovation and technology introduced through GEF involvement. These outcomes suggest that the project's benefits will extend beyond its completion, contributing to broader environmental and socio-economic transformation.

### 4.3.12 Catalytic/replication effect

*Finding 50: The project effectively transferred knowledge and disseminated lessons through manuals, workshops, and collaboration with key stakeholders, ensuring that knowledge-sharing would be long-term. Despite geographic challenges, strategic site selection and capacity-building efforts enhanced the potential for replicating RE models in other islands.*

- *Effective knowledge transfer and dissemination of lessons learned:* From the 60% of key informants' views, the project successfully transferred knowledge and shared lessons learned by producing and distributing manuals, reports, and training materials through platforms such as workshops, websites, and social media (see Annex 8). More precisely, an impressive 71.4% of key informants highlighted the crucial role of diverse platforms, including workshops, websites, and social media, in raising awareness and facilitating the spread of the project's successful strategies across various outer islands (see Annex 8). Strategic site selection and cost-effective RE technologies promoted replicability, although the scattered geography of the islands posed challenges. Collaboration with governments, the private sector, and civil society fostered ownership, while data management systems and integration of technical manuals into university curricula ensured sustained knowledge sharing.
- *Expansion of demonstration projects:* The project raised the visibility and encouraged the broad adoption of best practices. While expansion beyond the planned sites was not possible, 76% of key informants expressed commitment to extending solar technologies to areas surrounding the project's islands (see Annex 8). They

also expressed unanimous enthusiasm for extending solar technologies in and around the project's demo sites, underscoring the project's strong potential for replication and expansion.

- *Capacity-building and training for expanding project achievements:* Capacity-building activities, such as Global Sustainable Energy solution online courses, improved skills and institutional capacity. This timely and model-based training laid the foundation for scaling up RE initiatives in and around the project areas.
- *Replication of project outcomes by trained individuals and institutions:* The project enabled trained individuals, institutions, and local authorities to replicate RE models in schools and health centers using government constituency funds. This effort was likely to extend the project's reach and contribute to its long-term sustainability.
- *Lessons learned and missed opportunities in the project:* Key lessons emerged through cross-sectoral knowledge sharing, creating replication opportunities in sectors like education, health, and tourism. However, 52% of key informants raised missed opportunities as a limited investment in data digitization, underutilized rural demonstration models, and limited expansion of successful approaches across more islands and constituencies (see Annex 8). A significant 71.4% of project staff and UNDP officials also pointed out that socio-political factors, including political instability and local governance dynamics, played a critical role in shaping the project's outcomes, influencing its capacity for replication and broader impact (see Annex 8).
- *Effectiveness of the project's exit strategy:* While the project has no dedicated exit strategy, elements present in reports suggest its potential effectiveness. In the view of 80% of key informants, a systematic exit strategy could have established household energy standards, improved compliance with wiring regulations, strengthened institutional solar committees, and provided a clear roadmap to operationalize solar PV systems in collaboration with other relevant agencies (see Annex 8). Collaboration with Solomon Power and the creation of an independent power producer center would have further institutionalized outcomes and ensured legal compliance and sustainability.
- *Contextual factors influencing project achievements:* The project's progress was influenced by local energy infrastructure, geographic challenges, and socio-political factors as claimed by 76% of key informants (see Annex 8). Government constituency funds and collaboration with local authorities enabled RE model replication. International Development Bank officials also noted that while the project demonstrated a positive catalytic effect, its replication to other islands was limited due to logistical and resource-related challenges. However, geographic constraints on RE adoption impacted technology deployment, scalability, and feasibility in rural areas.
- *Key knowledge products for sharing lessons and experiences:* Knowledge products, including reports and manuals, captured best practices and lessons on solar PV installations in remote areas. These resources showcased successful strategies and outcomes, providing valuable tools for advancing future RE initiatives.
- *Assessment of knowledge management results and impacts:* The project documented lessons, best practices, and adaptive management approaches to inform new GEF projects but not in a systematic order. Knowledge dissemination across different digital platforms contributed to scaling and refining RE initiatives, ensuring broader impacts and the replication of successful models.

### 4.3.13 Progress to impact

*Finding 51: The project successfully reduced environmental stress by replacing diesel generators with solar power systems, lowering GHG emissions, and promoting clean energy alternatives. This shift to RE demonstrated a scalable model for environmental sustainability in remote areas.*

*Finding 52: The project led to positive environmental changes by increasing the adoption of solar energy, improving quality of life, and reducing reliance on fossil fuels. The shift to sustainable energy not only mitigated environmental degradation but also promoted long-term sustainability in rural communities.*

*Finding 53: The project strengthened policy and governance frameworks in the energy sector, advocating for reforms and supporting the development of an RE policy. While progress was made, further advocacy, especially policy advocacy, is needed to ensure long-term energy governance.*

*Finding 54: The project facilitated socio-economic improvements by providing reliable energy for education, healthcare, and village tourism on the outer islands. By replacing diesel generators with solar power, the project created income-generating opportunities and fostered socio-economic development in underserved communities.*

a. Environmental stress reduction achieved at scale: The project reduced environmental stress by lowering GHG emissions and promoting clean energy alternatives, as supported by 92% of key informants (see Annex 8). Replacing diesel generators with solar power systems reduced reliance on fossil fuels, cutting carbon emissions and other pollutants. A remarkable 71.4% of government officials and PB members also noted that the project had effectively mitigated environmental stress and reduced GHG emissions, directly contributing to the Solomon Islands' broader climate objectives (see Annex 8). According to 92% of key

informants, this substitution demonstrated a scalable model for RE, especially in remote areas (see Annex 8). Representatives from both the private sector and academia also acknowledged the project's pivotal role in driving the transition towards sustainable energy practices, emphasizing its potential to fundamentally reshape energy consumption patterns in the long run. The widespread adoption of solar technology in schools, health centers, and village tourism activities amplified these environmental benefits, advancing sustainable energy practices.

b. Positive changes in environmental status demonstrated: The project brought about significant positive environmental changes by increasing awareness about and adoption of solar energy in rural communities. Providing 24/7 access to electricity improved quality of life while reducing reliance on diesel generators. A total of 68% of key informants said that this shift to sustainable energy practices not only mitigated environmental degradation but also promoted long-term sustainability, benefiting local populations (see Annex 8).

c. Policy and governance frameworks enhanced for long-term benefits: In the views of board members, the project strengthened policy and governance frameworks in the energy sector, advocating for reforms and supporting the development of an RE policy in the Solomon Islands. By providing data and facilitating RE system standards for rural and urban areas, the project highlighted the potential for scaling up RE solutions in other islands. Although significant progress has been made in policy development, it remains incomplete and requires further efforts, as policy advocacy is an ongoing process. The project laid a good foundation for future energy governance and regulatory frameworks, ensuring long-term progress and sustainability.

d. Socio-economic improvements realized through project interventions: According to 92% of key informants, the project delivered significant socio-economic benefits to island communities by improving access to energy for education, health, and community development (see Annex 8). International Development Bank officials also underscored that the project had notably enhanced access to energy, especially in key sectors such as education, health, tourism, and community development, ultimately improving the quality of life in rural areas. The strategic selection of sites such as schools, health centers, and tourism villages ensured that the project's impact was widespread. Rokera School was able to reduce the cost of fossil fuel and reinvest those savings in educational improvements. In Ginger Beach, during FGD, participants said that village tourism boomed once a supply of clean energy was assured. By replacing diesel generators with solar power, the project provided reliable energy, fostered income-generating opportunities, and redirected savings to enhance local services. The overall result was that the project fostered socio-economic development in underserved communities across the Solomon Islands.

e. Mechanisms linking outputs to outcomes: The project successfully linked its 19 outputs to its four components and four outcomes through well-defined mechanisms. A total of 76% of key informants said that such mechanisms included (i) installing RE systems in schools, health centers, and community infrastructure to enhance access to reliable electricity; (ii) conducting capacity-building initiatives to strengthen the capacity of local institutions to adopt sustained RE solutions; and (iii) advocating for policies supporting rural electrification and promoting the replication of RE technologies (see Annex 8). These efforts, in the views of 80% of key informants, established clear causal links between outputs, such as infrastructure and training, and outcomes, including improvements in education, health services, and socio-economic development in rural areas (see Annex 8).

f. Extent and likelihood of the long-term survival of changes: The project achieved advancements in rural electrification and community engagement. Officials at the Energy division said that it addressed gaps in the MMERE's strategy and promoted holistic energy development. Strong community support and active participation ensured that the project would have a long-term impact while replacing diesel generators with solar PV systems provided sustainable energy solutions and saved money. Capacity-building at the ministry level and integrating RE into national, provincial, and local governance and policies laid a solid foundation for the continued expansion and sustainability of rural electrification in the Solomon Islands.

g. Follow-up arrangements securing lasting impacts: The project implemented follow-up arrangements to ensure lasting impacts; in particular, it emphasized policy integration, capacity-building, and institutional development, as claimed by 92% of key informants. Precisely, an impressive 93.8% of key informants also highlighted the significant strides made in strengthening local capacity, empowering communities to adopt

enduring RE solutions that will continue to provide lasting benefits (see Annex 8). Key measures included strengthening the role of the Energy Division in rural electrification and embedding RE solutions into governance frameworks to expand solar energy. Training initiatives equipped local authorities and communities to maintain and replicate solar systems. It was shared that collaborations with entities such as Solomon Power, the Independent Power Producer (IPP) Center, and SINU ensured compliance with standards, while ongoing community involvement and monitoring mechanisms supported sustainability and the widespread replication of solar technologies.

h. Unintended project impacts evaluated for scope and implications: The project had both positive and negative unintended impacts. From the perspectives of 92% of key informants, on the positive side, it increased community engagement, demonstrated ownership and empowerment, and maintained solar PV systems (see Annex 8). The project also boosted local economic growth by improving access to education, healthcare, and small businesses, while extending the hours of business operations. Environmental awareness was raised, highlighting the potential of RE to combat climate change. However, challenges included over-reliance on solar technology, leading to issues with energy storage and maintenance during adverse weather. Conflicts over resource allocation also arose, as solar energy sometimes overshadowed other needs. Despite these challenges, 76% of key informants said that the positive impacts greatly outweighed the negatives, and future interventions can address the problems to achieve balanced development (see Annex 8).

i. Barriers and risks to sustained progress effectively addressed: Key barriers and risks to the sustenance of the project's progress were effectively addressed through strategic actions. A total of 72% of key informants highlighted a series of potential risks along with their proposed mitigation approaches (see Annex 8). Technical challenges, such as the failure of solar PV systems and maintenance issues, were mitigated by training local communities and local technicians for independent upkeep. Financial sustainability was ensured through community-based funding models and partnerships with local businesses. Hybrid energy solutions, such as those that combined solar with backup power, addressed the variability of climate and weather, guaranteeing a reliable supply of energy. Social and cultural barriers were overcome by early stakeholder engagement, awareness campaigns, and pilot projects. Policy and regulatory risks were managed through collaboration with government agencies, thereby aligning the project with national energy strategies. These efforts secured the project's long-term sustainability and impact.

j. Tangible advancements in gender equality thoroughly assessed: The project made significant strides in gender equality by actively involving women in decision-making and roles traditionally dominated by men, such as training in technical matters and systems. This engagement enabled women to acquire new skills and economic independence. Indeed, some were able to participate in solar-powered businesses, thereby enhancing their financial empowerment. By providing a reliable source of energy in rural areas, the project freed up women's time for personal and professional growth and improved their access to education and safety. Gender-specific training and community initiatives also raised awareness, fostering long-term cultural shifts and contributing to women's economic, social, and political empowerment.

**Box 11: From the Evaluator's Field Diary…**

During my visit to the Ginger Beach Resort area, I had the chance to discuss with solar committee members who've been benefiting from solar energy since June 2024. One member shared how, before solar, the community depended on expensive diesel generators. These high costs were a heavy burden on local families and businesses. Now, with solar power, electricity costs have dropped significantly, making it more affordable for more people. They also mentioned the environmental benefits of solar energy, which has reduced the village's reliance on fossil fuels, lowered carbon emissions, and improved air quality—creating a healthier, cleaner environment. The switch to solar has made them feel they're helping fight climate change while securing a more sustainable energy future.

The solar installation has made the community more resilient by providing stable and reliable power, unlike the diesel generators which were often unreliable and costly. This steady energy source supports daily activities, local businesses, and overall well-being. The arrival of solar power has been a game-changer for village tourism. With reliable energy, guesthouses, restaurants, and tour operators now offer uninterrupted services, attracting more eco-conscious visitors. Solar-powered amenities like lighting, refrigeration, and hot water have made the resort more appealing, boosting local tourism and economic growth. Plus, the extra energy has improved residents' quality of life, enabling them to enjoy music, and TV, and charge their phones, strengthening community ties as people spend more time together in the evenings.

The solar committee shared some challenges they might face, including limited technical capacity for O&M, which could lead to system failures. They plan to address this by offering training for local people and partnering with technical institutions to

build skills. To combat high upfront costs, they are creating financing options like subsidies, microloans, and pay-as-you-go models. To ensure strong community support, they'll run awareness campaigns and involve everyone in meetings to discuss and reflect on the project. For O&M, they're introducing a fair fee-based system to fund repairs, where larger users contribute more. However, some necessary measures, such as the installation of an anti-lightning apparatus and proper fencing to protect the solar PV system, are still missing.

# 5. Summary of main findings, conclusions, recommendations & lessons Learned

## 5.1 Main findings

The project aligned its objectives with national priorities, particularly rural electrification and low-carbon development pathways, and, at the same time, addressing key barriers and adapting to external challenges like COVID-19. The project's ToC was comprehensive. It integrated risk mitigation and ensured alignment with national energy goals. Gender equality and governance improvements were evident, though delays in the installation of solar PV systems and capacity-building limited outcomes. Despite operational challenges and gaps in dedicated resources and capacity-building, the project mobilized stakeholders and implemented gender-responsive strategies.

The project contributed to policy development, in part with RE roadmaps, while at the same time fostering community ownership of solar PV systems and empowering women in leadership and technical roles. Financial management and transparent decision-making supported its outcomes, though the overutilization of funds constrained some activities. Externalities such as natural disasters and political unrest adversely influenced outcomes and required adaptive measures like the SESP to overcome. Demonstration sites showcased sustainable energy solutions that reduced $CO_2$ emissions and promoted clean energy, but broad replication was undermined due to incomplete follow-up and time/resource constraints.

A review of 'back-to-office reports' and 64% of key informants highlighted some technological challenges in Hunanawa and Rokera demo sites, including grid imbalances, inadequate environmental conditioning (heat and humidity), and low-quality equipment, leading to installation malfunctions (see Annex 8). It was noted that these sites could have significantly benefitted from improved designs and enhanced operational practices to ensure smoother functionality. Stakeholder engagement was good, though broader collaboration could enhance impact. The project aligned itself with national goals, advancing RE policies and contributing to socio-economic benefits, including RE for education, healthcare, and tourism in underserved communities. Strong integration with UNDP initiatives and partnerships further amplified its relevance and potential for sustainability. Despite initial delays, the project met its original deadline and established a foundation for long-term rural electrification and climate resilience.

## 5.2 Conclusions

The evaluation drafted 24 well-structured conclusions, each aligned with the main headings of the report for ease of reference. These conclusions were drawn directly from the key findings, with corresponding finding numbers provided in parentheses for clarity. To ensure a balanced and realistic perspective, the evaluation carefully considered PIRs, MTR, project achievements, and insights gathered during the evaluation mission. This comprehensive approach ensures that the conclusions reflect both documented progress and on-the-ground realities.

### a. Analysis of results framework, assumptions, and risks

- Conclusion 1: The project demonstrated good alignment with national priorities, including rural electrification and low-carbon development, supported by a well-defined and comprehensive ToC. The project faced external disruptions, particularly during the initial years due to the COVID-19 pandemic. These unforeseen challenges caused delays in implementation, impacting the achievement of some outcomes. However, the project's well-crafted strategy, coupled with strong collaboration among key stakeholders, successfully mitigated these setbacks and helped bridge the gaps *(Based on findings # 1-5)*.
- Conclusion 2: A robust risk framework was integrated into the project design, enabling the effective identification and mitigation of key risks through stakeholder engagement and action plans. Despite these efforts, external shocks such as pandemics, natural disasters, and political instability necessitated adaptive measures, highlighting the need for greater flexibility and resource optimization to address evolving challenges and ensure project resilience *(Based on findings # 1-5)*.

### b. Lessons from other projects in project design and planned stakeholder participation

- Conclusion 3: The project effectively integrated lessons from past energy initiatives and regional best practices, ensuring alignment with rural electrification and RE efforts. Although the stakeholder mapping and engagement plans were thorough, staff turnover at both the PMU and the UNDP SOI led to some delays in coordination. However, the strategic mobilization of staff from the IP to fill these gaps ensured that coordination continued smoothly, allowing implementation to stay on track. *(Based on findings # 6-7)*.

### c. Gender-responsive project design

- Conclusion 4: The project's gender-responsive design, supported by a robust GAP, effectively promoted women's empowerment and equitable participation. Some implementation gaps, such as the initial focus on technical hardware activities, were effectively addressed through regular review and reflection sessions, along with targeted orientations and capacity-building initiatives *(Based on findings # 8-9, and 46-47)*.
- Conclusion 5: The absence of a dedicated GESI focal point at the project level created some gaps. However, periodic gender-focused inductions played a pivotal role in bridging this gap, ensuring a more balanced and inclusive approach. Enhanced capacity-building, dedicated resources, and sustained technical expertise are critical for ensuring comprehensive gender equality and women's empowerment in future initiatives *(Based on findings # 8-9, and 46-47)*.

### d. Adaptive management, actual stakeholders, and partnership arrangements

- Conclusion 6: The project adhered to environmental and social safeguards by complying with SIG EIA standards developing site-specific SEMPs and managing resources for their execution. Initial challenges stemming from some confusion were skilfully overcome by engaging an SES consultant, whose expertise ensured steady progress and maintained project momentum *(Based on findings # 10-13)*.
- Conclusion 7: The project demonstrated strong adaptability in managing operational challenges. The project laid a strong foundation for rural electrification, though there remains some potential to enhance partnerships with the private sector and international development actors *(Based on findings # 10-13)*.

### e. Project finance and co-finance

- Conclusion 8: The project showcased strong financial management and adaptability in reallocating funds to meet its objectives, despite delays in payment approvals due to late receipt of IP requests. Strengthening tracking mechanisms and barrier-removal planning offers a valuable opportunity to enhance co-financing potential and secure additional funding to fully achieve project goals *(Based on findings # 14-15)*.

### f. M&E in design and implementation, oversight, and partner execution

- Conclusion 9: The project's M&E plan was well-designed, with comprehensive indicators and evaluation mechanisms in place. Limited early oversight by the PMU and IP affected monitoring effectiveness, but these issues were amicably resolved through improved coordination with the UNDP program team and senior management *(Based on findings # 16-18)*.
- Conclusion 10: UNDP played a crucial role in providing strong technical assistance and oversight throughout the project, navigating challenges such as vacancies at the RCC Unit and PMU. The IP showed solid execution quality, with opportunities for improvement in fund utilization and addressing staffing issues to ensure smoother project delivery. These experiences have offered key lessons that will help refine strategies for better execution and resource management in future projects *(Based on findings # 16-18).*

### g. Risk management and social and environmental standards

- Conclusion 11: The project designed and implemented a risk management framework through SESP, addressing both existing and new risks with systematic tracking and mitigation measures. Despite infrequent updates to the "SES," the project was not significantly impacted by social or environmental risks. The SES Specialist played a crucial role in identifying and managing potential risks, effectively implementing mitigation measures to minimize their impact. This proactive approach helped maintain the project's overall performance and success *(Based on findings # 19-20)*

### h. Relevance

- Conclusion 12: The project was relevant in that it was closely aligned with national priorities such as the National Energy Policy and National Development Strategy and contributing to rural electrification and RE targets. Its flexibility in adapting to political, legal, and economic changes further ensured its compliance with regulations, enhancing its sustainability and reinforcing its alignment with evolving government priorities. The project successfully integrated gender equality goals, aligning with national policies to promote women's

empowerment and leadership, fostering an inclusive approach that enhanced its social impact *(Based on findings # 23-25).*

### i. Coherence

- Conclusion 13: The project demonstrated internal coherence by leveraging synergies across rural electrification, RE, and EE, ensuring coordinated efforts and consistent progress. In addition, by aligning with regional and international initiatives like those of the World Bank and ADB, the project enhanced its complementarity and value, fostering collaboration with stakeholders and local communities for a greater overall impact *(Based on findings # 26-27)*.

### j. Effectiveness

- Conclusion 14: The project made strong contributions to both UNDP and national development priorities, effectively aligning with energy goals and capacity-building initiatives. However, logistical challenges and mismatches between some activities and budget disbursement limited the full achievement of some outcomes *(Based on findings # 28-31)*.
- Conclusion 15: Despite external challenges such as the pandemic and geographical remoteness of outer islands, the project achieved some planned outcomes and mobilized stakeholders, creating synergies across sectors. The project aimed to reach 1,712 people through four Solar PV systems but reached 1,527 (89.1% of the target), with 500 women, 25 PwDs, 2 LGBTIQ+, and the rest men among the beneficiaries. However, there is room for improvement in data management and sustainability strategies to ensure more effective long-term impact and enhanced socio-economic benefits *(Based on findings # 28-31)*.
- Conclusion 16: The project made progress in developing key energy policies such as the RE Roadmap and Rural Electrification Policy, but not all policies were developed on time. The Solomon Islands Government expressed a strong interest in advancing policies through evidence-based advocacy and the mobilization of relevant agencies *(Based on findings # 32-36)*.
- Conclusion 17: Although the project tried to establish institutional and financial mechanisms for rural electrification, critical actions such as engaging local banks and formalizing financing mechanisms were not completed due to time. However, the project advanced institutional and financial frameworks for rural electrification, introduced a PPP model, and engaged banks to formalize financing mechanisms. The Solomon Islands Government is now collaborating with multiple agencies to further drive the rural electrification agenda *(Based on findings # 32-36)*.

### k. Efficiency

- Conclusion 18: The project demonstrated transparent financial management and adherence to SIG procurement protocols, ensuring efficient resource use. Despite over spending in outcome 3.2, the project's commitment to transparent financial management and adherence to SIG procurement protocols ensured efficient resource use and successful outcomes. Key informants highlighted the project's strong accountability, with no concerns about financial mismanagement *(Based on findings # 37-38)*.

### l. Sustainability

- Conclusion 19: The project shows strong potential for sustained financial support beyond GEF assistance, with assured contributions from the SIG, development partners, and I/NGOs. The IP, in collaboration with the PB and TWG, established O&M funds, defined pricing terms, and streamlined fee collection to ensure sustainable funding. 96% of key informants noted efforts to develop PPPs and document financial mechanisms (see Annex 8). These efforts are further supported by strategies to scale up financing through partnerships, market adoption, and local bank and entrepreneur engagement. The integration of project components into government plans is underway, with opportunities to strengthen community ownership and develop a clear sustainability and exit plan to enhance the long-term sustainability of rural electrification efforts *(Based on findings # 39-44)*.
- Conclusion 20: Stakeholder ownership remains high, with key government and sector actors committed to sustaining project outcomes. Governance structures and stakeholder champions effectively promote sustainability and accountability, though broader stakeholder engagement requires improvement. Engaging the Ministry of Finance and Treasury, the Chamber of Commerce, and academic institutions will further bolster the project's long-term sustainability, ensuring strong, broad-based support *(Based on findings # 39-44)*.

### m. Country ownership, cross-cutting issues, GEF additionality, and replication effect

- Conclusion 21: The project strongly aligned with the national goals of reducing GHG emissions and increasing rural electricity access, reinforcing the Solomon Islands' climate commitments and contributing significantly to global climate change mitigation efforts. This alignment has not only supported the NDC but also reinforced broad development objectives *(Based on findings # 45, 48-50)*.
- Conclusion 22: While the project contributed to local populations by improving their access to energy and generating jobs. The project effectively adopted a human rights-based approach, ensuring participation from diverse stakeholders and addressing the needs of marginalized groups. It made significant strides in promoting gender equality and women's empowerment in ensuring equal participation, especially in leadership roles. While the project had positive impacts on PwDs, inadequate disaggregated data hindered a comprehensive assessment of its effects. This highlights the importance of integrating disability inclusion at the outset of future projects to ensure more effective and sustainable outcomes for PwDs. Additionally, the project contributed positively to climate change action, mitigating environmental risks through its environmental mainstreaming framework and strengthening national and local capacities *(Based on findings # 45, 48-50)*.

### n. Progress to impact

- Conclusion 23: The project contributed to environmental sustainability by replacing diesel generators with solar power systems, reducing GHG emissions, and promoting clean energy alternatives. This shift not only mitigated environmental degradation but also created a scalable model for the adoption of RE in remote areas *(Based on findings # 51-54)*.
- Conclusion 24: In addition to its environmental benefits, the project facilitated socio-economic improvements in underserved communities by providing reliable energy for essential services like education, healthcare, and tourism. The transition to solar power not only created income-generating opportunities but also strengthened local economies and overall quality of life *(Based on findings # 51-54).*

## 5.3 Recommendations

The following recommendations are proposed to guide the design of similar projects in the future.

| Rec# | TE Recommendations | Entity responsible | Time-frame | Priority |
|---|---|---|---|---|
| 1 | i. Enhance human resource management and capacity-building for effective project implementation: Qualified technical staff are key to ensuring successful project execution. However, high staff turnover creates gaps in program oversight, disrupts institutional memory, and fosters negative perceptions. Challenges like limited training opportunities, no roster of local technical staff, and the absence of staff retention strategies undermine human resource management and capacity-building efforts.<br>• *Develop a comprehensive plan outlining profiles for the required staff, technical capacities, and a structured capacity-building strategy by conducting a needs assessment, consulting with stakeholders, and aligning staff requirements with project objectives to ensure the right expertise is in place.*<br>• *Create a roster of potential national and international staff in advance and allocate resources for initiatives like short overseas training and study visits to boost staff motivation and promote career growth by collaborating with academic institutions, professional networks, and development agencies to identify qualified candidates and establish partnerships for training programs.*<br>• *Timely recruitment of PMU staff is essential for smooth project implementation by streamlining the hiring process, adhering to clear timelines, and leveraging efficient recruitment platforms to attract and on-board skilled professionals without delay (Conclusions # 1, 3, 4, 5. 6, and 10).*<br>ii. Strengthen capacity-building and system sustainability for solar PV systems and use power in productive sectors: While solar PV systems have been implemented, key gaps remain. Local electricians have inadequate skills for maintaining critical components like panels and inverters and limited awareness about warranties, replacement costs, and procurement sources. The absence of a roster of trained electricians and inconsistent tariff collection for O&M further undermine system sustainability. The capacity of stakeholders, including that of government agencies, suppliers, contractors, and the private sector, is insufficient. In addition, mechanisms to use surplus solar power in productive sectors to support resilient livelihoods are underdeveloped.<br>• *To address these issues, map and address the capacity gaps of local electricians, including women, and maintain rosters for the timely mobilization of those who engage in maintenance by conducting* | MMERE | Dec 2025 | High |

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|---|---|---|---|---|
| | *skills assessments, organizing targeted capacity-building sessions, and establishing a database of trained electricians categorized by skill level and availability.*<br>• *Provide comprehensive training, refresher courses, and practical drills to enhance technical skills by partnering with training institutions.*<br>• *Establish equitable tariff systems for O&M funds, with higher contributions demanded from heavy users by offering subsidized programs for women and marginalized groups, and implementing participatory consultations with communities to design fair and transparent tariff models.*<br>• *Engage the private sector and academia in training workshops to promote participation in the solar PV market by organizing co-designed workshops.*<br>• *Create user-friendly pictorial O&M manuals, facilitate collaborations between installers and technicians via memorandums of understanding, and educate stakeholders about equipment specifications and procurement by developing simple and visually intuitive manuals, and establishing formal agreements to foster knowledge-sharing and coordinated action among all stakeholders.*<br>• *Conduct comprehensive feasibility studies to ensure the installation design is perfectly aligned with demand and optimally utilizes available natural resources by deploying multidisciplinary teams for data collection, analyzing energy needs, and integrating environmental assessments to create resource-efficient installation plans.*<br>• *Leverage surplus power in sectors like ice-making, and cold storage of farm products for proper marketing, and use local and provincial budgets for replication of solar PV systems by identifying key value chains, engaging local government and private investors, and advocating for budgetary allocations that prioritize scalable solar PV solutions in underserved areas. (Conclusions # 1, 18, 19, 23, and 24).* | | | |
| 2 | Integrate resilient solar hybrid systems with disaster risk reduction and waste management: Prioritize a hybrid solar PV system incorporating mini- and micro-hydro, biogas, and similar technologies (based on feasibility), alongside disaster risk reduction and a waste management plan to maximize both technical and environmental benefits. Resilient technologies must withstand recurrent disasters to minimize harm to the environment and community health.<br>• *Conduct a comprehensive feasibility assessment, utilizing prior studies by reviewing existing research, engaging technical experts to validate findings, and incorporating stakeholder consultations to identify site-specific opportunities and challenges.*<br>• *Use the "hazard vulnerability and capacity analysis" tool to assess risks and identify mitigation strategies for storms and typhoons by involving local communities and disaster management experts in workshops, mapping hazard-prone areas, and integrating findings into the solar hybrid system design to enhance resilience.*<br>• *Collaborate with insurance companies to offer cost-effective options, enhancing resilience through risk transfer by negotiating group insurance packages for vulnerable communities, tailoring policies to cover solar hybrid systems, and raising awareness about the benefits of insurance among users.*<br>• *Establish a PPP mechanism aligned with EPA guidelines for safely managing and disposing of aging electrical units and fixtures by engaging public and private stakeholders to develop waste management frameworks, creating clear roles and responsibilities, and ensuring compliance with environmental standards through regular monitoring and audits (Conclusion # 19).* | Energy Division/ MMERE | Nov 2025 | Medium |
| 3 | Promote synergistic resource management and PPP for scaling up solar PV systems: Effective resource management can create a synergy-driven, cost-effective, and sustainable model. This includes mobilizing the private sector for co-financing, coordinating with key agencies, and encouraging local governments as well as health, education, and tourism authorities to allocate budgets for scaling up solar PV systems. Collaborative efforts are key to ensuring sustainability and maximizing impact.<br>• *Foster PPP by defining roles in project documents and mapping relevant agencies that can engage in resource sharing by conducting stakeholder consultations to identify key players, drafting clear partnership agreements, and aligning roles and responsibilities with shared goals to ensure effective collaboration.*<br>• *Conduct capacity-building initiatives and perform cost-benefit analyses of diesel generators versus solar PV systems by organizing training sessions with technical experts, collecting and analyzing data on operational costs, and presenting comparative findings to stakeholders through accessible reports and workshops.*<br>• *Replicate successful solar PV systems in government buildings by leveraging investments using the Pacific RE Investment Facility by engaging policymakers to secure budget allocations, promoting case studies of successful projects, and streamlining funding applications to access regional investment facilities.* | Energy Division/ MMERE with Solomon Power | Nov 2025 | High |

| | | | | |
|---|---|---|---|---|
| | • *Secure green financing through PPP models aligned with RE policies, address policy barriers, and collaborate with stakeholders such as Solaria[16] and IRENA[17] by advocating for policy reforms, designing incentive structures for private investors, and initiating strategic partnerships with global and regional RE organizations for technical and financial support.*<br>• *Engage commercial banks and collaborate with development partners, UN agencies, and regional organizations like SPC to scale up solar hybrid systems by demonstrating the financial viability of solar investments, offering risk-sharing mechanisms, and facilitating multi-stakeholder platforms to align efforts and resources for broader implementation (Conclusions # 2, 5, 7, 10, 17, and 18).* | | | |
| 4 | Strengthen gender integration and social safeguard implementation in project activities: While a GAP exists, it is not fully operationalized, and there are gaps in GESI-sensitive training, planning, and gender-responsive budgeting. Women's safety audits are limited, and there is limited gender and age-disaggregated data as well as subsidies and social incentives for women. The SES is in place but underutilized.<br>• *To implement gender and social safeguards, operationalize the GAP by assessing gender-related activities quarterly and integrating insights into the project's work plans by establishing a systematic review process, involving gender focal points, and aligning work plans with GAP findings.*<br>• *Conduct workshops to introduce gender-responsive costing to stakeholders and involve government stakeholders in GESI-sensitive planning and budgeting by designing tailored training modules, and providing tools for integrating GESI in financial planning.*<br>• *Incorporate women's safety audits and scenario-based costing studies in the design phase by engaging local women's groups, mapping risks through participatory methods, and applying findings to enhance project safety measures.*<br>• *Collect and maintain disaggregated data by sex, age, and disability in collaboration with relevant agencies by utilizing standardized tools, training staff on data collection, and ensuring timely data-sharing protocols with partners.*<br>• *Ensure inclusivity by reaching underserved groups, such as single women-headed households, the elderly, PwDs, and those without income by conducting targeted outreach, partnering with local organizations, and tailoring project benefits to specific vulnerabilities.*<br>• *Focus on a gender-mainstreamed results framework, allocating resources for field-level gender integration and monitoring of results and SES risks by creating gender-sensitive indicators, earmarking budgets for gender activities, and establishing a robust M&E system (Conclusions # 4, 5, 10, 11, and 22).* | Energy Division/ MMERE with the Ministry of Women, Youth, Children and Family Affairs | Dec 2025 | High |
| 5 | Strengthen policy advocacy and enhance collaboration on RE and electrification efforts: While many policies on RE and rural electrification exist, not all have been enacted by parliament, limiting their legal mandate. Media, the private sector, academia, and CSOs have limited involvement in advocacy efforts. Energy-related plans, policies, and strategies are poorly mapped, and annual learning workshops involving agencies working in the energy sector are infrequent, hindering the sharing of best practices and collaboration.<br>• *Review and reform policies and regulatory frameworks to facilitate adoption and increase financing opportunities by conducting stakeholder consultations, benchmarking global best practices, and collaborating with policymakers to streamline approval processes.*<br>• *Support the development of legal instruments to enforce policy provisions by engaging legal experts, drafting enforceable frameworks, and aligning them with international RE standards and commitments.*<br>• *Involve CSOs and media in policy development to boost advocacy by organizing public dialogues, leveraging social media campaigns, and equipping CSOs with resources to amplify RE narratives.*<br>• *Adopt a PPP model aligned with the government's RE policy to address challenges, and promote the integration of RE and EE into university curricula by developing clear guidelines for partnerships, incentivizing private sector investment, and collaborating with academic institutions for curriculum design.*<br>• *Revisit the PB's institutional structure to include diverse stakeholders like the Ministry of Finance and Treasurer, private sector, and academia for broad expertise by conducting a stakeholder mapping exercise and revising governance frameworks to reflect inclusive and strategic representation.*<br>• *Map energy-related projects, review their scopes, and assess how lessons from ongoing projects can inform efforts to scale up by analyzing project reports, facilitating cross-project dialogues, and documenting scalable innovations.*<br>• *Organize annual learning workshops with energy-sector players to share best practices and lessons learned by creating a collaborative platform, inviting diverse stakeholders, and using interactive formats like case studies and panel discussions (Conclusions # 12, 16, and 18).* | Energy Division/ MMERE, and UNDP | Octo ber/2 025 | High |

[16] While some programs aim to make solar energy more accessible to low-income households, completely free solar panel installations are uncommon. For instance, the U.S. Environmental Protection Agency's Solar for All initiative has allocated $7 billion to help over 900,000 low-income households benefit from solar energy, potentially reducing their annual electricity bills by more than $350 million.

[17] The International Renewable Energy Agency (IRENA) is an intergovernmental organization dedicated to promoting the adoption and sustainable use of RE worldwide. Established in 2009, it supports countries in their transition to RE by providing policy advice, capacity-building, and technological insights. IRENA's mission includes advancing energy security, access, and environmental sustainability through global cooperation and innovation.

| | | | | |
|---|---|---|---|---|
| 6 | Improve knowledge management and dissemination and develop a clear sustainability and exit plan: Knowledge management and dissemination are limited and best practices and lessons are poorly documented. National and international media are not actively engaged. While a website and Facebook page do exist, they mainly serve specific stakeholders. The use of radio and TV is also limited. There is no clear sustainability or exit plan, the limitation that will confuse project handover and closure.<br>• *Compile information on organizations sharing best practices for managing similar technologies and build connections for accessing knowledge by conducting targeted outreach, participating in knowledge-sharing platforms, and establishing partnerships with regional and international experts.*<br>• *Collaborate with government stakeholders to develop a clear exit strategy and sustainability plan by facilitating joint workshops, identifying long-term ownership structures, and aligning strategies with national policies.*<br>• *Document and share best practices through concise case studies on electricity savings, GHG reductions, job creation, and fossil fuel savings by collecting quantitative and qualitative data, engaging storytellers for user-centric narratives, and distributing reports via accessible platforms.*<br>• *Offer small grants for RE&EE research, produce policy briefs with pre- and post-implementation data to create a resource mobilization toolkit, and use media to disseminate best practices by defining research priorities, engaging academic institutions, and creating multimedia content for wide dissemination.*<br>• *Organize awareness campaigns, including radio jingles and public service announcements, to address misconceptions about the resilience of solar PV in cyclone-prone areas by developing culturally relevant messaging, collaborating with local media outlets, and leveraging community influencers to amplify reach (Conclusions # 3, and 19).* | Energy Division/ MMERE, and UNDP | October/2025 | Medium |

## 5.4 Lessons learned

The project learned the following 12 lessons during its careful implementation of activities (see Annex 5, section 5.13 for details).

1. Proactive human resource management and planning are critical to mitigating staff turnover. Retention strategies, capacity-building, and timely recruitment minimize disruptions and ensure project continuity. Establishing a PMU early and leveraging advanced headhunting improves hiring outcomes.
2. Inception workshops provide an effective platform for reviewing and realigning project strategies. They accelerate implementation by adjusting targets, budgets, and roles based on stakeholder engagement. Revisiting site feasibility and clarifying stakeholder roles further enhance project efficiency.
3. Successful adoption of new technologies requires conducting awareness campaigns, practical training, and continuous capacity-building. Combining concise theoretical sessions with practical drills ensures good comprehension and retention. Tailored initiatives such as linking committees to sector-specific training strengthen institutional capacity.
4. Conducting rapid market assessments before procurement enhances efficiency and reduces delays. Flexibility in vendor evaluation tailored to local contexts streamlines decision-making. The intervention of UNDP can sometimes expedite processes under rigid frameworks.
5. Regular project board meetings help track progress, identify challenges, and strategize follow-up actions. Including stakeholders such as the Ministry of Finance and Treasurer, and private sector representatives strengthens decision-making. Circulating meeting minutes and maintaining feedback logs enhance accountability.
6. Engaging CSOs and media in policy processes builds support for advocacy, trust, and stakeholder participation. The transparent sharing of project updates secures additional resources and reinforces sustainability. Though time-intensive, CSO involvement fosters sustained cooperation and rational enforcement.
7. The meaningful participation of women in governance mechanisms drives empowerment and effective decision-making. Initiatives like gender-friendly livelihoods and localized training enhance women's confidence and engagement. Mobilizing gender officers and periodically updating plans strengthen gender integration.
8. Clear procedures and tracking mechanisms ensure the success of co-financing initiatives. Regular updates and active project board (PB) meeting participation enhance transparency and stakeholder engagement. Defined tracking tools create synergy and enable the monitoring of contributions.
9. Accurate baselines and a strategic exit plan are vital for sustainability and guiding future projects. The early development of an exit strategy and documentation of best practices streamline transitions. A thorough baseline reassessment during implementation ensures the measurability of progress.
10. The systematic handover of skills and knowledge secures project momentum beyond the transfer of physical assets. Structured knowledge-sharing mitigates the coordination gaps caused by staff turnover and ensures smoother transitions and long-term continuity.

11. Comprehensive knowledge management amplifies impact and extends stakeholder engagement. Learning workshops and Regional Technical Advisor (RTA) visits before the Project Implementation report (PIR) facilitate real-time knowledge exchange and alignment. Disseminating best practices through media broadens the reach and visibility of outcomes.
12. Effective documentation and dissemination of project insights through structured reviews enhance replication potential. Step-by-step guidelines and community-level engagement strengthen institutional memory. The systematic sharing of knowledge products builds broad awareness and drives stakeholder participation.

# Annexes

## Annex 1: TE ToR

Title: Stimulating Progress towards Improved Rural Electrification in the Solomons (SPIRES)
Type of Contract: International Consultant
Start and End Date: 4th November 2024 – 31st January 2025
Location: Solomon Islands
Duration of the Contract: 24 Working Days

### 1. INTRODUCTION

In accordance with UNDP and GEF M&E policies and procedures, all full- and medium-sized UNDP-supported GEF-financed projects are required to undergo a Terminal Evaluation (TE) at the end of the project. This Terms of Reference (ToR) sets out the expectations for the TE of the fullsized project titled Stimulating Progress Towards Improved Rural Electrification in the Solomon Islands or SPIRES for short (PIMS6089) implemented through the Ministry of Mines Energy and Rural Electrification (MMERE). The project started on 12 November 2020 and is in its final year of implementation. The TE process must follow the guidance outlined in the document 'Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects' TE_GuidanceforUNDP-supportedGEF-financedProjects.pdf.

### 2. PROJECT BACKGROUND

The SPIRES project's goal is to reduce the annual growth rate of GHG emissions in the energy and energy end-use sector in the Solomon Islands. Its objective is the facilitation of the achievement of increased access to electricity in rural communities in the country. It is focused on the enhanced application of low-carbon technologies, techniques and practices to support the Solomon Islands' rural electrification program, particularly in achieving the set target of 35% electricity access in rural areas area in line with the following major strategies: a) Review, improvement, approval and enforcement of appropriate policy, planning and regulatory frameworks that will support enhanced and accelerated electrification of the off- grid areas in the country; b) Development and enforcement of suitable institutional and financial mechanisms in the integrated, planning and implementation of rural electrification in country; and, c) Development and implementation of cost- effective demonstrations of various schemes for rural electrification in the off- grid areas involving the private sector, CSO, NGOs and local communities; and d) Design and conduct of information, communication and education activities to improve levels of awareness and knowledge of the government, private sector and citizenry on climate resilient and low carbon development of off-grid areas. Those were implemented through the following four components: 1) RE and Rural Electrification Policies, Regulations, and Planning Improvements; 2) Promotion of RE and Rural Electrification Initiatives; 3) RE Technology Applications for Supporting Rural Socio-Economic Development; and 4) RE & EE Capacity Building.

### 3. PURPOSE OF TERMINAL EVALUATION

The Terminal Evaluation is to assess the achievements of the project results against the expected achievement and draw lessons that can both improve the sustainability of benefits from this project and aid in the overall enhancement of UNDP programming. The Terminal Evaluation report promotes accountability and transparency and assesses the extent of SPIRES project accomplishments.
The purpose of the terminal evaluation is to assess the following:

- Achievement of project results supported by evidence (i.e., progress of project's outcome targets).
- Extent of the removal of the barriers that the project is supposed to remove.
- Contribution and alignment of the project to relevant national development plans or environmental policies.
- Contribution of the project results towards the relevant outcome and output of the Multi Country Programme Documents (MCPD) & United Nation Pacific Strategy (UNPS/USDF).
- Any cross cutting and gender issues using the gender scale effective scale (GRES).
- Utilization of funds and value for money.
- Impact of COVID19 on the implementation of the project.
- Lessons learned that can be used for improving the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming.

### 4. TERMINAL EVALUATION APPROACH & METHODOLOGY

The TE must provide evidence-based information that is credible, reliable, and useful. The TE team will review all relevant sources of information including documents prepared during the preparation phase (i.e. PIF, UNDP Initiation Plan, UNDP Social and Environmental Screening Procedure/SESP) the Project Document, project reports including annual PIRs, project budget revisions, lesson learned reports, national strategic and legal documents, and any other materials that the team considers useful for this evidence-based evaluation. The TE team will review the baseline and midterm GEF focal area Core Indicators/Tracking Tools submitted to the GEF at the CEO endorsement and midterm stages and the terminal Core Indicators/Tracking Tools that must be completed before the TE field mission begins. The TE team is expected to follow a participatory and consultative approach ensuring close engagement with the SPIRES Project Team, Ministry of Mines Energy and Rural Electrification and other government counterparts (including the GEF Operational Focal Point), IP, the UNDP Country Office(s), the Regional Technical Advisors, direct beneficiaries and other stakeholders. Engagement of stakeholders is vital to a successful TE. Stakeholder involvement should include interviews with stakeholders who have project responsibilities, including but not limited to:

- Ministry of Mines Energy and Rural Electrification (MMERE)/Permanent Secretary and Director and Staff of Energy Division

- Ministry of Environment Climate Change Disaster Management and Meteorology (MECDM) o GEF Operational Focal Point o Programme Coordination Unit o Climate Change Division
- Solomon Power
- World Bank (Related Projects)
- Asian Development Bank (Renewable Energy Focal Point)
- Malaita Provincial Government
- Rokera Provincial High School Management
- Hunanawa Community Leaders
- Ginger Beach Resort
- Temotu Provincial Government
- Nangu Community

The engagement of stakeholders is vital to a successful TE. Stakeholder involvement should include interviews with stakeholders who have project responsibilities, including but not limited to the above-mentioned list. Additionally, the TE team is expected to conduct field missions to South Malaita (Rokera Provincial Secondary High School and Hunanawa Community), Ginger Beach Resort in Guadalcanal and to Nangu in Temotu Province. All related background documents for the review will be shared using MS Teams. The specific design and methodology for the TE should emerge from consultations between the TE team and the above-mentioned parties regarding what is appropriate and feasible for meeting the TE purpose and objectives and answering the evaluation questions, given limitations of budget, time and data. The TE team must, however, use gender-responsive methodologies and tools and ensure that gender equality and women's empowerment, as well as other cross-cutting issues and SDGs are incorporated into the TE report.

The final methodological approach including interview schedule, field visits and data to be used in the evaluation should be clearly outlined in the TE inception report and be fully discussed and agreed between UNDP, MMERE, MECDM and the TE team. The final TE report should describe the full TE approach taken and the rationale for the approach making explicit the underlying assumptions, challenges, strengths and weaknesses about the methods and approach of the evaluation.

## 5. DETAILED SCOPE OF THE TERMINAL EVALUATION

The Terminal Evaluation will assess project performance against expectations set out in the project's Logical Framework/Results Framework (see ToR Annex A). The TE will assess results according to the criteria outlined in the Guidance for TEs of UNDP-supported GEF-financed Projects TE_GuidanceforUNDP-supportedGEF-financedProjects.pdf. The Findings section of the TE report will cover the topics listed below. A full outline of the TE report's content is provided in Annex C. The asterisk "(*)" indicates criteria for which a rating is required.

Findings

i. Project Design/Formulation

- National priorities and country driven
- Theory of Change
- Gender equality and women's empowerment
- Social and Environmental Standards (Safeguards)
- Analysis of Results Framework: project logic and strategy, indicators
- Assumptions and Risks
- Lessons from other relevant projects (e.g. same focal area) incorporated into project design
- Planned stakeholder participation.
- Linkages between project and other interventions within the sector
- Management arrangements

ii. Project Implementation

- Adaptive management (changes to the project design and project outputs during implementation)
- Actual stakeholder participation and partnership arrangements
- Project Finance and Co-finance
- Monitoring & Evaluation: design at entry (*), implementation (*), and overall assessment of M&E (*)
- Implementing Agency (UNDP) (*) and Executing Agency (*), overall project oversight/implementation and execution (*)
- Risk Management, including Social and Environmental Standards (Safeguards)

iii. Project Results

- Assess the achievement of outcomes against indicators by reporting on the level of progress for each objective and outcome indicator at the time of the TE and noting final achievements
- Relevance (*), Coherence (*), Effectiveness (*), Efficiency (*) and overall project outcome (*)
- Sustainability: financial (*) , socio-political (*), institutional framework and governance (*), environmental (*), overall likelihood of sustainability (*) • Country ownership
- Gender equality and women's empowerment
- Cross-cutting issues (poverty alleviation, improved governance, climate change mitigation and adaptation, disaster prevention and recovery, human rights, capacity development, South-South cooperation, knowledge management, volunteerism, etc., as relevant)

- GEF Additionality
- Catalytic Role / Replication Effect
- Progress to impact

iv. Main Findings, Conclusions, Recommendations and Lessons Learned

- The TE team will include a summary of the main findings of the TE report. Findings should be presented as statements of fact that are based on analysis of the data.
- The section on conclusions will be written in light of the findings. Conclusions should be comprehensive and balanced statements that are well substantiated by evidence and logically connected to the TE findings. They should highlight the strengths, weaknesses and results of the project, respond to key evaluation questions and provide insights into the identification of and/or solutions to important problems or issues pertinent to project beneficiaries, UNDP and the GEF, including issues in relation to gender equality and women's empowerment.
- Recommendations should provide concrete, practical, feasible and targeted recommendations directed to the intended users of the evaluation about what actions to take and decisions to make. The recommendations should be specifically supported by the evidence and linked to the findings and conclusions around key questions addressed by the evaluation.
- The TE report should also include lessons that can be taken from the evaluation, including best practices in addressing issues relating to relevance, performance and success that can provide knowledge gained from the particular circumstance (programmatic and evaluation methods used, partnerships, financial leveraging, etc.) that are applicable to other GEF and UNDP interventions. When possible, the TE team should include examples of good practices in project design and implementation.
- It is important for the conclusions, recommendations and lessons learned of the TE report to incorporate gender equality and empowerment of women. The TE report will include an Evaluation Ratings Table, as shown below:

**Table 2: Evaluation Ratings Table for Stimulating Progress towards Improved Rural Electrification in the Solomon Islands**

| Monitoring & Evaluation (M&E) | Rating |
|---|---|
| M&E design at entry | |
| M&E Plan Implementation | |
| Overall Quality of M&E | |
| **Implementation & Execution** | **Rating** |
| Quality of UNDP Implementation/Oversight | |
| Quality of IP Execution | |
| Overall quality of Implementation/Execution | |
| **Assessment of Outcomes** | **Rating** |
| Relevance | |
| Coherence | |
| Effectiveness | |
| Efficiency | |
| Overall Project Outcome Rating | |
| **Sustainability** | **Rating** |
| Financial resources | |
| Socio-political/economic | |
| Institutional framework and governance | |
| Environmental | |
| Overall Likelihood of Sustainability | |

## 6. TIMEFRAME

The total duration of the TE will be approximately *24 working days for international consultant* over a time period of *8 weeks* starting on *4 November 2024*. The tentative TE timeframe is as follows:

| Timeframe | Activity |
|---|---|
| *(25/10/2024)* | Upload to GPN Roster |
| *(04/11/2024)* | Selection of TE team |
| *(04/11/2024)* | Preparation period for TE team (handover of documentation) |
| *(12/11/2024) 2 days* | Document review and preparation of TE Inception Report |
| *(19/11/2024) 0.5 day* | Finalization and Validation of TE Inception Report; latest start of TE mission |
| *(25 - 29/11/2024) 5 days* | TE mission: stakeholder meetings, interviews, field visits, etc. |
| *(02/12/2024) 1 day* | Mission wrap-up meeting & presentation of initial findings; earliest end of TE mission |
| *(02 - 16/12/2024) 12 days* | Preparation of draft TE report |

| | |
|---|---|
| | Circulation of draft TE report for comments |
| *(06/01/2025) 3 days* | Incorporation of comments on draft TE report into Audit Trail & finalization of TE report |
| *(09/01/2025) 0.5 day* | Preparation and Issuance of Management Response |
| | Concluding Stakeholder Workshop (optional) |
| *(15/01/2025)* | Expected date of full TE completion |

## 7. TE DELIVERABLES

| # | Deliverable | Description | Timing | Responsibilities |
|---|---|---|---|---|
| 1 | TE Inception Report | TE team clarifies objectives, methodology and timing of the TE | No later than 2 weeks before the TE mission: *(19/11/2024)* | TE team submits Inception Report to the Resilience and Climate Change Unit and project management |
| 2 | Presentation | Initial Findings | End of TE mission: *(02/12/2024)* | TE team presents to Resilience and Climate Change Unit and project management |
| 3 | Draft TE Report | Full draft report *(using guidelines on report content in Annex C)* with annexes | Within 3 weeks of end of TE mission: *(16/12/2024)* | TE team submits to Resilience and Climate Change Unit; reviewed by RTA, Project Coordinating Unit, GEF OFP |
| 5 | Final TE Report* + Audit Trail | Revised final report and TE Audit trail in which the TE details how all received comments have (and have not) been addressed in the final TE report *(See template in Annex H)* | Within 1 week of receiving comments on the draft report: *(15/01/2025)* | TE team submits both documents to the Resilience and Climate Change Unit |

*All final TE reports will be quality assessed by the UNDP Independent Evaluation Office (IEO). Details of the IEO's quality assessment of decentralized evaluations can be found in Section 6 of the UNDP Evaluation Guidelines.[18]

## 8. TERMINAL EVALUATION ARRANGEMENTS

The principal responsibility for managing the TE resides with Commissioning Unit. The Commissioning Unit for this project's Terminal Evaluation is the UNDP Pacific Office.

The Commissioning Unit will contract the evaluators and ensure the timely provision of Daily Subsistence Allowance and travel arrangements within the country for the TE team. The SPIRES Project Team will be responsible for liaising with the TE team to provide all relevant documents, set up stakeholder interviews, and arrange field visits.

## 9. TE TEAM COMPOSITION

An independent evaluator with experience and exposure to projects and evaluations in the country will conduct the TE. The TE consultant will be responsible for the overall design and writing of the TE report. In addition, he/she will assess emerging trends with respect to regulatory frameworks, budget allocations, capacity building, develop communication with stakeholders who will be interviewed, and work with the Project Team (PMU) in developing the TE workplan.

The evaluator cannot have participated in the project preparation, formulation and/or implementation (including the writing of the project document), must not have conducted this project's Mid-Term Review and should not have a conflict of interest with the project's related activities.

The selection of evaluator will be aimed at maximizing the overall quality in the following areas:

Education

- Master's degree in electrical engineering, environmental engineering, climate change mitigation, greenhouse gas emissions or other closely related field;

Experience

- Relevant experience with results-based management evaluation methodologies;
- Experience applying SMART indicators and reconstructing or validating baseline scenarios;
- Competence in adaptive management, as applied to *Climate Change Mitigation;*
- Experience in evaluating projects;
- Experience working in *the Pacific Region;*
- Experience in relevant technical areas for at least *10 years;*

[18] Access at: http://web.undp.org/evaluation/guideline/section-6.shtml

- Demonstrated understanding of issues related to gender and *climate change mitigation;* experience in gender responsive evaluation and analysis;
- Excellent communication skills;
- Demonstrable analytical skills;
- Project evaluation/review experience within United Nations system will be considered an asset.

Language

- Fluency in written and spoken English.

### 10. EVALUATOR ETHICS

The TE team will be held to the highest ethical standards and is required to sign a code of conduct upon acceptance of the assignment. This evaluation will be conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluation'. The evaluator must safeguard the rights and confidentiality of information providers, interviewees and stakeholders through measures to ensure compliance with legal and other relevant codes governing collection of data and reporting on data. The evaluator must also ensure security of collected information before and after the evaluation and protocols to ensure anonymity and confidentiality of sources of information where that is expected. The information knowledge and data gathered in the evaluation process must also be solely used for the evaluation and not for other uses without the express authorization of UNDP and partners.

## Annex 2: TE Mission itinerary

| Day | Date | Key task | Coordination responsibility |
|---|---|---|---|
| Sun | Dec 1, 2024 | • Reach Honiara/Solomon Islands | - |
| Mon | Dec 2, 2024 | • Meeting with PMU<br>• Obtain comprehensive updates on the project through PowerPoint presentations (*key accomplishments aligned with the project's log frame, identified challenges and constraints, corresponding mitigation strategies, outstanding tasks according to the project's work plan, and the proposed course of action for the future)*<br>• Receive the conclusive roster of stakeholders who are to be visited or interviewed. | Project team |
| Tues | Dec 3, 2024 | • Observation of the project's key infrastructure site<br>• Perform interviews with relevant stakeholders (as defined)<br>• Engage in a review and reflection process with PMU and UNDP staff to extract additional information/evidence | Project team |
| Wed | Dec 4, 2024 | • Perform interviews with relevant stakeholders (as defined)<br>• Engage in a review and reflection process with PMU and UNDP staff to extract additional information/evidence | Project team |
| Thur | Dec 5, 2024 | • Perform interviews with relevant stakeholders (as defined)<br>• Engage in a review and reflection process with PMU and UNDP staff to extract additional information/evidence | Project team |
| Fri | Dec 6, 2024 | • Share preliminary findings with the Project/UNDP team<br>• Travel back to Home country | Project team |

## Annex 3: List of persons interviewed

### a. Detail list of key informant

| S. N | Name | Organization | Designation | Email |
|---|---|---|---|---|
| **A. SOI Government/Ministries (PB members)-7** | | | | |
| 1 | Dr. Christopher Vehe | MMERE | Permanent Secretary MMERE | cvehe@mmere.gov.sb |
| 2 | Ms. Susan Sulu | MECDM | Permanent Secretary | SSulu@mecdm.gov.sb |
| 3 | Mr. Barnabas bago | MECDM | National Programme Coordinator | BBago@mecdm.gov.sb |
| 4 | Mr. Gabriel Aimaea | MMERE | Director Energy Division | GAimaea@mmere.gov.sb |
| 5 | Mr. Toswel Kaua | MMERE | Deputy Director Energy Division | TKaua@mmere.gov.sb |
| 6 | Mr. Thaddeus Siota | MECDM-Climate Change Division (CCD) | Director CCD | TSiota@mmere.gov.sb |
| 7 | Mr. Roy Atu | Ministries of Education Human Resources | Project Officer Ministry of Education, Human Resources | Ratu@mehrd@gov.sb |

| | | | | |
|---|---|---|---|---|
| | | Development (MEHRD) | | |
| **B. Private sector and research agency/academia -2** | | | | |
| 8 | Mr. Jeremy Manepuri | Solomon Power | Manager Planning, Solomon Power | jeremy.maneipuri@solomonpower.com.sb |
| 9 | Mr. Solomon Pita | Solomon Islands National University | Dean Faculty of Science and Technology | Solomon.pita@sinu.edu.sb |
| **C. I/NGOs, and International Banks-2** | | | | |
| 10 | Mr. Elmar Elbling | Unit Head ADB | Unit Head ADB | eelbling@adb.org |
| 11 | Ms Renee Berthome | Unit Head WB | Unit Head WB | rberthome@worldbank.org |
| **D. UNDP Project team-14 (three categories)** | | | | |
| 12 | Ms. Judith Jacinta Reynolds | SPIRES PMU | Project Manager | JReynolds@spires.gov.sb |
| 13 | Mr. David Maai | SPIRES PMU | Previous Project Manager | djm9797@gmail.com |
| 14 | Mr.Emmanuel Wakiomari | SPIRES PMU | Project Procurement and Finance Officer | ewakiomari@spires.gov.sb |
| 15 | Ms. Jeanine G | SPIRES PMU | Project Communication M&E Officer | jgadepeta@spires.gov.sb |
| 16 | Mr.John Hauirae | SPIRES PMU | Project Engineer | jhauirae@spires.gov.sb |
| 17 | Mr. Rex Tara | SPIRES PMU | Project Community Liaison Officer | RTara@spires.gov.sb |
| **E. UNDP Programme team** | | | | |
| 18 | Ms. Raluca Eddons | UNDP | Deputy Resident Representative, UNDP Solomon Islands | Raluca.eddons@undp.org |
| 19 | Mr Solomon Kalu | UNDP | RCC Programme Specialist | Solomon.kalu@undp.org |
| 20 | Ms Merewalesi Laveti | UNDP MCO | RCC OIC | merewalesi.laveti@undp.org |
| 21 | Ms Wendy Wara Bau | UNDP RCC | Programme Associate | wendy.wara@undp.org |
| 22 | Mr. Patrick Pee | UNDP CO | Operation Manager | patrick.pee@undp.org |
| 23 | Mr. Rusiate Ratuniata | UNDP MCO | | rusiate.ratuniata@undp.org |
| **F. UNDP Regional Office** | | | | |
| 24 | Mr. Sergio Quiros Navas | Bangkok Regional Hub | Regional Technical Advisor | Sergio.quiros.navas@undp.org |
| 25 | Ms. Phatthamon. Jantalae | Bangkok Regional Hub | Regional Programme Specialist | Phatthamon.jantalae@undp.org |

*Note: Individuals highlighted in green are identified as potential "key informants" due to their knowledge and understanding of the project. This list is subject to minor adjustments based on their availability and willingness to participate in the interview during the field mission.*

### b. List of community people and stakeholders in the Ginger Veila Beach Resort site

1. Chairperson: Mr. Bernard Garo (Dir Ginger Beach)
2. Vice-chairperson: Mr. Jerome Rava (Dir Doma Cove)
3. Secretary: Mrs. Irish Keketaovia (Doma Cove)
4. Member: Mr. Mato Mui (Nida)
5. Member: Mrs. Michelle Liliau ( Nida)
6. Member: Ms. Daniella Garo (Ginger beachger Beach Solar Committee)

## Annex 4: List of documents reviewed

| Sn | Reports |
|---|---|
| 1 | Project Identification Form (PIF) |
| 2 | UNDP Initiation Plan |
| 3 | Final UNDP-GEF Project Document with all annexes |
| 4 | CEO Endorsement Request |
| 5 | UNDP Social and Environmental Screening Procedure (SESP) and associated management plans (if any) |
| 6 | Inception Workshop Report |
| 7 | Mid-Term Review report and management response to MTR recommendations |
| 8 | All Project Implementation Reports (PIRs) |
| 9 | Progress reports (quarterly, semi-annual or annual, with associated work plans and financial reports) |
| 10 | Oversight mission reports |
| 11 | Minutes of Project Board Meetings and of other meetings (i.e. Project Appraisal Committee meetings) |
| 12 | GEF Core Indicators |
| 13 | GEF/LDCF/SCCF Core Indicators (from PIF, CEO Endorsement, midterm and terminal stages); for GEF-6 and GEF-7 projects only |
| 14 | Financial data, including actual expenditures by project outcome, including management costs, and including documentation of any significant budget revisions |
| 15 | Co-financing data with expected and actual contributions broken down by type of co-financing, source, and whether the contribution is considered as investment mobilized or recurring expenditures |
| 16 | Audit reports |

| | |
|---|---|
| 17 | Electronic copies of project outputs (booklets, manuals, technical reports, articles, etc.) |
| 18 | Sample of project communications materials |
| 19 | Summary list of formal meetings, workshops, etc. held, with date, location, topic, and number of participants |
| 20 | Any relevant socio-economic monitoring data, such as average incomes / employment levels of stakeholders in the target area, change in revenue related to project activities |
| 21 | List of contracts and procurement items over ~US$5,000 (i.e. organizations or companies contracted for project outputs, etc., except in cases of confidential information) |
| 22 | List of related projects/initiatives contributing to project objectives approved/started after GEF project approval (i.e. any leveraged or "catalytic" results) |
| 23 | Data on relevant project website activity – e.g. number of unique visitors per month, number of page views, etc. over the relevant period, if available |
| 24 | UNDP Country Programme Document (CPD) |
| 25 | List/map of project sites, highlighting suggested visits |
| 26 | List and contact details for project staff, and key project stakeholders, including Project Board members, RTA, Project Team members, and other partners to be consulted |
| 27 | Project deliverables that provide documentary evidence of achievement toward project outcomes |

# Annex 5: Additional information to substantiate the evaluation findings

## 5.1 The project's planned contributions across various areas

### a. Expected contributions to global environmental and adaptation benefits (LDCF/SCCF)

This project aimed to reduce GHG emissions in the power generation sector by replacing diesel systems with RE and hybrid solutions in provincial centers and off-grid areas. It targeted reducing direct emissions through RE and EE technologies as well as indirect reductions by influencing future sustainable energy initiatives. The project is expected to reduce 508.9 ktons of emissions over 20 years, with a potential annual reduction of 14,900 tons of $CO_2$. In addition to offering environmental benefits, the project planned to enhance energy security, decrease fossil fuel imports, and improve air quality. Social co-benefits included improved healthcare, education, communications, and public safety. The project also planned to stimulate economic growth, create jobs, and empower women by supporting small businesses and community development, aligning with national socio-economic priorities.

### b. Consistency with national priorities and partner government's strategies and priorities

The project aimed to support the country's rural electrification goals while contributing to the achievement of its target for RE electricity by 2030. Its goals aligned with the overarching energy priorities outlined in the National Development Strategy (2011–2020) and the draft Solomon Islands National Energy Policy and Strategic Plan (2014). By focusing on reducing GHG emissions, the project also directly supported the commitments outlined in the NDC of the Solomon Islands, particularly those related to climate change mitigation actions and policies.

### c. Contributions to gender equality and women's empowerment

The GEF project focused on advancing gender equality and empowering women in many of the off-grid villages of the Solomon Islands. It tackled barriers to electricity access and low-carbon technology adoption. It encouraged women's participation in low-carbon development, created opportunities for women to contribute to climate solutions and technology deployment, and developed gender-sensitive policies for the electricity sector. The project valued women's contributions to electricity use and involved them in leadership and technical roles. It also ensured inclusive benefits for children, indigenous communities, and sustainable energy initiatives.

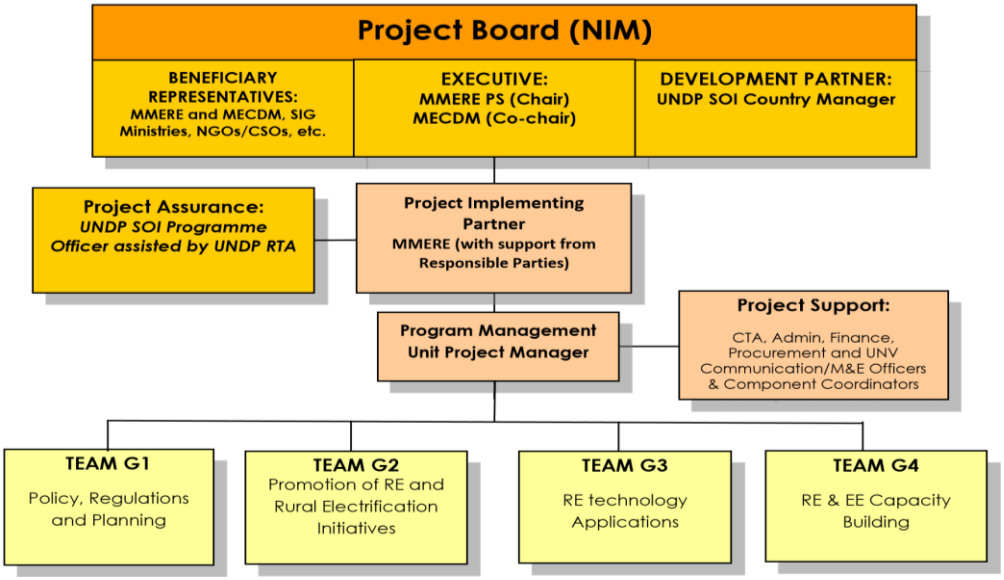
### d. Coordination with other initiatives

This project is built on ongoing rural electrification, RE, and EE efforts in the Solomon Islands and aligned with the government's rural electrification goals. It enhanced synergies by coordinating with SIG and partners to integrate best practices and share resources. A few key coordinated initiatives included the World Bank's projects on RE-based mini-grids and capacity-building, the ADB's solar projects for expanded electricity access, and the EU EDF-11's support for rural electrification revenue-generating activities. Solomon Power planned to manage provincial mini-grids. Community-led power initiatives provided valuable insights. The UNDP Pacific-Solomon Islands Office facilitated consultations, technical workshops, and co-financing discussions to ensure that collaboration would be strong and project designs effective.

### e. Risks to successful project completion

During implementation, the project faced several technical and policy challenges, including limited local capacity to implement activities and safety risks associated with demonstrating low-carbon technology. Delays in approving policies and inconsistent government support further hindered progress. Technological barriers, such as the economic infeasibility of RE schemes for off-grid communities, also pose significant constraints. Social and financial risks included limited community support for demonstrations and delays in securing co-financing, compounded by the cheap price of petroleum, which reduced interest in RE-based solutions. Environmental concerns such as pollutant release, land ownership conflicts, and the vulnerability of installations to climate events made ensuring the project's sustainability difficult. Addressing these challenges was vital for the successful implementation of the project. As all these risks are low to medium on a scale of severity, they did not have a significant impact on the overall performance of the project.

## 5.2 The structure of the Project Board




## 5.3 The diagram of the project's Results Framework

**Goal**

Reduced annual growth rate of GHG emissions in the energy and energy end-use sector of the country.

Indicators:

- *Cumulative incremental GHG emission reduction from the electricity sector in rural areas, tons $CO_2$*
- *National electric energy consumption index, ktoe/US$ GDP*

**Objective**

Facilitation of the achievement of increased access to electricity in rural communities in the Solomon Island

Indicators

- *Cumulative incremental fossil fuel savings due to sustainable energy and low carbon interventions implemented, toe*
- *% electricity access in rural areas*
- *No. of new jobs created due to enhanced electricity access in off-grid areas in the country*

| Component 1 | Component 2 | Component 3 | Component 4 |
|---|---|---|---|
| RE and Rural Electrification Policies, Regulations and Planning Improvements | Promotion of RE and Rural Electrification Initiatives | RE Technology Applications for Supporting Rural Socio-Economic Development | RE & EE Capacity Building |

**Project's outputs and indicators**

| Outcome 1 | Outcome 2 | Outcome 3.1 | Outcome 3.2 | Outcome 4 |
|---|---|---|---|---|
| Enforcement of approved policies rules and regulations to support enhanced application of cost-effective RE technologies for electricity generation in the off-grid areas in the Solomon Islands | Enforced improved institutional and financial mechanisms in the integrated planning and implementation of rural electrification and RE-based energy production in the off-grid areas | Increased confidence in, and application of, RE technologies and RE-based power generation to support socio-economic development in off-grid areas | Adoption and implementation of climate resilient and low carbon electricity applications in increasing access to electricity in off-grid areas. | Enhanced awareness and knowledge of the government, private sector and communities on the cost-effective application of RE and EE technologies and practices |

Indicators

**Outcome 1**

- *No. of implemented off-grid rural electrification projects facilitated by the approved and enforced energy access, RE, and Energy Conservation (EC) & EE policies.*
- *No. of designed and implemented pilots on the implementation of applicable policy and regulatory framework for rural electrification*
- *No. of formulated, approved, and implemented rural electrification plans.*

**Outcome 2**

- *No. of formulated and recommended institutional and financing mechanisms that support the enhanced implementation of rural electrification initiatives.*
- *No. of rural electrification initiatives facilitated by adopted and enforced institutional and financial mechanisms.*

**Outcome 3.1**

- *No. of planned and implemented rural electrification projects in both on-, and off-grid areas that are based on the findings are recommendations of conducted DREI[19] assessments of RE-based electricity generation options.*
- *No. of follow-up rural electrification, sustainable energy, and low carbon technology application projects (demo replications and scale-ups) in on-, and off-grid areas.*
- *Percentage of successful maintenance or repair work on demonstrations by Ministry Mines, Energy and Rural Electrification (MMERE) and all RE-based rural electrification projects in the country*

**Outcome 3.2**

- *No. of successfully installed and operational systems of the implemented demonstrations of RE-based electricity generation and low carbon technology application in the off-grid areas.*
- *No. of RE and EE technologies application projects designed and financed for implementation as influenced by the results and outcomes of the demonstrations*
- *Percentage of women in community based Renewable Energy Service Companies (RESCO) morally supported by village men to build their confidence in leadership*

**Outcome 4**

- *No. of trained national and local government personnel that can ably plan and evaluate energy access, sustainable energy and low carbon technology application projects.*
- *No. of local firms that can capably provide technical, engineering and maintenance services for rural electrification and low carbon technology application projects.*

## 5.4 Project's Contribution to the different SDGs

1. **SDG 7: Affordable and Clean Energy** – Promotes access to affordable, reliable, sustainable, and modern energy for rural communities by increasing electrification through renewable energy (RE) solutions.
2. **SDG 13: Climate Action** – Reduces greenhouse gas emissions by transitioning from diesel-based systems to RE technologies, contributing to climate change mitigation.
3. **SDG 1: No Poverty** – Enhances energy access, which is critical for poverty alleviation by enabling economic activities, creating jobs, and improving living conditions.
4. **SDG 3: Good Health and Well-being** – Improves health outcomes by enabling better lighting in clinics, supporting cold storage for vaccines, and reducing air pollution from diesel generators.
5. **SDG 4: Quality Education** – Provides electricity for schools, enabling better learning environments through lighting, access to technology, and enhanced communication services.
6. **SDG 5: Gender Equality** – Empowers women by improving access to energy, enabling income-generating activities, and reducing the burden of household energy collection.
7. **SDG 8: Decent Work and Economic Growth** – Stimulates economic activity in rural areas by supporting small businesses, creating jobs, and providing energy for productive uses.
8. **SDG 9: Industry, Innovation, and Infrastructure** – Enhances infrastructure by establishing sustainable energy systems, fostering innovation in energy technologies, and improving connectivity in rural areas.
9. **SDG 11: Sustainable Cities and Communities** – Supports sustainable community development through reliable energy access, improving public safety and quality of life.
10. **SDG 17: Partnerships for the Goals** – Builds multi-stakeholder partnerships to implement rural electrification initiatives, leveraging resources and expertise from various development partners.

The project contributed to SDG 7 and its five targets and six indicators.

**Targets:**

1. **Target 7.1**: **Universal Access to Energy**
   - Ensure universal access to affordable, reliable, and modern energy services by 2030.
2. **Target 7.2**: **Increase Renewable Energy Share**
   - Substantially increase the share of renewable energy in the global energy mix by 2030.
3. **Target 7.3**: **Improve Energy Efficiency**
   - Double the global rate of improvement in energy efficiency by 2030.
4. **Target 7.A**: **Promote Technology and Investment**
   - Enhance international cooperation to facilitate access to clean energy research, technology, and investments in renewable energy and energy efficiency.
5. **Target 7.B**: **Expand Infrastructure and Access**
   - Expand infrastructure and upgrade technology for supplying modern and sustainable energy services in developing countries, especially least developed countries (LDCs) and small island developing states (SIDS), by 2030.

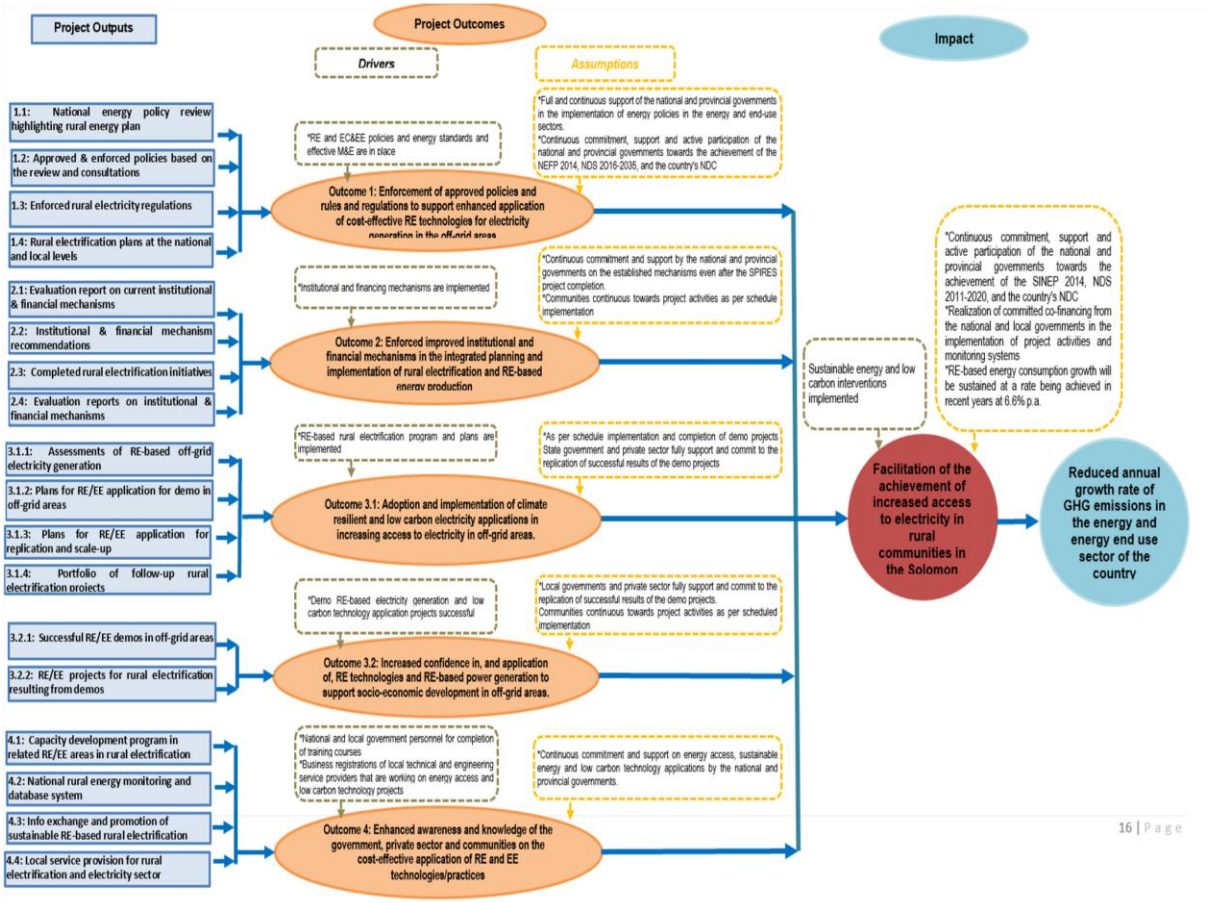
**Indicators:**

1. **Indicator 7.1.1**: Proportion of population with access to electricity.
2. **Indicator 7.1.2**: Proportion of population with primary reliance on clean cooking fuels and technologies.
3. **Indicator 7.2.1**: Renewable energy share in the total final energy consumption.

[19] UNDP's flagship Derisking Renewable Energy Investment (DREI) methodology will be used to quantitatively analyze the barriers and risks for sustainable off-grid RE-based power generation options in the Solomon Islands.

4. **Indicator 7.3.1**: Energy intensity measured in terms of primary energy and GDP.
5. **Indicator 7.A.1**: International financial flows to developing countries in support of clean energy research, renewable energy, and energy efficiency.
6. **Indicator 7.B.1**: Installed renewable energy-generating capacity in developing countries per capita.

## 5.5 The diagram of the Theory of Change.




## 5.6 Population of project site and training data

| Sites | Male | Female |
|---|---|---|
| Aola | 48 | 35 |
| Garanga | 30 | 14 |
| Gounatolo | 43 | 23 |
| Hunanawa | 91 | 57 |
| Nangu | 99 | 60 |
| Nida Ginger & Doma | 2 | 8 |
| SAPE | 6 | 2 |
| **Grand Total** | **319** | **199** |
| **Total** | | 518 |
| Percentage | 61.60% | 38.40% |

| SN | Training | Target | Male | Female | Total |
|---|---|---|---|---|---|
| 1. | Financial Mechanism Trainings on basic financial literacy | | 24 | 6 | 30 |
| 2. | Safety Trainings | | 24 | 6 | 30 |
| 3. | Waste Management Trainings | | 24 | 6 | 30 |
| 4. | Technical Capacity Building Trainings | | 4* | 0 | 5 |
| -- | Total | | 76 | 18 | 95 |
| | Percent | | 81 | 19 | |

Note: Please include the number of PwDs and LGBTIQ+ as training participants (if applicable)
Staff from MMERE and 1 PMU

## 5.7 Number of project's beneficiaries (planned vs. actual)

| Planned/ beneficiaries | | | | | Actual beneficiaries | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Men | Women | PwDs | LGBTIQ+ | Total | Men | Women | PwDs | LGBTIQ+ | Total |
| 1000 | 700 | 10 | 2 | 1712 | 1000 | 500 | 25 | 2 | 1527 |
| | | | | | | | | | |

*Note: People from LGBTIQ+ communities did not exclusively identify as male or female; however, the project lacks solid gender-disaggregated data on male and female PwDs.*

## 5.8 Participation of local stakeholders in different meetings

| Date | Site name | Type of meeting | Male | Female | Total participants |
|---|---|---|---|---|---|
| Sunday, December 26, 2021 | Aola | Key Informant Interview | 3 | 1 | 4 |
| Sunday, December 26, 2021 | Aola | Key Informant Interview | 9 | 9 | 18 |
| Sunday, December 26, 2021 | Aola | Key Informant Interview | 2 | 0 | 2 |
| Sunday, December 26, 2021 | Aola | Men FGD | 30 | 0 | 30 |
| Sunday, December 26, 2021 | Aola | Women FGD | 0 | 25 | 25 |
| Thursday, December 16, 2021 | Aola | Provincial Meeting | 4 | 0 | 4 |
| Thursday, April 21, 2022 | Nida Ginger & Doma | Key Informant Interview | 0 | 3 | 3 |
| Tuesday 30th April 2024 | Nida Ginger & Doma | Community Meeting | 2 | 5 | 7 |
| Monday, March 28, 2022 | SAPE | Key Informant Interview | 6 | 2 | 8 |
| Thursday, September 16, 2021 | Garanga | School Administration Meeting | 10 | 4 | 14 |
| Thursday, September 16, 2021 | Garanga | Combined FGD | 20 | 10 | 30 |
| Saturday, July 2, 2022 | Gounatolo | Meeting with Community Leaders | 24 | 1 | 25 |
| Sunday, July 3, 2022 | Gounatolo | Men FGD | 19 | 0 | 19 |
| Saturday, July 2, 2022 | Gounatolo | Women FGD | 0 | 22 | 22 |
| Thursday, May 5, 2022 | Hunanawa | Community Meeting | 14 | 5 | 19 |
| Tuesday, May 10, 2022 | Hunanawa | Provincial Meeting | 14 | 0 | 14 |
| Wednesday, May 11, 2022 | Hunanawa | Community Meeting | 13 | 4 | 17 |
| Thursday, May 12, 2022 | Hunanawa | Community Meeting | 43 | 38 | 81 |
| Friday 22 March 2024 | Hunanawa | Community Meeting | 4 | 3 | 7 |
| Saturday 23 March 2024 | Hunanawa | Key Informant Interview | 3 | 2 | 5 |
| Monday 24th March 2024 | Hunanawa | Women FGD | 0 | 5 | 5 |
| Tuesday, September 28, 2021 | Nangu | Provincial Meeting | 14 | 2 | 16 |
| Friday, October 1, 2021 | Nangu | Women FGD | 0 | 56 | 56 |
| Friday, October 1, 2021 | Nangu | Men FGD | 50 | 0 | 50 |
| Monday, October 4, 2021 | Nangu | Provincial Meeting | 10 | 0 | 10 |
| Thursday, September 30, 2021 | Nangu | Meeting with Community Leaders | 25 | 2 | 27 |
| Total | | | 399 | 199 | 518 |
| Percentage | | | 77.02 | 22.08 | 100 |

## 5.9: Co-financing status

| Sources of Co-financing | Name of Co-financier | Type of Co-financing | The co-financing amount confirmed at CEO Endorsement/approval | Investment mobilized | Materialized co-financing |
|---|---|---|---|---|---|
| GEF Agency | UNDP | Grant | 100,000 | Investment mobilized | 59,585.05 |
| Recipient Country Government | Ministry of Commerce, Industries, Labour and Immigration (MCILI) | Grant | 426,456 | Investment mobilized | 426,456 |
| Recipient Country Government | Ministry of Fisheries and Marine Resources (MFMR) | Grant | 3,000,000 | Investment mobilized | 3,000,000 |
| Recipient Country Government | Ministry of Health and Medical Services (MHMS) | Grant | 90,000 | Investment Expenditure | 90,000 |
| Recipient Country Government | Ministry of Mines, Energy & Rural Electrification (MMERE) | Grant | 11,026,774 | Investment mobilized | 3,300,000 |
| Recipient Country Government | Ministry of Environment, Climate Change, Disaster Management & Meteorology (MECDM) | Grant | 923,076 | Investment mobilized | 598,773 |
| | | **Total grant** | **15,566,306** | | **7,474,814.05** |

| | | | | | |
|---|---|---|---|---|---|
| Recipient Country Government | Ministry of Commerce, Industries, Labour and Immigration (MCILI) | In Kind | 47,380 | Recurrent Expenditure | 47,380 |
| Recipient Country Government | Ministry of Fisheries and Marine Resources (MFMR) | In Kind | 409,720 | Recurrent Expenditure | 409,720 |
| Recipient Country Government | Ministry of Health and Medical Services (MHMS) | In Kind | 10,000 | Recurrent Expenditure | 10,000 |
| Recipient Country Government | Ministry of Mines, Energy & Rural Electrification (MMERE) | In Kind | 389,560 | Recurrent Expenditure | 1,310,000 |
| Recipient Country Government | Ministry of Environment, Climate Change, Disaster Management & Meteorology (MECDM) | In Kind | 102,565 | Recurrent Expenditure | 102,565 |
| | | **Total in-kind** | **959,225** | | **1,879,665** |
| Recipient Country Government | Ministry of Mines, Energy & Rural Electrification (MMERE)) | Loan | 0 | Recurrent Expenditure | 500,000 |
| | | **Total loan** | **0** | | **500,000** |
| | | **Total** | **16,525,531** | | **9,854,479.05** |

## 5.10: Project key stakeholders

| Key stakeholder | Proposed roles/responsibilities | Actual roles/responsibilities |
|---|---|---|
| **A. Ministries** | | |
| 1. Ministry Mines, Energy and Rural Electrification (MMERE) | • Offer technical support and guidance in designing, specifying energy requirements, and installing energy systems, including solar and mini-hydro setups, while overseeing the implementation of demonstration pilot projects.<br>• Act as the Responsible Party, co-chair the Project Board, and lead the establishment of Technical Working Groups (TWGs) to facilitate consultations and decisions on policy, finance, technical, and capacity-building elements of the project. | • Delivered services in alignment with the roles and responsibilities outlined in the project design. |
| 2. Ministry of Environment, Climate Change and Disaster Management (MECDM) | • Provide technical support for designing energy systems, specifying requirements, and installing solar and mini-hydro systems, while managing the implementation of pilot projects to ensure targeted reductions in GHG emissions.<br>• Oversee and monitor project execution, ensuring key implementers and partners adhere to project objectives and implementation standards. | • Delivered services in alignment with the roles and responsibilities outlined in the project design. |
| 3. Ministry of Fisheries and Marine Resources (MFMR) | • Support the setup, O&M of a demonstration solar PV power generation system to commercially supply electricity for fishery centers and village electrification.<br>• Ensure the solar PV system operates effectively to meet energy needs for sustainable fishery center operations and rural electrification initiatives. | • Limited involvement beyond participation in PB meetings, and provided a moderate level of technical backstopping on an as-needed basis. |
| 4. Ministry of Health and Medical Services (MHMS) | • Assist in establishing, operating, and maintaining a demonstration solar PV power generation system designed for commercial use, supplying electricity to health centers and villages.<br>• Ensure reliable energy support for health center operations and rural electrification through the solar PV system. | • Limited involvement beyond participation in PB meetings, and provided a moderate level of technical backstopping on an as-needed basis. |
| 5. Ministry of Commerce, Industry, Labor, and Immigration | • Facilitate the setup, O&M of a demonstration solar PV power generation system to commercially supply electricity for small-scale rural industrial estates.<br>• Ensure stable and efficient energy provision to support the electricity needs of rural industrial operations. | • Limited involvement beyond participation in PB meetings, and provided a moderate level of technical backstopping on an as-needed basis. |
| 6. Ministries of Education Human Resources Development (MEHRD) | • Support the development of a demonstration site featuring a school-based solar PV/diesel hybrid power generation and distribution system.<br>• Oversee site activities, offering guidance and technical advice to ensure the sustainability and effective operation of the installed energy system. | • Limited involvement beyond participation in PB meetings, and provided a moderate level of technical backstopping on an as-needed basis. |

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|---|---|---|
| 7. Ministry of Women Youth Children and Family Affairs (MWYCFA) | • Support gender mainstreaming efforts by engaging Gender Focal Points within MECDM and MMERE to ensure gender-disaggregated reporting aligned with the Gender Action Plan.<br>• Lead gender-sensitive monitoring and evaluation (M&E) efforts and actively participate as a member of the TWG. | • Limited involvement beyond participation in TWG meetings, and provided a moderate level of technical backstopping on an as-needed basis. |
| 8. Ministry of Infrastructure and Development (MID) | • Assist in advancing MMERE's role and participate as a member of the TWG. | • Limited involvement beyond participation in TWG meetings, and provided a moderate level of technical backstopping on an as-needed basis. |
| 9. Ministry of Finance and Treasury | • Support MECDM's role and actively participate as a member of the TWG. | • Limited involvement beyond participation in TWG meetings, and provided a moderate level of technical backstopping on an as-needed basis. |
| 10. Ministry of Rural Development (MRD) | • Assist the TWG in upholding Environmental and Social Safeguards (ESS) throughout project activities.<br>• Support efforts to improve essential socioeconomic conditions in alignment with ESS requirements. | • Limited involvement beyond participation in TWG meetings, and provided a moderate level of technical backstopping on an as-needed basis |
| 11. Ministry of Development Planning and Aid Coordination (MDPAC) | • Provide institutional support to MECDM for effective reporting and accessing international climate finance.<br>• Facilitate MECDM's engagement with global climate finance platforms to secure funding for climate-related initiatives. | • Limited involvement beyond participation in PB meetings, and provided a moderate level of technical backstopping on an as-needed basis. |
| **B. Private sector** | | |
| 12. Solomon Power (SP) | • Offer technical assistance in the design and installation of solar PV power generation systems and micro-hydro setups.<br>• Support demonstrations of solar PV/diesel hybrid systems, focusing on load optimization and energy supply for both productive and social applications.<br>• Join the TWG and the Project Board (PB), providing expert technical advice to guide project implementation. | • Delivered services in alignment with the roles and responsibilities outlined in the project design. |
| 13. Private sector RE technology suppliers | • Offer technical expertise in design, energy specifications, supply, distribution, installation, maintenance, diagnostics, monitoring, and end-user training.<br>• Ensure the adoption of high-quality and reliable technology for communities and end-users. | • As defined during the project design, but on a moderate scale |
| **C. Research agencies and academia** | | |
| 14. Solomon Islands National University (SINU) | • Support capacity-building initiatives for communities, with a focus on empowering women and conducting Training of Trainers (ToT) in RE.<br>• Enhance skills and knowledge in renewable energy through targeted training programs for diverse community groups. | • As defined during the project design, but on a moderate scale |
| 15. SINU Marine Studies | • Conduct value-added seafood training sessions for coastal communities to improve local livelihoods.<br>• Equip coastal communities with skills to enhance the value of their seafood products and diversify income sources. | • These trainings were not effectively implemented. |
| **D. NGOs and CSOs** | | |
| 16. CSO, NGO, community-based social/civic groups (e.g., churches) | • Support the promotion of RE, EE, and EC awareness among communities and end-users.<br>• Design value-added initiatives that enhance livelihood opportunities for local communities. | • As defined during the project design, but on a moderate scale |
| 17. Village/Community leaders: Hunanawa Community leaders and Women's Group | • Support community good governance, promote gender participation and ensure inclusion in decision-making processes at the local level, fostering project ownership and long-term sustainability.<br>• Implement the Environmental and Social Management Plan (ESMP), ensuring the protection and safety of communities from any adverse project impacts. | • As defined during the project design, but on a moderate scale |

| | | | |
|---|---|---|---|
| 18. | Community Utilities Committee (CUC) and Community-based RESCO | • Deliver essential services and support, forming the foundation for the long-term sustainability of energy production and maintenance.<br>• Establish strong governance structures and implement appropriate financial mechanisms within the project localities to ensure the ongoing success of the energy initiatives. | • As defined during the project design, but on a moderate scale |
| 19. | West Are'are Rokotanikeni Association (WARA) | • Support women technical champions within the community by providing training in O&M skills.<br>• Promote community-to-community learning symposiums and the implementation of RE financing models, focusing on SHS and solar freezers. | • As defined during the project design, but on a moderate scale |
| 20. | Solomon Islands Women in Business Association (SIWIBA) | • Provide livelihood training opportunities in areas such as sewing, baking, floral arts, cooking, and literacy.<br>• Equip individuals with diverse skills to enhance their income-generating potential and personal development. | • As defined during the project design, but on a moderate scale |

## 5.11: Assessment of goal, objective, and outcome level indicators

In the tables below, the colors green, yellow, and red have been used for easy reference: green indicates that the planned target has been achieved, yellow represents a partially achieved target, and red signifies that the target has not been achieved.

| Green= Achieved | Yellow= Partially achieved | Red= Not achieved |
|---|---|---|

### a. Evaluation of goal-level indicators

| Indicator | Baseline (2017) | Midterm Target (2023) | End-of Project Target (2024) | Nov, 2024 |
|---|---|---|---|---|
| Cumulative incremental GHG emission reduction from the electricity sector in rural areas, tons $CO_2$ | 0 | 6,376 | 19,147 | 116.47 |
| National electric energy consumption index, ktoe/US$ GDP | 6.42 | 6.20 | 5.87 | 6.49 |

*Source: Project's data (2024) and Interviews with key informants*

Indicator 1: Cumulative incremental GHG emission reduction from the electricity sector in rural areas, tons $CO_2$: Based on the available data, the project reduced a total of 116.47 tons of $CO_2$ emissions at three commissioned sites: Rokera Public Secondary School, Hunanawa, and Ginger Viela Beach. Hunanawa contributed about half of the total, while the Rokera and Viela Beach sites contributed 6.098 tons. Overall progress is still being assessed, based on the operational performance of the demonstration projects and the broad impact on other rural RE-based power generation initiatives.

Indicator 2: National electric energy consumption index, ktoe/US$ GDP: As of mid-2024, the national electricity consumption index was estimated at 6.49 ktoe/US$ GDP according to National Statistics Office, SEIA, Central Bank of Solomon Island, and the World Bank. The project aimed to reduce this index by promoting RE-based power generation but faced external challenges that led to fewer demonstration projects and replications than expected. While the project did influence other rural RE initiatives, these were mostly centered on solar PV technology, with limited integration of EE applications.

### b. Evaluation of objective-level indicators

| Indicator | Baseline (2017) | Midterm Target | End-of Project Target | Nov, 2024 |
|---|---|---|---|---|
| Cumulative incremental fossil fuel savings due to sustainable energy and low carbon interventions implemented, toe | 0 | 697.6 | 2,095 | 55.90 |
| % electricity access in rural areas, % | 5% | 15% | 25% | 6% |
| No. of new jobs created due to enhanced electricity access in off-grid areas in the country. | 10 | 60 | 200 | 20 |

*Source: Project's data (2024) and Interviews with key informants*

Indicator 1: Cumulative incremental GHG emission reduction from the electricity sector in rural areas, tons $CO_2$: Installations at three of the four planned sites are complete, and the solar PV and battery energy storage system (BESS) in Nangu, Temotu, is nearing completion. However, overall achievement is still under assessment, based on the operational performance of the demonstration projects and their influence on other rural RE initiatives. These initiatives benefited from improved RE and EE policies, capacity-building, and stronger

institutional and financial systems. Delays were caused by logistical challenges in transporting equipment to remote sites.

Indicator 2: Percentage of people with access to electricity in rural areas, %: The project contributed to access to electricity in rural areas. The percentage of the population who have electricity is currently estimated at 6%, based on trend analysis and alignment with the SIG's rural electrification plans. The target, outlined in the 2019 SINEP, aims to increase rural electricity access by 40% by 2035. While the project supports achieving this goal through the development of a national energy policy, a rural electricity regulatory framework, and the implementation of rural electrification plans, progress on policy development has been limited.

Indicator 3: The number of new jobs created due to enhanced electricity access in off-grid areas: The estimated number of new jobs created due to enhanced electricity access in off-grid areas was derived from data collected at the three commissioned demonstration sites, contractor reports, and follow-up assessments of potential replications and new RE-based projects. These initiatives, including those funded by the SIG and implemented by the MMERE, generated employment opportunities in the design, implementation (skilled and unskilled labor), and O&M of RE-based power projects. In addition, surplus electricity from these projects has the potential to stimulate income-generating activities, thereby contributing to local employment and economic growth.

### Evaluation of Outcome 1 level indicators

| Indicator | Baseline (2017) | Midterm Target | End-of project Target | Nov, 2024 |
|---|---|---|---|---|
| No. of implemented off-grid rural electrification projects facilitated by the approved and enforced energy access, RE, and EC&EE policies | 0 | 2 | 5 | 3 |
| No. of designed and implemented pilots on the implementation of applicable policy and regulatory framework for rural electrification | 0 | 1 | 2 | ~ |
| No. of formulated, approved, and implemented rural electrification plans. | 5 | 7 | 9 | 5 |

*Source: Project's data (2024) and Interviews with key informants*

Indicator 1: Number of implemented off-grid rural electrification projects facilitated by the approved and enforced energy access, RE, and EE policies.

Three off-grid rural electrification schemes were demonstrated at three sites. The achievement of this indicator is linked to planned PMU surveys and evaluations of follow-up activities, including the potential replication of demonstrations, new RE-based power generation projects, and SIG-funded initiatives under the MMERE, aimed at assessing the influence of the project's recommended RE and EE policy improvements. The Energy Division, with project support, advanced key policy initiatives shaped by the enforced energy access, RE, and EE policies, including the RE Roadmap, the review of the Electricity Act, the National Energy Access Strategy, the Rural Electrification Policy, and the Solomon Islands National Energy Policy. These successes were driven by the Energy Division's leadership and involved extensive consultations and workshops, facts which established a strong foundation for rural electrification and sustainable energy efforts. More specifically, the project supported the development of the Rural Electrification Policy by hiring a consultant. Until now, a concept note, literature review, and internal consultations have been completed. However, due to budget constraints and the consultant's serious illness, the external consultations and drafting of the policy remain unfinished.

Indicator 2: Number of designed and implemented pilot projects related to the implementation of the applicable policy and regulatory framework for rural electrification: No pilot projects for implementing a policy or regulatory framework for rural electrification were designed or initiated. To align with the project's objectives, these pilots must focus on specific, project-recommended policies aimed at enabling RE-based rural electrification initiatives. However, the draft policies are still being refined, and there is a need to pilot their practical applicability and assess their potential to advance rural electrification.

Indicator 3: Number of formulated, approved, and implemented rural electrification plans: No rural electrification plans were formulated, approved, or implemented under the project, largely because the CTA prioritized project extension documents and other PMU-related tasks instead. Some of the key informants noted that while the last PB meeting gave green signals for project extension, it was not implemented due to resource constraints. For instance, reducing PMU staff as a cost-saving measure was not explored. The CTA, hired in March 2024, could not fully contribute to the project's ongoing technical matters as he was primarily focused on preparing "project extension" documents. His tenure ended in August, and the project's extension work was not materialized. A

misunderstanding within the PMU regarding the activities required to achieve Output 1.4 contributed to this gap. Progress continues on related legislative efforts, including the Energy Bill, which awaits parliamentary approval, and the drafting of the Energy Efficiency and Petroleum Storage and Handling Acts, both still under development. While these initiatives aim to strengthen the policy and regulatory framework for energy management and rural electrification, the original target of formulating rural electrification plans remains unmet.

### Evaluation of Outcome 2 level indicators

| Indicator | Baseline (2017) | Midterm Target | End-of Project Target | Nov, 2024 |
|---|---|---|---|---|
| No. of formulated and recommended institutional and financing mechanisms that support the enhanced implementation of rural electrification initiatives. | 0 | 2 | 2 | 3 |
| No. of rural electrification initiatives facilitated by adopted and enforced institutional and financial mechanisms. | 0 | 2 | 2 | 0 |

*Source: Project's data (2024) and Interviews with key informants*

Indicator 1: Number of formulated and recommended institutional and financing mechanisms that support the enhanced implementation of rural electrification initiatives: The project used institutional and financial management systems for operating demonstration sites. The PMU highlighted the importance of having well-defined institutional and financial frameworks to enable local banks to support rural development projects, including RE-based power generation. To address this gap, the PMU and IP planned an energy reform review with the Ministry of Finance and Treasury to establish a PPP unit for the sustainable financing of future rural electrification projects, but critical steps such as engaging local banks to develop financing mechanisms have not yet been undertaken. These efforts underscore the need for targeted actions designed to facilitate the transition from demonstration projects to scalable rural electrification solutions, while orientations and training for local-level stakeholders and solar committees are ongoing.

Indicator 2: Number of rural electrification initiatives facilitated by adopted and enforced institutional and financial mechanisms: No rural electrification initiatives were facilitated through adopted and enforced institutional and financial mechanisms under the project. Insufficient time and the fact that the fourth demonstration site is incomplete prevented the evaluation and integration of lessons from all four demonstration sites into scalable strategies. Furthermore, the commissioned sites require more operational maturity before they can generate insights for effective replication.

### Evaluation of Outcome 3.1 level indicators

| Indicator | Baseline (2017) | Midterm Target | End-of Project Target | Nov, 2024 |
|---|---|---|---|---|
| No. of planned and implemented rural electrification projects in both on-, and off-grid areas that are based on the findings are recommendations of conducted DREI assessments of RE-based electricity generation options. | 0 | 2 | 5 | 0 |
| No. of follow-up rural electrification, sustainable energy, and low carbon technology application projects (demo replications and scale-ups) in on-, and off-grid areas. | 0 | 4 | 6 | 3 |
| Percentage of successful maintenance or repair work on demonstrations by MMERE and all RE-based rural electrification projects in the country | 0 | 50% | 100%* | 25% |

*MMERE with no external support

*Source: Project's data (2024) and Interviews with key informants*

Indicator 1: Number of planned and implemented rural electrification projects in both on-, and off-grid areas that are based on the findings and recommendations of the DREI assessments of RE-based electricity generation options: No rural electrification projects, on- or off-grid, were planned or implemented based on findings or recommendations from DREI assessments. Key activities related to the techno-economic feasibility analysis of RE-based electricity generation options were not executed during the project's early years due to a misunderstanding of the UNDP-approved alternative assessment methodology. The absence of a dedicated DREI consultant further stalled progress. Although a ToR for this position was developed in late 2022, UNDP recommended that the scope be downscaled to a techno-economic feasibility study, thereby delaying actionable outcomes. Key informants said that while the PMU plans to monitor and document RE-based power projects as

part of knowledge management, these gaps highlight the importance of timely alignment, resource allocation, and clarity about future initiatives to support rural electrification efforts effectively.

Indicator 2: Number of follow-up rural electrification, sustainable energy, and low-carbon technology application projects (demo replications and scale-ups) in on-, and off-grid areas: In the views of PB members, no follow-up rural electrification, sustainable energy, or low-carbon technology application projects such as demonstration replications or scale-ups were formally planned or implemented under the project. The existing demonstration sites focus solely on solar PV-based power generation and do not diversify into any other RE solutions. While some MMERE-funded solar PV systems are informally considered replications of the demonstrations[20], they have limited direct ties to the project's initiative.

Indicator 3: Percentage of examples of successful maintenance or repair work on demonstrations by the MMERE and all RE-based rural electrification projects in the country: The successful O&M of demonstration projects and other RE-based rural electrification projects in the country is estimated at 25%. This estimate is based on maintenance activities conducted by PMU and IP staff at the three completed demonstration sites, primarily addressing minor post-commissioning issues. It was said that MMERE staff, trained under the project in solar PV system O&M, played a key role in sustaining MMERE-operated facilities and their training improved collaboration with external specialists and contractors, thereby ensuring the effective supervision and execution of O&M tasks.

### Evaluation of Outcome 3.2 level indicators

| Indicator | Baseline (2017) | Midterm Target | End-of Project Target | Nov, 2024 |
|---|---|---|---|---|
| No. of successfully installed and operational systems of the implemented demonstrations of RE-based electricity generation and low carbon technology application in the off-grid areas. | 0 | 2 | 5 | 3 |
| No. of RE and EE technologies application projects designed and financed for implementation as influenced by the results and outcomes of the demonstrations | 0 | 4 | 9 | 2 |
| Percentage of women in community-based RE Service companies (RESCO) morally supported by village men to build their confidence in leadership | 0 | 25 | 50 | 25 |

*Source: Project's data (2024) and Interviews with key informants*

Indicator 1: Number of successfully installed and operational systems of the implemented demonstrations of RE-based electricity generation and low-carbon technology application in the off-grid areas: Three solar PV hybrid systems were successfully installed and are now operational. A fourth system is nearing completion. These demonstrations are focused on RE and do not include stand-alone EE technology components. Finalized financial mechanisms and maintenance contracts provide a foundation for the sustainable management of these systems.

Indicator 2: Number of RE and EE technologies application projects designed and financed for implementation as influenced by the results and outcomes of the demonstrations: No RE or EE technology application projects have been designed or financed based on the outcomes of the demonstration projects. Since the demos have been operational for less than a year, they have not yet provided sufficient insights or validated recommendations to inform new initiatives. These demonstrations require further time and evaluation to assess their performance, scalability, and potential as replicable models for future RE and EE projects.

Indicator 3: Percentage of women in community-based RESCO morally supported by village men to build their confidence in leadership: In the views of key informants, the project increased the percentage of women in community-based RESCOs who are morally supported by village women to enhance their confidence to lead. Data from three surveyed communities, including one of the demonstration sites, suggested that the project's awareness campaigns emphasized women's active engagement in RESCO models. Inspired by initiatives like the Tina Hydro Project, these efforts fostered a supportive environment in which men and women collaboratively invest in RE initiatives, promoting women's role as leaders.

### Evaluation of Outcome 4 level indicators

[20] For example, consultations with Selwyn College explored supporting the purchase of a new generator for its solar hybrid system. However, no commitment was secured from the Anglican Church of Melanesia (ACOM), which manages the system, to advance the proposal. The lack of written support reflects the project's limited progress in scaling up or replicating demonstration projects and highlights the need for stronger strategic planning and stronger collaboration with stakeholders to ensure future replications and expansions.

| Indicator | Baseline (2017) | Midterm Target | End-of Project Target | Nov, 2024 |
|---|---|---|---|---|
| No. of trained national and local government personnel that can ably plan and evaluate energy access, sustainable energy, and low carbon technology application projects. | 0 | 2 | 4 | 6 |
| No. of local firms that can capably provide technical, engineering and maintenance services for rural electrification and low carbon technology application projects. | 1 | 1 | 3 | 3 |

*Source: Project's data (2024) and Interviews with key informants*

Indicator 1: Number of trained national and local government personnel who can ably plan and evaluate energy access, sustainable energy, and low-carbon technology application projects: It was reported during consultations that six SIG personnel were trained in planning and evaluating energy access, sustainable energy, and low-carbon technology projects, and one Energy Department staff member under the MMERE earning a certificate. IP and PMU staff received training under the capacity-building efforts of Outcome 4. During the onsite installation of the three demonstration projects, certified contractors provided technical guidance. Basic technical knowledge was imparted to solar committees, empowering them to support ongoing energy projects.

Indicator 2: Number of local firms that can capably provide technical, engineering, and maintenance services for rural electrification and low-carbon technology application projects: The capacity of local firms to provide technical, engineering, and maintenance services for rural electrification and low-carbon technology projects is still being assessed, and post-evaluation work is expected to offer further insights. During the installation of solar PV systems in three demonstration site, three individuals were trained by certified local companies. In addition, six local firms[21] participated in providing these services, reflecting a growing capacity within the local private sector to support sustainable rural electrification initiatives.

## 5.12 Factors that undermined the pace of implementation

- **Socio-economic factors** included delays in project implementation which lead to baseline and project actual context being completed or discontinued before execution, while shifts in the energy landscape made some deliverables obsolete. Data gaps, particularly regarding socio-economics and demographics, hindered analysis and decision-making. These gaps were compounded by the fact that data at project sites is limited and coordination is poor.
- **Financial factors** included delays in the disbursement of UNDP funds, complex procurement processes, overspending on demonstration activities in the early stages, and delays in equipment delivery and installation, all of which slowed project progress.
- **Geographical factors** presented logistical difficulties as the remoteness of sites, particularly on outer islands, resulted in high costs for transporting materials and for carrying out the required complex logistics.
- **Political and capacity-building factors** affected the project due to inadequate early engagement and induction of PMU staff, which led to inadequate technical support and delays in addressing emerging issues. The need for comprehensive M&E orientation became clear, and challenges such as community demands for payment were addressed once proper orientation was provided.
- **Environmental factors** delayed progress due to design changes, limited technical expertise, and delays in material and equipment supply. The interdependency of activities further slowed processes, and COVID-19 disruptions reduced consultant mobility and slowed the transport of materials.
- **Institutional factors** included limited oversight due to frequent staff turnover at UNDP, gaps in stakeholder coordination, and delays in setting up the PMU, which caused setbacks in institutional knowledge and overall project execution. The project's planning process lacked robustness and timeliness; it was characterised by delays in procurement and missed opportunities for meaningful coordination.

## 5.13: Lesson learned

### 1. Human resource management in mitigating the impact of staff turnover

*Proactive human resource management and planning are essential for mitigating the impact of staff turnover and ensuring project continuity:* Proactive human resource management and planning are crucial in minimizing the negative impacts of high staff turnover. Mapping human resources in advance and ensuring timely staffing can prevent disruptions and enhance project continuity. Mapping human resources in advance helped address gaps caused by turnover, but challenges persisted because there were not enough skilled technical staff. Furthermore, a

[21] Future Electrical and Solar Consultancy Services, Archives Solution Limited, C-ME Electrical and Engineering Limited, G-Rock Electrical and Engineering Limited, Mechatrics Engineering Services, and James Engineering and Building SI Limited.

retention plan that offers capacity-building, career growth opportunities, and short overseas training could improve staff commitment. The early establishment of a PMU and advanced headhunting would ensure that qualified personnel were hired in a timely fashion.

**2. Inception workshop**

*Inception workshops are essential for making strategic adjustments and accelerating project implementation:* Inception workshops play a pivotal role in reviewing, re-planning, and accelerating project implementation by aligning activities with project goals. This workshop provides an essential platform for stakeholder engagement and strategic adjustments. An inception workshop can lead to the effective revision of indicator targets and budgets, address co-financing strategies, and educate stakeholders on converting in-kind contributions into their cash equivalents. In addition, revisiting solar installation sites based on their technical feasibility and clarifying stakeholder roles identified as critical to enhancing synergy and ensuring efficient implementation.

**3. Technology adoption and capacity-building require sufficient awareness**

*Effective technology adoption and capacity-building require sufficient awareness, ongoing training, and tailored assessments for successful implementation:* Introducing new technology requires sufficient awareness to ensure its acceptance and effective utilization. Capacity-building is most impactful when training combines concise, focused sessions with practical drills and refresher courses, measures that ensure both comprehension and retention. Following short training sessions with practical drills significantly enhanced participants' understanding of project-related issues and their application. In addition, treating capacity-building as a continuous process with tailored initiatives—such as engaging communities in documenting traditional knowledge and linking committees to relevant sectoral training—strengthened collaboration and institutional capacity. Conducting a detailed technical assessment, including a cost-benefit analysis of solar versus diesel systems, also supported increasing awareness.

**Lessons Learned: Stakeholder voices**

- Integrated contracting for quality and efficiency: *"To ensure quality, expedite installation, and avoid blame-shifting, it's better to have a single contract for designing, building, and installing systems at selected sites."*
- Maximizing impact through targeted sectors: *"For larger impacts, focus on sectors like rural boarding schools, fisheries centers, clinics, and agriculture—especially solar-powered irrigation systems."*
- Consolidating resources for model building: *"To save administrative, logistical, and oversight costs, it's more effective to focus on one outer island, consolidate resources, and create a model that the SIG and development partners can replicate."*
- Strengthening PMU accountability: *"To make PMU staff more responsible, hire competent technical staff, align key deliverables with their job descriptions, provide thorough induction, and link contract renewal to performance evaluations. Don't remove PMU staff without proper evaluation."*
- Planning for smooth completion and handover: *"Start planning in the final year to complete unfinished activities and ensure a proper handover to the hosting agency."*

**4. Market assessment before procurement**

*Context-specific adaptability and rapid market assessments streamline solar apparatus procurement processes and enhance efficiency:* Addressing procurement challenges requires demonstrating intermittent adaptability and tailoring decision-making to the specific context to ensure timely resolutions of those challenges and enhanced efficiency. Flexibility in assessing vendors and contractors within the local market is also crucial for streamlining procurement processes. While the NIM framework required all procurement to be handled exclusively by the IP/PMU, delays often necessitated UNDP's intervention to expedite processes. Conducting rapid market assessments before issuing tenders was found to be an effective strategy for evaluating vendors' capacities and available inventories, reducing delays, and improving procurement outcomes.

**5. Project board**

*Regular assessment and strategic follow-up during PB meetings are crucial for maintaining project momentum and accountability:* PB meetings demonstrated their effectiveness in keeping projects on track by facilitating regular assessment and strategy formulation. Incorporating the minutes of the preceding meeting into each meeting agenda was a key practice in enabling the assessment of progress and identification of challenges. This approach not only allowed members to address unimplemented or partially implemented decisions but also supported the development of actionable plans. Circulating the PB minutes among stakeholders and maintaining a "suggestion log" for their feedback was instrumental in enhancing accountability and the implementation of decisions.

*Involving key stakeholders in the PB structure enhances decision-making and resolves financial bottlenecks:* Including representatives from the Ministry of Finance and Treasurer, Chamber of Commerce, and academia in the PB, is vital to addressing financial and payment challenges within the NIM framework and ensuring smoother project implementation. This practice could help harmonize project operations with national regulations. The involvement of the Ministry of Finance and Treasurer representatives could facilitate the making of minor adjustments to existing rules and protocols, and effectively resolve bottlenecks related to finance and payments.

The inclusion of the Chamber of Commerce, and academia in the PB could further strengthen private sectors' involvement and decision-making processes and broaden the expertise available for overcoming project challenges.

**6. CSOs and media in policy advocacy**

*Engaging CSOs and media in policy processes strengthens advocacy, transparency, and stakeholder trust, contributing to the sustainability of initiatives:* Engaging CSOs and the media in policy formulation and implementation processes enhances policy effectiveness, advocacy, and stakeholder trust. These efforts ensure active stakeholder participation, transparency, and accountability, which are critical for the sustainability of initiatives. Involving CSOs in policy development fosters continuous advocacy, rational enforcement, and stakeholder cooperation, though such approaches may require considerable time. The timely sharing of project activities through media channels and knowledge products not only raised awareness but also secured additional resources from stakeholders, demonstrating the importance of transparency and collaborative engagement in achieving long-term project objectives.

**7. Women's participation in governance mechanisms**

*The meaningful participation of women in governance mechanisms is essential for achieving gender equality, empowerment, and effective decision-making:* Promoting the meaningful participation of women in governance mechanisms is vital for achieving impactful gender outcomes and fostering empowerment. Genuine engagement, rather than tokenistic involvement, ensures that women can contribute effectively to decision-making processes. Maintaining gender balance in institutions, enforcing affirmative action, and involving women in capacity-building initiatives and review sessions significantly boosted women's confidence and influence. Adopting gender-friendly livelihood schemes through participatory decision-making and selecting training sites within communities encouraged women's involvement, fostering their empowerment and a positive "we can do it" mindset. Periodically updating SES and GAP and mobilizing dedicated gender officers further enhanced gender integration.

**8. Clear procedures and tracking mechanisms foster co-financing**

*Clear procedures, protocols, and tracking mechanisms are crucial for the success and accountability of co-financing initiatives:* The success of co-financing initiatives relies on clear procedures, protocols, and effective tracking mechanisms to ensure transparency and accountability. Establishing regular communication and monitoring practices is crucial for generating co-financing. The effectiveness of co-financing is closely tied to stakeholders' active participation in PB meetings and the consistent sharing of project updates. Implementing concrete tracking mechanisms, such as defined procedures and tracking tools, is essential for realizing synergistic impacts and ensuring proper monitoring of co-financing contributions.

**9. Data management and a strategic exit plan for sustainability**

*Effective data management and a strategic exit plan are crucial for ensuring project sustainability and guiding future initiatives:* Effective data management and a well-planned exit strategy are essential for ensuring the sustainability of project outcomes and guiding future initiatives, as are establishing accurate baselines and documenting project achievements. Conducting an actual baseline immediately before initiating project implementation rather than relying solely on a baseline during project development provides an accurate foundation for measuring progress. In addition, developing an exit strategy early in the project's final year and documenting best practices and lessons learned were critical steps in systematizing activities and sustaining the project's impact.

**10. Systematic handover process to the community**

*Systematic handover of skills and knowledge ensures continuity and sustains project momentum:* The handover of solar PV systems emphasized the importance of transferring skills and knowledge systematically rather than focusing solely on the "physical handover." This approach was designed to preserve institutional memory and ensure continuity in project implementation. It was learned that a "systematic handover" effectively mitigated coordination gaps caused by the turnover of UNDP, project, and government staff. This method proved significantly more effective than relying solely on the transfer of physical assets: it fostered smoother transitions and sustained project momentum.

**11. Knowledge management**

*Systematic knowledge sharing and documentation amplify project impact and stakeholder engagement:* Effective knowledge management and sharing are essential for capturing and disseminating project learnings, best practices, and policy insights to a broader audience. Activities such as review workshops, RTA visits before PIRs, and systematic documentation contribute significantly to this effort. It was learned that organizing "learning and review workshops" before PIR facilitated real-time knowledge exchange and project alignment. Documenting

best practices, developing step-by-step O&M guidelines, and utilizing social and electronic media for dissemination proved vital for engaging stakeholders and extending the project's impact to more communities.

## 5.14: Cross-cutting issues

### a. Human right

The project adopted a human rights-based approach from its inception, covering all stages from conceptualization to design and implementation. Key informants noted that the planning phase emphasized ensuring diverse stakeholder representation and active participation, allowing for the inclusion of various concerns and challenges. The project design was informed by a needs assessment, which involved consultations with stakeholders, though some limitations in robustness were identified. Interviews indicated that the project also aimed to address potential human rights risks in the RE sector through several measures. It focused on building knowledge, skills, and awareness among disadvantaged and marginalized groups, including the poor, indigenous peoples, persons with disabilities, women, and youth. No human rights violations, such as abuse, threats, intimidation, land grabs, unsafe working conditions, non-payment, or child labor, were reported by any of those consulted. However, the project did not fully utilize the hazard vulnerability and capacity assessment (HVCA) tool to identify appropriate sites for solar PV installations, assess potential risks, or determine vulnerabilities related to various hazards.

### b. Gender equality and leaving no one behind

The project made significant strides in promoting gender equality and women's empowerment, with both intended and unintended impacts on women, men, youth, and vulnerable groups. It played a key role in fostering positive changes in women's leadership and empowerment, in line with GESI policies. Stakeholders universally acknowledged the need for a global, renewable, and decentralized energy system to reach the last-mile population, including women, youth, PwDs, and marginalized groups. While the project recognized women as essential energy consumers and managers, interviews revealed that women were not equally represented, particularly in staff, PB, and TWG roles. Stakeholders emphasized the importance of incorporating gender considerations into energy policies aligned with SDGs 5, 7, and 13 to drive more effective energy initiatives. The project explored how RE could support women's income-generating activities, reduce gender disparities in household energy access, and set targets for women's involvement in the energy sector. Women also highlighted the need for greater awareness and inclusion, particularly for PwDs, to ensure that their specific needs were addressed. The project tried to create green job opportunities for women from marginalized backgrounds and carefully integrated gender and inclusion issues during its design.

It was found that the project placed good emphasis on gender equality in the energy sector, aiming to ensure meaningful participation and benefits for both men and women in the RE transition. Incorporating GESI into data collection, program design, and monitoring could further enhance women's involvement. Notably, gender mainstreaming from the outset provided opportunities for greater female engagement. However, stakeholders identified areas for improvement, such as conducting women's safety audits, promoting women's leadership, and strengthening coordination to raise awareness of gender-related issues. Project officials also suggested using the "gender and age marker toolkit" to raise awareness of gender- and age-related concerns and conducting a 'scenario-based costing study' to improve understanding of GESI and its impact on solar PV systems, thereby supporting policy advocacy for gender-responsive services.

### c. Disability

Project officials confirmed that PwDs were consulted and actively engaged at all stages—planning, implementation, and follow-up—at four demonstration sites. This involvement led to positive outcomes and even transformative changes for PwDs. However, the absence of disaggregated data on disabilities made it difficult to fully assess the project's impact on PwDs.

For future initiatives, stakeholders recommended organizing capacity-building workshops to enhance the sensitivity of program, administrative, and finance staff to GEDSI considerations. These workshops would also support the collection of GEDSI-sensitive data through an online platform. Additionally, the project could compile disability-related clauses from policy documents, including the Pacific Framework for the Rights of Persons with Disabilities (2016–2025), and disseminate these provisions widely. Integrating these clauses into training curricula would further promote inclusive development for PwDs, drawing from the Pacific Regional Strategy on Disability (2010–2015).

### d. Climate change action

The project demonstrated positive outcomes for climate change action, with no evidence of environmental risks undermining the sustainability of its outputs. In fact, it contributed to the country program's climate change mitigation efforts and strengthened national and local capacities through review-and-reflection sessions. By

employing an environmental mainstreaming framework across all solar PV system components and incorporating it into O&M training for end-users, the project effectively mitigated potential environmental risks. No adverse environmental impacts were reported, and any potential risks were addressed through the SES.

### 5.15: Some risks and their mitigation measures

a. Financial risks: The project faced significant financial risks, including the failure of partners to meet co-financing commitments, which could affect specific activities. To mitigate this, the PMU sought additional funding from other donors and leveraged resources, including support from the Ministry of Education. Risks related to reduced interest in renewable energy (RE) due to low fossil fuel prices were addressed through awareness campaigns. Additionally, sustainability challenges in rural electrification projects were managed by designing financial mechanisms, such as flat-rate billing and sinking funds for O&M.

b. Operational: The project faced low operational risks related to the construction and operation of demonstration and replication projects, which were mitigated by ensuring compliance with SES requirements, environmental considerations, and the Solomon Islands Building Code. However, while an updated SES plan included standard designs for demo sites, these designs were not fully developed. Significant risks from inadequate local capacities persisted due to an insufficient capacity-building strategy, and the training program for O&M was limited.

c. Safety and security: The project faced low risks of generating disagreements among indigenous peoples regarding the use of their land. To mitigate this, consultations and the Free, Prior, and Informed Consent (FPIC) process were required and thoroughly documented throughout implementation. This approach ensured that indigenous communities were fully informed, their consent was obtained, and potential conflicts were prevented, aligning the project with their rights and interests.

d. Social and environmental: The project faced moderate social and environmental risks due to climate impacts and remote site locations. These risks were mitigated by developing site-specific Environmental and Social Management Plans (ESMPs) and conducting quarterly ESMP monitoring reports, as outlined in the SES Plan, with the first report completed in Q4 2023.

e. Strategic: The project faced low to moderate strategic risks, including insufficient engagement by the PMU with local communities and limited progress by MMERE on rural electrification policy and regulatory reforms. Efforts were underway to develop a rural electricity regulatory framework. In 2023, an incident involving the collision of two boats during material transport led to equipment damage, a child's injury, and temporary delays. To address these issues, an SES action plan was developed, including site-specific ESMPs, health and safety measures, and quarterly monitoring reports. COVID-related restrictions in the initial years delayed expert onboarding and equipment delivery, further exacerbated by logistical challenges in accessing remote areas. Recruitment and procurement delays also slowed progress. In 2023, a SES implementation issue was identified at the Hunanawa community, leading to the creation of an SES action plan, which included halting remaining pilots and providing SES training to the country office and project team.

The project aimed to leverage derisking expertise and UNDP's global knowledge on off-grid solar technologies but did not engage a derisking expert. Key priorities included commissioning two project demos, finalizing financial and institutional models, implementing an SES action plan, and strengthening capacity-building for the project manager on UNDP and GEF regulations. Mitigation measures were developed for multiple risks, including government inaction on policy approval, limited local capacity, delays in co-financing, and reduced government commitment. These measures included policy advocacy, capacity-building interventions for MMERE and MECDM, and securing co-financing through improved stakeholder engagement. The project also focused on designing climate-resilient renewable energy systems, raising awareness, and ensuring economic feasibility. The PMU was advised to improve collaboration with partners, address safeguards, and enhance outcome documentation, including energy savings and GHG reductions.

## Annex 6: Questionnaire/checklist used and summary of results

**I. Guide questions for government officials**

1. **Relevance:** Does the project's objective align with the priorities and policies of the government of Solomon Island local, regional and national level?
2. **Coherence:** How consistent is the intervention with the efforts of other actors in the same context? To what extent does it demonstrate complementarity, harmonization, and coordination, and how effectively does it add value while avoiding duplication of efforts?
3. **Effectiveness:** What are the key factors contributing to project success (achievement) and risks/barrier that are responsible for under achievement?

4. **Efficiency:** Is the project implementation approach efficient/timeliness for delivering the planned project results?
5. **Sustainability:** To what extent are the project results dependent on socio-political factors? To what extent are the project results dependent on issues relating to institutional frameworks and governance?
6. **Impact:** Are impact level results contributed to reduced environmental stress and/or improved ecological status?
7. **Gender, risk assessment, and disability:** How did the project contribute to gender equality and women's empowerment, and in what ways did its gender results advance the project's outcomes? Is the project ensuring that the issues and concerns of people with disabilities are addressed?
8. **Human rights:** To what extent has the project integrated a "human rights-based approach" in the design, implementation, and monitoring of the project?
9. **Other (climate change mitigation and adaptation, disaster prevention and recovery):** To what extent has the project addressed the issues under "other" in the design, implementation and monitoring of the project?

**II. Guide questions for non-government officials**

1. **Relevance:** Does the project's objective align with the priorities and policies of the government of Solomon Island local, regional, and national levels?
2. **Coherence:** What synergies and interlinkages exist between this project's interventions and other initiatives undertaken by UNDP (internal coherence)?
3. **Effectiveness:** What are the key factors contributing to project success (achievement) and risks/barrier that are responsible for under achievement?
4. **Efficiency:** Is the project implementation approach efficient/timeliness for delivering the planned project results?
5. **Sustainability:** To what extent are the project results dependent on socio-political factors? To what extent are the project results dependent on issues relating to institutional frameworks and governance? Are there any environmental risks that can undermine the future flow of project impacts and Global Environmental benefits?
6. **Impact:** Are impact level results contributed to reduced environmental stress and/or improved ecological status?
7. **Gender, risk assessment and disability:** How did the project contribute to gender equality and women's empowerment, and in what ways did its gender results advance the project's outcomes? Is the project ensuring that the issues and concerns of people with disabilities are addressed?
8. **Human rights:** To what extent have project integrated "human rights based approach" in the design, implementation and monitoring of the project?
9. **Other (climate change mitigation and adaptation, disaster prevention and recovery):** To what extent has the project addressed the issues under "other" in the design, implementation and monitoring of the project?

**III. Guide questions for project staff and UNDP officials**

1. **Relevance:** Does the project objective fit GEF's focal area and strategic priorities?
2. **Coherence:** What synergies and interlinkages exist between this project's interventions and other initiatives undertaken by UNDP (internal coherence)?
3. **Effectiveness:** Are the project's expected outcomes and objectives likely to be met? To what extent are they likely to be met? What are the key factors contributing to project success (achievement) and risks/barrier that are responsible for under achievement?
4. **Efficiency:** Is the project cost-effective? Are expenditures in line with national and international norms and standards? To what extent is the project leveraging additional resources (co-financing)? Is the project implementation approach efficient/timeliness for delivering the planned project results?
5. **Sustainability:** To what extent will the project results depend on continued financial support, and is there a likelihood that the required resources will be available to sustain them after GEF assistance ends? To what extent are the project results dependent on socio-political factors? To what extent are the project results dependent on issues relating to institutional frameworks and governance? Are there any environmental risks that can undermine the future flow of project impacts and Global Environmental benefits?
6. **Impact:** Are the anticipated outcomes likely to contribute to the achievement of the project objective?
7. **Gender, risk assessment and disability:** How did the project contribute to gender equality and women's empowerment, and in what ways did its gender results advance the project's outcomes? Is the project ensuring that the issues and concerns of people with disabilities are addressed? How did the project identify different categories of risks, and how is it safeguarding against them through the SESP? How has SESP been instrumental in analyzing disaster risk reduction, climate change mitigation and adaptation, as well as crisis prevention and recovery?
8. **Human rights:** To what extent have project integrated "human rights based approach" in the design, implementation and monitoring of the project?
9. **Other (climate change mitigation and adaptation, disaster prevention and recovery):** To what extent has the project addressed the issues under "other" in the design, implementation and monitoring of the project?

**IV. Guide questions for community people**

1. How many individuals are on your committee/group/network, categorized by gender and any other special designations? How many women members hold significant or leadership positions? If the number of women is lower compared to men, what were the reasons behind this disparity?
2. In your view, what are some noteworthy strengths/good practices observed as a result of this project?
3. What areas could be improved to enhance the project's performance? Please provide some examples.
4. Have the government and project stakeholders allocated resources to ensure the success and continued operation and maintenance of the solar hybrid system? How committed are they to sustaining the outcomes of this system?

5. What are the key observable/transformable changes in people's lives, economy, and overall well-being as a result of this project? Can you provide some solid examples?
6. How comprehensively has the project integrated gender equality, women and other special group's empowerment throughout its design, implementation, and monitoring phases? Could you offer evidence and examples?
7. What was the overall partnership mechanism between the project's partners and the communities? What areas could be further improved?
8. Has the project effectively addressed the rights of marginalized and excluded populations through its services?
9. What is your overall feedback and what recommendations do you have for designing future projects of a similar nature? Which actions should be continued, which should be discontinued, and what additional activities or processes should be included to achieve a larger impact?

## Annex 7: Evaluation question matrix

| Evaluative criteria questions/sub-questions | Indicators | Data source | Methodology |
|---|---|---|---|
| **1. Relevance:** *How does the project relate to the main objectives of the GEF Focal area, and to the environment and development priorities at the local, regional and national level?* | | | |
| 1.1 Does the project's objective align with the priorities and policies of the government of Solomon Island local, regional and national level?<br>Sub-questions<br>• *Does the project's objective align with the priorities and policies of the Solomon Islands government?*<br>• *Does the project's objective reflect the priorities of local communities?* | • Level of coherence between project objectives and stated priorities of local stakeholders<br>• Linkages between project objectives and elements of the NDC, such as key articles and programs of work | Reports of government and IP<br>Relevant policies and project document<br>Media reports, case studies<br>PIR/PIMS/monitoring reports<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission | • KIIs<br>• Desk review<br>• Document analysis<br>• Data analysis |
| 1.2 Does the project objective fit GEF's focal area and strategic priorities?<br>Sub-questions<br>• *Does the project objective align with GEF's strategic priorities?*<br>• *Does the project objective support GEF's overarching goals?* | • Level of coherence between project objective and GEF strategic priorities (including alignment of relevant focal area indicators) | Reports of government and IP<br>Relevant policies and project document<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission<br>Media reports, case studies<br>PIR/PIMS/monitoring reports | • Desk review<br>• KIIs<br>• Document analysis<br>• Data analysis |
| **2. Coherence:** *What synergies and interlinkages exist between this intervention and other initiatives undertaken by UNDP? Additionally, how consistent is the intervention with the efforts of other actors operating in the same context?* | | | |
| 2.1 What synergies and interlinkages exist between this project's interventions and other initiatives undertaken by UNDP (internal coherence)?<br>• *How does the project align with UNDP's broader strategies and ongoing initiatives within the same thematic area or region?*<br>• *In what ways does the project leverage resources, knowledge, or partnerships from other UNDP interventions to enhance its impact and efficiency?* | • Measures how well the project's activities complement or integrate with UNDP's broader strategic goals or other initiatives in the same thematic area or region.<br>• Tracks instances of resource sharing, joint programming, or coordinated actions, as well as the effectiveness of these efforts in enhancing project outcomes. | Reports of government and IP<br>Relevant policies and project document<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission<br>Media reports, case studies<br>PIR/PIMS/monitoring reports | • Desk review<br>• KIIs<br>• Document analysis<br>• Data analysis<br>• |
| 2.2 How consistent is the intervention with the efforts of other actors in the same context? To what extent does it demonstrate complementarity, harmonization, and coordination, and how effectively does it add value while avoiding duplication of efforts?<br>• *How well does the intervention align with the priorities, strategies, and activities of other actors working in the same context?*<br>• *What mechanisms were used to ensure complementarity, harmonization, and coordination with other actors, and how successful were they in minimizing duplication while maximizing value?* | • Measures the level of collaboration and coordination with stakeholders working in the same context.<br>• Assesses the degree to which the intervention complements and harmonizes with the efforts of other actors while adding unique value | Reports of government and IP<br>Relevant policies and project document<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission<br>Media reports, case studies<br>PIR/PIMS/monitoring reports | • Desk review<br>• KIIs<br>• Document analysis<br>• Data analysis<br>• |
| **3. Effectiveness:** *To what extent have the expected outcomes and objectives of the project been achieved?* | | | |
| 3.1 Are the project's expected outcomes and objectives likely to be met? To what extent are they likely to be met?<br>Sub-questions<br>• *Are the project's expected outcomes and objectives likely to be achieved?*<br>• *To what extent are these outcomes and objectives likely to be fulfilled?* | • Level of progress toward project indicator targets relative to expected level at current point of implementation | Reports of government and IP<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission<br>Media reports, case studies<br>PIR/PIMS/monitoring reports<br>Meeting minutes<br>Training reports | • KIIs, FGDs<br>• Desk review<br>• Observation<br>• Document analysis<br>• Data analysis |

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|---|---|---|---|
| 3.2 What are the key factors contributing to project success (achievement) and risks/barrier that are responsible for under achievement?<br>Sub-questions<br>• *What are the key factors contributing to the project's success?*<br>• *What factors are contributing to any underachievement in the project?* | • Level of documentation of and preparation for project risks, assumptions and impact drivers | Reports of government and IP<br>Media reports, case studies<br>PIR/PIMS/monitoring reports<br>Meeting minutes<br>Training reports<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission | • KIIs, FGDs<br>• Desk review<br>• Observation<br>• Document analysis<br>• Data analysis |
| **4. Efficiency:** *Was the project implemented efficiently, in line with international and national norms and standards?* | | | |
| 4.1 Is the project cost-effective? Are expenditures in line with national and international norms and standards? To what extent is the project leveraging additional resources (co-financing)?<br>Sub-questions<br>• *Is the project cost-effective?*<br>• *Are the project expenditures in line with international standards and norms?* | • Quality and adequacy of financial management procedures (in line with UNDP and national policies, legislation, and procedures)<br>• Financial delivery rate vs. expected rate<br>• Management costs as a percentage of total costs<br>• Cost of project inputs and outputs relative to norms and standards for GEF projects in the country or region | Reports of government and IP<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission<br>Relevant policies and project document<br>Media reports, case studies<br>PIR/PIMS/monitoring reports<br>Meeting minutes<br>Training reports<br>Audit reports | • KIIs, FGDs<br>• Desk review<br>• Document analysis<br>• Data analysis |
| 4.2 Is the project implementation approach efficient/timeliness for delivering the planned project results?<br>Sub-questions<br>• *Is the project implementation approach efficient in delivering the planned results?*<br>• *Is the project being implemented in a timely manner to achieve the planned outcomes?* | • Adequacy of implementation structure and mechanisms for coordination and communication<br>• Planned and actual level of human resources available<br>• Extent and quality of engagement with relevant partners/partnerships<br>• Quality and adequacy of project monitoring mechanisms (oversight bodies' input, quality and timeliness of reporting, etc.)<br>• Project milestones in time<br>• Planned results affected by delays<br>• Required project adaptive management measures related to delays | Reports of government and IP<br>Media reports, case studies<br>PIR/PIMS/monitoring reports<br>Meeting minutes<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission<br>Training reports<br>Audit reports | • KIIs, FGDs<br>• Desk review<br>• Document analysis<br>• Data analysis |
| **5. Sustainability:** *To what extent are there financial, institutional, socio-political, and/or environmental risks to sustaining long-term project results?* | | | |
| 5.1 To what extent will the project results depend on continued financial support, and is there a likelihood that the required resources will be available to sustain them after GEF assistance ends?<br>Sub-questions<br>• *To what extent will the project results depend on continued financial support?*<br>• *Is there a likelihood that the required resources will be available to sustain the project results after GEF assistance ends?* | • Financial requirements for maintenance of project benefits<br>• Level of expected financial resources available to support maintenance of project benefits<br>• Potential for additional financial resources to support maintenance of project benefits | Reports of government and IP<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission<br>Media reports, case studies<br>PIR/PIMS/monitoring reports<br>Meeting minutes<br>Training reports<br>Audit reports | • KIIs, FGDs<br>• Desk review<br>• Document analysis<br>• Data analysis |

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|---|---|---|---|
| 5.2 To what extent are the project results dependent on socio-political factors?<br>Sub-questions<br>• *To what extent are the project results dependent on socio-political factors?*<br>• *How might socio-political factors influence the achievement of the project results?* | • Existence of socio-political risks to project benefits | Reports of government and IP<br>Media reports, case studies<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission<br>PIR/PIMS/monitoring reports<br>Meeting minutes<br>Training reports | • KIIs, FGDs<br>• Desk review<br>• Document analysis<br>• Data analysis |
| 5.3 To what extent are the project results dependent on issues relating to institutional frameworks and governance?<br>Sub-questions<br>• *To what extent are the project results dependent on institutional frameworks and governance?*<br>• *How might issues related to institutional frameworks and governance affect the project results?* | • Existence of institutional and governance risks to project benefits | Reports of government and IP<br>Media reports, case studies<br>PIR/PIMS/monitoring reports<br>Meeting minutes<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission<br>Training reports | • KIIs, FGDs<br>• Desk review<br>• Document analysis<br>• Data analysis |
| 5.4 Are there any environmental risks that can undermine the future flow of project impacts and Global Environmental benefits?<br>Sub-questions<br>• *Are there any environmental risks that could undermine the future impact of the project?*<br>• *How might these environmental risks affect the generation of global environmental benefits?* | • Existence of environmental risks to project benefits | Reports of government and IP<br>Media reports, case studies<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission<br>PIR/PIMS/monitoring reports<br>Meeting minutes<br>Training reports | • KIIs, FGDs<br>• Desk review<br>• Document analysis<br>• Data analysis |
| **6. Impact:** *Are there indications that the project has contributed to, or enabled progress toward reduced environmental stress and/or improved ecological status?* | | | |
| 6.1 Are the anticipated outcomes likely to contribute to the achievement of the project objective?<br>Sub-questions<br>• *Are the anticipated outcomes likely to contribute to the project's objective?*<br>• *How likely are the anticipated outcomes to help achieve the project's objective?* | • Existence of logical linkages between project outcomes and impacts | Media reports, case studies<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission<br>PIR/PIMS/monitoring reports<br>Meeting minutes<br>Training reports | • KIIs, FGDs<br>• Desk review<br>• Most significant change<br>• Document analysis<br>• Data analysis |
| 6.2 Are impact level results contributed to reduced environmental stress and/or improved ecological status?<br>Sub-questions<br>• *Have impact-level results contributed to reducing environmental stress?*<br>• *Have impact-level results improved the ecological status?* | • Environmental indicators<br>• Level of progress through the project's Theory of Change | Media reports, case studies<br>PIR/PIMS/monitoring reports<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission<br>Meeting minutes<br>Training reports | • KIIs, FGDs<br>• Desk review<br>• Most significant change<br>• Document analysis<br>• Data analysis |
| ***7. Cross-cutting issues*** | | | |

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| ***Gender, risk assessment and disability***<br>7.1 How did the project contribute to gender equality and women's empowerment, and in what ways did its gender results advance the project's outcomes? Is the project ensuring that the issues and concerns of people with disabilities are addressed?<br>Sub-questions<br>• *How did the project contribute to gender equality and women's empowerment?*<br>• *In what ways did the project's gender results advance its overall outcomes?*<br>• *Is the project ensuring that the issues and concerns of persons with disabilities (PwDs) are addressed?* | • Level of progress of gender action plan and gender indicators in results framework<br>• Existence of logical linkages between gender results and project outcomes and impacts<br>• Number of PwDs reached from the project services | Media reports, case studies<br>PIR/PIMS/monitoring reports<br>Meeting minutes<br>Training reports<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission | • KIIs, FGDs<br>• Desk review<br>• Document analysis<br>• Data analysis |
| 7.2 How did the project identify different categories of risks, and how is it safeguarding against them through the SESP? How has SESP been instrumental in analyzing disaster risk reduction, climate change mitigation and adaptation, as well as crisis prevention and recovery?<br>• *How did the project identify and categorize different risks, and what measures are in place to safeguard against them through the Social and Environmental Standards Procedure (SESP)?*<br>• *In what ways has SESP been instrumental in addressing key issues related to disaster risk reduction, climate change mitigation and adaptation, and crisis prevention and recovery?* | • Percentage of identified risks categorized and mitigated through the application of the Social and Environmental Standards Procedure (SESP) in project activities.<br>• Extent to which SESP has contributed to the analysis and integration of disaster risk reduction, climate change mitigation and adaptation, and crisis prevention and recovery in project design and implementation. | Media reports, case studies<br>PIR/PIMS/monitoring reports<br>Meeting minutes<br>Training reports<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission | • KIIs, FGDs<br>• Desk review<br>• Document analysis<br>• Data analysis<br>• |
| ***Human rights***<br>6.3 To what extent have project integrated "human rights based approach" in the design, implementation and monitoring of the project?<br>Sub-questions<br>• *To what extent has the project integrated a human rights-based approach in its design and implementation?*<br>• *How has the human rights-based approach been incorporated into the monitoring of the project?* | • Level of achievement (as laid out in the log-frame, target vs. achievements)<br>• Achievement of outputs (qualitative, quantitative) and description of activities<br>• Achievements on partnership, GESI and human rights | Media reports, case studies<br>PIR/PIMS/monitoring reports<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission<br>Meeting minutes<br>Training reports | • KIIs, FGDs<br>• Desk review<br>• Document analysis<br>• Data analysis |
| ***Other (climate change mitigation and adaptation, disaster prevention and recovery)***<br>6.2 To what extent has the project addressed the issues under "other" in the design, implementation and monitoring of the project?<br>Sub-questions<br>• *To what extent has the project addressed the issues categorized as "other" in its design, implementation, and monitoring phases?*<br>• *How effectively have these "other" issues been integrated into the project's overall strategy and evaluation process?* | • Percentage of project activities or components where "other" issues were explicitly incorporated during design, implementation, and monitoring stages.<br>• Percentage of stakeholders who agree or strongly agree that the project adequately addressed "other" issues throughout its design, implementation, and monitoring phases. | Media reports, case studies<br>PIR/PIMS/monitoring reports<br>Meeting minutes<br>Training reports<br>Project documentation<br>Websites<br>Project staff and project partners<br>Primary data collected during TE mission | • KIIs, FGDs<br>• Desk review<br>• Document analysis<br>• Data analysis |

## Annex 8: Summary of field visits (KII's note)

**Project design/formulation**

| Government/Ministries (PB members): 7 respondents | Private sector/Research agencies and academia: 2 respondents | International Banks: 2 respondents | UNDP (Project/ Programme/ Regional): 14 respondents |
|---|---|---|---|
| • Clear, practicable, and feasible project objectives aligned with national priorities (5).<br>• Maturity of components hindered by resource and time constraints. | • Strategic approach ensured alignment with goals and risk mitigation.<br>• No financial mismanagement reported by key informants or beneficiaries. | • Annual targets supported planning during design phase.<br>• Project coordination ensured synergy, complementarity, and best practice sharing (2).<br>• Clear, feasible objectives aligned with national priorities (1).<br>• Clear, feasible objectives aligned with national priorities. (1) | • ToC clearly defined; robust problem definition, root causes, desired outcomes.<br>• Analysis of barriers and enablers for achieving outcomes. |

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| • Appropriate NIM governance structure led by MMERE, supported by MECDM and other ministries.<br>• Risks clearly articulated in PIF and project document.<br>• Sustained support from national and provincial governments ensured during project tenure.<br>• 12 key risks identified remained relevant throughout implementation (6).<br>• Best practice: "Community Service Obligation" providing solar electrification to landowning communities and tribes.<br>• Clear, feasible objectives aligned with national priorities (5).<br>• Clear, feasible objectives aligned with national priorities (5)<br>• Strategic approach maintained goal alignment and mitigated risks (6)<br>• NIM governance structure was appropriate, with MMERE leading and supported by MECDM and other ministries (6)<br>• Absence of key stakeholders (Ministry of Finance, Chamber of Commerce, academia) hindered resource mobilization and planning (5)<br>• Key informants engaged and an action plan was developed, but allocated funds were not fully utilized (3)<br>• Project assumed continued support from national and provincial governments for sustainability post-conclusion (7)<br>• 12 key risks identified by the project remained relevant throughout implementation (7)<br>• Key risks included COVID-19, cyclones, political unrest, and climate change effects (7)<br>• Project coordination ensured synergy, complementarity, and sharing of best practices. (5)<br>• Selection followed inclusive consultations with clearly defined roles to avoid duplication and promote synergy. (5)<br>• Key informants acknowledged GAP's context-specific gender analysis prioritizing gender equality and women's empowerment in off-grid villages. (7) | • Absence of key stakeholders (Finance Ministry, Chamber of Commerce, academia) hindered resource mobilization and planning (2).<br>• Inclusive consultations ensured clear role definitions, avoiding duplication and fostering synergy.<br>• GAP acknowledged for context-specific gender analysis prioritizing gender equality in off-grid villages.<br>• Clear, feasible objectives aligned with national priorities (2).<br>• Clear, feasible objectives aligned with national priorities. (1)<br>• Strategic approach maintained goal alignment and mitigated risks. (1)<br>• NIM governance structure was appropriate, with MMERE leading and supported by MECDM and other ministries. (1)<br>• Absence of key stakeholders (Ministry of Finance, Chamber of Commerce, academia) hindered resource mobilization and planning. (1)<br>• Key informants engaged and an action plan was developed, but allocated funds were not fully utilized. (1)<br>• Project assumed continued support from national and provincial governments for sustainability post-conclusion. (1)<br>• Key risks included COVID-19, cyclones, political unrest, and climate change effects. (1)<br>• Project coordination ensured synergy, complementarity, and sharing of best practices. s (1)<br>• Selection followed inclusive consultations with clearly defined roles to avoid duplication and promote synergy. (2)<br>• Key informants acknowledged GAP's context-specific gender analysis prioritizing gender equality and women's empowerment in off-grid villages. (1) | • Strategic approach maintained goal alignment and mitigated risks. (1)<br>• NIM governance structure was appropriate, with MMERE leading and supported by MECDM and other ministries. (1)<br>• Absence of key stakeholders (Ministry of Finance, Chamber of Commerce, academia) hindered resource mobilization and planning. (1)<br>• Key risks included COVID-19, cyclones, political unrest, and climate change effects. (1)<br>• Project coordination ensured synergy, complementarity, and sharing of best practices. (1)<br>• Key informants acknowledged the GAP's context-specific gender analysis, which prioritized gender equality and women's empowerment, particularly in off-grid village settings (2) | • Externalities: COVID-19, cyclones, political unrest (Honiara riots), climate change impacts (11).<br>• Staff turnover at UNDP CO, PMU, and PB affected progress.<br>• Outcomes and outputs aligned with ToC; outputs designed to contribute to outcomes.<br>• Objectives and outcomes clearly defined; SMART indicators with numerical targets and time frames (13).<br>• Clear, feasible objectives aligned with national priorities(12)<br>• Clear, feasible objectives aligned with national priorities. (13)<br>• Strategic approach maintained goal alignment and mitigated risks. (12)<br>• NIM governance structure was appropriate, with MMERE leading and supported by MECDM and other ministries. (12)<br>• Absence of key stakeholders (Ministry of Finance, Chamber of Commerce, academia) hindered resource mobilization and planning. (11)<br>• Key informants engaged and an action plan was developed, but allocated funds were not fully utilized. (10)<br>• Project assumed continued support from national and provincial governments for sustainability post-conclusion. (12)<br>• 12 key risks identified by the project remained relevant throughout implementation. (13)<br>• Key risks included COVID-19, cyclones, political unrest, and climate change effects. (14)<br>• Project coordination ensured synergy, complementarity, and sharing of best practices. (11)<br>• Selection followed inclusive consultations with clearly defined roles to avoid duplication and promote synergy. (14)<br>• Key informants acknowledged GAP's context-specific gender analysis prioritizing gender equality and women's empowerment in off-grid villages. (13) |

**Project implementation**

| Government/Ministries (PB members): 7 respondents | Private sector/Research agencies and academia: 2 respondents | International Banks: 2 respondents | UNDP (Project/ Programme/ Regional): 14 respondents |
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| • Leadership gap hindered policy change and adaptability.<br>• Clear co-financing arrangements.<br>• Systematic approach strengthened risk management.<br>• Compliance with established safeguards ensured.<br>• Effective risk management throughout implementation.<br>• Grievance redress mechanism operational and accessible.<br>• Transparent online platform for stakeholders to raise concerns.<br>• Strong UNDP annual reporting and risk management (2). | • Participatory approach adopted through workshops and meetings.<br>• Responsiveness to emerging issues ensured robust oversight.<br>• No concerns raised about project implementation or oversight quality.<br>• Effective safeguards management maximized social and environmental benefits (2).<br>• Minimal revisions to the SESP during project duration. | • Limited engagement with institutions for adopting pilot models.<br>• Minimal interaction with entities for regulatory reforms.<br>• Restricted potential for systemic change in RE applications.<br>• Efficient fund utilization by IP.<br>• Transparent procurement processes (2).<br>• Effective service contracting by IP. | • Consulted women's groups, NGOs, CSOs, and women's ministries.<br>• Incorporated women's inputs into decision-making (12).<br>• Room for improvement in targeted approaches for women.<br>• Need to amplify women's voices for equitable outcomes.<br>• Confidence in grievance redress system.<br>• Commended system's responsiveness.<br>• Timely resolution of grievances. |

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| • Despite a participatory approach, execution gaps hindered the project's effectiveness. (3)<br>• Opportunity to strengthen engagement with institutions for adopting pilot models and influencing renewable energy policies. (6)<br>• Project consulted women's groups, NGOs, CSOs, and ministries, incorporating their inputs into decision-making. (5)<br>• Room for improvement in targeted approaches to amplify women's voices and achieve equitable outcomes. (3)<br>• Adjustments were appropriate, relevant, and positively contributed to project performance. (6)<br>• Absence of defined tracking procedures limited co-financing potential, despite clear arrangements. (5)<br>• IP's strong annual reporting, risk management, and responsiveness ensured robust oversight of environmental and social risks. (7)<br>• Key informants commended IP's efficient fund use, transparent procurement, and effective service contracting. (6)<br>• Transparent procurement processes enhanced the project's credibility and efficiency. (5)<br>• Systematic approach strengthened risk management and promoted safeguard compliance throughout project implementation. (5)<br>• Effective safeguards management maximized social and environmental benefits while minimizing risks. (5)<br>• Grievance redress mechanism was effectively operationalized, providing stakeholders with a transparent, accessible platform. (7)<br>• Praised the system's responsiveness and timely grievance resolution, contributing to project integrity and stakeholder satisfaction. (5) | • Despite a participatory approach, execution gaps hindered the project's effectiveness. (1)<br>• Opportunity to strengthen engagement with institutions for adopting pilot models and influencing renewable energy policies. (2)<br>• Project consulted women's groups, NGOs, CSOs, and ministries, incorporating their inputs into decision-making. (1)<br>• Room for improvement in targeted approaches to amplify women's voices and achieve equitable outcomes. (1)<br>• Adjustments were appropriate, relevant, and positively contributed to project performance. (1)<br>• Absence of defined tracking procedures limited co-financing potential, despite clear arrangements. (1)<br>• IP's strong annual reporting, risk management, and responsiveness ensured robust oversight of environmental and social risks. (2)<br>• Key informants commended IP's efficient fund use, transparent procurement, and effective service contracting. (2)<br>• Transparent procurement processes enhanced the project's credibility and efficiency. (2)<br>• Systematic approach strengthened risk management and promoted safeguard compliance throughout project implementation. (2)<br>• Effective safeguards management maximized social and environmental benefits while minimizing risks. (2)<br>• Grievance redress mechanism was effectively operationalized, providing stakeholders with a transparent, accessible platform. (2)<br>• Praised the system's responsiveness and timely grievance resolution, contributing to project integrity and stakeholder satisfaction. (2) | • Opportunity to strengthen engagement with institutions for adopting pilot models and influencing renewable energy policies. (2)<br>• Project consulted women's groups, NGOs, CSOs, and ministries, incorporating their inputs into decision-making. (1)<br>• Room for improvement in targeted approaches to amplify women's voices and achieve equitable outcomes. (1)<br>• Adjustments were appropriate, relevant, and positively contributed to project performance. (1)<br>• Absence of defined tracking procedures limited co-financing potential, despite clear arrangements. (1)<br>• IP's strong annual reporting, risk management, and responsiveness ensured robust oversight of environmental and social risks. (2)<br>• Key informants commended IP's efficient fund use, transparent procurement, and effective service contracting. (2)<br>• Transparent procurement processes enhanced the project's credibility and efficiency. (2)<br>• Systematic approach strengthened risk management and promoted safeguard compliance throughout project implementation. (2)<br>• Effective safeguards management maximized social and environmental benefits while minimizing risks. (2)<br>• Grievance redress mechanism was effectively operationalized, providing stakeholders with a transparent, accessible platform. | • Contributed to maintaining project integrity.<br>• Enhanced stakeholder satisfaction.<br>• Despite a participatory approach, execution gaps hindered the project's effectiveness. (9)<br>• Opportunity to strengthen engagement with institutions for adopting pilot models and influencing renewable energy policies. (12)<br>• Project consulted women's groups, NGOs, CSOs, and ministries, incorporating their inputs into decision-making. (11)<br>• Room for improvement in targeted approaches to amplify women's voices and achieve equitable outcomes. (8)<br>• Adjustments were appropriate, relevant, and positively contributed to project performance. (13)<br>• Absence of defined tracking procedures limited co-financing potential, despite clear arrangements. (14)<br>• IP's strong annual reporting, risk management, and responsiveness ensured robust oversight of environmental and social risks. (12)<br>• Key informants commended IP's efficient fund use, transparent procurement, and effective service contracting. (11)<br>• Transparent procurement processes enhanced the project's credibility and efficiency. (13)<br>• Systematic approach strengthened risk management and promoted safeguard compliance throughout project implementation. (13)<br>• Effective safeguards management maximized social and environmental benefits while minimizing risks. (14)<br>• Grievance redress mechanism was effectively operationalized, providing stakeholders with a transparent, accessible platform. (12)<br>• Praised the system's responsiveness and timely grievance resolution, contributing to project integrity and stakeholder satisfaction. (10) |

**Relevance**

| Government/Ministries (PB members): 7 respondents | Private sector/Research agencies and academia: 2 respondents | International Banks: 2 respondents | UNDP (Project/ Programme/ Regional): 14 respondents |
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| • Project aligned with SIG, UNDP and GEF strategic priorities (6).<br>• Foundation resonated with UNDP's plan.<br>• Relevant to GEF strategic goals, particularly CCM 1 Program 1.<br>• Active stakeholder participation and in-depth consultations ensured diverse perspectives were considered in the project's direction. (6)<br>Project was highly relevant and complementary to ongoing initiatives. (6) | • Active participation of relevant stakeholders (2).<br>• Diverse perspectives considered.<br>• In-depth consultations informed project direction.<br>• Active stakeholder participation and in-depth consultations ensured diverse perspectives were considered in the project's direction. 2)<br>• Project was highly relevant and complementary to ongoing initiatives. (2) | • International Development Bank support.<br>• ADB and WB involvement.<br>• Energy sector reforms (2).<br>• Solar micro-grids in provincial centers.<br>• Active stakeholder participation and in-depth consultations ensured diverse perspectives were considered in the project's direction. (2)<br>• Project was highly relevant and complementary to ongoing initiatives. (2) | • Project relevance.<br>• Complementary to ongoing initiatives (11).<br>• Alignment with existing efforts.<br>• Energy-related studies, policies, and tariff assessments.<br>• Active stakeholder participation and in-depth consultations ensured diverse perspectives were considered in the project's direction. (13)<br>Project was highly relevant and complementary to ongoing initiatives. (14) |

**Coherence**

| Government/Ministries (PB members): 7 respondents | Private sector/Research agencies and academia: 2 respondents | International Banks: 2 respondents | UNDP (Project/ Programme/ Regional): 14 respondents |
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| • Strengthened synergies within UNDP initiatives (5).<br>• Leveraged existing and planned efforts.<br>• Focus on rural electrification, RE, and EE.<br>• Enhanced internal coherence within UNDP projects in Solomon Islands.<br>• Project strengthened synergies and coherence within UNDP initiatives, leveraging efforts in rural electrification, RE, and EE in the Solomon Islands. (6)<br>• UNDP Country Office provided oversight through regular meetings and site missions, though staff turnover at RCC posed challenges. (5)<br>• Project fostered integration and collaboration with stakeholders like SIEA, local communities, and UNDP Pacific-Solomon Islands Office through consultations and workshops. (6) | • Regular board meetings and engagement with TWGs (2).<br>• Missions to project sites organized.<br>• Project strengthened synergies and coherence within UNDP initiatives, leveraging efforts in rural electrification, RE, and EE in the Solomon Islands.<br>• (2)<br>• UNDP Country Office provided oversight through regular meetings and site missions, though staff turnover at RCC posed challenges.<br>• (2)<br>• Project fostered integration and collaboration with stakeholders like SIEA, local communities, and UNDP Pacific-Solomon Islands Office through consultations and workshops. (2) | • Integration and collaboration with stakeholders (SIEA, local communities, UNDP Pacific-Solomon Islands Office) (2).<br>• Project strengthened synergies and coherence within UNDP initiatives, leveraging efforts in rural electrification, RE, and EE in the Solomon Islands.<br>• (2)<br>• Project fostered integration and collaboration with stakeholders like SIEA, local communities, and UNDP Pacific-Solomon Islands Office through consultations and workshops. (2) | • Consultations and technical workshops.<br>• Joint development activities<br>• UNDP Country Office oversight in Solomon Islands.<br>• Frequent staff turnover at RCC posed challenges (12).<br>• Project strengthened synergies and coherence within UNDP initiatives, leveraging efforts in rural electrification, RE, and EE in the Solomon Islands. (14)<br>• UNDP Country Office provided oversight through regular meetings and site missions, though staff turnover at RCC posed challenges. (10)<br>• Project fostered integration and collaboration with stakeholders like SIEA, local communities, and UNDP Pacific-Solomon Islands Office through consultations and workshops. (12) |

**Effectiveness**

| Government/Ministries (PB members): 7 respondents | Private sector/Research agencies and academia: 2 respondents | International Banks: 2 respondents | UNDP (Project/ Programme/ Regional): 14 respondents |
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| • Transforming energy sector in Solomon Islands (6).<br>• Operationalizing key energy initiatives.<br>• Strengthening MMERE and relevant agencies' capacity.<br>• Focus on rural electrification.<br>• Increased women participation in community-based RESCOs.<br>• Support from village women to enhance leadership confidence<br>• The project did not plan or implement rural electrification projects based on the findings of DREI assessments due to delays in executing key activities, such as techno-economic feasibility studies. In addition, follow-up projects for scale-ups and replications were not formally planned, and the maintenance of demonstration projects remains limited(7)<br>• Highlighted challenges such as logistical hurdles and high costs of transporting materials to remote outer islands. (7)<br>• Pandemic caused delays in training, staff mobilization, and material transportation. (7)<br>• Project adhered to mitigation measures, ensuring no significant risks undermined overall performance. (6)<br>• Project contributed to gender equality and women's empowerment through a human rights-based approach, though at varying levels. (6) | • Adherence to mitigation measures to minimize impact.<br>• No significant risks undermining project performance (2).<br>• Implementation of key strategies for effectiveness.<br>• Contributions to gender equality and women's empowerment.<br>• The project did not plan or implement rural electrification projects based on the findings of DREI assessments due to delays in executing key activities, such as techno-economic feasibility studies. In addition, follow-up projects for scale-ups and replications were not formally planned, and the maintenance of demonstration projects remains limited (2)<br>• Highlighted challenges such as logistical hurdles and high costs of transporting materials to remote outer islands. (2)<br>• Pandemic caused delays in training, staff mobilization, and material transportation. (2)<br>• Project adhered to mitigation measures, ensuring no significant risks undermined overall performance. undermine the project's overall performance (2)<br>• Project contributed to gender equality and women's empowerment through a human rights-based approach, though at varying levels. (1) | • Key measures implemented to overcome project challenges.<br>• Gender-responsive strategies addressing women's needs in off-grid areas (2).<br>• The project did not plan or implement rural electrification projects based on the findings of DREI assessments due to delays in executing key activities, such as techno-economic feasibility studies. In addition, follow-up projects for scale-ups and replications were not formally planned, and the maintenance of demonstration projects remains limited (1)<br>• Highlighted challenges such as logistical hurdles and high costs of transporting materials to remote outer islands. (1)<br>• Pandemic caused delays in training, staff mobilization, and material transportation. (2)<br>• Project adhered to mitigation measures, ensuring no significant risks undermined overall performance. (1)<br>• Project contributed to gender equality and women's empowerment through a human rights-based approach, though at varying levels. (1) | • Extension not implemented due to resource constraints.<br>• Cost-saving measure not explored: reducing PMU staff.<br>• Support for women's economic empowerment through targeted strategies.<br>• Skills, training, and economic opportunities for women's empowerment.<br>• Human rights-based approach integrated throughout design and implementation (11).<br>• The project did not plan or implement rural electrification projects based on the findings of DREI assessments due to delays in executing key activities, such as techno-economic feasibility studies. In addition, follow-up projects for scale-ups and replications were not formally planned, and the maintenance of demonstration projects remains limited (8)<br>• Highlighted challenges such as logistical hurdles and high costs of transporting materials to remote outer islands. (14)<br>• Pandemic caused delays in training, staff mobilization, and material transportation. (14)<br>• Project adhered to mitigation measures, ensuring no significant risks undermined overall performance. (14)<br>• Project contributed to gender equality and women's empowerment through a human rights-based approach, though at varying levels. (14) |

**Efficiency**

| Government/Ministries (PB members): 7 respondents | Private sector/Research agencies and academia: 2 respondents | International Banks: 2 respondents | UNDP (Project/ Programme/ Regional): 14 respondents |
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| • Effective PMU-led implementation strategy.<br>• Accelerated activities to meet outcomes within budget. | • Achieved planned outcomes on time, cost-effectively. | • Project's training unit cost lower than similar initiatives. | • Inclusive practices and targeted interventions. |

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| • Transparent financial management and adherence to SIG procurement protocols (5).<br>• Addressed systemic inequalities and empowered marginalized groups.<br>• Enhanced social inclusion, economic participation, and equitable access to clean energy.<br>• Transparent financial management and adherence to SIG procurement protocols, though spending disparity led to challenges. (5)<br>• PMU-led implementation strategy effective in accelerating activities, ensuring budget outcomes, and maintaining transparent financial management and SIG procurement adherence. (5)<br>• Project's training unit cost was lower than similar initiatives by other development agencies in the Solomon Islands. (6)<br>• Project's investment in inclusive practices and targeted interventions, empowering marginalized groups and enhancing women's roles in decision-making. (5)<br>• Addressing systemic inequalities and empowering marginalized groups enhanced social inclusion and ensured equitable access to clean energy. (5)<br>• Project addressed systemic barriers and improved access to clean energy by focusing on vulnerable populations in the outer islands. (7)<br>• Transparent financial management and adherence to SIG procurement protocols, ensuring efficient resource use. (6)<br>• Contributions to gender equality and women's empowerment through a human rights-based approach, albeit at varying levels. (6) | • Focused on vulnerable populations in outer islands, addressed systemic barriers (2).<br>• Improved access to clean, affordable energy.<br>• Transparent financial management and adherence to SIG procurement protocols, though spending disparity led to challenges. (1)<br>• PMU-led implementation strategy effective in accelerating activities, ensuring budget outcomes, and maintaining transparent financial management and SIG procurement adherence. (2)<br>• Project's training unit cost was lower than similar initiatives by other development agencies in the Solomon Islands. (2)<br>• Project's investment in inclusive practices and targeted interventions, empowering marginalized groups and enhancing women's roles in decision-making. (2)<br>• Addressing systemic inequalities and empowering marginalized groups enhanced social inclusion and ensured equitable access to clean energy. (2)<br>• Project addressed systemic barriers and improved access to clean energy by focusing on vulnerable populations in the outer islands. (2)<br>• Transparent financial management and adherence to SIG procurement protocols, ensuring efficient resource use. (2)<br>• Contributions to gender equality and women's empowerment through a human rights-based approach, albeit at varying levels. (1) | • More cost-effective than other development agencies' training programs in the Solomon Islands (2).<br>• PMU-led implementation strategy effective in accelerating activities, ensuring budget outcomes, and maintaining transparent financial management and SIG procurement adherence. (1)<br>• Project's investment in inclusive practices and targeted interventions, empowering marginalized groups and enhancing women's roles in decision-making. (2)<br>• Addressing systemic inequalities and empowering marginalized groups enhanced social inclusion and ensured equitable access to clean energy. (1)<br>• Project addressed systemic barriers and improved access to clean energy by focusing on vulnerable populations in the outer islands. (2)<br>• Transparent financial management and adherence to SIG procurement protocols, ensuring efficient resource use.<br>• (2)<br>• Contributions to gender equality and women's empowerment through a human rights-based approach, albeit at varying levels. (2) | • Policy development, capacity-building, technology transfer (8).<br>• Institutionalized project activities.<br>• Empowered marginalized groups.<br>• Enhanced women's roles in decision-making.<br>• UNDP budget disbursed within 1-2 months, but delays impacted implementation pace.<br>• Activities expedited to meet deadlines.<br>• Completed key milestones: PIF approval, CEO endorsement, ProDoc signing, inception workshop.<br>• Transparent financial management and adherence to SIG procurement protocols, though spending disparity led to challenges. (10)<br>• PMU-led implementation strategy effective in accelerating activities, ensuring budget outcomes, and maintaining transparent financial management and SIG procurement adherence. (10)<br>• Project's training unit cost was lower than similar initiatives by other development agencies in the Solomon Islands. (11)<br>• Project's investment in inclusive practices and targeted interventions, empowering marginalized groups and enhancing women's roles in decision-making. (12)<br>• Addressing systemic inequalities and empowering marginalized groups enhanced social inclusion and ensured equitable access to clean energy. (11)<br>• Project addressed systemic barriers and improved access to clean energy by focusing on vulnerable populations in the outer islands. (13)<br>• Transparent financial management and adherence to SIG procurement protocols, ensuring efficient resource use. (12)<br>• Contributions to gender equality and women's empowerment through a human rights-based approach, albeit at varying levels. (14) |

**Sustainability**

| Government/Ministries (PB members): 7 respondents | Private sector/Research agencies and academia: 2 respondents | International Banks: 2 respondents | UNDP (Project/ Programme/ Regional): 14 respondents |
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| • Transformed rural communities, strong sense of ownership of solar PV systems (5).<br>• Climate change mitigation prioritized by governments, supported by UNFCCC commitment.<br>• Increased awareness of RE and its productive applications.<br>• Success driven by PMU staff dedication, pre-implementation planning, community and school participation, technical expertise of local contractors.<br>• Emphasis on long-term capacity-building, dissemination of information, strengthening knowledge on climate change and GHG reduction.<br>• Effective management of environmental risks, including natural disasters (typhoons, salinization, droughts, flash floods, landslides). | • Financing for scaling up/replicating projects depends on addressing regulatory/technical barriers, success of demonstration initiatives.<br>• RE policies modified to support gender inclusivity, laying foundation for equitable benefits and long-term gender equity in energy sector (2).<br>• Efforts to develop PPPs, document financial mechanisms, and scale up financing through partnerships and market-driven approaches. (2)<br>• Project's transformative impact on rural communities and the strong sense of ownership of solar PV systems it fostered. (2)<br>• Minimal risks as the IP collaborates with agencies like Solomon Power to finalize pricing structures, fee collection, and utilization plans. (2) | • Creating enabling environment for continued financing requires completing policy work to unlock sustainable funding pathways, sharing knowledge with partners through concise documentation (2).<br>• Expanding RE in rural areas, collecting impact testimony, supporting national development measures, solidified role as bridge to future RE initiatives.<br>• Created enabling conditions, including policies and investment plans, to support rural electrification and sustainability of off-grid RE power generation.<br>• Efforts to develop PPPs, document financial mechanisms, and scale up financing through partnerships and market-driven approaches. (2) | • No immediate or foreseeable socio-political risks to project outcomes, rural electrification a national priority in SIG, strong local beneficiary support, alignment with national development goals.<br>• Developed knowledge products to facilitate technical knowledge transfer, strengthening accountability and transparency.<br>• Established solar committees focused on upkeep of installed PV systems.<br>• No significant environmental risks identified, project mitigated potential concerns like waste disposal.<br>• Notable initiatives, like increasing female representation in decision-making, addressing gender-based violence, reflect growing human rights commitment. |

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| • Technicians well-versed in proper installation, storage, disposal procedures; failure to follow regulations could increase environmental risks.<br>• TWGs provided valuable support, but stakeholder engagement declined after inception due to staff turnover and limited follow-up from PMU/UNDP CO.<br>• Efforts to develop PPPs, document financial mechanisms, and scale up financing through partnerships and market-driven approaches. (6)<br>• Project's transformative impact on rural communities and the strong sense of ownership of solar PV systems it fostered. (6)<br>• Minimal risks as the IP collaborates with agencies like Solomon Power to finalize pricing structures, fee collection, and utilization plans. (6)<br>• Need for policy completion and knowledge sharing to enable sustainable financing and document project outcomes effectively. (5)<br>• Collaborative efforts strengthened financial management foundations and supported resource continuity. (4)<br>• Surplus solar power supports livelihood initiatives, while business models for demo sites await PPP engagement. (6)<br>• No immediate socio-political risks due to strong alignment with national priorities and local support. (7)<br>• Climate change mitigation as a higher priority than GHG reduction concerns, aligned with national and UNFCCC commitments. (6)<br>• TWGs' valuable support but observed declining stakeholder engagement post-inception due to staff turnover and limited follow-up. (2)<br>• Expanding RE in rural areas and supporting national development measures strengthened the project's role as a bridge to future RE initiatives. (7)<br>• Increased awareness about RE and its productive applications. (4)<br>• Success to PMU staff dedication, planning, community and school involvement, and local contractors' technical expertise. (5)<br>• RE policies were modified to support gender inclusivity, promoting sustained benefits and long-term gender equity in the energy sector. (6)<br>• Created enabling conditions through policies and investment plans to support rural electrification and ensure sustainability of off-grid RE power generation. (5)<br>• Developed knowledge products to facilitate technical knowledge transfer, strengthening accountability and transparency mechanisms. (4)<br>• Emphasized long-term capacity-building for continuous information dissemination and strengthening | • Need for policy completion and knowledge sharing to enable sustainable financing and document project outcomes effectively. (1)<br>• Collaborative efforts strengthened financial management foundations and supported resource continuity. (1)<br>• Surplus solar power supports livelihood initiatives, while business models for demo sites await PPP engagement. (2)<br>• No immediate socio-political risks due to strong alignment with national priorities and local support. (2)<br>• Climate change mitigation as a higher priority than GHG reduction concerns, aligned with national and UNFCCC commitments. (2)<br>• TWGs' valuable support but observed declining stakeholder engagement post-inception due to staff turnover and limited follow-up. (2)<br>• Expanding RE in rural areas and supporting national development measures strengthened the project's role as a bridge to future RE initiatives. (2)<br>• Increased awareness about RE and its productive applications. (1)<br>• Success to PMU staff dedication, planning, community and school involvement, and local contractors' technical expertise. (1)<br>• RE policies were modified to support gender inclusivity, promoting sustained benefits and long-term gender equity in the energy sector. (2)<br>• Created enabling conditions through policies and investment plans to support rural electrification and ensure sustainability of off-grid RE power generation. (2)<br>• Developed knowledge products to facilitate technical knowledge transfer, strengthening accountability and transparency mechanisms. (1)<br>• Emphasized long-term capacity-building for continuous information dissemination and strengthening knowledge on climate change mitigation and GHG reduction. (2)<br>• Project leadership can adapt to future institutional and governance changes, including shifts in political leadership. (2)<br>• Project strategies are being effectively mainstreamed into future energy planning with a focus on long-term sustainability of institutional and coordination structures. (2)<br>• Initiatives like increasing female representation in decision-making and addressing gender-based violence reflect a growing commitment to human rights. (2) | • Project's transformative impact on rural communities and the strong sense of ownership of solar PV systems it fostered. (1)<br>• Minimal risks as the IP collaborates with agencies like Solomon Power to finalize pricing structures, fee collection, and utilization plans. (2)<br>• Need for policy completion and knowledge sharing to enable sustainable financing and document project outcomes effectively. (1)<br>• Collaborative efforts strengthened financial management foundations and supported resource continuity. (1)<br>• No immediate socio-political risks due to strong alignment with national priorities and local support. (2)<br>• Climate change mitigation as a higher priority than GHG reduction concerns, aligned with national and UNFCCC commitments. (2)<br>• TWGs' valuable support but observed declining stakeholder engagement post-inception due to staff turnover and limited follow-up. (2)<br>• Expanding RE in rural areas and supporting national development measures strengthened the project's role as a bridge to future RE initiatives. (2)<br>• Increased awareness about RE and its productive applications. (1)<br>• Success to PMU staff dedication, planning, community and school involvement, and local contractors' technical expertise. (1)<br>• RE policies were modified to support gender inclusivity, promoting sustained benefits and long-term gender equity in the energy sector. (2)<br>• Created enabling conditions through policies and investment plans to support rural electrification and ensure sustainability of off-grid RE power generation. (1)<br>• Emphasized long-term capacity-building for continuous information dissemination and strengthening knowledge on climate change mitigation and GHG reduction. (1)<br>• Project leadership can adapt to future institutional and governance changes, including shifts in political leadership. (2)<br>• Project strategies are being effectively mainstreamed into future energy planning with a focus on long-term sustainability of institutional and coordination structures. (1)<br>• Initiatives like increasing female representation in decision-making and addressing gender-based violence reflect a growing commitment to human rights. (2) | • Project leadership adaptable to future institutional/governance changes, including shifts in political leadership.<br>• Project strategies being mainstreamed into future energy planning, focusing on long-term sustainability of institutional and coordination structures (12).<br>• PMU successfully advocated for policy approval, strengthened institutional sustainability by training local technicians for O&M support.<br>• Efforts to develop PPPs, document financial mechanisms, and scale up financing through partnerships and market-driven approaches. (14)<br>• Project's transformative impact on rural communities and the strong sense of ownership of solar PV systems it fostered. (12)<br>• Minimal risks as the IP collaborates with agencies like Solomon Power to finalize pricing structures, fee collection, and utilization plans. (12)<br>• Need for policy completion and knowledge sharing to enable sustainable financing and document project outcomes effectively. (12)<br>• Collaborative efforts strengthened financial management foundations and supported resource continuity. (10)<br>• Surplus solar power supports livelihood initiatives, while business models for demo sites await PPP engagement. (11)<br>• No immediate socio-political risks due to strong alignment with national priorities and local support. (14)<br>• Climate change mitigation as a higher priority than GHG reduction concerns, aligned with national and UNFCCC commitments. (12)<br>• TWGs' valuable support but observed declining stakeholder engagement post-inception due to staff turnover and limited follow-up. (14)<br>• Expanding RE in rural areas and supporting national development measures strengthened the project's role as a bridge to future RE initiatives. (12)<br>• Increased awareness about RE and its productive applications. (8)<br>• Success to PMU staff dedication, planning, community and school involvement, and local contractors' technical expertise. (9)<br>• RE policies were modified to support gender inclusivity, promoting sustained benefits and long-term gender equity in the energy sector. (9)<br>• Created enabling conditions through policies and investment plans to support rural electrification and ensure sustainability of off-grid RE power generation. (9)<br>• Emphasized long-term capacity-building for continuous information dissemination and strengthening knowledge on climate change mitigation and GHG reduction. (12)<br>• Project leadership can adapt to future institutional and governance changes, including shifts in political leadership. (8) |

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|---|---|---|---|
| knowledge on climate change mitigation and GHG reduction. (5)<br>• Project leadership can adapt to future institutional and governance changes, including shifts in political leadership. (6)<br>• Project strategies are being effectively mainstreamed into future energy planning with a focus on long-term sustainability of institutional and coordination structures. (7)<br>• Initiatives like increasing female representation in decision-making and addressing gender-based violence reflect a growing commitment to human rights. (6) | | | • Project strategies are being effectively mainstreamed into future energy planning with a focus on long-term sustainability of institutional and coordination structures. (14)<br>• Initiatives like increasing female representation in decision-making and addressing gender-based violence reflect a growing commitment to human rights. (10) |

**Gender equality and women's empowerment**

| Government/Ministries (PB members): 7 respondents | Private sector/Research agencies and academia: 2 respondents | International Banks: 2 respondents | UNDP (Project/ Programme/ Regional): 14 respondents |
|---|---|---|---|
| • Effective engagement of women and marginalized groups (5).<br>• Involvement in key activities, decision-making, and leadership roles.<br>• Improved socio-economic opportunities.<br>• The project effectively engaged women and marginalized groups. (5)<br>• Gender-inclusive solar committees enabled women to influence decisions, ensuring equitable access to energy and improving socio-economic opportunities. (7)<br>• The project's gender initiatives were relevant, efficient, sustainable, and positively impacted women's livelihoods, leadership, and socio-economic resilience. (6) | • Gender-inclusive solar committees.<br>• Women influencing decisions.<br>• Equitable access to energy services (2).<br>• The project effectively engaged women and marginalized groups. (2)<br>• Gender-inclusive solar committees enabled women to influence decisions, ensuring equitable access to energy and improving socio-economic opportunities. (2)<br>• The project's gender initiatives were relevant, efficient, sustainable, and positively impacted women's livelihoods, leadership, and socio-economic resilience. (2) | • Relevant, efficient, and sustainable gender initiatives (2).<br>• The project effectively engaged women and marginalized groups. (1)<br>• The project's gender initiatives were relevant, efficient, sustainable, and positively impacted women's livelihoods, leadership, and socio-economic resilience. (2) | • Positive impacts on women's livelihoods.<br>• Enhanced women's leadership.<br>• Strengthened socio-economic resilience (10)<br>• The project effectively engaged women and marginalized groups. (13)<br>• Gender-inclusive solar committees enabled women to influence decisions, ensuring equitable access to energy and improving socio-economic opportunities. (10)<br>• The project's gender initiatives were relevant, efficient, sustainable, and positively impacted women's livelihoods, leadership, and socio-economic resilience. (12) |

**Cross-cutting issues**

| Government/Ministries (PB members): 7 respondents | Private sector/Research agencies and academia: 2 respondents | International Banks: 2 respondents | UNDP (Project/ Programme/ Regional): 14 respondents |
|---|---|---|---|
| • Positive impact on local populations.<br>• Income generation and job creation through improved energy access (6).<br>• Solar PV systems supported poverty reduction.<br>• Provided clean, renewable energy.<br>• Reduced reliance on fossil fuels.<br>• Supported income-generating activities.<br>• The initiatives aligned well with UNDP's Country Program priorities, advancing inclusive growth, climate resilience, and sustainable development. (5)<br>• Positive impact on local populations: income generation, job creation, improved energy access. (4)<br>• Systems designed to withstand extreme weather in the Solomon Islands. (7)<br>• Systems reduced energy costs, supported businesses, education, healthcare, and communication, promoting socio-economic development and inclusivity in underserved areas. (5)<br>• Solar PV systems contributed to poverty reduction by providing clean RE, reducing fossil fuel reliance, and supporting income-generating activities. (5)<br>• Approach empowered communities, upheld rights to energy, health, and economic opportunities, and | • Systems designed for extreme disaster resilience (2).<br>• Empowered communities.<br>• The initiatives aligned well with UNDP's Country Program priorities, advancing inclusive growth, climate resilience, and sustainable development. (2)<br>• Positive impact on local populations: income generation, job creation, improved energy access. (2)<br>• Systems designed to withstand extreme weather in the Solomon Islands. (2)<br>• Systems reduced energy costs, supported businesses, education, healthcare, and communication, promoting socio-economic development and inclusivity in underserved areas. . (2)<br>• Solar PV systems contributed to poverty reduction by providing clean RE, reducing fossil fuel reliance, and supporting income-generating activities. (2)<br>• Approach empowered communities, upheld rights to energy, health, and economic opportunities, and contributed to social equity and sustainable development. (2) | • Reduced energy costs (2).<br>• Supported small businesses, education, healthcare, and communication.<br>• The initiatives aligned well with UNDP's Country Program priorities, advancing inclusive growth, climate resilience, and sustainable development. (1)<br>• Positive impact on local populations: income generation, job creation, improved energy access. (1)<br>• Systems reduced energy costs, supported businesses, education, healthcare, and communication, promoting socio-economic development and inclusivity in underserved areas. . (1)<br>• Solar PV systems contributed to poverty reduction by providing clean RE, reducing fossil fuel reliance, and supporting income-generating activities. (2)<br>• This approach empowered communities; upheld fundamental rights to energy, health, and economic opportunities; and contributed to social equity and sustainable development, as claimed by the key informants (2) | • Fostered socio-economic development.<br>• Promoted inclusivity in underserved areas.<br>• Upheld fundamental rights to energy, health, and economic opportunities (9).<br>• Contributed to social equity.<br>• Supported sustainable development.<br>• The initiatives aligned well with UNDP's Country Program priorities, advancing inclusive growth, climate resilience, and sustainable development. (11)<br>• Positive impact on local populations: income generation, job creation, improved energy access. (12)<br>• Systems designed to withstand extreme weather in the Solomon Islands. (9)<br>• Systems reduced energy costs, supported businesses, education, healthcare, and communication, promoting socio-economic development and inclusivity in underserved areas. (12)<br>• Solar PV systems contributed to poverty reduction by providing clean RE, reducing fossil fuel reliance, and supporting income-generating activities. (12)<br>• Approach empowered communities, upheld rights to energy, health, and economic opportunities, and |

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| contributed to social equity and sustainable development. (5) | | | contributed to social equity and sustainable development. (11) |

**GEF Additionality**

| Government/Ministries (PB members): 7 respondents | Private sector/Research agencies and academia: 2 respondents | International Banks: 2 respondents | UNDP (Project/ Programme/ Regional): 14 respondents |
|---|---|---|---|
| | • Reduced reliance on fossil fuels (2).<br>• Ongoing maintenance and capacity-building. | • Community ownership ensuring sustainability (2). | • Community ownership ensuring sustainability (9). |

**Catalytic/ replication effect**

| Government/Ministries (PB members): 7 respondents | Private sector/Research agencies and academia: 2 respondents | International Banks: 2 respondents | UNDP (Project/ Programme/ Regional): 14 respondents |
|---|---|---|---|
| • Enhanced policy frameworks.<br>• Improved stakeholder engagement.<br>• Supportive environment for sustainable energy (6).<br>• Positive outcomes include enhanced policy frameworks and stakeholder engagement, creating a supportive environment for sustainable energy. (5)<br>• Integration of solar PV systems reduced reliance on fossil fuels, with continued impact driven by maintenance, capacity-building, and community ownership. (7)<br>• Project successfully transferred knowledge and shared lessons via manuals, reports, training materials, workshops, websites, and social media. (5)<br>• Commitment to extending solar technologies beyond planned sites, with strong enthusiasm for replication and expansion around demo sites. (5)<br>• Missed opportunities: limited investment in data digitization, underutilized rural demo models, and limited expansion across more islands and constituencies. (4)<br>• Systematic exit strategy for standards, compliance, committees, roadmap. (4)<br>• Local infrastructure, geography, socio-political factors influenced progress. (6) | • Commitment to extending solar technologies to surrounding areas (2).<br>• Emphasized regional expansion potential.<br>• Positive outcomes include enhanced policy frameworks and stakeholder engagement, creating a supportive environment for sustainable energy. (2)<br>• Integration of solar PV systems reduced reliance on fossil fuels, with continued impact driven by maintenance, capacity-building, and community ownership. (2)<br>• Project successfully transferred knowledge and shared lessons via manuals, reports, training materials, workshops, websites, and social media. (1)<br>• Commitment to extending solar technologies beyond planned sites, with strong enthusiasm for replication and expansion around demo sites. (2)<br>• Missed opportunities: limited investment in data digitization, underutilized rural demo models, and limited expansion across more islands and constituencies. (1)<br>• Systematic exit strategy for standards, compliance, committees, roadmap. (2)<br>• Local infrastructure, geography, socio-political factors influenced progress. (2 | • Underutilization of rural demonstration models.<br>• Limited expansion of successful approaches to more islands (2).<br>• Positive outcomes include enhanced policy frameworks and stakeholder engagement, creating a supportive environment for sustainable energy. (1)<br>• Integration of solar PV systems reduced reliance on fossil fuels, with continued impact driven by maintenance, capacity-building, and community ownership. (2)<br>• Project successfully transferred knowledge and shared lessons via manuals, reports, training materials, workshops, websites, and social media. (1)<br>• Commitment to extending solar technologies beyond planned sites, with strong enthusiasm for replication and expansion around demo sites. (1)<br>• Missed opportunities: limited investment in data digitization, underutilized rural demo models, and limited expansion across more islands and constituencies. (1)<br>• Systematic exit strategy for standards, compliance, committees, roadmap. (2)<br>• Local infrastructure, geography, socio-political factors influenced progress. (2) | • Local energy infrastructure impacts progress.<br>• Geographic challenges affecting implementation.<br>• Socio-political factors influencing project outcomes (10).<br>• Expansion beyond planned sites not possible.<br>• Positive outcomes include enhanced policy frameworks and stakeholder engagement, creating a supportive environment for sustainable energy. (9)<br>• Integration of solar PV systems reduced reliance on fossil fuels, with continued impact driven by maintenance, capacity-building, and community ownership. (12)<br>• Project successfully transferred knowledge and shared lessons via manuals, reports, training materials, workshops, websites, and social media. (8)<br>• Commitment to extending solar technologies beyond planned sites, with strong enthusiasm for replication and expansion around demo sites. (11)<br>• Missed opportunities: limited investment in data digitization, underutilized rural demo models, and limited expansion across more islands and constituencies. (7)<br>• Systematic exit strategy for standards, compliance, committees, roadmap. (12)<br>• Local infrastructure, geography, socio-political factors influenced progress. (9)<br>• |

**Progress to impact**

| Government/Ministries (PB members): 7 respondents | Private sector/Research agencies and academia: 2 respondents | International Banks: 2 respondents | UNDP (Project/ Programme/ Regional): 14 respondents |
|---|---|---|---|
| • Reduced environmental stress, lowered GHG emissions (5).<br>• Promoted clean energy alternatives.<br>• Clear links between infrastructure, training, and outcomes.<br>• Improvements in education, health services, socio-economic development.<br>• Impact on rural areas' development. | • Shift to sustainable energy practices (2).<br>• Mitigated environmental degradation, promoted long-term sustainability.<br>• Benefited local populations.<br>• Follow-up arrangements for lasting impacts.<br>• Emphasized policy integration, capacity-building, institutional development.<br>• Reduced GHG emissions, promoted clean energy. (2)<br>• Scalable RE model for remote areas. (2) | • Significant socio-economic benefits to island communities.<br>• Improved access to energy for education, health, community development (2).<br>• Reduced GHG emissions, promoted clean energy. (2)<br>• Scalable RE model for remote areas. (2)<br>• Shift to sustainable energy promotes long-term sustainability. (1) | • Installing RE systems in schools, health centres, community infrastructure.<br>• Enhancing access to reliable electricity.<br>• Capacity-building initiatives for local institutions.<br>• Strengthening capacity to adopt sustained RE solutions (13).<br>• Advocacy for policies supporting rural electrification.<br>• Promoting replication of RE technologies. |

| | | | |
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| • Future interventions can address problems for balanced development.<br>• Series of potential risks and proposed mitigation approaches.<br>• Reduced GHG emissions, promoted clean energy. (6)<br>• Scalable RE model for remote areas. (7)<br>• Shift to sustainable energy promotes long-term sustainability. (5)<br>• Project improved energy access, benefiting communities. (6)<br>• RE systems, capacity-building, policy advocacy for electrification. (6)<br>• Clear links between infrastructure, training, and outcomes. (5)<br>• Focused on policy integration, capacity-building, institutional development. (6)<br>• Increased community engagement, ownership, and empowerment. (6)<br>• Positive impacts outweigh challenges; future interventions needed. (5)<br>• Identified risks and proposed mitigation approaches. (5)<br>• Technological challenges, grid imbalances at demo sites. (6) | • Shift to sustainable energy promotes long-term sustainability. (2)<br>• Project improved energy access, benefiting communities. (2)<br>• RE systems, capacity-building, policy advocacy for electrification. (1)<br>• Clear links between infrastructure, training, and outcomes. (1)<br>• Focused on policy integration, capacity-building, institutional development. (2)<br>• Increased community engagement, ownership, and empowerment. (2)<br>• Positive impacts outweigh challenges; future interventions needed. (1)<br>• Identified risks and proposed mitigation approaches. (1)<br>• Technological challenges, grid imbalances at demo sites. (2) | • Project improved energy access, benefiting communities. (2)<br>• RE systems, capacity-building, policy advocacy for electrification. (1)<br>• Clear links between infrastructure, training, and outcomes. (2)<br>• Focused on policy integration, capacity-building, institutional development. (2)<br>• Increased community engagement, ownership, and empowerment. (1)<br>• Positive impacts outweigh challenges; future interventions needed. (2) | • Increased community engagement, ownership, and empowerment.<br>• Maintained solar PV systems.<br>• Reduced GHG emissions, promoted clean energy. (13)<br>• Scalable RE model for remote areas. (13)<br>• Shift to sustainable energy promotes long-term sustainability. (9)<br>• Project improved energy access, benefiting communities. (13)<br>• RE systems, capacity-building, policy advocacy for electrification. (11)<br>• Clear links between infrastructure, training, and outcomes. (12)<br>• Focused on policy integration, capacity-building, institutional development. (14)<br>• Increased community engagement, ownership, and empowerment. (13)<br>• Positive impacts outweigh challenges; future interventions needed. (11)<br>• Identified risks and proposed mitigation approaches. (12)<br>• Technological challenges, grid imbalances at demo sites. (8) |

Note: The numbers in parentheses represent the highest frequency of responses from each stakeholder category.

## Annex 9: TE Rating scales

| Ratings for Outcomes, Effectiveness, Efficiency, M&E, Implementation/Oversight, Execution, Relevance | Sustainability ratings: |
|---|---|
| • 6 = Highly Satisfactory (HS): exceeds expectations and/or no shortcomings<br>• 5= Satisfactory (S): meets expectations and/or no or minor shortcomings<br>• 4= Moderately Satisfactory (MS): more or less meets expectations and/or some shortcomings<br>• 3 = Moderately Unsatisfactory (MU): somewhat below expectations and/or significant shortcomings<br>• 2 = Unsatisfactory (U): substantially below expectations and/or major shortcomings<br>• 1 = Highly Unsatisfactory (HU): severe shortcomings<br>• Unable to Assess (U/A): available information does not allow an assessment | • 4 = Likely (L): negligible risks to sustainability<br>• 3 = Moderately Likely (ML): moderate risks to sustainability<br>• 2 = Moderately Unlikely (MU): significant risks to sustainability<br>• 1 = Unlikely (U): severe risks to sustainability<br>• Unable to Assess (U/A): Unable to assess the expected incidence and magnitude of risks to sustainability |

## Annex 10: Signed UNEG Code of Conduct form

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings, and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.
8. Must ensure that independence of judgement is maintained, and that evaluation findings and recommendations are independently presented.
9. Must confirm that they have not been involved in designing, executing, or advising on the project being evaluated and did not carry out the project's Mid-Term Review.

**Evaluation Consultant Agreement Form**

Agreement to abide by the Code of Conduct for Evaluation in the UN system:

Name of Evaluator: Dr. Dhruba Gautam
Name of Consultancy/organization: N/A
I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluators:

Signed at: Kathmandu on Nov 20, 2024

Signature:

## Annex 11: Signed TE Report Clearance form

| |
|---|
| **Terminal Evaluation Report for** Stimulating Progress towards Improved Rural Electrification in the Solomons" (SPIRES) |
| **Reviewed and Cleared By:** |
| **Commissioning Unit (M&E Focal Point)** |
| |
| Name: |
| |
| Signature: Date: |
| |
| **Regional Technical Advisor (Nature, Climate and Energy)** |
| |
| Name: |
| |
| Signature: _____ Date: |
| |

## Annex 12: TE Audit trail (in separate file)

## Annex 13: GEF core indicators (in separate file)