The Integrated Coastal Zone Management (ICZM) Mangrove Policy Validation in Solomon Islands

Third National Workshop

A Two-Day Workshop Report

July 1 & 2, 2024

SINU Kukum Campus Honiara

Mary Tahu Paia

marytahupaia@gmail.com

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1. Introduction

The two-day workshop on advancing the Integrated Coastal Zone Management (ICZM) Framework for Mangroves was successfully held on July 1 and 2, 2024, at the Solomon Islands National University (SINU) Kukum Campus Conference Hilltop. The workshop brought together key stakeholders from government ministries, NGOs, local communities, and academia to collaborate on the development of a comprehensive ICZM framework for the sustainable management of mangroves in the Solomon Islands. The event focused on addressing critical issues such as gender inclusion, customary land tenure, and local governance while exploring opportunities for strengthening policies, capacity-building, and community engagement. The workshop aimed to enhance the collective understanding and strategic planning necessary for effective mangrove conservation and climate resilience in the country.

1.1. Workshop Objectives

The workshop held today aims to achieve three primary objectives:

- Validating the ICZM Framework Policy Vision and Mission;
- Development of Policy Statements & Implementation Guide for validation
- Development of Technological Fact Sheets

2. Day 1: Overview and Key Activities

2.1. Session 1. Stock taking of TA on ICZM Policy Framework for the mangroves and local community.

Dr. Kang commenced the session with a presentation on the Climate Technology Centre and Network (CTCN), providing an overview of the policy framework and planning process. He further explained that a technical coordination mechanism was established through consultations with the Ministry of Environment, Climate Change, Disaster Management, and Meteorology (MECDM). As a result of these consultations, Mary and her team of experts from the Solomon Islands National University were selected to lead the efforts. The inception meeting last year brought together experts from Korea, along with stakeholders involved in the mangrove planning initiative. During this meeting, participants discussed the vision and mission of the project, reviewed relevant background documentation, and collaboratively developed a framework policy and policy framework.

Dr Kang also gave a brief overview of the CTCN Project structure and contributions. He stated that
the overall structure of the CTCN project includes contributions from a Korean university research team, experts in urbanization, satellite imaging, and GIS-based technology. They provided an overview of the status of mangroves in the Solomon Islands, identifying areas and highlighting that between 50,000 to 60,000 hectares of mangroves exist. The islands of Malaita and Makira were used as case studies, with maps illustrating these areas.

Professor Lim, a key contributor, presented a sophisticated flowchart to estimate potential changes in mangrove coverage in the Solomon Islands over the next 17 years, considering the impacts of climate change. His analysis included an AI model that provided detailed images of mangroves. The final workshop in August will involve further discussions, with Professor Lim expected to join and present the latest findings.

Dr Kang also explained the ICZM Policy Framework developed last May known as the Integrated Coastal Zone Management (ICZM) Policy Framework, includes specific goals and objectives, a legal framework, policy objectives, stakeholder engagement strategies, and integrated planning processes. One notable area of focus is the Langa Langa Lagoon in Malaita, where most of the technological solutions have been applied.

He concluded that Tomorrow's session will be dedicated to finalizing the implementation guide and introducing technological fact sheets. Currently, nine technological solutions have been identified, and these will be presented tomorrow afternoon by the research team at Solomon Islands National University (SINU). Following the two-day workshop, a feasibility study will be conducted in Malaita to assess the practical application of these solutions.

2.2. Q & A Session

A general question was raised by Dr Wale regarding the effectiveness of policy frameworks in the Solomon Islands. Specifically, the inquiry addressed whether any existing frameworks with policy statements had been successfully implemented in the country. The example of the Ministry of Health's strategic plan was cited, where policy statements were included, but the implementation was limited. For instance, in the case of the pharmacy sector, the strategic plan's implementation accounted for only 2% of the document, highlighting the gap between policy formulation and practical execution. This question underscores the importance of ensuring that the current policy statements are not only well-crafted but also effectively implemented.

Dr. Mauli emphasized the significance of developing a policy matrix and crafting effective policy statements. She stressed the importance of evaluating the success of policy implementation, particularly in environmental contexts. Dr. Mauli highlighted the need to assess how well these policies have been implemented, especially in rural communities. She noted that there is often a considerable gap between policy development and actual implementation. Dr. Mauli also questioned whether the Ministry of Environment has any successful case studies or examples of policies that have been effectively executed.

Thaddeus Siota responded and discussed the challenges of policy implementation once a policy has been established. He noted that while many partners, including financial institutions, line ministries, and various stakeholders, are involved, the actual implementation of these policies is often lacking. He stressed the importance of cross-cutting collaboration among partners to ensure that policies are not only created but also effectively put into practice.

Veira Pulekera provided an example from the Ministry of Environment and Conservation, where three main Acts guide the implementation of mandates and policies. He explained that the ministry, through its various divisions, develops strategic plans and policies. At the national level, the government focuses on policy development and how to involve stakeholders across different sectors. Veira highlighted the "Ocean 12" initiative, where 12 ministries collaborate to create an integrated ocean governance framework to drive ocean policy. This initiative addresses the challenge of conflicting interests among sectors and aims to harmonize them. The integrated ocean governance framework is coordinated by the Ministry of Foreign Affairs, through an ocean desk, to facilitate communication and coordination among sectors for ocean policy implementation.

However, Veira pointed out a significant gap in the framework: the lack of a dedicated mangrove policy. The Climate Change Division is currently leading the development of the Integrated Coastal Zone Management (ICZM) Mangrove Policy. The process is in the initial stages, with ongoing discussions and drafting efforts involving various stakeholders.

Dr. Kang emphasized the importance of addressing the existing gaps in policy implementation. He noted that the implementation guide and Technological Fact Sheets (TFS) are crucial for achieving measurable results. Dr. Kang highlighted Malaita as a successful example where the impact of these efforts can be seen.

Dr. Haapio discussed the Ocean 12 initiative, explaining that funding was secured through the Blue Alliance. Currently, the initiative is in the process of recruiting a coordinator to oversee its implementation. He used this as an example within the Ministry of Environment to illustrate how securing funding and coordination is critical. Additionally, the ministry is conducting a technical needs assessment for the country and collaborating on TFS to inform proposal development for securing mangrove-related funding.

Dr. Kang mentioned that nine Technological Fact Sheets (TFS) have been developed. These TFS are being used to secure funding from the Food and Agriculture Organization (FAO) and to explore other projects that can implement these technologies effectively.

Dr. Wale raised concerns about the national government's planning and budgeting processes. He noted that budget submissions often reflect the priorities of ministers, which may not align with the actual plans or needs on the ground. Additionally, donor-driven projects may not address the real issues faced by local communities. For example, in Langa Langa, dynamite fishing and the cutting of mangroves for firewood are common practices due to the lack of access to alternative resources like gardens. Dr. Wale questioned how these ground realities would be incorporated into the policy and how milestones could be achieved, given the disconnect between planning and on-the-ground realities.

In response, Dr. Kang emphasized the need for sustainable solutions that can be effectively implemented and serve as viable alternatives to harmful practices. He stressed the importance of conducting feasibility studies to ensure that the proposed solutions are practical and can address the issues faced by communities on the ground.

2.3. Session 2. Introduction of 6 draft policy statements

Chris Teva began the session by outlining the policy statements, emphasizing six key areas for consideration. He noted that the Ministry is actively working on developing a comprehensive mangrove policy, incorporating key points from Dr. Kang's presentation. These policy statements will form the basis for the Implementation Guide. Draft versions of the policy statements are already prepared, and the Ministry invites comments and feedback from participants, particularly those with relevant expertise in the addressed areas. He further gave an overview of the policy statements, detailing that drafts for Policy Statements 5.1 through 5.6 have been created. These statements feature an introduction, scope, goals, guiding principles, and are derived from the policy framework. They define specific objectives and strategies, as well as outline responsibilities for managing associated risks**.**

2.4. Q & A Session

Dr. Kang inquired whether the other policy statements were as fully developed as Policy 5.1. Chris Teva confirmed that all policy statements, from 5.1 to 5.6, have been fully developed.

Dr. Mauli noted that the title of the framework focuses on integrated coastal management for mangroves and local communities. She inquired whether any of the policy statements specifically address coastal communities, given that they are the resource owners.

Dr. Kang pointed out that Policy Statement 5.2 addresses sustainable economic development and local livelihoods, aiming to capture community development issues. This statement is intended to improve and sustain efforts towards the policy objectives.

Dr. Mauli continued to add suggested that the focus on local communities, who rely on mangroves daily, should be more explicit throughout the policy statements. She asked how the government or governance structures will ensure that these policies effectively reach and benefit local communities, and how governance arrangements outlined in the policy statements will enhance implementation.

Dr. Kang noted that Policy Statement 5.6 could specifically address institutional arrangements, emphasizing how it covers both resource management and the related institutional frameworks.

Dr. Haapio mentioned that there is a desire to incorporate Monitoring, Evaluation, Reporting, and Learning (MERL) into the policies to ensure they provide a clear pathway for implementation. He highlighted the importance of MERL in assessing whether policies are effectively put into practice and whether they represent good practice. He noted that while the title of the framework

emphasizes mangroves, which indicates a focus on mangrove ecosystems, the inclusion of MERL is crucial for evaluating the success of the policy implementation.

2.5. Session 3. Group Presentation on Policy Statements

The discussions and comments were provided in response to the following six relevant policy statements.

Group 1: Integrated Planning and Coordination. Soft copy was provided (5.1)

Group 2: Sustainable Economic Development. Team lead Veira is in a meeting (5.2)

Group 3: Conservation of Mangrove and Coastal and Marine Environment (5.3)

Douglas Yee highlighted the establishment of marine protected areas and reserves aimed at conserving critical habitats. He mentioned a fisheries program that supports Locally Managed Marine Areas (LMMAs) to focus on specific conservation needs rather than general protected areas. Communities interested in this approach can participate, and LMMA remains a key option. He also emphasized the importance of community-based resource management and suggested incorporating carbon stock assessments and potential carbon trading, as discussed by Psami Airahui from MACBLUE. Yee noted that currently, few agencies are involved, and emphasized the need for enforcement of code of practice related to livelihoods. The implementation of protected areas is also crucial for maintaining viable ecosystems. We also aim to integrate research on carbon stocks with the potential for carbon trading. Additionally, we want to address vulnerability adaptation using appropriate tools and methods, acknowledging that institutions may develop their own assessment approaches for mangroves. Everything is generally fine with the implementation section, with a few additions noted in the E-copy.

Group 4: Environmental Risk Management (5.4)

Efforts in establishing the Policy Statements (PS) are commendable. However, some key points emerged in the discussion regarding Environmental Risk Management (ERM):

Environmental Impact Assessment (EIA): Protecting mangroves is essential, considering human disturbance as a major risk, especially when utilizing these areas.

Land Use: Address threats from activities like logging and mining, and consider whether such areas should be permanently protected.

Noise Pollution: Minimize noise pollution to safeguard mangrove species such as birds and insects.

Ownership and Land Use: Ensure mangrove ownership and land use are aligned with preserving mangrove integrity from the start.

Sustainability: Expand solar energy initiatives to promote sustainability and biodiversity.

Group 5: Education, Awareness and Research (5.5)

George emphasized that the policy should highlight the values and importance of mangrove ecosystems, especially through the perspective of resource owners, to improve management and utilization. Without this, people may neglect mangrove conservation.
Increased community awareness is necessary.

Trainers working with communities should be knowledgeable about local culture, structure, and behaviors to ensure effective communication and avoid barriers. Mangrove information should be integrated into the education system at all levels to inform the population about their benefits.

Community capacity building should take place on-site, whether formal or informal, to maximize impact and information sharing. Regular monitoring, once or twice a year, is essential to assess the health of mangrove ecosystems.

Mary Paia further stated that research on traditional and indigenous knowledge should be prioritized, as mangroves hold cultural significance and serve as vital connections to water sources and gardens. This knowledge, including traditional stories, dances, and practices, must be documented before it is lost with the passing of elders.

It's also important to raise community awareness about the implications of losing mangroves. Additionally, there is a need to develop assessment matrices and valuation methods, as currently there are none for mangroves, unlike commercial trees. Research should be conducted to explore these valuation frameworks.

Myknee emphasized that mangroves are a unique forest type with no commercial logging or established commercial value, unlike other forest trees. Due to this, there is no valuation or specific equations for mangrove species, highlighting a gap in information that needs to be addressed.

Douglas Yee supported the focus on traditional knowledge (TK) and stressed the importance of emphasizing the interconnectedness between terrestrial and marine ecosystems.

Dr. Wale noted that while a methodology has been developed to capture this information, business ventures, such as market products, are often treated separately.

Dr. Vigulu highlighted that in Papua New Guinea, Xylocarpus is harvested from mangroves as a high-value timber species, offering significant commercial potential. It protects shorelines and commands a premium price in markets like Australia, fetching around 1,500 AUD per cubic meter, underscoring the importance of mangroves as valuable timber resources.

George H. stressed the need to incorporate this information into educational curricula and to inform resource owners about the value and significance of mangroves in their communities.

Group 6: Institutional arrangement and legal framework (5.6)

There is currently no legal framework specifically for mangroves. While the purpose of the policy is positive, it must prioritize the primary objective of protecting mangroves, focusing on the social well-being of communities.

The policy's scope should clearly address social, cultural, economic, and environmental elements, with a section dedicated to traditional knowledge and practices. The objectives should emphasize resilience, noting that mangroves help with both climate change and disaster risk reduction.

Consistency is key, particularly in referring to community-based organizations (CBOs). Adequate funding is needed, with a suggested budget of 200,000 USD for implementation. Monitoring should include learning, enforcement, and compliance. Resource mobilization and integration with the National Biodiversity Strategy and Action Plan (NBSAP) are essential.

The Ministry of Women and Children Affairs should be involved, as conservation efforts need youth engagement. Consistency in language and terms across the document is critical.

The policy should consider decentralized governance to empower local communities, and training should include documenting best practices and local knowledge for future generations. Guidelines, rather than regulations, are preferable for policy implementation unless backed by law.

There is a need for the inclusion of the blue economy, which is missing from the current draft. Provincial governments should integrate mangrove conservation into ward planning and education systems to ensure long-term sustainability.

Lastly, Dr. Mauli emphasized the need to adapt the policy to the Solomon Islands context, while Dr. Wale highlighted the importance of engaging local communities and using education as a key tool for conservation.

3. DAY 2: Over view and Activities

3.1. Session 1: Linking Implementation with Technology.

Dr. Kang stresses the importance of the policy statements, highlighting the vital role mangroves play in protecting coastlines and mitigating coastal erosion. He underscores the need to preserve mangrove ecosystems while ensuring they continue to provide essential services, such as their significant use as firewood in local communities.

Dr. Haapio draws attention to the grant from the Climate Technology Centre and Network (CTCN), funded by the Global Environment Facility (GEF), which focuses on identifying vulnerable sectors and key government priorities. For the Ministry of Environment, Climate Change, Disaster Management, and Meteorology (MECDM), coastal erosion and community relocation were identified as the two main priorities for adaptation efforts.

Additionally, Dr. Haapio was selected as a consultant for this initiative. During the consultation, it was emphasized that technology includes three components: orgware, software, and hardware. Orgware refers to institutions and universities, software to policies and legislation, and hardware to practical efforts like mangrove replanting.

The technological fact sheet highlights various technologies such as coastal vegetation restoration and relocation policies.

The process for addressing the country's needs follows these steps:

1. Assess the country's needs and priority areas within the specific context.
2. Identify technological options, such as the blue economy and mangroves.
3. Establish relevant indicators.
4. Score these indicators.
5. Apply criteria for evaluation. 6-8. Address sensitive considerations in the process.

3. 2. Session 2. Overview of Technology Factsheets

The session focused on exploring six key technologies that could be implemented to support coastal communities in adapting to environmental challenges. These technologies are presented as fact sheets and include:

a. Biological Soil Nutrient and Pest Control
b. Water Treatment for Agriculture and Livestock
c. Fishery and Aquaculture (Shellfish, Seagrass)
d. Mangrove and Coastal Management
e. Climate Change Monitoring and Early Warning Systems (EWS)
f. PV Solar Farming System Technology

3.2.1 Key Discussion Points

Solar farming was highlighted as a critical technology for addressing land space issues in the Solomon Islands. By integrating solar farming into agricultural practices, the technology can contribute to increasing crop and livestock yields while providing renewable energy.

In the Solomon Islands, where land space is limited, this integration offers a dual benefit: maximizing land use for both farming and energy production.

Dr. Haapio provided a sample template for the solar farming factsheet, explaining that the background section should clearly outline the justification for adopting this technology. The emphasis was placed on reducing reliance on firewood and lowering carbon emissions, presenting solar farming as a sustainable solution.

Observations conducted in Honiara communities highlighted the potential benefits of solar farming, which can be expanded to other areas with similar land constraints.

The session stressed the importance of integrating solar technology not only for schools and buildings but also for agriculture, where it can directly support food security and energy needs.

3.2.2. Q &A Session

Dr. Mauli raised the importance of supporting the proposed technologies with data. She recommended including footnotes or references in the fact sheets to back up the information with evidence, especially when presenting data that supports the rationale for adopting these technologies.

Social and Economic Benefits: The proposed technologies provide substantial social and economic advantages. Including specific figures and real-world examples in the fact sheets will help highlight their potential impact on communities. It is especially crucial for SINU to demonstrate these technologies in agriculture through hands-on, on-the-ground demonstrations.

Dr. Haapio emphasized the importance of including footnotes and references in both the fact sheets and the main report. This will provide a strong basis for the data and justify the recommendations made.

Douglas Yee raised the issue of the report's length, suggesting that the main report should be limited to 20 pages. Dr. Haapio added that while the technological fact sheets are critical, they should be included as annexes and not form part of the core report, which is typically around 30 pages.

The technology fact sheets will be implemented in local communities, particularly to prevent over-harvesting of mangroves for firewood. The solutions currently identified are practical and actionable, though more sophisticated tools, such as GIS, could be introduced for more advanced applications.

Dr. Haapio highlighted that the final output would include a two-page policy brief, with the fact sheets supporting the policy. The fact sheets must be accessible and relevant to the communities and stakeholders they are targeting, emphasizing the need for a clear understanding of the audience.

Dr. Kang mentioned Langa Langa in Malaita as a pilot site where these technologies can be applied. The fact sheets should be tailored to demonstrate how the technologies work in specific local contexts, showing their adaptability and effectiveness in real-world scenarios.

3.3. Session 3: Feedback on Technology Fact Sheets

Plenary discussions on the Technology Fact Sheets The following are comments feedback from participants.

3.3.1 Alternative Technology for Small Islands and Urban Communities: Comments

The project is promising but should focus more on ensuring long-term sustainability. Additionally, it would be beneficial to include current and past management practices that have been used to address the threats.

3.3.2 Water Treatment in Agriculture and Livestock: Comments

It is essential to include livestock within the agriculture sector. Additionally, the focus should be expanded to cover atolls and islets, while acknowledging that larger islands provide better access for agriculture and livestock. Management issues related to water quality for livestock also need to be addressed. The high cost and sustainability of maintaining water treatment systems, especially given the heavy rainfall in the Solomon Islands, is an important consideration. Since this project falls under agriculture, support from the Ministry of Agriculture should be included to drive its implementation.

3.3.3 Sustainable Early Warning Systems (EWS) to Adapt to Climate Change in the Solomon Islands: Comments

It's important to reference the PCCSP 2011 Volumes 1 and 2 for additional climate-related data and information specific to the Solomon Islands. The inclusion of emerging technologies, such as Starlink, should also be considered. Key climate change impacts, including coastal erosion, ocean warming, increased extreme weather events, and mismatched harvesting patterns, should be incorporated into the framework. Additionally, integrating EWS into the education system, from primary to secondary school syllabi, is essential. The geographical challenge of scattered islands in the Solomon Islands should be recognized as a barrier to effective EWS implementation.

3.3.4 PV Solar Farming Technology to Harness Renewable Energy and Enhance Energy Security: Comments

In the background section, it's important to specify who is responsible for the disposal of solar batteries after their use and under warranty. Sources should be provided for the figures included in the document. Additionally, the list of beneficiaries should be expanded to include fishermen/women, schools, health centres, churches, and businesses. Under economic benefits, it should highlight increased agricultural productivity, improved health, safety, and sanitation, enhanced living standards, and better educational outcomes.

Encouraging battery recycling should be included under environmental benefits. Barriers should address the lack of backup suppliers and the high costs associated with facility maintenance.

3.3.5 Technological Solutions for Fishery & Aquaculture: Shellfish, Seagrass: Comments

Mr Barnabas commented that beneficiaries should include rural coastal fishing communities, seaweed farmers, sea-cucumber farmers, as well as tilapia and prawn farmers. It's important to consider financing options and sources when determining the project's scope and scale, as a budget of USD 25 million from the GCF would be considered a small-scale project for implementation. In terms of development impact, ensuring connectivity to markets and services for coastal fishing communities is crucial, particularly regarding road design. Under organizational requirements, it's essential to involve WWF, the private sector, and the Ministry of Infrastructure Development (MID), and to focus on the value chain and market connectivity. Barriers should address land tenure issues and limited market access. Additionally, the inclusion of community-operated solar-powered fisheries centers should be noted under the current status of technology.

3.3.6 Alternative Technology for Small Islands and Urban Communities Comments:

The project is promising, but it must prioritize long-term sustainability. Incorporate current and past management practices that have been employed to address the identified threats, as they provide valuable insights.

4. Field Visit to Langa Langa, Malaita Province

4.1 Courtesy Visit at Auki

A 3 days' field visit to Auki, was conducted in July 3-5, 2024. Interviews were conducted in various ministries and NGOs in Auki.

The courtesy visit began with a warm welcome by the Premier of Malaita Province, Elijah Asilaua, to the SINU KEI and MECDM teams. The Premier expressed gratitude for the ongoing efforts and collaborations between the institutions and Malaita Province. The Premier highlighted the upcoming 5-day Malaita Day celebrations as an ideal platform to showcase the talents, culture, and achievements of Malaita's people. The SINU KEI and MECDM teams were invited to participate in the event, where they could display their work and projects to a wider audience. The celebration will provide an opportunity to engage the public, local communities, and potential stakeholders, further strengthening ties between Malaita and institutions such as SINU and MECDM. This event will also be a chance to highlight ongoing environmental and climate resilience projects, which are vital for Malaita's future. The courtesy visit concluded on a positive note, with all parties reaffirming their commitment to working together for the progress of Malaita Province. The Premier expressed optimism about the future and thanked the SINU KEI and MECDM teams for their dedication to supporting the development of the province.

4.2 Visit to the Ministry of Fisheries in Auki, Malaita Province

Matthew, Alick, and the team provided a brief introduction outlining their roles and the project with the Ministry of Fisheries. They were warmly welcomed at the Fisheries office, where Alick, the Chief Officer, introduced himself. The team's work plan focuses on community resource management, exploring alternative fisheries such as Fish Aggregating Devices (FADs), seaweed farming, and aquaculture—particularly tilapia—to reduce reliance on reef fishing.

The team has been involved in seaweed farming for some time. Alick noted that seaweed farming was introduced in the 1990s but faced challenges due to a lack of markets. They are now working to reintroduce seaweed farming to benefit local livelihoods. Their efforts aim to manage areas crucial to people's livelihoods, with a focus on Langa Langa Lagoon, Bisi, and Laulasi, an initiative that began last month and will continue for several years.

During the discussion, Dr. Kang inquired about the species of seaweed being cultivated, which was identified as *Diacosema leu-kema*, with green and brown varieties present. Local farming practices often shift in response to market prices for products like beche-de-mer and seaweed, and the community is actively engaging in seaweed farming again. The team also discussed plans for a solar-powered fish freezer and long-term goals to introduce ice-making machines, with Winrock assisting in the integration of this technology. Malu and Toufu are looking to improve solar technology for fisheries.

The team acknowledged the advanced machinery available from China and Korea, highlighting the potential benefits of their support. However, they stressed that political will and prioritization are essential for these ideas to materialize into successful projects. Many communities are waiting for action beyond NGO involvement, raising concerns about the sustainability of projects post-NGO support.

The discussion also touched on the Integrated Coastal Zone Management (ICZM) policy, emphasizing the importance of mangroves as vital fish habitats. There was appreciation for Korea's involvement and the ongoing projects in Malaita. For the past 6-7 years, the fisheries sector has heavily relied on NGOs, and the Community-Based Resource Management (CBRM) approach has been central to marine resource management. Dr. Kang emphasized the importance of developing management plans that encourage community ownership.

The visit concluded with a productive discussion on implementing the ICZM policy and expanding sustainable fisheries management in Malaita. Both teams recognized the challenges and opportunities ahead and the need for continued collaboration between the Ministry of Fisheries, local communities, international partners, and NGOs to ensure the success of these initiatives. The Ministry remains committed to advancing alternative livelihoods and promoting sustainable management practices, empowering communities to take ownership of their marine resources.

4.3 Interview with World Vision Officer

The officer began with a brief introduction, explaining his role in coordinating the implementation of the local adaptation plan while working closely with local communities. During the workshop, follow-up activities for the project were discussed, including the SOLKAS project and its current status within the office.

Billy emphasized the importance of focusing on climate change in communities across Malaita, particularly with support from DFAT for work in Suava-based areas. Dr. Kang, Mary, Joash, and Barnabas each provided brief overviews of their work, including the ICZM mangrove policy at the provincial level, showcasing strong community engagement in their activities. Billy discussed his program's focus on the Farm Managed Natural Regeneration (FMNR) method, which targets both coastal and terrestrial ecosystems, particularly mangroves. Dr. Kang reinforced the significance of mangrove ecosystem services at the core of their efforts, while Billy confirmed that his primary focus is on coastal mangroves, emphasizing their conservation and sustainable use.

When inquiring about other projects in Langa Langa, Billy explained that his initiative is currently a pilot project awaiting funding confirmation from DFAT. The project site is located in northern Malaita, around Suava Bay, and involves four communities with a total population of over 1,200 people. Billy further explained that family units play a central role in the organization and management of these communities. Dr. Kang remarked that a population of 300 was relatively high for a single community, to which Billy elaborated on the tribal structure and communal living arrangements.

The discussion also touched on support from various institutions, as well as the SCALE project funded by DFAT Australia, which is set to lapse in June but may be extended until the following June. Barnabas pointed out the small size of the mangrove ecosystem in areas such as Lau Lagoon, where community interest in mangrove conservation is evident. Billy noted that even small activities can empower communities to create their own bylaws for environmental protection. He added that the pilot site near Lau Lagoon has potential for expansion if DFAT approves additional funding.

Dr. Kang expressed interest in Langa Langa Lagoon as a site for comparison with national policies. Billy mentioned the need to connect with Benjamin, a local trainer and mangrove expert, and the community at Oibola, where Benjamin has established programs. Barnabas inquired about the activities of other partners and stakeholders involved in mangrove and coastal zone management. They also discussed the FMNR model, which Benjamin uses for mangrove conservation and restoration, acknowledging the challenges that families often face when trying to engage in collective community action.

4.4. Interview with Agriculture Officials in Auki

A brief introduction was given regarding the ICZM National Mangrove Policy and its initial activities in Langa Langa Lagoon. Barnabas inquired about how the initiative supports coastal communities, particularly in relation to fisheries and livelihoods. Dr. Kang expressed appreciation

for the warm welcome and highlighted the importance of integrating technological solutions into their work plans.

The officials reported close collaboration with NGOs, especially Save the Children, whose programs align with their own initiatives. Their activities focus on manure management for pigs and chickens. Mirriam provided details on Save the Children's efforts in food security and nutrition, with training sessions held in communities like Dala, Langa Langa, and Fiu. These sessions cover topics such as soil improvement, vegetable farming, and the use of natural pesticides, including organic options like fire ash.

The training also includes practical applications such as composting and mulching to improve soil quality. Dr. Kang asked about irrigation needs, and Mirriam responded that water availability in these areas is sufficient. They discussed the use of raised beds and bags for vegetable farming, a necessary adaptation due to limited land availability, especially in artificial land areas.

Dr. Kang also inquired about other ministry programs, including SIAT initiatives. Mirriam explained the AGBO program, which involves identifying community groups and supporting them through the preparation of business plans. Capacity building for staff and infrastructure development, such as the construction of slaughter slabs for poultry and piggery, were noted as key components of the program.

When asked about organized farmer groups in Malaita, it was mentioned that community members usually work as individuals for specific projects. Common sources of income in Malaita include kava, betel nut, and savu savu. Dr. Kang inquired about the types of pigs and feed being used in piggery initiatives, and they discussed the use of Winrock feed meals, though the high costs remain a challenge. The conversation included a detailed discussion of feed prices, with Dr. Kang emphasizing the importance of producing local fish stock for sustainability.

Dr. Kang raised concerns about the types of pigs used in the piggery and the associated feeding costs. Mirriam detailed that Winrock feed meals are utilized for the piggery, with ingredients such as fish meal and milo runs being key components. However, the high costs of feed present a significant challenge.

For example:

40 kg bag of milo runs: $40

20 kg bag of copra: $20

25 kg bag of fish meal: $250

Mirriam emphasized the importance of sourcing local fish stocks to support the feed requirements for livestock. She expressed concern over the potential difficulties in sourcing materials even if a factory for feed production were established.

5. Conclusion

In conclusion the policy statements emphasize the need for governance structures to ensure that these policies effectively reach and benefit local communities. It is crucial to enhance implementation by improving coordination among various agencies, enforcing codes of practice related to livelihoods, and addressing environmental threats from activities like logging and mining. The governance framework must consider permanently protecting sensitive areas and prioritize community awareness about the consequences of losing vital ecosystems like mangroves.

Although the policy's primary goal is to protect mangroves and support the social well-being of local communities, the absence of a legal framework specific to mangroves poses a challenge. There is also a pressing need for assessment matrices and valuation methods, as none currently exist for mangroves, unlike commercial trees. Research should be prioritized to explore and develop these frameworks to better understand the value of mangroves.

In the technological fact sheets, it was recommended that both the fact sheets and the main report include footnotes and references to strengthen the credibility of the data and justify the recommendations. Furthermore, Malaita was suggested as a pilot site for applying these technologies, with the fact sheets tailored to demonstrate their functionality in specific local contexts. This adaptation will help highlight the technologies' effectiveness and adaptability in real-world scenarios. In conclusion, the success of policy implementation and technology application will rely on the development of robust governance structures, enforcement of practices, community engagement, and context-sensitive technological adaptations.

6.1 Annex 3. Participants List

No.	Name	Institution	Email
1	Carlos Hiro	SINU/FAFF/ Forestry	carlos.hiro@sinu.edu.sb
2	Moses Asitarau	SINU/FAFF/Environment	moses.asitarau@sinu.edu.sb
3	Sammy Airahui	SPREP MACBLUE	psalmme@gmail.com
4	Dr Vigulu Vaeno	FAFF Dean	vvigulu@gmail.com
5	Lovelyn Otoiasi	SINU/FAFF/Environment	Lovelyn.Otoiasi@sinu.edu.sb
6	Marvin Baekisapa	SINU/FAFF/Agriculture	marvin.baekisapa@sinu.edu.sb
7	Bradley Atengo	WVSI	bradley_alungo@wvi.org
8	Cathy Unga	EREPA- MECDM	Cunga@mecdm.gov.sb
9	Gladys Isihanua	MFAET	Gladys.Isihanua@mfaet.gov.sb
10	Rieka Kwalai	MFMR	rkwalai@fisheries.gov.sb
11	Alister Talua	Ministry of Agriculture /DAPLU	Alister.Talua@sig.gov.sb
12	Peter Kenilorea	MFMR	pkenilorea@fisheries.gov.sb
13	Nelly Kere	PMCU/MECDM	Nkere@mecdm.gov.sb
14	Dr Senoveva Mauli	SINU/FAFF	saemauli007@gmail.com
15	Nancy Raeka	PMCU/MECMD	NRaeka@mecdm.gov.sb

16	Christian Manepolo	WCS/MECDM	cmanepolo@wcs.org
17	Jeffery Kaikari	Ministry of Fisheries and Marine Resources	-
18	Mark Ligo	MCT	mligo@tourism.gov.sb
19	Fiona Meke	SINU/Fisheries Department	Fiona.meke@sinu.edu.sb
20	Myknee Sirikolo	Ministry of Forestry and Research (MOFR)	mykneesirikolo@gmail.com
21	Thaddeus Siota	CCD/MECDM	TSiota@mecdm.gov.sb
22	Shannon Seeto	WWFSI	sseeto@wwfpacific.org
23	Nina Taniveke	MFMR	ntaniveke@fisheries.gov.sb
24	George Horoasia	FAFF/SINU	george.horoasia@sinu.edu.sb
25	Collin Gereniu	SINU FAFF	collin.gereniu@sinu.edu.sb
26	Agnes Takutile	NTF/MID Secretariat	ATakutile@mid.gov.sb
27	Geoffrey Maunasi	MECDM	GMaunasi@mecdm.gov.sb
28	Merald Ajo	FAF Lab technician	merald.ajo@gmail.com
29	Arnold Augwaroa	REDD+/MOFR	aaugwaroa@mofr.gov.sb
30	Samuel Vazu Pitakaka	Forestry/FAFF	Samuel.pitakaka@sinu.edu.sb
31	Veira Pulekera	MECMD	v.t.pulekera@gmail.com
32	Mary Tahu Paia	SINU	marytahupaia@gmail.com
