

## CEPF Final Project Completion Report

*Instructions to grantees: please complete all fields, and respond to all questions, below.*

<b>Organization Legal Name</b>	Live & Learn Vanuatu
<b>Project Title</b>	Education for Action: Empowering Local Communities for Biodiversity Conservation at CEPF Priority Sites in the Solomon Islands and Vanuatu
<b>CEPF GEM No.</b>	64252
<b>Date of Report</b>	December 2015
<b>Report Author</b>	Anjali Nelson & Jessie Kampai
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**CEPF Region:** Eastern Melanesian Islands

**Strategic Direction:** Strategic direction 1: Empower local communities to protect and manage globally significant biodiversity at priority Key Biodiversity Areas under-served by current conservation efforts.

**Grant Amount:** USD 99,990

**Project Dates:** 01/05/2014 – 30/04/2015 (given 6 month extension due to cyclone to 31/10/2015)

### **1. Implementation Partners for this Project (*list each partner and explain how they were involved in the project*)**

Live & Learn Solomon Islands (a local partner). The partner has an affiliate agreement with the other Live & Learn offices and will work closely with Live & Learn Vanuatu (LLV) as part of the project team. Live & Learn Solomon Islands implemented educational activities in East Rennell as an initial phase of the project.

Live & Learn International was a second project partner. The inception workshop, printing and disbursement of resources was supported through the Australian office.

### **Conservation Impacts**

#### **2. Describe how your project has contributed to the implementation of the CEPF ecosystem profile**

This project served to support Strategic Direction 1 by empowering local communities to undertake conservation actions through education and participatory planning. Site locations for the project fell within the priority sites identified by the Ecosystem Profile and focused on communities within these sites that were underserved by other conservation efforts in the broader geographic area.

### **3. Summarize the overall results/impact of your project**

Despite major interruptions caused by Tropical Cyclone Pam, the project empowered community initiated conservation actions in each of the three target sites. The value and importance of biodiversity conservation has increased in all priority areas and plans for further actions have been developed.

#### **Planned Long-term Impacts - 3+ years (as stated in the approved proposal)**

*List each long-term impact from Grant Writer proposal*

Globally significant biodiversity at priority Key Biodiversity Areas of Melanesia (including East Rennell, Gaua, Santo Mountain Chain and Tongoa-Laika) maintained and protected from potential threats.

### **4. Actual progress toward long-term impacts at completion**

Action plans developed during the project contribute to the long term goal for the management and protection of globally significant biodiversity;

Tongoa-Laika is under a new regime of management,

Dolav community in Gaua have already established community tabu of a marine and terrestrial protection site, and

Kerepua community has agreed to establish a legally protected site on Mount Tabuwasana.

The East Rennell project in Solomon Islands began work in its first quarter of the project where some biodiversity education activities occurred. After the first quarter, Live & Learn Vanuatu continued with the project only.

#### **Planned Short-term Impacts - 1 to 3 years (as stated in the approved proposal)**

*List each short-term impact from Grant Writer proposal*

1. Increased recognition and consideration of the value of local biodiversity evident in decision making about land use, livelihoods and future developments in the target communities
2. Local communities in at least three target sites motivated to take conservation actions to address issues identified through the education program
3. Increased capacity of local educators to implement conservation education strengthened through training-of- trainers

### **5. Actual progress toward short-term impacts at completion**

Within the first year of the project, certain short-term impacts have occurred;

Dolav Community, Gaua - The Dolav community have responded quickly to the awareness and training undertaken by LLV. After the first training on awareness around the importance of biodiversity, the community established a six-month community tabu of their marine area. The community also decided to revegetate a quarter hectare of degraded land with the hope that this plot of productive tree species could provide timber and non-timber resources as an alternative to nearby forest.

Kerepua Community, Santo Mountain Chain – Kerepua Community have stated their desire to create a Community Conservation Area (under *EPBC Act 2010*) to conserve an area of forest on Mount Tabuwasana, the highest peak in the Mountain Chain and a place of cultural significance. This decision made while LLV was not present and presented to LLV on the organization's second visit.

Kuramambe Community, Tongoa – Workshop notes show that some community members were unaware of lifecycle of certain key bird species such as the Megapode and Mutton Bird (wedge-tailed shearwater). A decision has been made by the community to manage egg harvesting by placing a tabu on half of Tongoa-Laika Island each year (i.e. rotating year by year).

Teacher training provided to 35 numbers of educators from 13 schools totaling 7 hours of training the trainers on biodiversity. Feedback from teacher participants showed their appreciation for the resource which details learning activities. Many teachers' stated they had very few learning aids and had to devise their own learning activities so were very glad to have such a useful and accessible resource. Teachers believed that given the attractiveness of the resource, it would be well used having an effect that the messages would be carried on by children to their parents.

## **6. Describe the success or challenges of the project toward achieving its short-term and long-term impact objectives**

Communication presented one of the greatest challenges to the project. Neither Kerepua nor Dolav have phone access. For someone from Kerepua to reach a communication point 55,000vuv must be spent on transport. For Dolav community this amount is around 25,000vuv. This means that people travel infrequently to and from these communities so getting messages there is very difficult. This meant that it was hard to develop ongoing relationships and provide regular support to the communities. The project allowed for just two visits from the team. Despite this challenge, LLV worked through community contacts living outside of the communities where possible to deliver messages, updates and information.

Another challenge was Tropical Cyclone Pam which hit Vanuatu in March 2015, just when the second field visits were to go ahead. The project needed to allow communities to start the recovery process which meant delays for the project. Despite this challenge, the cyclone has supported the project's awareness raising around biodiversity in the community of Kurumambe with unexpected positive outcomes (see unexpected impacts below).

Pre-existing attitudes to conservation in Kurumambe presented a further challenge to the project. A previous attempt by the Chief to protect Megapode and Diamond Bird habitat for tourism was not respected by some community members who claimed a right to the land and to

harvest the megapode eggs. This not only had diminished the Chief's influence but also created division within the community about sustainable sources of income such as ecotourism. The project, therefore, was viewed with suspicion by various members of the community, restricting opportunities for consensus decision-making and effective participation. LLV's Project Coordinator identified the main antagonist during the second field trip and invited him to meet and discuss the project. On understanding the project deliverables, the man relaxed and agreed to take part in the remainder of the workshop.

Despite communication challenges Dolav and Kerepua communities showed strong ownership over the project and were motivated to act independently towards positive biodiversity outcomes. These communities are rarely accessed by service providers. The project was a success in the sense that it targeted communities who, due to their remoteness were unaware of the threats to biodiversity in other parts of Vanuatu and were therefore proud to manage their resources wisely. Assisting these communities to protect their intact ecosystems provides opportunities for more sustainable development in coming years as these areas potentially become more accessible.

Dolav community in particular realized multiple successes through the project. In 2014, after the first workshop, LLV assisted the community to advertise their annual Arts Festival and for the first time, invite tourists. The community hosted 18 yachts and it was the first time that yachts came especially for an event rather than just passing through. As the Arts Festival provides a key income generating activity based around ecotourism, this was a huge success providing encouragement to Dolav community that their aspirations are achievable.

## **7. Were there any unexpected impacts (positive or negative)?**

On LLV's second visit to Kerepua, the team was asked to postpone the workshop due to a disagreement in the community. A pre-existing land dispute has resurfaced due to discussions by the community as a result of the project about establishing a Community Conservation Area. Two families who had not attended the first workshop misunderstood that the project was going to survey land and provide financial support to the community for a development venture. They therefore did not want LLV to return as the old dispute had never been resolved. Despite this being a negative impact of the project, LLV was able to get the attention of Provincial Authorities who then undertook mediation and assisted the community to reach an agreement. LLV received a letter from the community after mediation inviting the project back to Kerepua. While the project unintentional reignited a dispute it also helped the issue to be resolved. The landowners have now agreed to work together to protect a portion of rainforest owned by various families.

Kurumambe village in Tongoa was not as enthusiastic about biodiversity protection and community planning as the other two communities for reasons already mentioned and perhaps because they were more used to accessing services. Unexpectedly on LLV's second visit, the community stated that the cyclone had made them think about the importance of the biodiversity on nearby island, Tongoa-Laika. In watching the destruction of the island, they felt strongly the need to help the ecosystem recover and made plans for reduced harvesting and rehabilitation. LLV's project helped them to develop their first ever community Action Plan to start the process of rehabilitating and sustainably managing Tongoa-Laika.

## Project Components and Products/Deliverables

Planned

Actual

**8. COMPONENT ONE:** Live & Learn project team trained and equipped with resources and a strategy to deliver locally relevant biodiversity education at East Rennell, Gaua, Santo Mountain Chain and Tongoa-Laika Key Biodiversity Areas

**1.1.**Inception / Mobilisation workshop held (evidenced by workshop report)

The inception/Mobilization workshop occurred on the 23<sup>rd</sup> -26<sup>th</sup> June 2014. The workshop was held for 4 days facilitated by Emily. The workshop provided an opportunity for newly recruited project staff and significant stakeholders to meet with and strengthen networks, get to know each other as well as become familiar with the scope and objectives of the CEPF project. During the mobilization workshop the project team had the opportunity to plan overall program delivery; establish project management and monitoring and evaluation systems; engage partners and stakeholders; and increase their own confidence and capacity to deliver the biodiversity Conservation education and training.

Please see Appendix 1

**1.2.**Concise community education program designed (3 - 5 pages) for each priority site

A 5 page community education program was designed during the inception workshop. The program was so helpful as we actually went through how the first workshops were to be run or organized. It helps you as a facilitator to foresee how the workshop is going to be like and the effectiveness of the workshop itself.

Please see Appendix 2

**1.3.**Strengthened capacity of Live & Learn Vanuatu to plan and implement conservation education, as demonstrated by civil society tracking tool scores at project start and end

Throughout the project over the course of one year has shown that the capacity of Live & Learn Vanuatu has increased by 0.5 compared to that of the beginning of this project.

**9. COMPONENT TWO:** Community leaders/key influencers gain enhanced: (i) awareness of local biodiversity issues (ii) ability to make informed decisions to protect biodiversity, (iii) ability to take actions, and (iv) ability to inform and engage others

**2.1.** Community leader / key influencer biodiversity conservation education

This activity has influenced community leaders in all three communities to make informed

workshops held (min x 2 per hotspot site) -  
(evidenced by workshop reports)

decisions to protect their biodiversity. For instance, Dolav community-west Gaua has already protect and conserve their marine resources for up to 6 months and this is covers a total of 500 square meters and now are looking at conserving their terrestrial plus mega pod. Santo Mountain Chain has made a decision which is also documented as their action plan to engage in ecotourism. Tongoa-Laika is looking at protecting wedge –talied shear waters on part of Laika and also do reforestation the Island after the being devastately hit by Pam earlier this year.  
Please see Appendix 3

**2.2.** Biodiversity actions identified and owned by local participants (evidenced by a simple action plan designed by participants)

All three communities in our priority sites of Gaua, Santo Mountain Chain and Tongoa -Laika have identified and designed their action plans towards the end of this project.  
Please see Appendix 4

**2.3.** Pre and post-workshop capacity self assessment survey completed

Capacity self-assessments for workshop participants were incorporated into workshop reports (Appendix 3).

**10. COMPONENT 3.** Teachers have increased capacity and access to new resources to teach about biodiversity conservation, and put this into practice in the classroom

**3.1.** Education for biodiversity conservation manual (edited, reprinted and disseminated)

The resource- Education for Biodiversity Conservation manual has been edited in July 2014. It was then reprinted and distributed in August 2014 during the teacher’s workshop in all the 3 sites. Please see <http://www.livelearn.org/resources/discovering-biodiversity>

**3.2.** Teacher training workshops held (evidenced by workshop reports)

Teachers Train the Trainers Training was held at all project sites in Santo Mountain Chain on the 20<sup>th</sup> of August 2014, Dolav-Gaua on the 14<sup>th</sup> of August 2014 and Morua-Tongoa on the 12<sup>th</sup> of September 2014.  
Please see workshop reports (Appendix 3)

**3.3.**Pre and post-workshop biodiversity education capacity self assessment survey completed

Incorporated into the workshop reports (Appendix 3).

**11. COMPONENT 4.**Compliance with CEPF Social Safeguard Policies

**4.1.**Compliance with CEPF Social Safeguard Policies monitored and reported to CEPF

Please see safeguard monitoring report submitted separately.

**4.2.**Local community leaders and provincial authorities approve of project implementation prior to field work commencing

**4.2.**Local community leaders and provincial authorities approve of project implementation prior to field work commencing

Live & Learn had to ensure they take the right approach prior to implementing activities in the three communities. On the 26<sup>th</sup> of June LLV team met with the Secretary General (SG) for Torba, SANMA and Shefa provinces where our priority sites are who were in Port Vila attending a meeting. This was to gain their approval to implement activities in the respective provinces. On the 11<sup>th</sup> of July, the project coordinator and current country manager of LLV Andrina Thomas met with Kurumambe Chief of Tongoa Laika – Chief Joylee Seresere and got his approval to work with his community. Another letter was sent to Cherol Ala who is the director of Department of Local Authority on the 8<sup>th</sup> August 2014. Sanma province with the aid of Anaglet philip met with Kerepua Chief –Chief Aram late in July to seek approval for LLV to work in his community of which they positively responded. Kathy Napuat of Torba province also assisted LLV to get approval from Dolav community in July 2014. Fr Charles of Gaua was also approached for Gaua site in July 2014 and Morrison Dick who is responsible for Tongoa-Laika under Shefa province has granted approval prior to LLV entering his community.

**12. If you did not complete any component or deliverable, how did this affect the overall impact of the project?**

The day before the planned second workshop in Kurumambe community a death occurred within the community. This meant the Chief reduced the time given to LLV to run the workshop so that ceremonial grieving could occur (5 days of grieving). The team prioritized the Action Plan finalization and therefore did not have time to complete the final self-assessment for the project. There is therefore incomplete data for Kurumambe community on their education relating to biodiversity. The project felt this was necessary and has sought to capture learning by the community through feedback and results of workshops instead. It is believed this will have minimal impact overall for the project.

**13. Please describe and submit any tools, products, or methodologies that resulted from this project or contributed to the results**

*Workshop Plans (Community Workshop One and Two, Teacher’s Workshop)* – These workshop plans were developed in collaboration with Live & Learn International during the inception workshop. They incorporated multiple resources and provided a high-quality participatory workshop design which the LLV team found extremely effective. The plans are attached at Appendix 2.

*Discovering Biodiversity* – 150 copies of this resource were distributed to Teachers during the project. This resource was developed specifically with tools for teachers and non-formal education facilitators in Melanesia and has been extensively pre-tested. It draws heavily upon Melanesian experiences, values and examples. see: <http://www.livelearn.org/resources/discovering-biodiversity>

*Fisheries for our Future, and Climate Change and Community-based REDD+ Education Manual.* This manual provided guidance for one activity within the workshop plans. see <http://www.livelearn.org/resources/fisheries-our-future>

**CEPF Global Monitoring Data**

Respond to the questions and complete the tables below. If a question is not relevant to your project, please make an entry of 0 (zero) or n/a (not applicable).

**14. List any vulnerable, endangered, or critically endangered species conserved due to your project**

Turtle, Megapode and Wedge-tailed Shearwater (Mutton bird)

**Hectares Under Improved Management**

Project Results	Hectares*	Comments
15. Did your project strengthen the management of an existing protected area?	n/a	List the name of each protected area
16. Did your project create a new protected area or expand an existing protected area?	5	Custom Tabu area established in Lagona Bay, Gaua - marine
17. Did your project strengthen	3,446	Tongoa-Laika (3,441 ha), West Gaua (5



the management of a key biodiversity area named in the CEPF Ecosystem Profile (hectares may be the same as questions above)		ha)
<b>18. Did your project improve the management of a production landscape for biodiversity conservation</b>	n/a	List the name or describe the location of the production landscape

\* Include total hectares from project inception to completion

19. In relation to the two questions above on protected areas, did your project complete a Management Effectiveness Tracking Tool (METT), or facilitate the completion of a METT by protected area authorities? If so, complete the table below. (Note that there will often be more than one METT for an individual protected area.)

No METT was done as protected area management was not planned for the project.

Protected area	Date of METT	Composite METT Score	Date of METT	Composite METT Score	Date of METT	Composite METT Score

20. List the name of any corridor (named in the Ecosystem Profile) in which you worked and how you contributed to its improved management, if applicable.

#### Direct Beneficiaries: Training and Education

Did your project provide training or education for . . .	Male	Female	Total	Brief Description
<b>21. Adults for community leadership or resource management positions</b>	65	50	115	Educators-there were 31 educators altogether-who attended the Teachers Train the Trainers Training and 84 community members both male and female who attended the Biodiversity awareness workshops in their respective communities of Dolav- west Gaua, Kerepua-West Coast Santo and Kurumambe-Tongoa-Laika.

<b>22. Adults for livelihoods or increased income</b>				
<b>23. School-aged children</b>				
<b>24. Other</b>				

**25. List the name and approximate population size of any “community” that benefited from the project.**

*Dolav Community, West Gaua, TORBA Province, Vanuatu ~200 people*

*Kerepua Community, Espiritu Santo, SANMA Province, Vanuatu ~250 people*

*Kuramambe Community, Tongoa, SHEFA Province, Vanuatu ~200 people*

**26. Socioeconomic Benefits to Target Communities**

Based on the list of communities above, write the name of the communities in the left column below. In the subsequent columns under Community Characteristics and Nature of Socioeconomic Benefit, place an X in all relevant boxes.

Community Name	Community Characteristics								Nature of Socioeconomic Benefit												
	Small landowners	Subsistence economy	Indigenous/ ethnic peoples	Pastoralists / nomadic peoples	Recent migrants	Urban communities	Communities falling below the poverty line	Other	Increased income due to:				Increased food security due to the adoption of sustainable fishing, hunting, or agricultural practices	More secure access to water resources	Improved tenure in land or other natural resource due to titling, reduction of colonization, etc.	Reduced risk of natural disasters (fires, landslides, flooding, etc)	More secure sources of energy	Increased access to public services, such as education, health, or credit	Improved use of traditional knowledge for environmental management	More participatory decision-making due to strengthened civil society and governance	Other
									Adoption of sustainable natural resources management practices	Ecotourism revenues	Park management activities	Payment for environmental services									

If you marked "Other", please provide detail on the nature of the Community Characteristic and Socioeconomic Benefit:

## **Lessons Learned**

**27. Describe any lessons learned during the design and implementation of the project, as well as any related to organizational development and capacity building. Consider lessons that would inform projects designed or implemented by your organization or others, as well as lessons that might be considered by the global conservation community**

**28. Project Design Process (*aspects of the project design that contributed to its success/shortcomings*)**

LLV and LLI developed the workshop plans together in a participative way. This was a very effective initial activity for the project and established a sound path for the LLV team to progress with implementation. LLV team members commented that the workshops were very participatory and enabled the participants to come to their own understanding of why biodiversity was important and how they could respond to what was happening around them.

Sadly the final design of the project did not have sufficient funds to support more communication and interaction with the communities. The communities being isolated are expensive to reach. Communication via phone, email or mail is very poor. More time and resources allocated to contact with the communities would have improved the project overall by:

- Allowing follow up support to teachers once they had started using the resources to deepen their knowledge and use of the resource and encourage school-led conservation action, and
- Building further trust and assisting communities further to start implementing their conservation activities.

**29. Project Implementation (*aspects of the project execution that contributed to its success/shortcomings*)**

Kerepua was selected by SG because we gave them the option however never gave a good reason for selecting this remote area. Other sites in SMC have much higher threats to biodiversity and could have been better target sites for this project.

The project was to take communities as far as the action plan stage and no further. For all three communities this was the first time they had created an 'action plan'. This was new, exciting and important for the community. With poor literacy and little to no access to services, these communities requested the ongoing assistance of LLV to implement the action plans. Despite clear efforts by the LLV team to not raise expectations, LLV faces some negative feedback from these communities should no further support be provided. In an attempt to mitigate this, LLV has shared the action plans with provincial planners and other key actors in the hope that others can support the action plans.

**30. Describe any other lessons learned relevant to the conservation community**

Entry to communities through the Provincial Government provided a key lesson for LLV. In order to respect and strengthen provincial governance structures in Vanuatu, provincial-

level staffs were engaged by LLV to determine sites within priority areas and establish initial contact for the project.

Inadequate notification was provided by Provincial officials to the communities which meant the communities had misinformation about the intentions of LLV (i.e. surveying land for development, looking to establish LLV-managed conservation area). This caused issues for LLV on entry to the communities.

In future, LLV will focus more efforts on adequately informing and educating provincial officials on the outputs of the project. LLV may also provide posters, notices or other forms of initial information that can support correct information reaching communities prior to LLV entering.

### **Sustainability / Replication**

#### **31. Summarize the success or challenges in ensuring the project will be sustained or replicated**

Comments from community members and actions taken by some to initiate conservation actions demonstrate that the education approach to sustainability has been effective. A strong desire by communities to implement action plans shows motivation to continue actions towards biodiversity protection however some of the communities are so new to the concept of action plans that they may struggle to continue on without further support. Establishing a core environment group which has the capacity to implement action plans in a one year project which supported two visits is a challenge.

The workshop plans are replicable for the region and beyond. LLV has been invited as a partner to develop a workshop during 2016 World Conservation Congress in Hawaii on participatory methods for climate change planning. Some activities from these work plans are to be included/adapted for this purpose.

#### **32. Summarize any unplanned activities that are likely to result in increased sustainability or replicability**

In December 2014, the project coordinator was invited to do a presentation on sustainable use of environment while on holidays in South West Bay, South West Malekula. Since the community was looking into ecotourism and were already engaged in it with tourist boat visiting them twice a year, She did a presentation on biodiversity, its values, threats to biodiversity and how can these threats be addressed at community level. The community already has their marine conservation however once in a while individuals from the community would go to the conservation site and take resources from the conservation site. After the awareness, the conservation is now being strengthened and now there are giant clam shells twice bigger than before that can be seen on the reefs plus population of marine resources have increased in number.

### **Safeguards**

#### **33. If not listed as a separate Project Component and described above, summarize the implementation of any required action related to social, environmental, or pest management safeguards**

A Social Safeguards monitoring report has been submitted separately.



**Additional Comments/Recommendations**

**34. Use this space to provide any further comments or recommendations in relation to your project or CEPF**

**Additional Funding**

**35. Provide details of any additional funding that supported this project and any funding secured for the project, organization, or the region, as a result of CEPF investment**

<b>Donor</b>	<b>Type of Funding*</b>	<b>Amount</b>	<b>Notes</b>

*\* Categorize the type of funding as:*

- A Project Co-Financing (other donors or your organization contribute to the direct costs of this project)*
- B Grantee and Partner Leveraging (other donors contribute to your organization or a partner organization as a direct result of successes with this CEPF funded project)*
- C Regional/Portfolio Leveraging (other donors make large investments in a region because of CEPF investment or successes related to this project)*

**Information Sharing and CEPF Policy**

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned, and results. Final project completion reports are made available on our Web site, [www.cepf.net](http://www.cepf.net), and publicized in our newsletter and other communications.

Please include your full contact details below:

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**Please see below are the Appendices to the report**



## **Appendix 1: Inception Report**

# *CEPF Education for Action: Empowering Local Communities for Biodiversity Conservation on Priority Sites in the Solomon Islands and Vanuatu*



## **Report of the Mobilisation Workshop**

**Live & Learn Environmental Education Office**

**Port Vila, Vanuatu**

**23-26 June 2014**

**Prepared by Emily Findlay**



## 1. Introduction

This report covers the main outputs of the four-day mobilisation workshop that was held in Port Vila during 23 – 26 June 2014. The report does not cover each of the workshop sessions in detail; rather it gives an overview of the objectives, methodology, findings, and next steps while describing the key discussions that took place.

The purpose of the CEPF *Education for Action: Empowering Local Communities for Biodiversity Conservation* on Priority Sites in the Solomon Islands and Vanuatu is to address the issue of low awareness about biodiversity conservation and opportunities such as REDD+, among target communities living within and dependent upon key biodiversity hotspots in, Solomon Islands (East Rennell) and Vanuatu (Gaua, Santo Mountain and Tongoa-Laika).

The workshop provided an opportunity for newly recruited project staff and significant stakeholders to meet with and strengthen networks, get to know each other as well as become familiar with the scope and objectives of the CEPF project. During the mobilisation workshop the project team had the opportunity to plan overall program delivery; establish project management and monitoring and evaluation systems; engage partners and stakeholders; and increase their own confidence and capacity to deliver the biodiversity Conservation education and training.

### 1. Participants

The workshop brought together recently recruited project staff, project mentor, existing Live & Learn staff working on relevant and related programs such as the REDD+ program, as well as key stakeholders including staff from the Department of Environment and local provincial councils.

The workshop did not include Live & learn staff from the Solomon Islands, as separate arrangements will be made for their training in Vanuatu with the Live & Learn REDD+ team. This is because the Solomon Islands Priority Site (East Rennell) has specific needs that justify a focus on REDD+ or PES rather than a more general biodiversity conservation education approach.

The list of participants is attached as *Attachment 1*.

### 2. Objectives

The terms of reference (TOR) for the mobilisation workshop are attached as *Attachment 2*.

The objectives of the workshop were for (after attending the four-day workshop) participants to be able to do the following;

- I. Describe the scope of the CEPF project including its general purpose, and their roles and responsibilities
- II. Identify key performance milestones, including those for implementation and reporting
- III. Explain the monitoring requirements, and have access to tools to implement monitoring





- IV. Confidently communicate and access support from the Department of Environment
- V. Identify relevant biodiversity conservation activities that are presently or have previously been undertaken within the priority sites
- VI. Identify and gather sources of information on biodiversity conservation issues (e.g. threatening processes) for the priority sites
- VII. Progress specific site selection (in consultation with DoE and other relevant stakeholders, especially for Santo Mt Chain)
- VIII. Locate relevant education activities in the Biodiversity Education Manual and other relevant resources
- IX. Confidently present key activities from within the Biodiversity Education Manual
- X. Describe the requirement for creating a 'localised education program' for each priority site (and have made a start using templates provided)
- XI. Explain the purpose and general contents that need to be developed for community-led action plans (and have access to a guidance template)
- XII. Describe the work plan and commence development of more detailed plans

### 3. Process

The workshop used a variety of methods and tools to ensure that the participants were engaged throughout the four days of activities. The presenter made every effort to ensure that the workshop sessions were participatory and interactive and would maximise opportunities for team and confidence building. A range of techniques were used including, brainstorming, small group work, mind mapping and problem trees, etc., which participants could learn from and in turn apply in their own roles in delivering the project.

**Day 1** started with a review of the goals and objectives of the workshop and a summary of the four-day program. An information session about the CEPF project was held including its general purpose. This introductory session provided the opportunity for project staff to meet the project mentor and to better understand their individual roles and responsibilities. The remainder of the day was focused on identifying key performance milestones and becoming familiar with the monitoring requirements and tools including the *Civil Society Tracking Tool* and *Social Safeguard Survey*.

**Day 2** was mainly dedicated to becoming familiar with biodiversity and its conservation issues in Vanuatu and Solomon Islands, as well as Live and Learn's existing resources and programs which focus on Biodiversity. A guest speaker, Anjali Nelson from Live and Learn's REDD+ program, addressed the group about the opportunities and possibilities offered by programs such as REDD+ and PES (Payment for ecosystem services). Participants also reviewed and discussed the East Melanesian Islands Ecosystem Profile Summary. The project mentor provided an information session to give a history of the development of the *Discovering Biodiversity* manual, which will be used as a key resource in this project.

On **Day 3** there was an Information session by Department of Environment about the current conservation issues and activities relevant to the CEPF target sites and the value / importance of Biodiversity at these areas. Based on the



information presented by the Department of Environment and the review of the ecosystem profile summary from day 2 a group discussion / learning circle activity was carried out to help select sites to target the project. The selection process will continue over the next few weeks as more information is gathered (see Next Steps). The afternoon was spent carry out a number of the selected biodiversity education activities from existing resources to identify strengths and weaknesses and comment in relation to application to target communities. See *Attachment 3* for details of biodiversity education activities carried out.

**Day 4** was dedicated to becoming familiar with the value and potential structure of a locally focused education program and community action plan. Participants began completing an education program for each site using a planning template. An information session about community action plans was held to give participants an understanding of their structure and purpose. The afternoon was dedicated to reviewing the work plan for project implementation, debriefing the sessions and wrapping up the workshop.

#### **4. Next steps**

There was workshop time devoted to planning next steps for this project and participants were given the opportunity to leave the workshop with specific plans for future action.

The following next steps were agreed upon:

- Project staff will continue to complete the *Key Biodiversity Area Summary Table* as more information about target site is received from stakeholders and ongoing research and use this table to pin-point communities to work with in target areas.
- Project staff will use the work plan as a basis and continue with the development of more detailed plans
- Project staff will set-up meetings and further opportunities for ongoing communication with key biodiversity and project stakeholders
- Project mentor will complete the mobilisation workshop report and distribute to participants
- Project coordinator will review the *Discovering Biodiversity Resource* and suggested edits / updates where necessary and seek quotes for printing new copies.
- Project mentor will complete the identified edits / updates to the *Discovering Biodiversity Resource* and get it to a 'print ready' state
- Project Mentor will continue to be available to provide assistance and support to the project coordinator on an 'as needed' basis for the duration of the project cycle.
- Project staff will continue to use the Education Program Site Specific Planning Guide to develop locally relevant education plans for delivery.

## 5. Evaluation

A 'Roadcheck' system for evaluation was used throughout the four-day workshop to gain immediate feedback on how the workshop program was going for the participants. Formative responses from participants were collected at the end of each workshop day and adjustments to the structure of the remaining workshop made accordingly.

An informal group discussion was held at the conclusion of the workshop on Day 4 in the form of a 'feedback for the presenter' session. The structure of the discussion loosely followed the '3 Open Questions' technique of gaining feedback;

- 1) *"What was the most useful thing you gained from the workshop?"*
- 2) *"What was the best thing about the workshop?"*
- 3) *"How could I change the structure or the delivery of the session to help you get more from workshop?"*

All involved agreed that overall, the workshop met its objectives. Participants felt that they had a clear understanding of the aims and expected outcomes of the CEPF project along with their own roles in its delivery. They also felt they were more confident and capable to deliver the biodiversity conservation education and training to the target communities.

The participants were introduced to a range of resources as well as, facilitation methods and tools, and had the opportunity to use some of them during the four days.

The workshop feedback session reflected that all the participants found the workshop useful and well conducted. Participants noted that it was beneficial to have made contact with key stakeholders relevant to the project and that the four-day workshop represented a good networking opportunity.

### **Attachment 1. List of Participants**

Jessie Kampai	Live & Learn Vanuatu	Biodiversity Education Program Coordinator
Jimmy Tess	Live & Learn Vanuatu	Biodiversity Education Program
Presly Dovo	Department of Forestry	Forestry Protected Area Management Project Coordinator
Mark Kalotap	Department of Environment	NBSAP Project Coordinator
Anjali Nelson	Live & Learn Vanuatu	REDD+ Project Advisor
Glarinda Andre	Live & Learn Vanuatu	REDD+ Project Coordinator
Josian Viraliliu	Live & Learn Vanuatu	Climate Change Project Coordinator
Emily Findlay	Live & Learn Australia	Biodiversity Education Program Mentor / Workshop Presenter



**Attachment 2. The Terms of Reference for the Mobilisation Workshop**

**Live & Learn REDD Project**  
**Technical Assistance Mission**  
**Program: 23rd– 26<sup>th</sup> June 2014 (4 days)**  
**Technical Assistance Objectives:**

(By the end of the week project staff can):

1. Describe the scope of the CEPF project including its general purpose, and their roles and responsibilities
2. Identify key performance milestones, including those for implementation and reporting
3. Explain the monitoring requirements, and have access to tools to implement monitoring
4. Confidently communicate and access support from the Department of Environment
5. Identify relevant biodiversity conservation activities that are presently or have previously been undertaken within the priority sites
6. Identify and gather sources of information on biodiversity conservation issues (e.g. threatening processes) for the priority sites
7. Progress specific site selection (in consultation with DoE and other relevant stakeholders, especially for Santo Mt Chain)
8. Locate relevant education activities in the Biodiversity Education Manual and other relevant resources
9. Confidently present key activities from within the Biodiversity Education Manual
10. Describe the requirement for creating a ‘localised education program’ for each priority site (and have made a start using templates provided)
11. Explain the purpose and general contents that need to be developed for community-led action plans (and have access to a guidance template – poster form)
12. Describe the work plan and commence development of more detailed plans

<b>Day 1: Date</b>		
<b>Time</b>	<b>Session focus</b>	<b>Presenter / facilitator</b>
	Meet and greet country manager and support staff; review scope of TA	EF
	Introductory meeting with Project staff – go over the weeks objectives and program	EF & AT
	Describe the scope of the CEPF project including its general purpose, and staff roles and responsibilities (Including CM re implementing Civil Society Tracking Tool)	EF & AT
<b>12 noon</b>	<b>Lunch</b>	
	Key performance milestones, including those for implementation and reporting	EF
	Explain the monitoring requirements, and introduce the monitoring tools	EF
	Practice using the capacity self-assessment surveys and social safeguard survey	EF



Day 2: Date		
Time	Session focus	Presenter / facilitator
	Review Day 1	EF / JK
	Introductory Information Session – What is Biodiversity?	EF
	Possible Speaker from the REDD+ program	AN (or rep)
	History of the <i>Discovering Biodiversity</i> Resource. Familiarization with the resource content and structure (as well as other LLEE resources relevant such as – <i>Fisheries for our Future</i> etc.).	EF
<b>12 noon</b>	<b>Lunch</b>	
	Carry out a number of the selected Biodiversity Activities with CEPF Project staff and others. Identify strengths and weaknesses with activities and comment in relation to application to target communities.	All

Day 3: Date		
Time	Session focus	Presenter / facilitator
	Review Day 2	EF & JK
	Review and discuss the East Melanesian Islands Ecosystem Profile Summary	All
	Information session by Department of Environment presenting information about the current conservation issues and activities relevant to the target sites and the value / importance of Biodiversity at these areas – why do we want to conserve them?	EU
	Group Discussion / Learning Circle to select sites to carry out the project.	All
<b>12 noon</b>	<b>Lunch</b>	
	CEPF Project staff to Select Activities from the EBC Biodiversity resource based on the identified threats and actions relevant to our identified sites.	All
	Carry out a number of the relevant activities. Identify strengths and weaknesses with activities and comment in relation to application to target communities.	All



<b>Day 4: Date</b>		
<b>Time</b>	<b>Session focus</b>	<b>Presenter / facilitator</b>
	Review Day 3	EF & JK
	Identify & become familiar with a template for Education Program	All
	Begin completing Education Program for each site using the template	All
<b>12 noon</b>	<b>Lunch</b>	
	Identify and become familiar with Community Action Plans, understand their structure and purpose.	All
	Describe the work plan and commence development of more detailed plans	EF / All

### **Attachment 3 Biodiversity Education Activities Carried Out During the Workshop**

Activities taken from; *'Discovering Biodiversity – An Educators Guide to Exploring Natures Variety'*, Live & Learn Environmental Education, Vanuatu 2008.

#### **Activity 1 - Natural Connections Scavenger Hunt**

An activity that enables students to discover the many ways in which plants, animals and other living things are connected with each other and depend on each other for survival.

#### **Activity 2 - The Spice of Life**

This Activity enables student to explore different values and beliefs about why biodiversity is important, why it should be protected, and how different views can have an effect on biodiversity conservation.

#### **Activity 3 – Space for Species**

Student develop an understanding of how habitats and 'space' is important for a species to survive by taking part in a role play that shows how human activities can impact upon a habitat and its biodiversity.

#### **Activity 4 - Nature and Culture Connection**

Students get an opportunity to think about their own culture and compare it with a variety of cultures from other countries or communities within their own country.

#### **Activity 5 – Biodiversity Performs**

Students learn about some of the secret services that ecosystems and species within them provide, and which we sometimes overlook, by creating a charade-performance for their peers.



## Appendix 2: Workshop program designed for Gaua

### 1. Self-Assessment survey

This is a participatory group activity that measures participants understanding of the key learning outcomes of the CEPF biodiversity conservation education project. It can be used to:

- Establish a knowledge baseline (find out how much people know before the project starts)
- Identify knowledge gaps so that education can target relevant areas
- Determine the success of the project in achieving the learning outcomes, or identify where follow up effort is required
- Reveal differences in learning outcomes based on gender or other groups

### Step-by-step guide

1. Before this session, prepare the survey sheets(see below). Translation into a suitable language for local participants is highly recommended

2. Clearly explain the reason for conducting this activity:

- If this activity is being presented prior to the training or workshop, tell the participants that the aim is to find out what sorts of things people need to learn about. If participants already know the topic well, then it would be a waste of effort to spend time learning more about it. But if participants don't know very much, then this is where effort should be made to teach and learn.
- If this activity is being presented at the end of the training or workshop, explain that the aim of the activity is to find out if the training was effective in building participants' understanding of the topics covered, and that the self-assessment will highlight if any concept or topic needs to be revised. It also allows the facilitators to learn about the effectiveness of the workshops and for participants to celebrate the new things that they have learned.
- Explain that for the purpose of this activity, it is important that participants answer honestly. There is no shame in knowing or not knowing about a topic. Honesty is critical for the integrity of the findings.

3. Choose two points at opposite ends of the room or space in which the group is gathered. Ask participants to imagine a line between the two points. Explain that one side represents '*True, yes, definitely, 10-out-of-10, totally and 100%*'. The other side represents '*False, no, absolutely not, no idea, zero, nothing*', and the in-between area on the line represents '*Maybe, kind of, a bit, sometimes*'.

4. Explain that you will present some 'statements' about key concepts that will be covered in the workshops. Each statement will begin with 'I can...'. If a participant feels as if the statement is true in their case, they should stand at the 'Yes' end of the room. If they feel like they don't know anything about the topic, then the statement is considered false and they should stand at the 'No' end. If they feel they know a little about the topic, they should stand somewhere in-between. If they don't feel they can answer, participants should be given the opportunity to opt out (and not be counted in the results).



5. Before you introduce the first statement, ask participants to close their eyes until they have considered what has been said. Once they have listened to the statement, they should move to their answer position as quickly as possible and not look at anyone else. They must be honest and not just follow the crowd!

6. Example:

Present the group with the statement *'I could illustrate the greenhouse effect, and explain to a friend or family member how it causes global warming.'*

Remind them, 'Before you move, think about your answer. If you are definitely familiar with the causes of climate change and could explain it to a friend or family member, move to the right. If you definitely couldn't and have no idea move left, or position yourself in the right place somewhere in-between.' Reaffirm that there is no shame in knowing or not knowing.

7. Using the recording below as a guide, record where people are standing in response to this statement. Rate their responses as 'good understanding' (green), 'low understanding' (red) or 'medium or some understanding' (amber).

8. facilitate some discussion or explanation from participants about why they selected their position on the line. If there are a few 'good understanding' participants, ask if they would briefly describe their understanding. At this stage take care not to correct people if they have the wrong idea. Note significant comments or stories in the qualitative result section – this may later be invaluable when interpreting the significance of the qualitative findings.

9. Repeat steps 6–8 for the remaining key learning statements. Facilitators are encouraged to modify the statements to suit the particular context of the village or participants. However the keep in mind that you can only compare before and after if the same questions are asked each time!

### **Alternative activity**

Instead of asking participants to 'stand on a line', you could provide three buckets labelled 'good understanding', 'medium or some understanding' and 'low understanding' (use local language if possible). Provide each participant with a stone and ask them to place their stone in the appropriate bucket. This method will assist you to quantify the results. If you use this technique you should also make an effort to ensure that nobody feels shame in answering truthfully and that people don't 'follow the leader'.

## **2. Introduction of Biodiversity from Reef to Ridge**

This is a session where the facilitator and the community will work together to do a profile of the resources the community has. This is very important for both the community and the facilitator as the community need to know the resources they have and the facilitator as this might be the baseline information to go into the Action plan. Part of this activity is extracted from the book *'Fisheries for the Future'*.

### **3. Values of Biodiversity**

A value of biodiversity is a session that is more of an eye opener to the community where the community really sees the value of biodiversity in their areas. For instance, what this value is to trees, why they are important to the communities. The communities





themselves need to pick up 10 most important resources from the list identified in the reef to ridge activity above and come up with their roles and or why they are important to the communities.

#### **4. Why was my place chosen as a priority site**

It is important for the communities to know why their Community and or Island were chosen as a priority site. This will help them understand that their community and or island are important and that there is a need to protect it. It will help them admire the resources they have and to know that these resources are important and have some endemic species and that if they destroy them all it will go extinct and will not be found in any other places around the world.

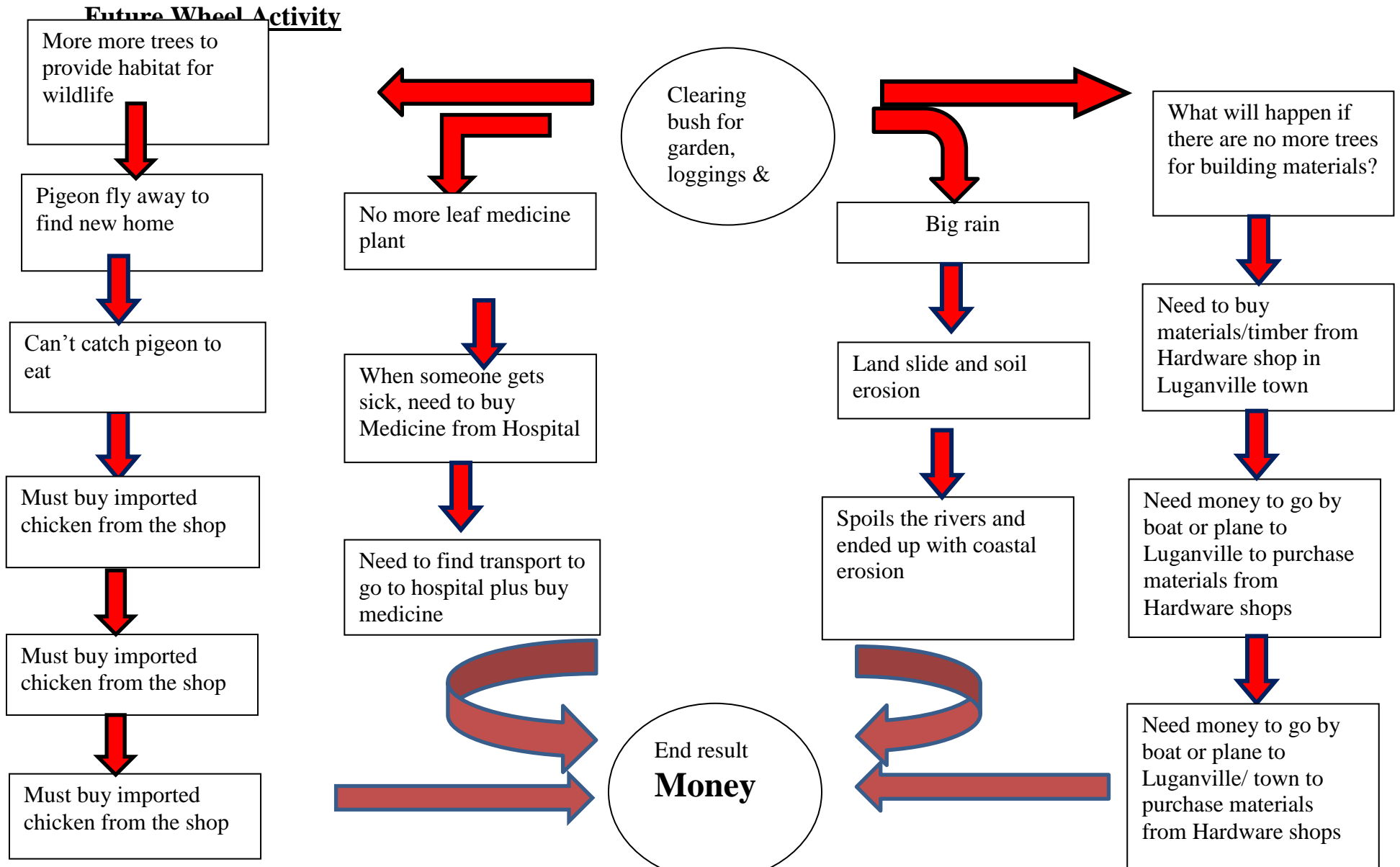
#### **5. Threats to Biodiversity**

The activity threats to biodiversity allow the community to really think and identify the threats that affect biodiversity in their areas. After having identified the resources they have and its value so they get to feel the need to protect and treasure their resources rather than taking it for granted and leaving nothing for their future generation

#### **6. Future Wheel**

Future wheel is really giving an opportunity to the communities to work out what will become of their future if they do not take the necessary steps now to protect or conserve their resources or biodiversity.

Future wheel has two simple questions “If and what” for the communities to address. As simple as it is, it has a big impact on the community and the way they are using their resources now. For instance, if there is no more big trees for building materials, what will happen then. Where would the community get the building materials from?





## **7. Onions and Orchids**

Onions and Orchids is a monitoring tool to identify how people feel about the workshop. Was it helpful? What did people like most about the workshop and what did people like the least about the workshop. What else should be included to make the workshop more successful? It is more to help the facilitator improve the way the workshop was being facilitated.

## **8. Self –Assessment survey**

Self-Assessment survey is again carried out the end of the workshop to measure how much people have learnt or the effectiveness of the workshop whether or not the objectives of the workshop have been achieved. With communities, the facilitator can use the show of hands, bucket activity and or a flipchart to indicate how much each person has learnt throughout the workshop.



## Appendix 3: Workshop Reports

### Report of first Biodiversity Workshop in Kerepua –Santo Mountain Chain

Date: 19 August 2014

Venue: Dolav Community, West Coast Santo



Prepared by  
Jessie Kampai

This report covers the main output of the workshop held in Kerepua, Santo Mountain Chain on the 19<sup>th</sup> of August 2014. The report will briefly cover each of the workshop sessions, its objectives, methodology and findings.

## 2. Participants

The workshop brought together community members including chiefs, Elders, men, women and youth in the community.

See attachment 1: List of participants

## 3. Objectives

The objectives of the workshop are for the communities to:

- Understand what biodiversity is
- Importance of their local biodiversity as a biodiversity hotspot
- Understand the role biodiversity plays in providing ecosystem services, resources and livelihoods
- Recognising the threats to local biodiversity
- Use new knowledge and skills gained to plan the community management action plan

## 4. Process

The workshop used a variety of methods and tools to ensure that participants participated actively throughout the workshop from beginning to end. It was also



presented in a way that anyone in the community will understand it. It was a participatory and interactive workshop that participants got into groups and discussed and note down their ideas and have them presented in front of the whole team.

## 5. Opening and welcome

Prior to workshop, the chief representative gave a formal welcome to the team and all the participants with opening prayer from the village Elder.

## 6. Introducing Team members, Live & Learn and CEPF

Brief introduction was done by Biodiversity officer Jimmy Tes of the staff members present at the workshop plus Live & Learn Environmental Education as an organisation. Jessie Kampai talked briefly about Biodiversity Project and introduced its donor CEPF (Critical Environment Partnership Fund) to the community and stress why the community has been selected as a biodiversity hotspot in East Melanesia.

## 7. Self –Assessment Survey

A self-Assessment survey has been carried out with the participants before the workshop began. The table showing the findings is attached to this report as Attachment 2.

## 8. Introductory session on Biodiversity

This session is to introduce biodiversity to the community members. From the survey carried out at the beginning of the session we found out that we really need to use a really simple technique to describe what biodiversity is to suit their knowledge. Therefore, we did an activity “Reef to Ridge”. We had to break down the word ‘Biodiversity. Bio-life and diversity –variety so if we put the two words together we came up with the word Biodiversity which means –the variety of life forms –the different plants, animals and micro-organisms, the genes they contain and the ecosystems in which they form a part.

So the reef to ridge activity is basically getting the participants into groups and asking them to list down all the resources they have from reef to ridge-beginning from reef to river and bush.

Below are listed different resources from reef to Ridge

### Kerepua Community, West Coast Santo

Sea	River	Forest	
Fish	Red eel	Kauri	Manutu
Shells	Marae Bovete-(Eel)	Sandalwood	Taroa
Turtles	Ura au-Prawns	Mojono	Green Pigeon
Crabs	Saji-Prawns	Au Kara	Nawimpa
Dolphins	Orete-Prawns	Vunei au	Matawele
Corals	Joro Kara-Fish	Taniaru	Wapune
Clum shells	Joro Bwete-Fish	Weari	Taqala
Octopus	Crabs	Orou	Raven
Squid		Venue nalum	Hawk
Paracuda		Tapoi	Oak night



Tuna		Memevu	Jijileri
		Vuivui	Bwilbwil vusia
		Tilepao	Parrot
		Taripu	Mwera mwerai
		Revo revo	Sot leg-3 kinds
		Baka	Najikjik
		Bulu	Yeserova
		Nunumwa	Chicken
		Sebweke	Bat-3 kinds
		Gosi	Flying fox
		Revus	Koula-Scrub duck
		Jeje	
		Jeajea	
		Jeajea Varana	
		Bwarereti	
		Mwakuku	
		Black Palm	
		Fern-5 different types	



Figure 1 Image showing men's group rep presenting the list of resources identified by the group

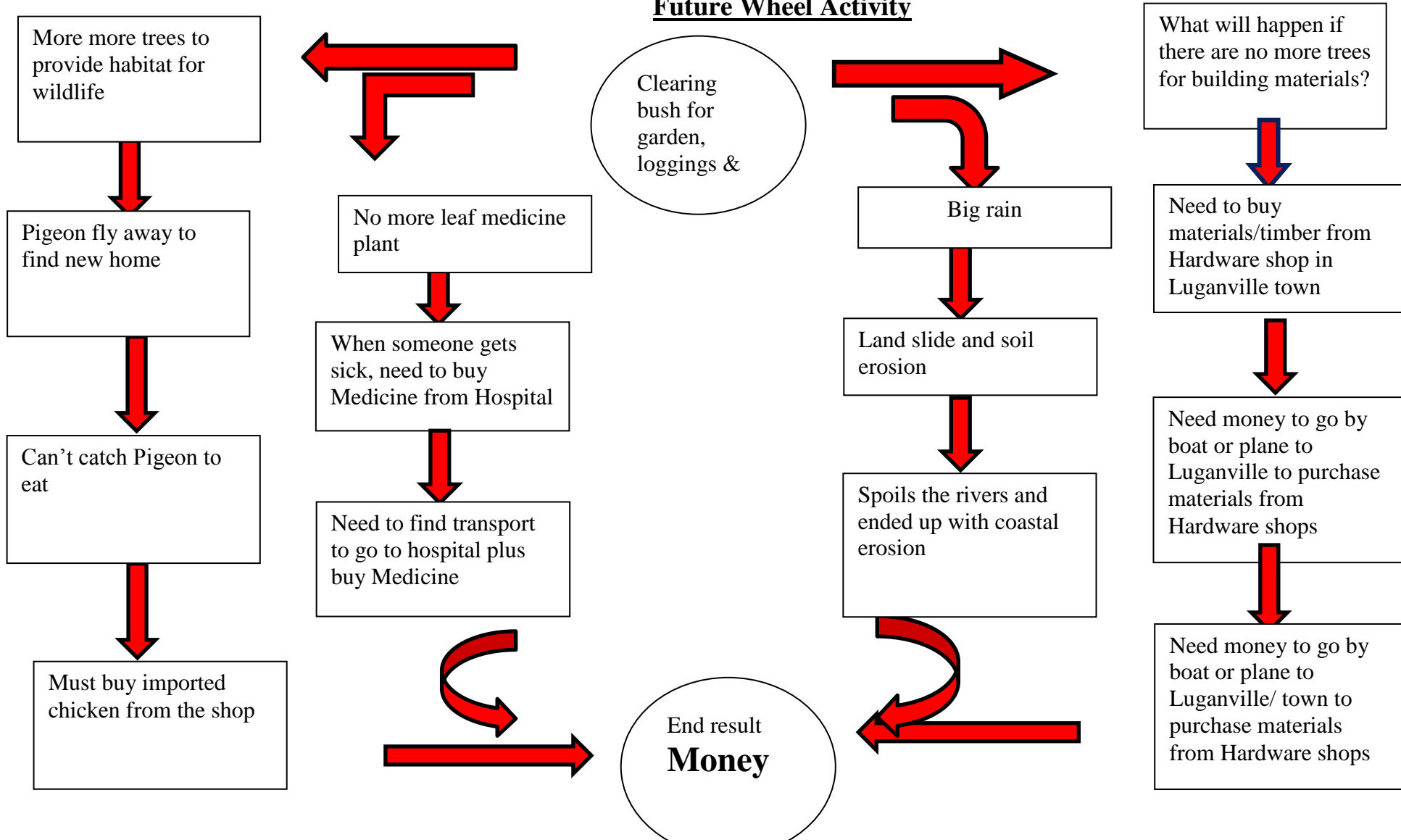
### 11. Future Wheel

Future wheel is really giving an opportunity to the communities to work out what will become of their future if they do not take the necessary steps now to protect or conserve their resources or biodiversity.

Future wheel has two simple questions "If and what" for the communities to address. As simple as it is, it has a big impact on the community and the way they are using their resources now. For instance, If there is no more big trees for building materials, what will happened then. Where would the community get the building materials from?



### Future Wheel Activity





12. What shall be done to address negative outcomes/results (Action plan exercise)  
Part 1

## **Kerepua Community-West Coast Santo**

### ***Agroforestry plots***

The community of Kerepua, west coast Santo, in response to the Biodiversity Conservation Education Project awareness has decided to do reforestation. The community has come up specifically with 2 timber trees of their interest which are Kauri and Sandalwood.

Below are the points highlighted by the community as to why they think it's best for them to engage in Agroforestry:

- Sandalwood will generate income to the community
- Kauri is highly required for its quality timber not only for the community but also for the national and regional markets
- fruit trees (Citrus) for community consumption and also to sell in Luganville to support community members with basic costs of living such as school fees etc

Root crops to plant in between the trees are listed below:

- Kumala as ground cover
- Pineapples
- Corns
- Watermelons

### **Importance of trees**

- Serves as nesting and breeding grounds for birds and other wildlife's
- Provides us with traditional medicine
- Provides building materials
- Provides oxygen for us to breathe in
- Provides us (human beings & animals) with food
- Prevent soil from erosion
- Protects water source and keeps them from drying up
- Provides fuel wood
- Used for local handy crafts such as wooden dishes, spoons, axe handle etc
- Used for making canoes, boats, paddles etc
- Maintains soil fertility
- Used for making furniture's
- Some tree species are endemic and the community would like to protect and conserve them.

Kerepua community is a community that is situated along the coast; however this community owns land right up to the famous Mt. Tabumwasana of Santo. Since there





is massive land or forest further up in the mountain chain area, the community does most of its agricultural activities along the coast thus there is no more primary forest along the coast all is shrubs. Therefore, for the management plan, the community has decided to do Agroforestry plots to help replant their forests back as they have come to realise its importance not only to this generation but to also maintain it for their future generations.

**12. Brainstorming**

Session five is a brainstorming session on how to address the negative outcomes or results of the community’s limited resources or biodiversity. This gives an opportunity for the community to discuss among themselves how to address the issues of protecting and conserving their resources. This session also help the community to give them some ideas on how to draw their community management action plan or how they would like to protect or conserve their resources ready for the next workshop to come up with their action plans.

**13. Onion & Orchid**

This last session-Onion & Orchid is more about collecting feedback from the community about the workshop held. This session allows the community to tell us what they think of the workshop

***Comments from a community member:***

I like this workshop. Short but full of handy information for the community. Help us to realise the importance of Biodiversity and that we should protect and conserve it for our future generations. I like a phrase the facilitator used ‘our resources are not passed down from our ancestors to us but are borrowed from our children and the future generations. This gives us an idea to enjoy the resources but remember to protect and conserve enough for our children. If we say that they are passed down from our ancestors to us then we will forget about our children.

Attachment 1: List of Participants

<b>Kerepua-Santo Mountain Chain</b>
Eld. Uloboe
Elder John Tabe
Malio Noah
Annette John
Hilda Harrison
Daisy Malio
Isineth Bune
Florine Jeninah
Susan Balon
Deacon Palon Bune
Brenda Okis
Nickson Mwai
Obul Nickson
Linges Frank
Malina Frank



Toi Mwailarua
Mwailarua Woli
Alick Mwailarua
Marie Rose Alick
Mwaialbon Maliu
William Luitan
Jinelle Bune
Rex Royan
Rona Maliu
Nome Royan
Sussie Joel
Jacklyn Toi
Kalino Palon
Kathlyn Garae
Elder Frank Alrua
William Luitan
Paul Selboe
Magareth Maliu
Namlina Ulboe
Wilson Ulboe

Attachement 2: Self –Assessment Survey

(a) Quantitative results

General audience: Community members or teachers prior to participation in CEPF education workshops

Location/s: Santo Mountain Chain

Date: 19/08/2014

Description of group (participants): Community members

Facilitator/s: Jessie Kampai

Key learning statements  'I can ...'	Self-assessment rating							
	<b>Green:</b> Achieved <b>Amber:</b> Partially achieved <b>Red:</b> Not achieved							
	Green		Amber		Red		Total participation	
	Male	Female	Male	Female	Male	Female	Male	Female
Explain what is meant by the word 'biodiversity'					** *	* * * *	18	17
Explain why the area where I live has been selected as a priority site for biodiversity conservation					** *	* * * *	18	17



Key learning statements  'I can ...'	Self-assessment rating							
	<b>Green:</b> Achieved <b>Amber:</b> Partially achieved <b>Red:</b> Not achieved							
	Green		Amber		Red		Total participation	
	Male	Female	Male	Female	Male	Female	Male	Female
					***			
Describe the main threats to biodiversity in my place					*** *** *** *** *** ***	***** ***** ***** ***** *	18	17
Identify reasons why biodiversity is important to myself and other people					*** *** *** *** ***	***** ***** ***** ***** *	18	17
Describe actions that we can take to conserve biodiversity					*** *** *** *** *** *	***** ***** ***** ***** *	18	17
Describe the plans in place or actions we are going to take to protect biodiversity where I live					*** *** *** *** *** *** *	***** ***** ***** ***** *	18	17



## Report of First Biodiversity workshop Dolav Community Gaua Island

Date: 13 August 2014



## Report of Biodiversity Awareness Workshops held on Gaua 13<sup>th</sup> August 2014.

Prepared by: Jessie Kampai

### 1. Introduction

This workshop covers the outputs of the one day workshop held in Dolav community, west Gaua on the 13<sup>th</sup> of August 2014. The report will briefly cover each of the workshop sessions, its objectives, methodology and findings.

### 2. Participants

The workshop brought together community leaders and members of Dolav community who faithfully participated in the workshop from 7:30am -4:30pm. *(Refer to list of participants attached as Attachment 1).*

### 3. Objectives

The objectives of the workshop are for the communities to:

- Understand what biodiversity is
- Importance of their local biodiversity as a biodiversity hotspot
- Understand the role biodiversity plays in providing ecosystem services, resources and livelihoods

- Recognising the threats to local biodiversity
- Use new knowledge and skills gained to plan the community management action plan

#### **4. Process**

The workshop used a variety of methods and tools to ensure that participants participated actively throughout the workshop from beginning to end. It was also presented in a way that anyone in the community will understand it. It was a participatory and interactive workshop that participants got into groups and discussed and note down their ideas and have them presented in front of the whole team.

#### **5. Opening and welcome**

Prior to workshop, the chief representative gave a formal welcome to the team and all the participants with opening prayer from the village Elder.

#### **6. Introducing Team members, Live & Learn and CEPF**

Brief introduction was done by Biodiversity officer Jimmy Tes of the staff members present at the workshop plus Live & Learn Environmental Education as an organisation. Jessie Kampai talked briefly about Biodiversity Project and introduced its donor CEPF (Critical Environment Partnership Fund) to the community and stress why the community has been selected as a biodiversity hotspot in East Melanesia.

#### **7. Self-Assessment survey forms**

Before the first session begun, the team went through a survey with the community to capture their knowledge on biodiversity. This is to identify knowledge on biodiversity before and after the workshop.

Table below shows the community’s knowledge on Biodiversity before the workshop began

#### **Part 1: Pre- education baseline survey**

##### (a) Quantitative results

General audience: Community members or teachers prior to participation in CEPF education workshops

Location/s: Dolav Community-Gaua Island

Date: 13/08/2014

Description of group (participants): Community members

Facilitator/s: Jessie Kampai & Jimmy Tes

Key learning statements	Self-assessment rating
‘I can ...’	<b>Green:</b> Achieved <b>Amber:</b> Partially achieved <b>Red:</b> Not achieved



	Green		Amber		Red		Total participation	
	Male	Female	Male	Female	Male	Female	Male	Female
Explain what is meant by the word 'biodiversity'	*				*** *** *** *** *** ***	***** ***** ***** *	19	13
Explain why the area where I live has been selected as a priority site for biodiversity conservation			*		*** *** *** *** *** ***	***** ***** ***** *	19	13
Describe the main threats to biodiversity in my place			*		*** *** *** *** *** ***	***** ***** ***** *	19	13
Identify reasons why biodiversity is important to myself and other people			*		*** *** *** *** *** ***	***** ***** ***** *	19	13
Describe actions that we can take to conserve biodiversity					*** *** *** *** *** *** *	***** ***** ***** *	19	13
Describe the plans in place or actions we are going to take to protect biodiversity where I live					*** *** *** *** *** *** *	***** ***** ***** *	19	13

The survey form indicates that most people in the community do not know what Biodiversity is even though it has become part of their everyday living. The list above shows the result participants presented at the beginning of the workshop.

## 8. Introductory session on Biodiversity

This session is to introduce biodiversity to the community members. From the survey carried out at the beginning of the session we found out that we really need to use a really simple technique to describe what biodiversity is to suit their knowledge. Therefore, we did an activity “Reef to Ridge”. We had to break down the word ‘Biodiversity. Bio-life and diversity –variety so if we put the two words together we came up with the word Biodiversity which means –the variety of life forms –the different plants, animals and micro-organisms, the genes they contain and the ecosystems in which they form a part.



So the reef to ridge activity is basically getting the participants into groups and asking them to list down all the resources they have from reef to ridge-beginning from reef to river and bush.

## 9. What Biodiversity provides us?

Session two gives an opportunity for the community to realize and acknowledge that the resources listed down in reef to ridge activity in the first session are the very resources that provides us with our basic and daily needs.

So again in the groups they discussed what these resources listed down in Reef to Ridge activity provides them. For instance, trees provide us with building materials. Resources from the reef are food to them.

### *Dolav Community-West Gaua*

<b>Reef</b>	<b>River</b>	<b>Bush</b>
Fishes	Crabs	Trees
Coral	Shrimps	Birds
Eel fishes	Eel fishes	Pigs
Trochus	White fish	Cattle
Turtle	Naura	Lizard
Shellfishes	Black fish	Fruit trees
Octopus	Big head fish	
Lobster	Flat head fish	
Sea Urchin	Nahuran	
Sea Cucumber	Big eye fish	
Star fish	Namalet	
Sea snake	Rutu	
Sea Slugs	Tinoro	
Jelly fish	Buanunuru	
Sting Ray	Tila	
Sea Horse	Arebutu-Shell	
Dolphin	Arevela-Shell	
Flying Fish	Aremimibue-Shell	
Piopio	Arewunwuwakara-Shell	
Malet	Arebaravu-Shell	
Kumkum	Water weed	
Rainbow Fish	Novo	
King fish	Kuna	
Snapper	Sand beach	
Prim	Stone	
Sailing fish	Mud	
Paracuda		
Sharks		
Maimai		
Poulet		
Sawfish		



## 10. Threats

Having identified what Biodiversity is and the different ecosystem services it provides us, the community were then sent out still in their groups to try and identify what threats are there to these resources.

Session 3 is an important session as it is more like an eye opener for the communities to realize the different threats to their resources and in this case they have come to admit that human beings are a big threat to our resources. Most times we take it for granted that we have more resources and consume huge amounts that sometimes we waste them all and later discover we do not have enough supply for the future generations.

### Threats to Biodiversity

1. Climate Change
2. Human Beings
3. Pests-rats
4. Wild Chicken
5. Mynah birds
6. Feral Pigs
7. Dumpings (waste) from boats
8. Heavy rainfall
9. Natural disasters
10. Deforestation
11. Landslide
12. Over harvesting of resources
13. Population growth
14. Soil erosion
15. Disease (fungus)
16. Lack of awareness
17. Mismanagement
18. Ash fall







## 11. Future Wheel

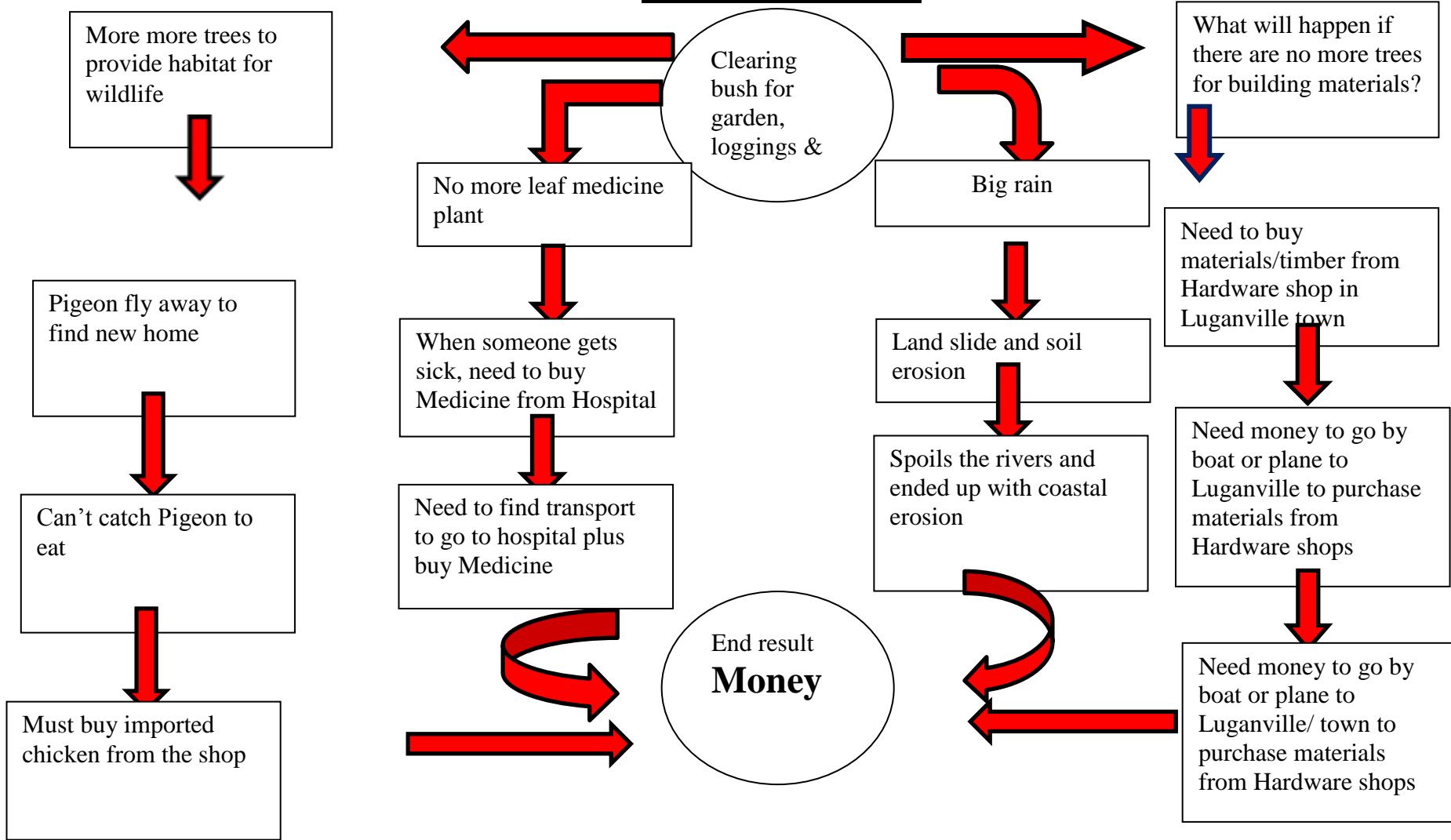
Future wheel is really giving an opportunity to the communities to work out what will become of their future if they do not take the necessary steps now to protect or conserve their resources or biodiversity.

Future wheel has two simple questions “If and what” for the communities to address. As simple as it is, it has a big impact on the community and the way they are using their resources now.

For instance, If there is no more big trees for building materials, what will happened then. Where would the community get the building materials from?



### Future Wheel Activity





## 12. What shall be done to address negative outcomes/results (Action plan exercise) Part 1

Dolav-West Gaua

Having gone through the 'Future Wheel Activity', the communities have come to realise the importance of protecting and conserving their resources. Thus they have come up with a list of resources that needs community's special attention in order to protect and conserve for the future generations.

- Say no to logging
- Do not cut or burn down big trees
- Say no to bird hunting and feed plenty domestic animals for family/community consumption
- Protect and conserve the resources in the rivers such as the eels, prawns
- Protect marine resources such as fish, shells, lobsters
- Need to come up with some ground rules or 'tabu' to prevent overharvesting
- Say no to traditional practice of fish poisoning
- Protect and conserve endemic plant and species

### **Dolav-West Gaua**

#### *Conservation and Tourism*

##### **1. Bush**

We need to:

- Identify a piece of land probably 2 hectares
- Reforestation
- Protect wildlife

##### **2. River**

- Clean river and alongside
- Beautification
- Feed fish, eel fish and shrimps/prawns

##### **3. Sea**

- Clean up sea coast and reefs
- Feed fish and turtles
- Water music
- Beautification of coastal area of the conservation site

##### **4. Tourism**

- Build bungalows



- Encourage and practise all the ladies to do water music and local food for tasting as well as selling of different handy crafts.

To conserve the community's resources, the community needs to find another way to generate income to support its members to meet the daily demand of cash flow for school fees, basic household needs etc. Therefore, the community has decided to engage in Tourism to meet these demands. Since the community is rich and known for its natural resources such as the famous Lakona Bay, Black Sandy beaches, rivers and the forest and its habitats, the community has seen this as an opportunity to dwell on this and build their dreams on the resources they have and at the same time protect and conserve their resources so the future generations can enjoy the resources this generation is enjoying today.

To begin with, the community has decided to allocate four hectares of forest to conserve where there will be reforestation of endangered species and other important tree species in the area. There will also be conservation of resources in the rivers as mentioned above and the resources in the sea. This conservation will initially go along with Tourism so the community is planning to set up bungalows so when the tourist comes to the area, they will have a place to stay as well as go for a walk in the conservation area in the bush of course and visit the river conservation and the sea. They will also have the opportunity to see the water music which is originally from this community as well as have a chance to buy some souvenirs from the community's local handy crafts.

## 12. Brainstorming

Session five is a brainstorming session on how to address the negative outcomes or results of the community's limited resources or biodiversity. This gives an opportunity for the community to discuss among themselves how to address the issues of protecting and conserving their resources. This session also help the community to give them some ideas on how to draw their community management action plan or how they would like to protect or conserve their resources ready for the next workshop to come up with their action plans.

## 13. Onion & Orchid

This last session-Onion & Orchid is more about collecting feedback from the community about the workshop held. This session allows the community to tell us what they think of the workshop

Orchids-Comments from Community members

"I would like to thank Live & Learn and the funding agency for this workshop and especially for the '*Future Wheel*' activity as this community thinks we have all we need and that our life would be the same in the years to come without realising that our resources are being used up (overharvested) and there might not be enough for the future generations if we are not really careful on how to manage it". *Gaua community member*



## Report of First Biodiversity Workshop on Tongoa

**Date: 11 september 2014**

**Venue: Kurumambe Village, Tongoa Island**



11

September 2014

### **1. Introduction**

This report covers the main outputs of the one-day community workshop held in Kurumambe on the 11<sup>th</sup> of September 2014 . The report will briefly cover each of the workshop sessions, its objectives, methodology and findings.

### **2. Participants**

The workshop brought together community leaders and members from all the four communities on the western part of the Island. These four communities are Dolav,

Below is the list of participants from workshop from the three sites –Gaua, Santo and Tongoa.



<b>Kurumambe-Tongoa-Laika</b>
Elder John Willie
Roy Seresere
Nandes Seresere
Miles
Leisande David
Leipunua Lui
Leiwia Kalo
David Abel
Willie Roy
August Roy
Chief Taripoamatariki
Rueben Kalo
Rose Lui
Madlen Toara
Leisande Kalo
James Roy
Chief Seresere
Rueben Willie
Masden Abel
James Taripoa
John Roy

### **3. Objectives**

The objectives of the workshop are for the communities to:

- Understand what biodiversity is
- Importance of their local biodiversity as a biodiversity hotspot
- Understand the role biodiversity plays in providing ecosystem services, resources and livelihoods
- Recognising the threats to local biodiversity
- Use new knowledge and skills gained to plan the community management action plan

### **4. Process**

The workshop used a variety of methods and tools to ensure that participants participated actively throughout the workshop from beginning to end. It was also presented in a way that anyone in the community will understand it. It was a participatory and interactive workshop that participants got into groups and discussed and note down their ideas and have them presented in front of the whole team.

## 5. Opening and welcome

Prior to workshop, the chief representative gave a formal welcome to the team and all the participants with opening prayer from the village Elder.

## 6. Introducing Team members, Live & Learn and CEPF

Brief introduction was done by Biodiversity officer Jimmy Tes of the staff members present at the workshop plus Live & Learn Environmental Education as an organisation. Jessie Kampai talked briefly about Biodiversity Project and introduced its donor CEPF (Critical Environment Partnership Fund) to the community and stress why the community has been selected as a biodiversity hotspot in East Melanesia.

## 7. Self –Assessment Survey

### (a) Quantitative results

General audience: Community members or teachers prior to participation in CEPF education workshops

Location/s: Tongoa -Laika

Date: 11/09/2014

Description of group (participants): Community members

Facilitator/s: Jessie Kampai & Jimmy Tes

Key learning statements  'I can ...'	Self-assessment rating							
	<b>Green:</b> Achieved <b>Amber:</b> Partially achieved <b>Red:</b> Not achieved							
	Green		Amber		Red		Total participation	
	Male	Female	Male	Female	Male	Female	Male	Female
Explain what is meant by the word		*	*		***	****	13	8
					***			



Key learning statements  'I can ...'	Self-assessment rating							
	<b>Green:</b> Achieved <b>Amber:</b> Partially achieved <b>Red:</b> Not achieved							
	Green		Amber		Red		Total participation	
	Male	Female	Male	Female	Male	Female	Male	Female
'biodiversity'					*** *** *	***		
Explain why the area where I live has been selected as a priority site for biodiversity conservation		*	*		*** *** *** *** *	***** ***	13	8
Describe the main threats to biodiversity in my place					*** *** *** *** *	***** ***	18	17
Identify reasons why biodiversity is important to myself and other people					*** *** *** *** *	***** *****	13	8
Describe actions that we can take to conserve biodiversity					*** *** *** *** *	***** *****	13	8
Describe the plans in place or actions we are going to take to protect biodiversity where I live					*** *** *** *** *	***** *****	13	8





The survey form indicates that most people in the community do not know what Biodiversity is even though it has become part of their everyday living. The list above shows the result participants presented at the beginning of the workshop.

## 8. Introductory session on Biodiversity

This session is to introduce biodiversity to the community members. From the survey carried out at the beginning of the session we found out that we really need to use a really simple technique to describe what biodiversity is to suit their knowledge.

Therefore, we did an activity “Reef to Ridge”. We had to break down the word ‘Biodiversity. Bio-life and diversity –variety so if we put the two words together we came up with the word Biodiversity which means –the variety of life forms –the different plants, animals and micro-organisms, the genes they contain and the ecosystems in which they form a part.

So the reef to ridge activity is basically getting the participants into groups and asking them to list down all the resources they have from reef to ridge-beginning from reef to river and bush.

Reef to Ridge activity

Below are listed different resources from reef to Ridge

Number	Land	Sea
1	Taputi-Diamond bird-Parrot finch	Coral reefs
2	Koroliko-Wedge-tail shear waters	Shark
3	Malau-Scrub duck	Dolphins
4	Crab	Fish
5	Flying Fox	Crabs
6	Oak day	Octopus
7	Parrot	Turtle
8	Kingfisher	Lobsters
9	Wira	Eels
10	Turi	Dolphins
11	Sunda	Shells
12	Taroa	Prawns
13	Tapesu	Crabs
14	Doa	Flying fish
15	Takerekere	Sailing Fish
16	Chicken	Mea
17	Manu Kafenu	Red mouth
18	Sosopu	Cow fish
19	Laka	Turtle
20	Wosau	Tongoa wall
21	Pakuku	Poulet



22	Sokaripu	Snapper
23	Siviu	Prim
24	Dae	King Fish
25	Manukerepapa	Rainbow fish
26	Ngongo	Tuna
27	Morupua	Paracuda
28	Duck	Karong
29	Cattle	Victoria wall
30	Pig	Crabs
31	Goat	Malet
32	Dogs	Sea Cucumber
33	Pilake	
34	Trees	
35	Caves	
36	Volcanic steam	



Kurumambe community profiling their resources

Kurumambe Village is one of the richest communities in terms of resources with a variety of resources both endangered and endemic. However, these resources are being under threat each day for consumption and everyday use.

### ***Threats to Biodiversity***

*Below is the list of threats identified by the workshop participants*

1. Human beings
2. Overharvesting
3. Natural disasters



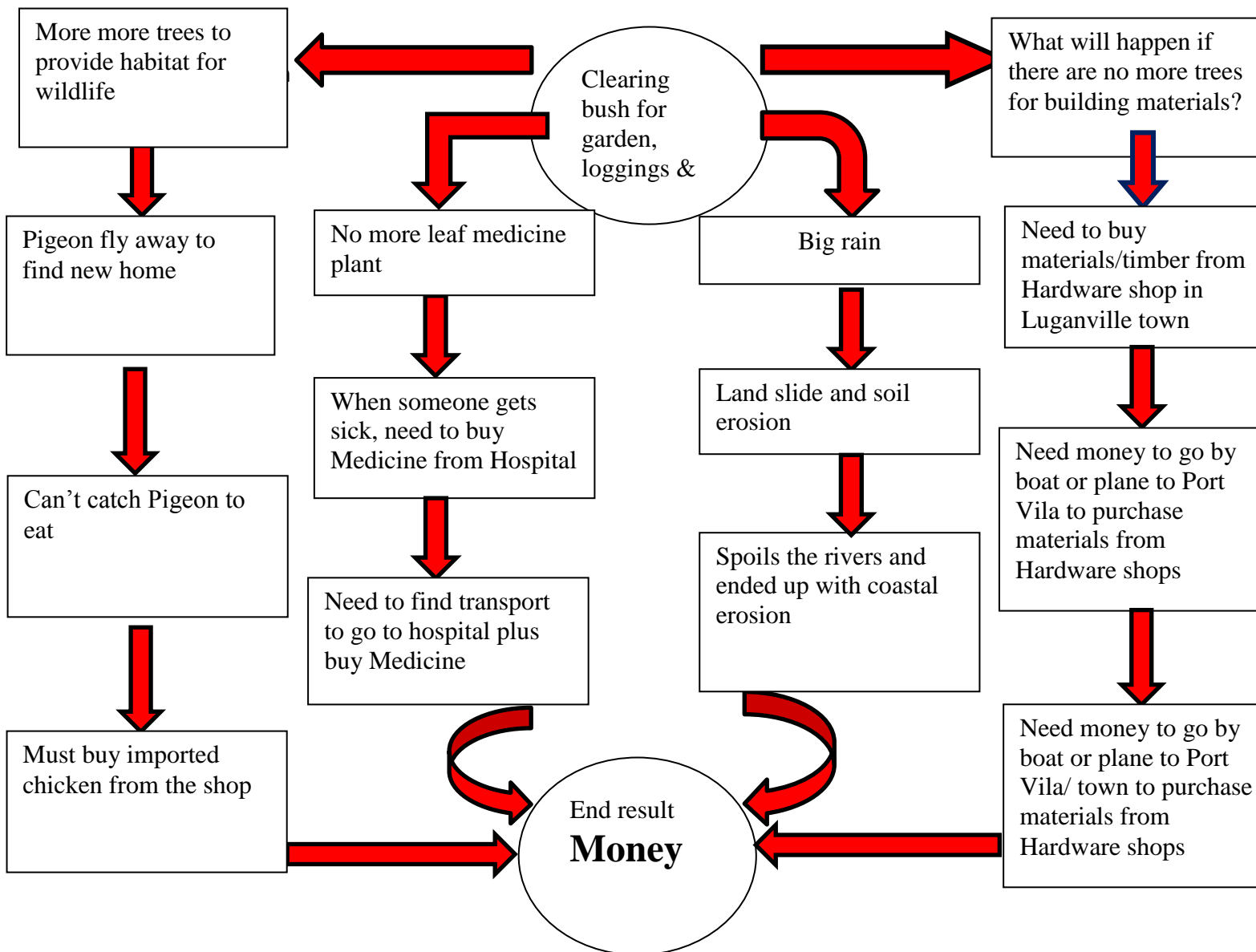
- 4. Climate Change
- 5. Feral Pigs

### 11. Future Wheel

Future wheel is really giving an opportunity to the communities to work out what will become of their future if they do not take the necessary steps now to protect or conserve their resources or biodiversity.

Future wheel has two simple questions “If and what” for the communities to address. As simple as it is, it has a big impact on the community and the way they are using their resources now. For instance, If there is no more big trees for building materials, what will happened then. Where would the community get the building materials from?

### Future Wheel Activity





## 12. What shall be done to address negative outcomes/results (Action plan exercise) Part 1

### Kurumambe Community

Having gone through the 'Future Wheel Activity', the communities have come to realise the importance of protecting and conserving their resources. Thus they have come up with a list of resources that needs community's special attention in order to protect and conserve for the future generations.

- Say no to logging
- Do not cut or burn down big trees
- Say no to bird hunting and feed plenty domestic animals for family/community consumption
- Protect marine resources such as fish, shells, lobsters
- Need to come up with some ground rules or 'tapu' to prevent overharvesting
- Say no to traditional practise of fish poisoning
- Protect and conserve endemic plant and species

### **Kurumambe Community *Conservation and Tourism***

#### **5. Laika**

We need to:

- Reforestation
- Assessment of resources
- Protection and conservation of resources

#### **6. Tourism**

- Build bungalows
- E

### ***Conservation & Tourism***

Kurumambe community has decided after so much discussion at the end of the workshop to involve in conservation and tourism. Tongoa Island is one of the richest Islands in the shepherds group with 2 isles known as Laika and Lupalea. The two Islands are known to be rich in biodiversity. These two Isles are the home for the *wedge tailed-shearwater* commonly known as *Puffinus pacificus* and locally known by the communities of Tongoa as Koroliko. The Islands are not only the habitat for Koroliko but also for crabs, shellfishes and other marine creatures that enjoys this undisturbed ecosystem.



Since Koroliko is one of the main sources of income for the community, and seeing also that it is on the red list for IUCN, the community has decided after the workshop to conserve part of Laika and the other smaller Island beside Laika while they harvest on the other part.

Prior to this happening, it is more proper to do an assessment on the birds to find out more background information as currently there is not much information known about the birds. For instance, how many birds are there on the Island, how many breeds there in one breeding season and how many of these birds come back after breeding? These are some basic information that the community needs to find out in order to know how many birds they can harvest in one breeding season and still not having a big impact in its population as at this point of time only a niche of information is known about the Wedge tailed-Shear waters.

### 12. Brainstorming

Session five is a brainstorming session on how to address the negative outcomes or results of the community’s limited resources or biodiversity. This gives an opportunity for the community to discuss among themselves how to address the issues of protecting and conserving their resources. This session also help the community to give them some ideas on how to draw their community management action plan or how they would like to protect or conserve their resources ready for the next workshop to come up with their action plans.

### 13. Onion & Orchid

This last session-Onion & Orchid is more about collecting feedback from the community about the workshop held. This session allows the community to tell us what they think of the workshop

#### ***Comments from a community member:***

Orchids-Comments from Community members	Onions-Comments from community members
<p>1. “I would like to thank Live &amp; Learn and the funding agency for this workshop and especially for the ‘Future Wheel’ activity as this community thinks we have all we need and that our life would be the same in the years to come without realising that our resources are being used up (overharvested) and there might not be enough for the future generations if we are not really careful on how to manage it”. <i>Gaua community member</i></p>	<p>1. “I am from another community and I was on my way to another place but I happen to come across this workshop so I decided to attend it. I like the workshop very much however, I think this organisation should run the same workshop in other places as well so that this information is disseminated everywhere. The way it is now I think is not fair as it is only benefiting some communities-<i>Tongoa community member</i></p>



<p>2. "I like the workshop as the facilitators organised it in such a way that all the community members can give their views and speak in a way that many of us who did not go to school can still understand and contribute. I other thing I like most is about the birds on Laika Island-we think we can just go and harvest as much as we can and eat or sell but now we know that these birds are important to our whole world and many people have come to know Tongoa-Laika especially because of Koroliko so next time we only need to take a small amount and protect the rest". <i>Tongoa-Laika community member</i></p>	<p>3. I like the workshop however the community needs to think seriously about it in order to work in the community. For instance, if we say we need to conserve our resources, people have to respect the 'tapu' the chief has place and if they fail they need to pay a fine.</p>
<p>2. I like this workshop. Short but full of handy information for the community. Help us to realise the importance of Biodiversity and that we should protect and conserve it for our future generations. I like a phrase the facilitator used 'our resources are not passed down from our ancestors to us but are borrowed from our children and the future generations. This gives us an idea to enjoy the resources but remember to protect and conserve enough for our children. If we say that they are passed down from our ancestors to us then we will forget about our children.</p>	



## **Report of Second Workshop to create draft Proposed Action Plan Kerepua Community West Coast Santo**

Date: 17<sup>th</sup> February 2015

Venue: Kerepua Community

This report will give an overview of the second trip to Kerepua community to create a draft Action plan for Kerepua community. The workshop was supposed to be held on the 17<sup>th</sup> of February 2015 only to be cancelled and postponed by the community leaders due to the differences within the community.

In the first workshop, the community had agreed for Live & Learn Vanuatu to work in the community as per report of the first workshop. At the first workshop both parties were in the meeting and had asked Live & Learn Vanuatu and SANMA Province to make arrangements for the Department of Forestry to mark out the proposed conservation area. So SANMA Province and Live & Learn Vanuatu negotiated with the department of forestry to mark out the conservation area on the second visit. However, there are two parties in the communities and has had their differences for several years back on Land dispute. Upon arrival at Kerepua, one member of one of the two parties who did not attend the first workshop stirred up an argument between the two parties thinking that Live & Learn Vanuatu through CEPF will pay the community some money for the proposed conservation area. Live & Learn Vanuatu team did not know about the dispute until early morning of the 17<sup>th</sup> February 2015 when the team was approached by the community head chief to put on hold activities in the community until further notice. Therefore, the workshop did not go ahead as planned however, the team had to arrange a meeting with both parties to solve the dispute.

Live & Learn team had to clarify the main idea of its engagement in the community and the workshop held especially regarding the action plan that the conservation is not to pull money now or for another person to go into the community to make money but is a community owned project and should be entirely run by the community. At the end of the meeting in the afternoon of 17<sup>th</sup> February 2015 everybody came to one understanding for work to continue at Kerepua but that this workshop has to be postponed until further notice by the community. To formalise this, the two parties had to write a letter and signed it to confirm the agreement for future references. So on the 18<sup>th</sup> February 2015, the team left Kerepua to go back to Luganville.

The letter from the community is attached as a separate attachment to this email.



## **Report of Second Workshop to create draft Proposed Action Plan Dolav Community West Gaua**

Date: 4<sup>th</sup> March 2015

Venue: Dolav Community

### **1. Introduction**

This report will give an overview of the second workshop held in Dolav Community, West Gaua to create a draft Action plan for Dolav community. The workshop was only a one day workshop with community members who spent the entire day discussing what should be put down as their proposed Action plan.

### **2. Welcome & Opening**

The community chief welcomed everyone who attended the workshop both participants and facilitators and Fr Levi opened the workshop with a word of prayer.

### **3. Introduction to workshop**

The facilitator gave did a presentation on the objectives of the one day workshop and encourage the community to discuss among themselves what they think should be their proposed action plan and for everyone to share their opinions including men, women and youth so that no one should be left out in the discussion.

### **4. Revisiting brainstorming session of 2014**

The discussion began with a session on revisiting the brainstorming (Action Plan Exercise) session of first workshop held in 2014 in the community. This session below has been revisited to see what the community has agreed upon in the first session.

*Dolav-West Gaua*

*Having gone through the 'Future Wheel Activity', the communities have come to realise the importance of protecting and conserving their resources. Thus they have come up with a list of resources that needs community's special attention in order to protect and conserve for the future generations.*

- *Say no to logging*
- *Do not cut or burn down big trees*
- *Say no to bird hunting and feed plenty domestic animals for family/community consumption*
- *Protect and conserve the resources in the rivers such as the eels, prawns*
- *Protect marine resources such as fish, shells, lobsters*
- *Need to come up with some ground rules or 'tapu' to prevent overharvesting*
- *Say no to traditional practise of fish poisoning*
- *Protect and conserve endemic plant and species*





## **Conservation and Tourism**

### **7. Bush**

*We need to:*

- *Identify a piece of land probably 2 hectares*
- *Reforestation*
- *Protect wildlife*

### **8. River**

- *Clean river and alongside*
- *Beautification*
- *Feed fish, eel fish and shrimps/prawns*

### **9. Sea**

- *Clean up sea coast and reefs*
- *Feed fish and turtles*
- *Water music*
- *Beautification of coastal area of the conservation site*

### **10. Tourism**

- *Build bungalows*
- *Encourage and practise all the ladies to do water music and local food for tasting as well as selling of different handy crafts.*

*To conserve the community's resources, the community needs to find another way to generate income to support its members to meet the daily demand of cash flow for school fees, basic household needs etc. Therefore, the community has decided to engage in Tourism to meet these demands. Since the community is rich and known for its natural resources such as the famous Lakona Bay, Black Sandy beaches, rivers and the forest and its habitats, the community has seen this as an opportunity to dwell on this and build their dreams on the resources they have and at the same time protect and conserve their resources so the future generations can enjoy the resources this generation is enjoying today.*

*To begin with, the community has decided to allocate four hectares of forest to conserve where there will be reforestation of endangered species and other important tree species in the area. There will also be conservation of resources in the rivers as mentioned above and the resources in the sea. This conservation will initially go along with Tourism so the community is planning to set up bungalows so when the tourist comes to the area, they will have a place to stay as well as go for a walk in the conservation area in the bush of course and visit the river conservation and the sea. They will also have the opportunity to see the water music which is originally from this community as well as have a chance to buy some souvenirs from the community's local handy crafts.*

### **12. Brainstorming**

*Session five is a brainstorming session on how to address the negative outcomes or results of the community's limited resources or biodiversity. This gives an opportunity for the*



*community to discuss among themselves how to address the issues of protecting and conserving their resources. This session also help the community to give them some ideas on how to draw their community management action plan or how they would like to protect or conserve their resources ready for the next workshop to come up with their action plans.*

The community has to go through each of the priority in their brainstorming session of 2014 to see what will or will not work and list out their priorities for the action plan. To make this easier for them, they had to be divided into 3 groups and each group has to list down what they think should be included in their action plan. After the group discussions, each group has to present what they have listed down on the flipchart paper.

## **11. Group presentations**

### Group 1: Men's Group

The priorities for the mens group are listed below:

- Identify 5 hectares of land for conservation
- Reforestation (Agroforestry plot)
- Protect wildlife's
- Conservation of marine resources beginning with turtle right after the workshop

*We think it is important to take first steps to be able to implement and or engage in ecotourism. The first think we need to do is identify a 5 hectare land for conservation for conservation then whenever we have guest in the future, we can take them there to see what we have. Secondly, is reforestation which will not only be forest trees but also fruit trees to also address food security. We can go there to collect fruits for our guests as well. Protection of wild life can be also at the conservation site or even close by for our guest to see. These days' people just kill about anything they come across. Reptiles including Lizards, Snakes and birds especially the megapods we should stop collecting the eggs and let them multiply. Conservation of Marine resources is very important as nowadays men had to stay in the sea for quite a while before they get some fish.*

### Group 2: Women's Group

Below are the priorities for the women's group

- Identify 5 hectares of land for conservation
- Reforestation (Agroforestry plot)
- Marine conservation
- Feed fish, eels and prawns
- Beautification of Coastal area of Conservation site

*'The women have listed down these five priorities and think they are also important like the men have said earlier. However, we think we should add in the 'beautification of our coastal areas of conservation site and the Lakona Bay'*

### Group 3: Youth

- Identify 4 hectares of land for conservation
- Marine conservation
- Feed fish, eels and prawns
- Build bungalows



- Agroforestry

For the youth members, we have 5 priorities on our list and totally agree with the first 2 groups however, we think it is important to build bungalows for not only the guest who travelled here as tourist but for visitors like today we have Live & Learn Vanuatu staff members who can stay they during their stay. Red Cross people are also coming here soon so we should have somewhere for them to stay and we think the bungalows along the Lakona Bay would be just the right place for this. Lastly, we would like to include an Agroforestry plot and this will include fruit trees and Sandalwood. The fruit trees would be oranges and other citrus like lemon and Mandarine and Nangai and Natapoa. The root crops would be Kumala (sweet potato) and Cassava this will also address food security issues in our community.

## 5. Drawing up the proposed Action plan.

This session is a whole group discussion where everyone looked at all the priorities and come up with the ones they think will best suit their interest and should be written down or included in the draft proposed Action plan.

Below is the draft proposed action plan as per Dolav Community.

### **Draft Proposal Dolav Community Action plan**

Action steps	By Whom	Resources Available	Support Needed	Potential Barriers or Resistance	Evaluation/ Monitoring	Communication plan for implementation
What needs to be done	Who will take action?	Resources available	Resources needed Financial, human, Equipment, Expertise and other	What individuals and organisations might resist? How?	How do I know it works or I've accomplished the goal?	What individuals and organisations should be informed and / involved with these actions?
1. Identify 4 hectares of Land	Community Committee	Land	Community leaders to identify and mark out plot	N/A	Report provided on land secured for conservation	Live & Learn Vanuatu Torba Provincial gov't Community Area Secretary
2. Assessment- Forest, Freshwater, Sea	Community Committee & external partners	Forest Fresh Water, Sea	Assessment team Human resource- Facilitators Finance-Airfares -Transport cost (Boat) -Workshop expenses	N/A	Assessment report	Forestry, Fisheries' Environment Live & Learn Torba Province Area Secretary
3. Mark out plot & brush Merremia	Community Committee	Human resource	Boat fuel Maintenance	N/A	Live & Learn and Forestry	Live & Learn Community



peltata	&external partners		Community		to provide report	
Plant tree species -Whitewood -Melek tree -Citrus trees	Community Committee & external partners	Human resources	Seedlings- Whitewood -Melek tree Finance- Transportation cost to transport seedlings from Santo to Gaua Workshop cost	N/A	Live & Learn and Forestry to provide report	Live & Learn Forestry Community
4. Agroforestry plot	Community Committee	Human resource Land Root crops	Seedlings- sandalwood -Citrus	N/A	Report on establishment of Agroforestry plot	Community Committee
4. Monitor trees and Megapods	Community Committee & external partners	Human resource	Transport cost Community-sea	N/A	Report by Phone to Coordinator	Live & Learn Community
5. Scrub duck to be included in community bylaw	Community Committee & external partners	Human resource	Workshop cost Transport-Boat Airfares	N/A	Copy of community bylaw	
6. Hospitality training -tour guiding -food & beverage -providing customer care services November 2016	Community Committee & external partners		Human resource -2 LLV staff member -2 TVET trainers  Finance -Airfares -Land & Sea transport -Meals & Accomodation	N/A	Report on hospitality training compiled and submitted	LLV Torba tourism office TVET Office



			-Generator & fuel cost -Per diems  Workshop costs			
7. Assessment/survey	Community Committee & external partners		Airfares Transport hire Accommodation cost Per diems	N/A	Assessment report	Live & Learn Community Torba province Forestry Environment Fisheries
8. Final report	Community Committee & external partners		Airfares Transport Workshop cost	N/A	Final report	



## **6. Setting up Sandalwood Nursery**

Sandalwood nursery is an additional activity that the project team decided to support the community with. At the end of the action plan, the facilitators helped the community to set up Sandalwood nursery for the community. There were around 200 to 300 seeds sown after the workshop. A raised bed was made since this community has never planted Sandalwood before and the facilitators assist the community in sowing the seeds.

## **7. Closing**

The community Chief thanked CEPF and Live & Learn Vanuatu for their contribution and input in the community and asked the facilitators to extend their appreciation and word of thanks to CEPF and Live & Learn for picking out their community as one of their sites. The village Elder closed the meeting with a word of prayer.



## Dolav Community action plan report West Gaua- Gaua Island

Date: 8 July 2015



*Merremia peltata* smothering trees and forest-Dolav proposed conservation area

**Prepared by Jessie Kampai**

### **Introduction**

This report will focus on the one day workshop held at Dolav community, west Gaua-Torba Province. The workshop has brought together participants from the community including community leaders (chiefs and church elders) men, women, youth and children.

*(See annex 1- list of participants)*

### **Welcome**

The custom chief of the community welcomed the participants and the workshop facilitator and the workshop was opened with a word of prayer.

### **Workshop**

The workshop was targeted to finalise the community action plan drafted in early February 2015. The workshop was a participatory one that provided space for the community members to provide feedback on what is to be included in the action plan. Every group within the community was given a chance to give their views on the draft prior to finalising it.

### **Findings**





A community member presenting their views of what is to be included in the action plan Dolav community is keen to work with organisations to develop their skills and knowledge to better manage their resources. After the first awareness in July 2014, the community decided to engaged in eco-tourism and turned the one day celebrations on the 24<sup>th</sup> of August when the missionaries first arrived in their community to Lakona Bay Custom festival an annual event that will not only gather local communities together but to also bring yachties and other interested visitors to also come and watch the festival. This festival is organised in a way that other communities are also involved in the activities and the benefits from this Art festival is shared among all the surrounding communities. For instance, last year all the incomes were given to Dolav community and this year all the benefits will be given to Ontar community which is a few kilometres to Dolav. The event is also advertised for yacht owners to travel down to Gaua to witness the festival. Last year 18 yachts visited Dolav to witness the festival. The festival showcases some of the most significance performances such as custom cooking, custom dances (men’s & women’s custom dances), Canoe race, Traditional magic show, water music, Bonfire, Kava tasting, Wood and stone carving, weaving demonstration, custom war etc.

This has proved the community’s commitment to not only wait for the donor or other organisations to start them off but have taken initiative to do what they can with the resources they have. However, this needs further strengthening in certain areas like tour guiding, food and beverages and customer care services as the community is planning to extend its services to a more broader approach in the near future once the protection and conservation of the freshwater, sea and forest resources have been secured.

The community has also implemented part of the draft action plan drawn in February 2015 to protect and conserve their marine resources. After the workshop the community has agreed for the chief to put a *tapoo* on the marine resources for 2 years. This has been actioned right after the draft action plan was drawn. They are also looking at protecting their freshwater resources as well to allow their resources to grow in quantity and quality and at the same time have something to show their guests once the eco- tourism business is on track.



Dolav community is slowly taking one step at a time to implement its action plans however with forest resources it is a bit challenging for the community as the proposed site is suppressed by *Merremia peltata* and the resources within the site is also being over harvested by the community members from Dolav and other surrounding communities. One of the main resources identified on the site that needs protection is the megapod birds that needs urgent attention before it is being wiped out from the area. This is due to its high value in the markets where people prefer to eat the eggs compared to chicken for its size and taste. In February 2015, the community has also set up a climate change adaptation plot (Agroforestry plot) where they grow sweet potatoes and Sandalwood together. The total number of seedlings germinated was roughly around 200 however only 15 survived TC Pam. This is a big loss to the community and they wanted to strengthen this by setting up a permanent nursery that will serve its purpose to supply seedlings to the community despite the extreme weather Vanuatu is facing today. To achieve all these, the community has come up with the action plan below they believe it will help them achieve their goals.



## **Dolav Community Action plan**

Action steps	By Whom	Resources Available	Support Needed	Potential Barriers or Resistance	Evaluation/ Monitoring	Communication plan for implementation
What needs to be done	Who will take action?	Resources available	Resources needed Financial, human, Equipment, Expertise and other	What individuals and organisations might resist? How?	How do I know it works or I've accomplished the goal?	What individuals and organisations should be informed and / involved with these actions?
2. Assessment- Forest, Freshwater, Sea	Community Committee & external partners	Forest Fresh Water, Sea	Assessment team Human resource- Facilitators Finance-Airfares -Transport cost (Boat) -Workshop expenses	N/A	Assessment report	Forestry, Fisheries? Environment Live & Learn Torba Province Area Secretary
3. Mark out plot & brush Merremia peltata	Community Committee & external partners	Human resource	Boat fuel Maintenance Community	N/A	Live & Learn and Forestry to provide report	Live & Learn Community
Plant tree species -Whitewood -Melek tree	Community Committee & external partners	Human resources	Seedlings- Whitewood -Melek tree Finance- Transportation cost to transport seedlings from Santo to Gaua Workshop cost	N/A	Live & Learn and Forestry to provide report	Live & Learn Forestry Community
4. Monitor trees and	Community	Human	Transport cost		Report by	Live & Learn



Megapods	Committee & external partners	resource	Community-sea		Phone to Coordinator	Community
5. Scrub duck to be included in community bylaw	Community Committee & external partners	Human resource	Workshop cost Transport-Boat Airfares		Copy of community bylaw	
6. Hospitality training -tour guiding -food & beverage -providing customer care services November 2016	Community Committee & external partners		Human resource -2 LLV staff member -2 TVET trainers  Finance -Airfares -Land & Sea transport -Meals & Accomodation -Generator & fuel cost -Per diems  Workshop costs		Report on hospitality training compiled and submitted	LLV Torba tourism office TVET Office
7. Assessment/survey	Community Committee & external partners		Airfares Transport hire Accommodation cost Per diems		Assessment report	Live & Learn Community Torba province Forestry Environment Fisheries
8. Final report	Community Committee & external partners		Airfares Transport Workshop cost		Final report	



**Part 2: Post-education survey**

(a) Quantitative results

General audience: Community members or teachers who have already participated in CEPF education workshops (do not survey people who attend a final session or workshop if they have not participated in the whole program)

Location/s: Kerepua Community –Santo Mountain Chain

Date: 8 July 2015

Description of group (participants): Community members-Kerepua Village

Facilitator/s: Jessie Kampai

Key learning statements  'I can ...'	Self-assessment rating Green: Achieved Amber: Partially achieved Red: Not achieved							
	Green		Amber		Red		Total participation	
	Male	Female	Male	Female	Male	Female	Male	Female
Explain what is meant by the word 'biodiversity'	*** *** *** *** *** **	***** ***** ***** ***** **					17	18
Explain why the area where I live has been selected as a priority site for biodiversity conservation	*** *** *** *** ***	***** ***** ***** ***						
Describe the main threats to biodiversity in my place	*** *** *** *** **	***** ***** ***** **						
Identify reasons why biodiversity is important to myself and other people	*** *** *** *** **	***** ***** ***** **						
Describe actions that we can take to conserve biodiversity	*** *** *** *** **	***** ***** ***** **						
Describe the plans in place or actions we are going to take to protect biodiversity where I live	*** *** *** *** ** *	***** ***** ***** **						



**Part 2: Post-education survey**

**(b) Qualitative results**

This survey was carried done with Chief Ezekiel of Dolav village, West Gaua.

<b>Key learning statements</b>  <b>'I can ...'</b>	Significant remarks or stories from participants in relation to the learning statements (identify age / gender):
Explain what is meant by the word 'biodiversity'	Biodiversity is the different life forms –including plants, animals, insects and other organism and the ecosystems in which they live.
Explain why the area where I live has been selected as a 'priority site' for biodiversity conservation	I think the area where I live has been selected as a 'priority site' for biodiversity conservation because it has the largest fresh water lake in the Pacific. It has some endemic species like eels, bats orchids and flying fox.
Describe the main threats to biodiversity in my place	The main threats to biodiversity are human beings themselves. We grow fast in population and as a result over harvest our resources plus clear up more bush or forest for Agricultural activities and or development causing some species to die and or find new homes and that is how we lose some species'.
Identify reasons why biodiversity is important to myself and other people	Biodiversity is important to myself and other people around us because it is everything around us. For instance, if we clear out all the trees or forest, there would be no timber/post for building our houses to live in and the birds that use to live their will search for new homes and we won't get any free meat. Or if there are no animals then there will be no source of protein for my family so we all depend on each other for survival.
Describe actions that we can	What we can do it encourage our community members to



<b>Key learning statements</b> 'I can ...'	Significant remarks or stories from participants in relation to the learning statements (identify age / gender):
take to conserve biodiversity	replant their forest in places where they have been cleared for whatever reasons. Protect and conserve their resources in order to preserve some for the future generations and not to over harvest the resources they have.
Describe the plans in place or actions we are going to take to protect biodiversity where I live	We have already protected and conserve our reef and this is a decision that the chiefs of this community has made and we are now looking at protect a 5 hectare of land in the coming year. We are also looking at protecting the megapods in the proposed conservation area

### **Closing**

The Community chief thanked Live & Learn Vanuatu for taking the initiative to work in the community. He also specifically extends the community's appreciation and gratitude to the donor for funding the project and thanked the officers for taking their time out to spend with the community in order to come with the action plan for the community.

The facilitator on behalf of LLV also thanked the community leaders and all the community members for attending the workshop and especially the mama's group for the refreshments and lunch provided at the workshop.

The workshop was again closed with a word of prayer in the afternoon.

### **Participants list**

1. Sisen
2. Velon
3. Flory Rovon
4. Wendy
5. Lilly Joce
6. Lid Frenda
7. Ethel Rovatot
8. Mary Romal
9. Susan Aris
10. Linneth
11. Chief Arnold



12. Chief Ezekiel
13. Chief John Star
14. Fr. Levi
15. Steven
16. Christopher
17. Graham
18. Ben
19. Alfred
20. Kipson
21. Paton
22. Esrom
23. George Selwin
24. Augustus
25. Hopson
26. Trevor
27. Magareth Bruce
28. Winnie Sethy
29. Colton Paul
30. Jimmy Bice
31. Jenny Paul





# Kerepua Action Plan Report West Coast-Santo

Date: 3<sup>rd</sup> July 2015



## **1. Introduction**

This report will focus mainly on the one day workshop held at Kerepua village, West Coast Santo. The one day workshop was held mainly to finalise the action plan for the community. So the workshop brought together community members from Kerepua including chiefs, church elders, parents, youths and children.

*(see attached attendance list-annex 1)*

## **2. Welcome**

The community chief welcomed the participants to the workshop and made a special welcome to Live & Learn representative with hanging of Salusalu. The church elder opened the workshop with a word of prayer.

## **3. Workshop**

The workshop was a participatory one where community members were given space to voice the views on the discussions. The workshop was conducted in a way that all the different groups within the community were given a chance to present their views, for instance, men, women and youth members. The workshop was focused mainly on the action plan for this particular community so this workshop was an opportunity for its members to draw the action plan that was supposed to be written in February 2015 however, it was not possible due to some differences between community members.



#### **4. Findings**

The findings from the workshop shows that the community wanted to protect and conserve their forest as the area has some of the endemic species identified in 2007 in the book '*Santo 2006 Expedition*' such as bats, birds (Santo Mountain Starling), Orchid, Eels and much more that the community would like to see protected. Among these is also the Megapods they would like to protect that is also within the proposed conservation area. Since the area is right at the foot of Mt. Tabumwasana and most researchers and explorers as they are referred to by the natives like to go to, the community has decided to protect and conserve these biodiversity and later turn it into a tourist destination where people can go and see these endemic species'.



**Action Plan**

Action Steps	By Whom	Resources and Support Available / Needed		Potential Barriers or Resistance	Evaluation / Monitoring	Communication Plan for Implementation
		Resources Available	Resources Needed (financial, human, equipment, expertise and other)			
What needs to be done?	Who will take actions?			What individuals and organizations might resist?How?	How do I know it works or I've accomplished the goal?	What individuals and organizations should be informed about / involved with these actions?
2. Assessment on Flora & Fauna		Guides to guide the officers to the proposed site Workshop cost	Human resource to do assessment 2 foresters, 1 environment officer, 1 surveyor ,2 LLV Officers Equipment's—Compass, Tapes, GPS Finance-Allowances, Airfares, Land & sea transport costs Accommodation	N/A	Assessment report compiled and submitted by DoF Environment & Surveyor	DEPC DOF Survey dept.
3.Meeting with community to discuss conservation recommendations and or terms and conditions	Community Committee & external partners		Airfares Land & Sea transport cost Accommodation Workshop cost	N/A	Report on meeting outcomes submitted	Community LLV DEPC Torba Province
4. Application launch for registration of conservation site	Community Committee & external partners		Application fee	N/A	Report on progress	Community LLV



5.Reforestation & rehabilitation By June 2016	Community Committee & external partners		Seedlings from forestry -Poly bags -Airtfares for LLV staffs -Land and sea transport -1 forestry Officer	N/A	Nurseries have been set up-report produced and submitted	Live & Learn Provincial government Forestry –Santo
6. Conservation workshop	Community Committee & external partners		Facilitators -2 LLV officer -1 environment Officer	N/A	Report on workshop produced	LLV Environment Community Province
7.Registration of the conservation site By February 2016	Community Committee & external partners Community Committee & external partners		Registration fees Transport cost-Sea and land Airtfares Accommodation	N/A	Conservation site registered	Live & Learn Vanuatu SANMA Provincial gov't



## 5. Word of Appreciation

At the end of the session, the facilitator handed over a cooking pot worth of 7,500vt to the community as a gift on behalf of Live & Learn Vanuatu and thank the community for cooperating with Live & Learn throughout the project life in the community.

In response, the community Elder thanked Live & Learn Vanuatu for working in the community and that they would very much love to continue this partnership into the future. “This community would like to thank Live & Learn Vanuatu for taking into consideration this community to work with and to make us realise the importance of the environment. We have come to see the importance of protecting and conserving our resources for the future generations”.

### Part 2: Post-education survey

#### (a) Quantitative results

General audience: Community members or teachers who have already participated in CEPF education workshops (do not survey people who attend a final session or workshop if they have not participated in the whole program)

Location/s: Kerepua Community –Santo Mountain Chain

Date: 3 July 2015

Description of group (participants): Kerepua Community members

Facilitator/s: Jessie Kampai

Key learning statements  'I can ...'	Self-assessment rating							
	Green: Achieved Amber: Partially achieved Red: Not achieved							
	Green		Amber		Red		Total participation	
	Male	Female	Male	Female	Male	Female	Male	Female
Explain what is meant by the word 'biodiversity'	*** *** *** *** *** **	***** ***** ***** ***** **					17	18
Explain why the area where I live has been selected as a priority site for biodiversity conservation	*** *** *** *** **	***** ***** ***** ***** **					17	18
Describe the main threats to biodiversity in my place	** *** *** *** *** **	***** ***** ***** ***** **					17	18
Identify reasons why biodiversity is important to myself and other people	** *** *** *** *** **	***** ***** ***** ***** **					17	18



Key learning statements  'I can ...'	Self-assessment rating							
	<b>Green:</b> Achieved <b>Amber:</b> Partially achieved <b>Red:</b> Not achieved							
	Green		Amber		Red		Total participation	
	Male	Female	Male	Female	Male	Female	Male	Female
	**							
Describe actions that we can take to conserve biodiversity	*** *** *** *** *** **	***** ***** ***** **					17	18
Describe the plans in place or actions we are going to take to protect biodiversity where I live	*** *** *** *** **	***** ***** ***** ***					17	18



## Part 2: Post-education survey

### (b) Qualitative results

The table below shows the result of an interview done with Chief Aram of Kerepua community, Santo Mountain Chain.

Key learning statements 'I can ...'	Significant remarks or stories from participants in relation to the learning statements (identify age / gender):
Explain what is meant by the word 'biodiversity'	I think biodiversity is all the living creatures around us. The animals, birds, insects and even the worms and tiny insects that we might or might not see and their habitat and or their surroundings.
Explain why the area where I live has been selected as a 'priority site' for biodiversity conservation	I personally think my area has been selected as a priority site for biodiversity because Santo is somehow unique in some ways and has some species that cannot be found in other places. In 2006, I happen to join a group of scientist to identify the different species that live along the mountain chain and they have identified some of the endemic species in our areas along the mountain chain. I remember one was an endemic bat that they took back with them for further study, the others were orchids, eels and the Santo mountain starling however, we did not come across one at that time but I know it's there somewhere up in the mountains. So I think this is why my area has been selected to protect these very rare and special species.
Describe the main threats to biodiversity in my place	The main threats to our biodiversity here are human beings, natural disasters such as landslides, bushfires etc. Since the vegetation here is mostly grassland, sometimes when people burn their gardens and left especially in dry seasons, this can lead to bush fires that can burn up to 5 hectares of land.
Identify reasons why biodiversity is important to myself and other people	Biodiversity is important to me and other people around me as it makes my area more special than our other communities and or Islands especially for those that are endemic and rare.



<b>Key learning statements</b> <b>'I can ...'</b>	Significant remarks or stories from participants in relation to the learning statements (identify age / gender):
	For example, if we don't have these rare and endemic species this project would not be here today and nobody would care to educate us about biodiversity because there is nothing significant about it. It is the same as any other places. The second reason is it provides us with our daily needs and we depend on each other to survive.
Describe actions that we can take to conserve biodiversity	I think the actions we can take is educate people more about biodiversity and this is the beginning of it. Your organisation has taken the first step which is very important because if people do not know how important their biodiversity is to them they would have no reason at all to protect it. For example, Kerepua community did not know about this and that was one reason why we do not care but now that we do know we will take extra measures to protect and conserve our biodiversity. I believe if we do this other communities too will do the same. In the past we have heard of Penaoru conservation area but we did not know why they are conserving it until your organization organizes this workshop.
Describe the plans in place or actions we are going to take to protect biodiversity where I live	We are planning to protect and conserve our forest and all that is in it. We really want to engage in ecotourism but in order to achieve this we must first ensure that we go step by step in achieving this and I think the first step is to do conservation to populate our resources so when we have guests, there will be something extra special for them to see.

**Annex 1. List of participants**

1. Elder John Tabe
2. Malio Noah
3. Annette John
4. Hilda Harrison





5. Daisy Malio
6. Isineth Bune
7. Florine Jeninah
8. Susan Palon
9. Deacon Palon Pune
10. Brenda Okis
11. Nickson Mwai
12. Obul Nickson
13. Linges Frank
14. Malina Frank
15. Toi Mwailarua
16. Alick Mwailarua
17. Mwailarua woli
18. Marie Rose Alick
19. Mwaialbon Maliu
20. William Luitan
21. Jinelle Bune
22. Rex Royan
23. Rona Maliu
24. Nome Royan
25. Sussie Joel
26. Jacklyn Toi
27. Kalino Palon
28. Kathlyn Garae
29. Elder Frank Alrua
30. William Luitan
31. Paul Selboe
32. Magareth Maliu
33. Namlina Ulboe
34. Wilson Ulboe

**Annex 2: Program**

Time	Activity	Person Responsible
8am-8:15am	Welcome	Community Leader
8:15-8:30am	Opening Prayer	Community Elder
8:30-9:00am	Workshop overview	Jessie Kampai
9:00am-9:15	Refreshments	Everyone
9:15-11:30am	Brainstorming activities	Jessie Kampai
11:30-12:30pm	Lunch	Everyone
1:00pm-3:00pm	Drawing up action plan	Jessie Kampai
3:00pm-3:30pm	Refreshments	Everyone
3:30-4:30pm	Finalising the action plan	Jessie Kampai



# Kurumambe Action Plan Report

## Tongoa -Laika

Date: 14 August 2016

### 6. Introduction

This report will focus mainly on the one day workshop held at Kurumambe village, Tongoa Island. The one day workshop was held mainly to finalise the action plan for the community. So the workshop brought together community members from Kurumambe including chiefs, church elders, parents, youths and children.

(see attached attendance list-annex 1)

#### 1. Welcome

The community chief welcomed the participants to the workshop and made a special welcome to Live & Learn representative with hanging of Salusalu. The church elder opened the workshop with a word of prayer.

#### 1. Workshop

The workshop was a participatory one where community members were given space to voice the views on the discussions. The workshop was conducted in a way that all the different groups within the community were given a chance to present their views, for instance, men, women and youth members. The workshop was focused mainly on the action plan for this particular community so this workshop was an opportunity for its members to draw the action plan that was supposed to be drawn earlier in 2015 but due to cyclone Pam the workshop has been cancelled until now.

#### 1. Findings

The findings from the workshop show that in the first workshop Kurumambe community has decided after so much discussion at the end of the workshop to involve in conservation and tourism. Tongoa Island is one of the richest Islands in the shepherds group with 2 isles known as Laika and Lupalea. The two Islands are known to be rich in biodiversity. These two Isles are the home for the *wedge tailed-shearwater* commonly known as *Puffinus pacificus* and locally known by the communities of Tongoa as Koroliko. The Islands are not only the habitat for Koroliko but also for crabs, shellfishes and other marine creatures that enjoys this undisturbed ecosystem.

Since Koroliko is one of the main sources of income for the community, and seeing also that it is on the red list for IUCN, the community has decided after the workshop to conserve part of Laika and the other smaller Island beside Laika while they harvest on the other part.

Prior to this happening, it is more proper to do an assessment on the birds to find out more background information as currently there is not much information known about the birds. For instance, how many birds are there on the Island, how many breeds there in one breeding season and how many of these birds come back after breeding? These are some basic information that the community needs to find out in order to know how many birds they can harvest in one breeding season and still not having a



big impact in its population as at this point of time only a niche of information is known about the Wedge tailed-Shear waters.

However, after TC Pam the community has decided to focus their efforts on populating the resources or biodiversity itself before moving into ecotourism itself. So in the Action Plan they have decided to conduct an assessment of resources on Laika Island, do reforestation. The community is planning to have a meeting with the community to discuss conservation recommendation and or terms and conditions for the conservation then will later go into ecotourism activities.

Below is the proposed action plan for Kurumambe community

**PROPOSED ACTION PLAN FOR TONGOA -LAIKA**

<b>Action Steps</b>	<b>By Whom</b>	<b>Resources and Support Available / Needed</b>		<b>Potential Barriers or Resistance</b>	<b>Evaluation / Monitoring</b>	<b>Communication Plan for Implementation</b>
What needs to be done?	Who will take actions?	Resources Available	Resources Needed (financial, human, equipment, expertise and other)	What individuals and organizations might resist? How?	How do I know it works or I've accomplished the goal?	What individuals and organizations should be informed about / involved with these actions?
1. Conduct Assessment of resources-Laika Island	Community committee and extension partners		Human resource- Assessment team Catering Airfares Land & Sea transport costs Accommodation costs Per diems	Extreme weather pattern	Assessment report compiled and submitted	Community members , Shefa Provincial gov't



2. Reforestation on Laika Island	Community Committee and extension partners	Guides & Community members to do planting of species of interest.	Human resource to do assessment 2 foresters, 1 environment officer, 1 surveyor , 2 LLV Officers Equipment's—Compass, Tapes, GPS Finance-Allowances, Airfares, Land & sea transport costs Accommodation	N/A	Reforestation report compiled and submitted by DoF Environment & Surveyor	DEPC DOF Survey dept.
3. Meeting with community to discuss conservation recommendations and or terms and conditions	Community Committee and extension partners		Airfares Land & Sea transport cost Accommodation Workshop cost	N/A	Report on meeting outcomes submitted	Community DEPC SHEFA Province
4. Tour guide training	Community Committee and extension partners	Participants	Facilitator, Catering, Allowance Airfares, Accommodation	N/A	Report on training provided and submitted	Community, SHEFA Province
5. Application launch for registration of conservation site	Community Committee and extension		Application fee	N/A	Report on progress	Community



	partners					
6. Hygiene and nutrition, food preparation training with mama's	Community Committee and extension partners	Participants	Facilitator, Airfares, Allowance, Accommodation	N/A	Report on training provided	Community, TVET, SHEFA Province
7. Follow up Assessment of Flora & Fauna on Laika & Kurumambe	Community Committee and extension partners	Guides and Assistance provided within the community to assist in Assessment	Facilitator's, Airfares, Allowance, Accommodation	N/A	Report of Assessment & findings provided	Community, Department of Forests, Department of Environment Protection and Conservation, Live & Learn
6. Conservation workshop	Community Committee and extension partners		Facilitators -2 LLV officer -1 environment Officer	N/A	Report on workshop produced	Environment Community Province
7.Registration of the conservation site By February 2016	Community Committee and extension partners		Registration fees Transport cost-Sea and land Airfares Accommodation	N/A	Conservation site registered	SHEFA Provincial gov't Community Environment



**Part 2: Post-education survey**

(a) Quantitative results

General audience: Community members of Kurumambe community.

Location/s: Kurumambe Community

Date: 14 August 2015

Description of group (participants): Kerepua Community members

Facilitator/s: Jessie Kampai

Key learning statements  'I can ...'	Self-assessment rating							
	<b>Green:</b> Achieved <b>Amber:</b> Partially achieved <b>Red:</b> Not achieved							
	Green		Amber		Red		Total participation	
	Male	Female	Male	Female	Male	Female	Male	Female
Explain what is meant by the word 'biodiversity'	*** *** *** *** *	***** ***** **					13	10
Explain why the area where I live has been selected as a priority site for biodiversity conservation	*** *** *** *** *	***** ***** **					13	10
Describe the main threats to biodiversity in my place	*** *** *** *** *	***** ***** **					13	10
Identify reasons why biodiversity is important to myself and other people	*** *** *** *** *	***** ***** **					13	10
Describe actions that we can take to conserve biodiversity	*** *** *** *** *	***** ***** **					13	10
Describe the plans in place or actions we are going to take to protect biodiversity where I live	*** *** *** *** *	***** ***** **					13	10



## Part 2: Post-education survey

### (b) Qualitative results

The table below shows the result of an interview done with Community members

Key learning statements 'I can ...'	Significant remarks or stories from participants in relation to the learning statements (identify age / gender):
Explain what is meant by the word 'biodiversity'	I think biodiversity is all the living creatures around us. The animals, birds, insects and even the worms and tiny insects that we might or might not see and their habitat and or their surroundings.
Explain why the area where I live has been selected as a 'priority site' for biodiversity conservation	I personally think my area has been selected as a priority site for biodiversity because of our two offshore islands that are very rich in biodiversity. The main ones are Koroliko or Mutton birds, crabs, flying floxes and megapods.
Describe the main threats to biodiversity in my place	The main threats to our biodiversity or in this case Tongoa - Laika are human beings, natural disasters.
Identify reasons why biodiversity is important to myself and other people	Biodiversity is important to me and other people around me as it makes my area more special than our other communities and or Islands especially for those that are endemic and rare. For example, if we don't have these rare and endemic species this project would not be here today and nobody would care to educate us about biodiversity because there is nothing significant about it. It is the same as any other places. The second reason is it provides us with our daily needs and we depend on each other to survive.
Describe actions that we can take to conserve biodiversity	I think the actions we can take is educate people more about biodiversity which is very important. People will not take action unless they know the importance of this action.
Describe the plans in place or actions we are going to take to protect biodiversity where I live	We are planning to protect and conserve our resources especially on Laika Island. However, after TC Pam we had to change revisit our decision and decide to do reforestation to restore its ecosystem after the Island has been badly hit by TC Pam.





**Annex 1. List of participants**

1. Elder John Willie
2. Roy Seresere
3. Nandes Seresere
4. Miles
5. Leisande David
6. Leipunua David
7. Leiwia Kalo
8. August Roy
9. James Roy
10. Chief Taripoamatariki
11. Leisande Kalo
12. Rose Lui
13. Rueben Kalo
14. Leisande Kalo
15. Masden Abel
16. John Roy
17. James Taripoa
18. Martin Kalo
19. David John
20. Willie Kalowia
21. Valerie Peter
22. Olive R. Taripoa
23. Martha Kalowia



## Appendix 4: Action Plans

# DOLAV COMMUNITY ACTION PLAN

## WEST GAUA, GAUA ISLAND

### TORBA PROVINCE

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#### 1.0. Executive Summary

The project *Education for action; Empowering local communities for Biodiversity Conservation* in Vanuatu is funded by Critical Ecosystem Partnership Funds (CEPF) through collaboration with local NGO, Live & Learn Vanuatu. Live & Learn Vanuatu office is working with communities in CEPF priority sites to raise awareness on the importance of biodiversity and how communities can work together to address threats to biodiversity. Live & Learn is hoping this will eventually lead to increased recognition and consideration of the value of local biodiversity evident in decision making about land use. Live & Learn has worked with the communities to create Action Plans to undertake conservation actions. This document highlights the Action Plan for Dolav Community on Gaua Island.



## 2.0 Objective

The aim of this document is to empower local communities to protect and manage globally significant biodiversity at priority Key Biodiversity Areas underserved by current conservation efforts.

## 3.0 CEPF program

The Critical Ecosystem Partnership fund is a global leader in enabling civil society to participate in and benefit from conserving some of the world's critical ecosystems. The CEPF program provides funds for non-governmental and private sector organisations to help biodiversity hotspots, earth's most biologically rich yet threatened areas. This support provided equips civil society groups to conserve their environment and influence decisions that affect lives, livelihoods and, ultimately, the global environment for the benefit for all.

## 4.0 Information on the drafting of this document

The project had two major aims:

- Raise awareness about the values of biodiversity and the nature of threats and drivers among local communities at priority sites
- Support local communities to design and implement locally relevant conservation actions that respond to major threats at priority sites.

The project started in March 2014 and has run 3 workshops in total at Dolav community. The workshops were based on the two investment priorities highlighted above. The first workshop was organised in June 2014 with the objectives below:

The objectives of the workshop are for the communities to (i) Understand what biodiversity is (ii) Importance of their local biodiversity as a biodiversity hotspot (iii) Understand the role biodiversity plays in providing ecosystem services, resources and livelihoods (iv)

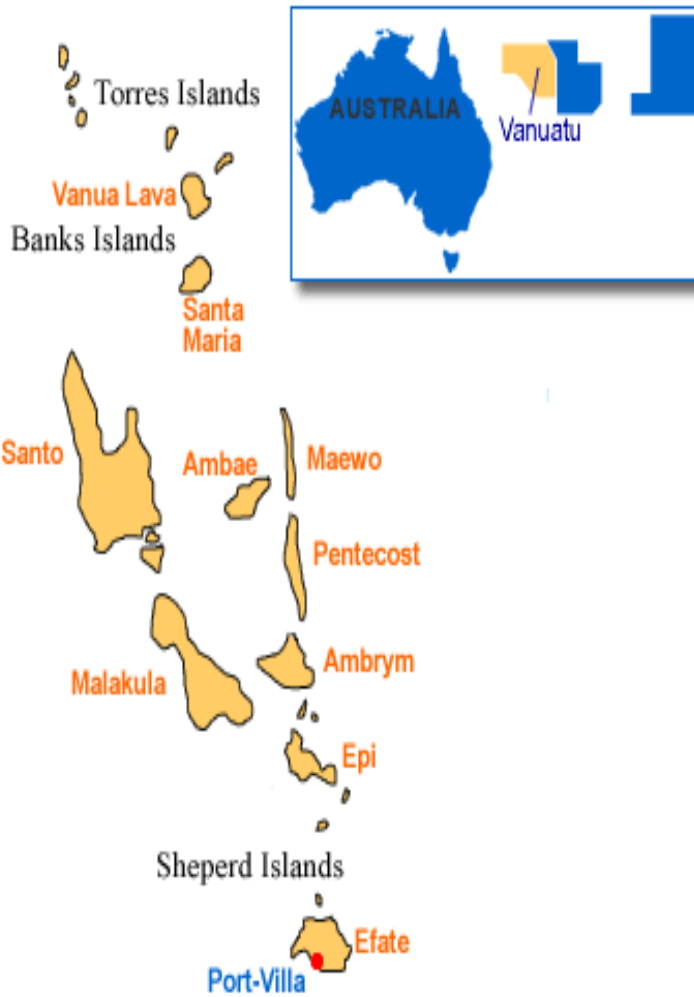
Recognising the threats to local biodiversity.

The second workshop, in March 2015 was to help the community to come up with a draft Action plan. The objective for this workshop is to use new knowledge and skills gained from the first workshop to draw the community management action plan.

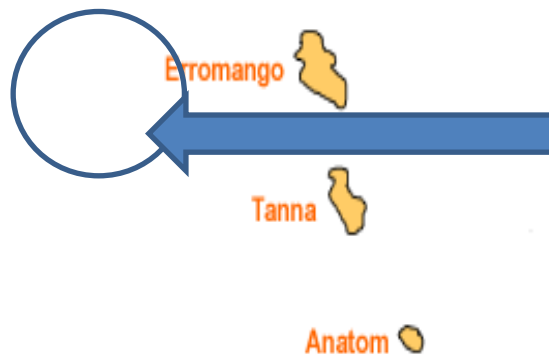
This workshop was facilitated by Live & Learn Vanuatu however; the community took ownership of this and came up with a draft plan at the end of the final workshop in June 2015.



**Vanuatu**  
click here  
for this site



## 5.0 THE ISLAND OF GAUA



Gaua (Santa Maria) island  
encircled on the map



## 5.1 GEOGRAPHY

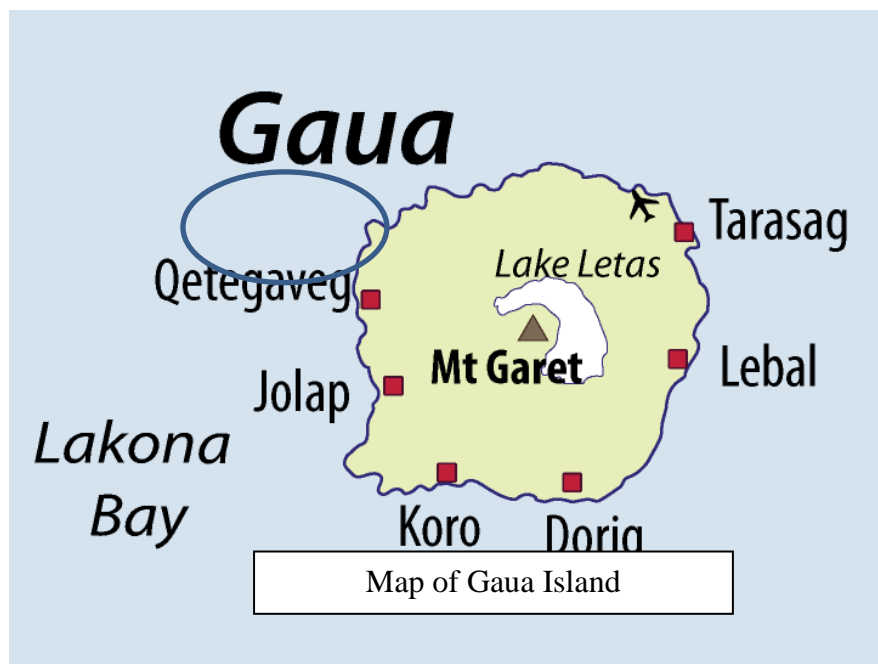
The Island of Gaua, formerly known as Santa Maria, is situated in the northern part of Vanuatu. It is the largest and second most populous of the islands in Torba province and covers 342 km<sup>2</sup>. The highest elevation is about 767 m and the highest point is mount Gharat.

## 6.0 POPULATION

According to the 2009 census (*Vanuatu statistics office*), the Island has a population of 2,491 with an annual growth rate of 2.0 percent. This population is scattered in various coastal villages on the western, southern and north eastern sides of the Island. The eastern side has settlements with immigrant population coming mainly from the two smaller Islands of Merig and Merelava, south east of Gaua. The largest village on the island is Jolap which is situated on the west coast side of the Island.

## 7.0 DOLAV COMMUNITY

Dolav community sometimes known as Jolap is situated on the Western part on the Island of Gaua. It is about 2-3 hours by sea (boat) from the airstrip as shown below on the map. Dolav has a population of roughly 200 people. The community is situated beside the beautiful Lakona Bay which has become a tourist destination especially for yachts.



## 8.0 BIODIVERSITY IN THE AREA

Dolav Community is rich in marine and terrestrial biodiversity. Since Vanuatu's biodiversity remains poorly known, the community does not know each individual species in the entire ecosystem. However, the land is rich with different terrestrial and marine species including a healthy fresh water river system.

Despite the rich and diverse biodiversity, there has not been any awareness raising on biodiversity to empower local communities to protect and manage their resources sustainably



prior to this project. After the awareness raising about the values of biodiversity and the nature of threats and drivers among this community as a priority site, the community has decided in a meeting held independently by Dolav village in May 2014 to take action and utilise their resources in a sustainable way.

The first and foremost decision they took was to engage in ecotourism. To implement this, they decided to go step by step in achieving their goal. Step 1 is to focus on populating/multiplication of their resources both marine and terrestrial from reef to ridge. In August 2014 after the workshop the community started implementing their plan by banning turtle harvesting. In August the same year, the community chief and custom chief with further consultation with community members who all agreed to protect and conserve their marine resources. Early 2015, the community decided to move into their terrestrial area to control *Merremia peltata* and save their forest and its inhabitants.

By looking at all these conservation initiatives, the community believes that if they protect and conserve their resources and engage in ecotourism with the number of yachts that comes in annually, this will support them financially as well as sustainably. So the community decided to take the first step into ecotourism through the annual Art festival in August. This activity will take place 3-4 days on the week of 23<sup>rd</sup> -26<sup>th</sup> August every year. Back in 2013, there were 9 yachts altogether during the first Art festival and last year 2014, with promotional assistance by Live & Learn in Port Vila, the number went up to 18 yachts altogether according to the chairperson of the organising committee.

So the main idea behind ecotourism is to conserve their resources and when the visitors come to the festival and or any other times they can showcase the custom and culture, the famous water music and the resources they have from reef to ridge.



Community member presenting discussions from group discussions on Dolav Community Action Plan at the drafting of the Community proposed action plan workshop



Men in deep discussion at the drafting of the community Proposed Action Plan.



Lakona Bay -Where the Art festival is annually held



## 8.1 List of marine and terrestrial resources provided by the Dolav Community

### RESOURCES OF Dolav Community- West Gaua

#### Terrestrial

Local name	Scientific Name	Family	Plant form	Uses
Mango	<i>Mangifera indica</i>	ANACA	Tree	All cultivated. Fruits are edible and traded
Nakatambol	<i>Dracontomelon vitiense</i>	ANACA	Tree	
Naus	<i>Spondius dulcis</i>	ANACA	Tree	Mainly cultivated, some wild, fruits are edible
Burao blong Solwota	<i>Cordia subcordata</i>	BORAG	Tree	
Nangai	<i>Canarium indicum</i>	BURSE	Tree	Timber species. Traded. Nuts are edible
Oak tree	<i>Casuarina equisetifolia</i>	CASUA	Tree	The plank-like buttresses are used to fashion bowls, chairs and doors.
Natapoa	<i>Terminalia catappa</i>	COMBR	Tree	Often planted as shade trees in villages, nuts are edible, timber species. Traded
Navenu	<i>Macaranga dioica</i>	EUPHO	Tree	Fuel wood
Nambagura	<i>Calophyllum inophyllum</i>	GUTTI	Tree	Common sea shore tree with durable wood, also used in boat building
Namambe	<i>Inocarpus fagiferus</i>	LGPAP	Tree	Mainly cultivated, some wild, fruits are edible
Narara	<i>Erythrina varicgata</i>	LGPAP	Tree	
Blue Water	<i>Pterocarpus indicus</i>	LGPAP	Tree	The sapwood stains blue on contact with water. Used for building canoe. Timber species
Fish poison tree	<i>Barringtonia asiatica</i>	LECYT	Tree	Seeds are crushed and added to water to poison fish
Burao	<i>Hibiscus tiliaceus</i>	MALVA	Tree	The leaves are used in bush latrines, and from big leave varieties as plates.
Breadfruit	<i>Artocarpus altilis</i>	MORAC	Tree	Fruits are edible, young leaves are edible as well. Traded
Nakavika	<i>Syzygium malaccense</i>	MYRTA	Tree	Fruits are eaten, branches and stem as fuel wood





<i>Nandao</i>	<i>Pometia pinnata</i>	SAPIN	Tree	Fruits are edible and branches used for fuel wood
<i>Namatal</i>	<i>Kleinhovia hospita</i>	STERC	Tree	Branches are used for fuel wood and the bark of young stems are used as temporary cordage
<i>Bread fruit</i>	<i>Artocarpus altilis</i>	MORAC	Tree	Fruits are eaten and build canoe from stem
<i>Nakalat</i>	<i>Dendrocide latifolia</i>	URTIC		All <i>Dendrocide</i> spp. may be used. The stings do not effect or contain stock.
<i>Burao</i>	<i>Hibiscus tiliaceus</i>	MALVA		Leaves are used in bush latrines

Some pictures of Flora (Fruit trees)



*Terminalia catappa*



*Mangifera indica*



*Artocarpus altilis*



*Canarium indicum*



*Barringtonia procera*



Mandarin



Other resources identified in the workshop are as listed below according to their habitats

**Marine**

**Marine resources**

- Star fish
- Flying fish
- Snipper
- Paracuda
- Sharks
- Turtle
- Poulet
- Sawfish
- Sailing fish
- King fish
- Tuna
- Rainbow fish
- Octopus
- Lobster
- Dolphins
- Sea slugs
- Sea snakes
- Malet
- Sea Horse
- Sting ray
- Paracuda
- Jelly fish
- Squid

**Fresh Water resources**

- Eels
- Prawns
- Crabs
- White fish
- Black fish
- Big head fish

**Fauna**

- Megapod
- Nawimba
- Green Pigeon
- Nambilak
- Kingfisher
- Vanuatu Flying Fox
- Pig

Some pictures of Fauna



Vanuatu Flying Fox



Chicken



Images of more Flying Foxes



## 9.0 CHALLENGES

There are several environmental issues the community is facing with its resources both Marine and terrestrial. However, the one's highlighted and thought to be on the top of the list are as listed below:

### 9.1 Overexploitation

Dolav has a number of species that are currently regarded as being over exploited and are considered rare or endangered in the local context which is exactly the case for Dolav community. Most of the marine and terrestrial species are reported by the community in the workshops held at Dolav as over exploited which takes place always on coastal lowland areas near community settlements. The reason being the population is growing very rapidly. One of the species that is on the priority list for IUCN's red list that is believed to be over exploited and at the same time is facing habitat loss is the Megapode spp. This particular spp. is found in the proposed conservation area at Dolav community and it is being vulnerable as the community collect the eggs and sell to other surrounding communities and or within Dolav community itself. Its habitat is also under threat by *Merremia peltata* which is taking over the entire vegetation.

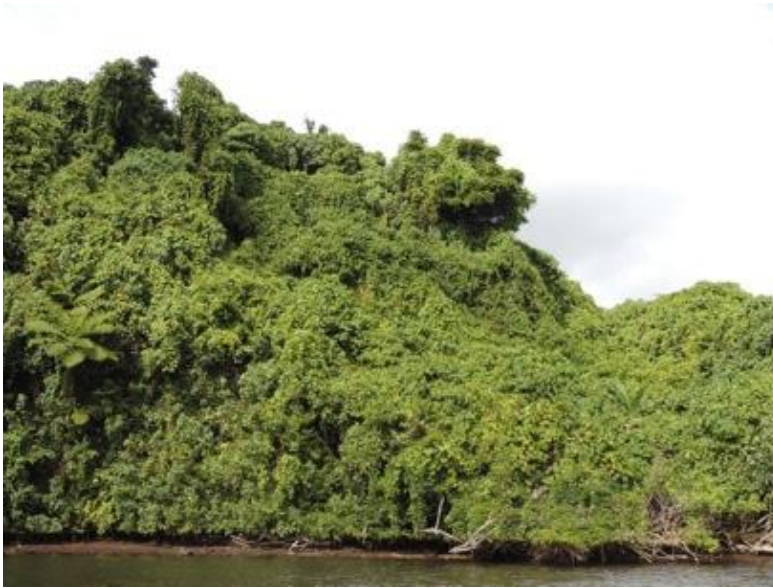
### 9.2 Habitat loss

Habitat loss is becoming one of the major issues these days. For Dolav community, greatest loss of forest biological diversity comes from landholder decisions to convert forest to Agriculture and coconut plantation as the major revenue in this area is from Copra. This shows there is a need for greater collaboration between the Department of Agriculture and Rural Development and the Department of Forests to develop systems of Agroforestry and to develop guidelines so that conversion to agriculture allows key biodiversity elements and ecosystem functions to be retained.



### 9.3 Invasive and Alien Species

The other challenge identified is the invasive and alien species for this case the *Merremia peltata* that is smothering trees and suppressing vegetation's in the area. Other minor alien species are animals both feral and domestic that are also a contributing factor to the decrease of resources in the area.



Merremia peltata smothering trees and forests  
Photo: Jessie Kampai-2015

## 11.0 Proposed Action Plan

Dolav Community has had previous experiences and knowledge of locally established and managed conservation with traditional concepts such as placing tapu's on the reef etc. Dolav community is keen in implementing what has been learnt at the workshop, they conserved their marine resources right after the second workshop during the drafting of the action plan. The first step they took was to address food security. Upon Live & Learn's first contact with the community, the community had requested tree species' seedlings and seeds to establish an agroforestry plot to address food security as well as to help generate some income into the community. So LLV team gladly supply them with 20 sandalwood seedlings and assist them to establish the plot with Kumala (resilient varieties) as ground cover. Kumala tubers from the plot has been harvested and shared among the community members. The trees are still growing on the plot today.

Live & Learn's second visit to the community to draw the draft action plan, the team brought with them 300 seeds of sandalwood to extend the existing plot. The team assisted the community in setting up the nursery however, TC Pam destroyed about 85% of the seedlings and only a few survived.

Currently they are looking into conserving the terrestrial resources, both flora and fauna and especially the megapods. However, since the area is heavily repressed by *Merremia peltata*, the community's first approach is to focus on rehabilitation and reforestation.

The overall goal is to engage in ecotourism. The community has their famous Lakona Bay and they receive yachts that harbour there several times in a course of a year. The community also has a diverse biodiversity as seen in the list provided above.



To implement this, the community has started off with protecting the turtles and say no to eating turtles. The second step to this was protecting and conserving their marine resources. With the community decision from a meeting held in Dolav village in September 2014, the community has decided for the village chief and custom chief to place a tapu on the reef to protect the marine resources. In August 2015, they have made another decision and this time to protect and conserve the megapods in the proposed conservation area. The proposed conservation area is heavily repressed by *Merremia peltata* and so the community would like to rehabilitate and reforest the proposed conservation area.

### Dolav Community Action Steps

Action steps	By Whom	Resources Available	Support Needed	Potential Barriers or Resistance	Evaluation/ Monitoring	Communication plan for implementation
What needs to be done	Who will take action?	Resources available	Resources needed Financial, human, Equipment, Expertise and other	What individuals and organisations might resist? How?	How do I know it works or I've accomplished the goal?	What individuals and organisations should be informed and / involved with these actions?
1. Assessment- Forest, Freshwater, Sea	Community & extension partners	Forest Fresh Water, Sea	Assessment team Human resource- Facilitators Finance-Airfares -Transport cost (Boat) -Workshop expenses	N/A	Assessment report	Forestry, Fisheries' Environment Live & Learn Torba Province Area Secretary
2. Mark out plot & brush <i>Merremia peltata</i>	Community & extension partners	Human resource	Boat fuel Maintenance Community	N/A	Community to report	Live & Learn Community
3. Plant tree species -Whitewood -Melek tree -Sandalwood	Community And extension partners	Human resources	Seedlings-Whitewood -Melek tree - Sandalwood Finance- Transportation cost to transport seedlings from Santo to Gaua Workshop cost	N/A	Report	Live & Learn Forestry Community
4. Monitor trees and Megapods	Community	Human resource	Transport cost Community-sea		Report by Phone to Coordinator	Live & Learn Community

5. Scrub duck to be included in community bylaw	Community And extension partners	Human resource	Workshop cost Transport-Boat Airfares		Copy of community bylaw	
6. Hospitality training -tour guiding -food & beverage -providing customer care services	Community & extension partner		Human resource -2 LLV staff member -2 TVET trainers  Finance -Airfares -Land & Sea transport -Meals & Accommodation -Generator & fuel cost -Per diems  Workshop costs		Report on hospitality training compiled and submitted	LLV Torba tourism office TVET Office
7. Assessment/survey	Committee & extension partners		Airfares Transport hire Accommodation cost Per diems		Assessment report	Live & Learn Community Torba province Forestry Environment Fisheries
8. Final report	Community & extension partners		Airfares Transport Workshop cost		Final report	

# KEREPUA COMMUNITY ACTION PLAN WEST COAST SANTO

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## **1.0 EXECUTIVE SUMMARY**

The project *Education for action; Empowering local communities for Biodiversity Conservation* in Vanuatu is funded by Critical Ecosystem Partnership Funds (CEPF) through collaboration with local NGO, Live & Learn Vanuatu. Live & Learn Vanuatu office is working with communities in CEPF priority sites to raise awareness on the importance of biodiversity and how communities can work together to address threats to biodiversity.

Live & Learn is hoping this will eventually lead to increased recognition and consideration of the value of local biodiversity evident in decision making about land use. Live & Learn has worked with the communities to create Action Plans to undertake conservation actions. This document highlights the Action Plan for Kerepua Community in the Santo Mountain Chain.

## **2.0 OBJECTIVE**

The aim of this document is to empower local communities to protect and manage globally significant biodiversity at priority Key Biodiversity Areas underserved by current conservation efforts.

## **3.0 CEPF Program**

The Critical Ecosystem Partnership fund is a global leader in enabling civil society to participate in and benefit from conserving some of the world's critical ecosystems. The CEPF program provides funds for non-governmental and private sector organizations to help biodiversity hotspots, earth's most biologically rich yet threatened areas. This support provided equips civil society groups to conserve their environment and influence decisions that affect lives, livelihoods and, ultimately, the global environment for the benefit for all.

## **4.0 Information on the drafting of this document**

The project had two major aims:

- Raise awareness about the values of biodiversity and the nature of threats and drivers among local communities at priority sites
- Support local communities to design and implement locally relevant conservation actions that respond to major threats at priority sites.

The project started in March 2014 and has run 2 workshops in total at Kerepua community. The two workshops were based on the two investment priorities highlighted above. The first workshop was organised in June 2014 with the objectives below:

The objectives of the workshop are for the communities to (i) Understand what biodiversity is (ii) Importance of their local biodiversity as a biodiversity hotspot (iii) Understand the role biodiversity plays in providing ecosystem services, resources and livelihoods (iv) Recognising the threats to local biodiversity.

The second workshop, in March 2015, was to help the community to come up with a draft Action plan. The objective for this workshop was to use new knowledge and skills gained from the first workshop to draw up the community management action plan. This workshop was facilitated by Live & Learn Vanuatu however; the community took ownership of this and came up with a draft plan at the end of the final workshop in June 2015.

## 5.0 THE ISLAND OF SANTO



The Island of Espiritu Santo, commonly known as Santo, is the largest Island in Vanuatu with a total area of 3,955.5 square kilometres.

## 6.0 GEOGRAPHY



4.2 –Santo Island and its different boundaries and or settlements with Kerepua community on the west coast of the island encircled in blue (source: Santo tourism).

## 7.0 INCOME GENERATING ACTIVITIES

Santo, with a productive of developed east coast, is one of the islands on which Vanuatu's economy is heavily concentrated. The main sectors of economy on Santo are agriculture, cattle farming and tourism. Main agricultural crops are copra, cocoa and kava with small scale timber sales. Many communities rely heavily on the local food market and copra for their cash income with the larger industries being managed by foreign companies and investors. The less developed West Coast, where Kerepua is located, is keen for development.

## 8.0 KEREPUA COMMUNITY

Kerepua Community has around 50 households and a school nearby that caters for Kerepua community and the surrounding villages. The community alone is rich resource wise both in terrestrial and marine services. The community sells sandalwood, oranges and mandarines. The customary landowners of the famous Mount Tabuemasana live in Kerepua.

Kerepua is very remote with access by boat only. This greatly limits access to services and markets. It has had limited assistance with development and as such was selected by the Sanma Provincial Secretary General as the community within the Santo Mountain Chain to work.

## 9.0 BIODIVERSITY IN THE AREA

Like many other areas of Vanuatu, there is much yet to be known in terms of biodiversity in Santo Mountain Chain. According to the community, this area has a diverse species of flora and fauna. This includes some of the native and endemic species over 60 endemic species of flora found in this area alone. The community has proposed a conservation area to be home to some of the rare and endemic species. This includes flora such as herbs, trees, shrubs and orchids. Fauna such as the Santa Cruz Dove and the Santo Mountain Starling are entirely restricted to Santo. Below is a list of biodiversity in the area provided by the community during the community profile workshop at Kerepua community. The community came up with a list in the local dialect that was later translated into common name by the help of a community member. This list was then taken to the Department of Forests by the Project Coordinator and with the assistance of the Botanist we came up with the list below. It is not a thorough biodiversity assessment but provides some information on a little studied part of Santo.

## 10.0 Community biodiversity assessment

### 10.1 Plant data collected from Kerepua

This plant data was collected from Kerepua village and along the ridge to Mt.Tabwemasana in West Coast Santo where the proposed conservation site is.

Below is the list of native plant species.

Scientific Name:	Family Name:	Plant Form	Kerepua Uses
<i>Priphyas amboinensis</i>	<i>Amaryllidaceae</i>	Herb	Leaves and inner bark use for local custom medicine
<i>Acanthus illicifolius</i>	<i>Acanthaceae</i>	Herb	Leaves and inner bark use for local custom medicine
<i>Hemigraphis repens</i>	<i>Acanthaceae</i>	Herb	Leaves and inner bark use for local custom medicine
<i>Cordyline fruticosa</i>	<i>Agavaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Dracaena graminea</i>	<i>Agavaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Dracaena graminifolia</i>	<i>Agavaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Achyranthes aspera</i>	<i>Amaranthaceae</i>	Herb	Leaves and inner bark use for local custom medicine
<i>Cerbera odollam</i>	<i>Apocynaceae</i>	Tree	Leaves and inner bark use for local custom medicine
<i>Ochrosia oppositifolia</i>	<i>Apocynaceae</i>	Tree	Leaves and inner bark use for local custom medicine

<i>Ervatamia obtusiuscula</i>	<i>Apocynaceae</i>	Shrub	Lastic tree, leaves and inner bark use for local custom medicine
<i>Kopsia flavida</i>	<i>Apocynaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Delarbrea collina</i>	<i>Araliaceae</i>	Tree	Leaves and inner bark use for local custom medicine
<i>Polyscias scutellria</i>	<i>Araliaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Polyscias samoensis</i>	<i>Araliaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Balanops pedicelata</i>	<i>Balanophoraceae</i>	Epiphyte	Leaves and inner bark use for local custom medicine
<i>Impatiens sultanii</i>	<i>Balasminaceae</i>	Epiphyte	Leaves and inner bark use for local custom medicine
<i>Bixa orellana</i>	<i>Bixaceae</i>	Tree	Leaves and inner bark use for local custom medicine
<i>Cordia dichotoma</i>	<i>Boraginaceae</i>	Tree	Used for handicraft, Leaves and inner bark use for local custom medicine
<i>Cordia subcodata</i>	<i>Boraginaceae</i>	Tree	Leaves and inner bark use for local custom medicine
<i>Buddleja asiatica</i>	<i>Buddlejaceae</i>	Tree	Leaves and inner bark use for local custom medicine
<i>Casuarina equistifolia</i>	<i>Casuarinaceae</i>	Tree	Leaves and inner bark use for local custom medicine
<i>Canna indica</i>	<i>Cananceae</i>	Herb	Leaves and inner bark use for local custom medicine
<i>Ascarina lanceolata</i>	<i>Chloranthaceae</i>	Liane	Leaves and inner bark use for local custom medicine
<i>Aneilema vitiensis</i>	<i>Commeliaceae</i>	Liane	Leaves and inner bark use for local custom medicine
<i>Pollia secundiflora</i>	<i>Commeliaceae</i>	Herb	Leaves and inner bark use for local custom medicine
<i>Zebrina pendula</i>	<i>Commeliaceae</i>	Herb	Leaves and inner bark use for local custom medicine
<i>Emilia sonchifolia</i>	<i>Compositae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Erechtites valerianaefolia</i>	<i>Compositae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Wedelia biflora</i>	<i>Compositae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Youngia japonica</i>	<i>Compositae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Pluhea odorata</i>	<i>Compositae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Sonchus oleraceae</i>	<i>Compositae</i>	herb	Leaves and inner bark use for local custom medicine
<i>Synedrella nodiflora</i>	<i>Compositae</i>	Herb	Leaves and inner bark use for local custom medicine
<i>Tridax procumbens</i>	<i>Compositae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Ipomea aquatica</i>	<i>Convolvulaceae</i>	Liane	Leaves and inner bark use for local custom medicine
<i>Coriaria rusciflora</i>	<i>Coriariaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Brassica juncea</i>	<i>Cruciferae</i>	Herb	Leaves and inner bark use for local custom

			medicine
<i>Lepidium virginicum</i>	<i>Cruciferae</i>	Herb	,leaves and inner bark use for local custom medicine
<i>Momodica charantia</i>	<i>Cucubitaceae</i>	Liane	Edible fruit, leaves and inner bark use for local custom medicine
<i>Carex fissilis</i>	<i>Cyperaceae</i>	Liane	Leaves and inner bark use for local custom medicine
<i>Kyllinga seemannianus</i>	<i>Cyperaceae</i>	Grass	Leaves and inner bark use for local custom medicine
<i>Fimbristylis complanata</i>	<i>Cyperaceae</i>	Grass	Leaves and inner bark use for local custom medicine
<i>Fimbristylis dichotoma</i>	<i>Cyperaceae</i>	Grass	Leaves and inner bark use for local custom medicine
<i>Machaerina falcata</i>	<i>Cyperaceae</i>	Grass	Leaves and inner bark use for local custom medicine
<i>Dioscorea bulbifera</i>	<i>Dioscoreaceae</i>	Climber	Edible root crops, Leaves and inner bark use for local custom medicine
<i>Dioscorea pentaphylla</i>	<i>Dioscoreaceae</i>	Climber	Edible root crops, Leaves and inner bark use for local custom medicine
<i>Elaeocarpus floridanus</i>	<i>Elaeocarpaceae</i>	Tree	Timber, firewood, rafter, Leaves and inner bark use for local custom medicine
<i>Aceratium oppositifolium</i>	<i>Elaeocarpaceae</i>	Tree	Leaves and inner bark use for local custom medicine
<i>Vaccinium whiteanum</i>	<i>Ericaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Acalypha amentaceae</i>	<i>Euphorbiaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Acalypha grandis</i>	<i>Euphorbiaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Acalypha sp</i>	<i>Euphorbiaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Macaranga dioica</i>	<i>Euphorbiaceae</i>	Tree	Local building material Leaves and inner bark use for local custom medicine
<i>Macaranga tannaensis</i>	<i>Euphorbiaceae</i>	Tree	Local building material Leaves and inner bark use for local custom medicine
<i>Breynia disticha</i>	<i>Euphorbiaceae</i>	Tree	Local building material Leaves and inner bark use for local custom medicine
<i>Cleidion speciflorum</i>	<i>Euphorbiaceae</i>	Tree	Local building material Leaves and inner bark use for local custom medicine
<i>Codiaeum variegatum</i>	<i>Euphorbiaceae</i>	Tree	Leaves and inner bark use for local custom medicine
<i>Euphorbia hirta</i>	<i>Euphorbiaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Euphorbia atoto</i>	<i>Euphorbiaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Euphorbia prostata</i>	<i>Euphorbiaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Euphorbia hypericifolia</i>	<i>Euphorbiaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Homalanthus nutans</i>	<i>Euphorbiaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Phymallanthus amarus</i>	<i>Euphorbiaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Baccaurea stylaris</i>	<i>Euphorbiaceae</i>	Tree	Post for local building material. Leaves and inner bark use for local custom medicine

<i>Acacia simplex</i>	<i>Fabaceae</i>	<i>Tree</i>	<i>Post for local building material. Leaves and inner bark use for local custom medicine</i>
<i>Desmodium umbellatum</i>	<i>Fabaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Pongamia pinnata</i>	<i>Fabaceae</i>	<i>Tree</i>	<i>Post for local building material. Leaves and inner bark use for local custom medicine</i>
<i>Instia bijuca</i>	<i>Fabaceae</i>	<i>Tree</i>	<i>Timber, firewood, rafter, Leaves and inner bark use for local custom medicine</i>
<i>Pterocarpus indicus</i>	<i>Fabaceae</i>	<i>Tree</i>	<i>Timber, firewood, rafter, Leaves and inner bark use for local custom medicine</i>
<i>Xyloma guillaininii</i>	<i>Flacourtiaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Flaggellaria indica</i>	<i>Flaggellariaceae</i>	<i>liane</i>	<i>Used to tire Bampoo and thatch for local building</i>
<i>Cyrtandra cymosa</i>	<i>Gesneriaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Cyrtandra vesiculata</i>	<i>Gesneriaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Cyrtandra shizocalex</i>	<i>Gesneriaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Centotheca lappacea</i>	<i>Graminea</i>	<i>Grass</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Chloris dactylon</i>	<i>Graminea</i>	<i>Grass</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Cyrtococcum oxyphyllum</i>	<i>Graminea</i>	<i>Grass</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Eleusine indica</i>	<i>Graminea</i>	<i>Grass</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Eragrostis tenella</i>	<i>Graminea</i>	<i>Grass</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Eriochloa procera</i>	<i>Graminea</i>	<i>Grass</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Paspalumorbiculare</i>	<i>Graminea</i>	<i>Grass</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Setaria pallidi-fusca</i>	<i>Graminea</i>	<i>Grass</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Ischaemum foliosum</i>	<i>Graminea</i>	<i>Grass</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Calophyllum inophyllum</i>	<i>Guttiferae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Calophyllum neo-ebudicum</i>	<i>Guttiferae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Garcinia pseudoguttifera</i>	<i>Guttiferae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Hernandia nyphaeifolia</i>	<i>Hernandiaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Gyrocarpus americanus</i>	<i>Hernandiaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Coleus scutellarioides</i>	<i>Labiatae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Plectranthus forsteri</i>	<i>Labiatae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Leea indica</i>	<i>Leeaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Acasia simplex</i>	<i>Fabaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom</i>

			medicine
<i>Acacia spirropis</i>	<i>Fabaceae</i>	Tree	Fence post, firewood and
<i>Canavalia cathartica</i>	<i>Fabaceae</i>	Liane	Leaves and inner bark use for local custom medicine
<i>Canavalia rosea</i>	<i>Fabaceae</i>	Liane	Leaves and inner bark use for local custom medicine
<i>Desmodium umbellatum</i>	<i>Fabaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Desmodium ormocarpoides</i>	<i>Fabaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Pongamia pinnata</i>	<i>Fabaceae</i>	Tree	Timber, firewood, rafter, Leaves and inner bark use for local custom medicine
<i>Adenanthera pavonina</i>	<i>Fabaceae</i>	Tree	Timber, firewood, rafter, Leaves and inner bark use for local custom medicine
<i>Samanea saman</i>	<i>Fabaceae</i>	Tree	Timber, firewood, rafter, Leaves and inner bark use for local custom medicine
<i>Pteorocarpus indicus</i>	<i>Fabaceae</i>	Tree	Timber, firewood, rafter, Leaves and inner bark use for local custom medicine
<i>Strongylodon lucidus</i>	<i>Fabaceae</i>	Liane	Leaves and inner bark use for local custom medicine
<i>Lemna perpusilla</i>	<i>Lemnaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Collospermum montanum</i>	<i>Liliaceae</i>	Liane	Leaves and inner bark use for local custom medicine
<i>Smilax vitiensis</i>	<i>Liliaceae</i>	Liane	Tire of pampoo for local building materials
<i>Neuburgia corynocarpa</i>	<i>Loganiaceae</i>	Tree	Leaves and inner bark use for local custom medicine
<i>Casytha filiformis</i>	<i>Loranthaceae</i>	Liane	Leaves and inner bark use for local custom medicine
<i>Abutilon indicum</i>	<i>Malvaceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Hibiscus tiliacues</i>	<i>Malvaceae</i>	Tree	Leaves and inner bark use for local custom medicine
<i>Hibiscus masaginensis</i>	<i>Malvaceae</i>	Tree	Leaves and inner bark use for local custom medicine
<i>Sida acuta</i>	<i>Malvaceae</i>	Herb	Leaves and inner bark use for local custom medicine
<i>Sida rhobifolia</i>	<i>Malvaceae</i>	Herb	Leaves and inner bark use for local custom medicine
<i>Donax canaeformis</i>	<i>Maranthaceae</i>	Shrub	Use to tire Bampoo of local building materials
<i>Astronidium vitiensis</i>	<i>Melastomataceae</i>	Tree	Leaves and inner bark use for local custom medicine
<i>Medinilla cauliflora</i>	<i>Melastomataceae</i>	Epiphyte	Leaves and inner bark use for local custom medicine
<i>Medinilla heteromorphophylla</i>	<i>Melastomataceae</i>	Epiphyte	Leaves and inner bark use for local custom medicine
<i>Melastoma denticulatum</i>	<i>Melastomataceae</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Melastoma beccadi</i>	<i>Melastoma beccadi</i>	Shrub	Leaves and inner bark use for local custom medicine
<i>Dysoxylum gaudichaidianum</i>	<i>Meliaceae</i>	Tree	Timber, firewood, rafter, Leaves and inner bark use for local custom medicine
<i>Dysoxylum bijucum</i>	<i>Meliaceae</i>	Tree	Timber, firewood, rafter, Leaves and inner bark use for local custom medicine



<i>Antocarapa nitudula</i>	<i>Meliaceae</i>	<i>Tree</i>	<i>Timber, firewood, rafter, Leaves and inner bark use for local custom medicine</i>
<i>Pycnarrhena ozantha</i>	<i>Menispermaceae</i>	<i>Liane</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Antiaris toxicaria</i>	<i>Moraceae</i>	<i>Tree</i>	<i>Timber, firewood, rafter, Leaves and inner bark use for local custom medicine</i>
<i>Hedycaria dorstenioides</i>	<i>Monimiaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Ficus adenospermum</i>	<i>Moraceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Ficus australis</i>	<i>Moraceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Ficus littoralis</i>	<i>Moraceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Ficus wassa</i>	<i>Moraceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Ficus scabra</i>	<i>Moraceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Ficus oblique</i>	<i>Moraceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Ficus tintoria</i>	<i>Moraceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Ficus septica</i>	<i>Moraceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Myristica fatua</i>	<i>Myristicaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Ardisia sp</i>	<i>Myrsinaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Metrosideros collina</i>	<i>Myrtaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Syzygium malaccense</i>	<i>Myrtaceae</i>	<i>Tree</i>	<i>Timber, firewood, rafter, Leaves and inner bark use for local custom medicine</i>
<i>Syzygium clusiaefolium</i>	<i>Myrtaceae</i>	<i>Tree</i>	<i>Timber, firewood, rafter, Leaves and inner bark use for local custom medicine</i>
<i>Syzygium gracilipes</i>	<i>Myrtaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Physalis angulata</i>	<i>Pytolaccaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Micropiper latifolia</i>	<i>Piperaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Peperomia sp</i>	<i>Piperaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Piper methysticum</i>	<i>Piperaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Piper solomonense</i>	<i>Piperaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Piper vitiensis</i>	<i>Piperaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Polygala paniculata</i>	<i>Polygalaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Polygonum minus</i>	<i>Polygonaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Portulaca oleracea</i>	<i>Portulacaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Sessurium portulacastrum</i>	<i>Portulacaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom</i>

			<i>medicine</i>
<i>Potamogeton pusillus</i>	<i>Potamogetonaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Alphytonia phaselides</i>	<i>Rhamnaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Columbrina asiatica</i>	<i>Rhamnaceae</i>	<i>Liane</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Bikkia tetrandra</i>	<i>Rubiaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Coprosma persicaefolia</i>	<i>Rubiaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Dolicholobium oblongifolium</i>	<i>Rubiaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Geophila repens</i>	<i>Rubiaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Hedyotis corymbosa</i>	<i>Rubiaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Hedyotis lapeyrousii</i>	<i>Rubiaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Hydnophytum sp</i>	<i>Rubiaceae</i>	<i>Epiphyte</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Morinda citrifolia</i>	<i>Rubiaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Mussaenda cylindrocarpa</i>	<i>Rubiaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Nertena granadensis</i>	<i>Rubiaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Ophiorrhiza laxa</i>	<i>Rubiaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Pavetta opulina</i>	<i>Rubiaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Psychotria tricostoma</i>	<i>Rubiaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Evodia triphylla</i>	<i>Rutaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Micromelum pinnatum</i>	<i>Rutaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Murayya paniculata</i>	<i>Rutaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Allopylus timorensis</i>	<i>Rutaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Bulbophyllum sp</i>	<i>Orchidaceae</i>	<i>Epiphyte</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Dendrobium greenianum</i>	<i>Orchidaceae</i>	<i>Epiphyte</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Bischofia javanica</i>	<i>Euphorbiaceae</i>	<i>Tree</i>	<i>Timber, firewood, leaves and inner bark use for local custom medicine</i>
<i>Pipturus agenteus</i>	<i>Urticaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Elatostagis falcata</i>	<i>Sapidaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>

## Some Native Species



### 10.2 -List of Endemic Species identify

<b>Scientific Name:</b>	<b>Family Name:</b>	<b>Plant Form</b>	<b>Kerepua Uses</b>
<i>Pittosporum campellii</i>	<i>Pittosporaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Pittosporum rhytidocarpum</i>	<i>Pittosporaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Psychotria tricostoma</i>	<i>Rubiaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Psychotria necdada</i>	<i>Rubiaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Psychotria milnei</i>	<i>Rubiaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Psychotria aneityensis</i>	<i>Rubiaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Ixora triflora</i>	<i>Rubiaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Peperomia pallidinnervis</i>	<i>Orchidaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Freycinetia tannaensis</i>	<i>Pandanaceae</i>	<i>Epiphyte</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Freycinetia flavida</i>	<i>Pandanaceae</i>	<i>Epiphyte</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Freycinetia impavida</i>	<i>Pandanaceae</i>	<i>Epiphyte</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Timonius affinis</i>	<i>Rubiaceae</i>	<i>Epiphyte</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Clinostigma harlandi</i>	<i>Palmae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Syzygium aneityensis</i>	<i>Myrtaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local</i>

			<i>custom medicine</i>
<i>Syzygium richii</i>	<i>Myrtaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Syzygium nomoa</i>	<i>Myrtaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Syzygium nutans</i>	<i>Myrtaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Tapeinospermum srobiculatum</i>	<i>Rubiaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Maesa banksiana</i>	<i>Myrsinaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Maesa abrymensis</i>	<i>Myrsinaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Ficus storkii</i>	<i>Moraceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Dysoxylum arborecense</i>	<i>Meliaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Dysoxylum aneityensis</i>	<i>Meliaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Astronidium aneityensis</i>	<i>Melastomataceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Melastoma malabathricum</i>	<i>Melastomataceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Korthalsella platycaula</i>	<i>Loranthaceae</i>	<i>Epiphyte</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Amyema sp</i>	<i>Loranthaceae</i>	<i>Epiphyte</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Amyema aneityensis</i>	<i>Loranthaceae</i>	<i>Epiphyte</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Fagraea ceilanica</i>	<i>Loganiaceae</i>	<i>Epiphyte</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Cryptocaria tannaensis</i>	<i>Lauraceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Cryptocaria hornei</i>	<i>Lauraceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Scavola neo-ebudicum</i>	<i>Goodeniaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Cyrtandra obovata</i>	<i>Gesneriaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Cyrtandra efatensis</i>	<i>Gesneriaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Glochidion ramiflorum</i>	<i>Euphorbiaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Claoxylon gillisonii</i>	<i>Euphorbiaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Claoxylon fallax</i>	<i>Euphorbiaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Macaranga megacapa</i>	<i>Euphorbiaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Cleidion javanicum</i>	<i>Euphorbiaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Weimania macgillivrayi</i>	<i>Cunoniaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Weimania denhami</i>	<i>Cunoniaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>

<i>Spiraenthemum macgillivrayi</i>	<i>Cunoniaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Geissois denhami</i>	<i>Cunoniaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Corynocarpus similis</i>	<i>Corynocarpaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Begonia vitiensis</i>	<i>Begoniaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Hoya australis</i>	<i>Asclepiaceae</i>		<i>Leaves and inner bark use for local custom medicine</i>
<i>Osmoxylon orientale</i>	<i>Araliaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Schefflera neo-ebudicum</i>	<i>Araliaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Polyscias guiffoylei</i>	<i>Araliaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Polyscias cissodendron</i>	<i>Araliaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Meryta neo-ebudicum</i>	<i>Araliaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Alyxia efatensis</i>	<i>Apocynaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Alyxia stellata</i>	<i>Apocynaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Nothocnide repanda</i>	<i>Urticaceae</i>	<i>Liane</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Leucosyke australis</i>	<i>Urticaceae</i>	<i>Shrub</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Calanthe triplicata</i>	<i>Orchidaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Coelogyne macdonaldii</i>	<i>Orchidaceae</i>	<i>Epiphyte</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Dendrobium morissonii</i>	<i>Orchidaceae</i>	<i>Epiphyte</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Dendrobium seemanii</i>	<i>Orchidaceae</i>	<i>Epiphyte</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Earina santoensis</i>	<i>Orchidaceae</i>	<i>Epiphyte</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Earina sigmoidea</i>	<i>Orchidaceae</i>	<i>Epiphyte</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Spathoglottis plicata</i>	<i>Orchidaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Spathoglottis pacifica</i>	<i>Ochidaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Adiantum aneityense</i>	<i>Adiantaceae</i>	<i>Pterido</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Pollia secundiflora</i>	<i>Orchidaceae</i>	<i>Herb</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Palaquim neoebudicum</i>	<i>Meliaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Tapeinospermum kajewskii</i>	<i>Myrsinaceae</i>	<i>Tree</i>	<i>Leaves and inner bark use for local custom medicine</i>

**Some Endemic pictures**



**10.3 -List of Pteridophytes identify.**

<b>Scientific Name:</b>	<b>Family Name:</b>	<b>Plant Form:</b>	<b>Kerepua Uses:</b>
<i>Adiantum diaphanum</i>	<i>Adiantaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Adiantum malesianum</i>	<i>Adiantaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Adiantum philipense</i>	<i>Adiantaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Adiantum pubescen</i>	<i>Adiantaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Asplenium amboinense</i>	<i>Aspleniaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Asplenium nidus</i>	<i>Aspleniaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>

<i>Asplenium caudatum</i>	<i>Aspleniaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Asplenium horridum</i>	<i>Aspleniaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Deparia petersenii</i>	<i>Athyriaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Diplazium dilatatum</i>	<i>Athyriaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Diplazium esculenta</i>	<i>Athyriaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Diplazium harpeodes</i>	<i>Athyriaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Blechnum milnei</i>	<i>Blechnaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Blechnum patesoni</i>	<i>Blechnaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Blechnum vulcanicum</i>	<i>Blechnaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Cyathea lunulata</i>	<i>Cyatheaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Cyathea truncata</i>	<i>Cyatheaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Davalia epiphylla</i>	<i>Davalliaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Davalia solida</i>	<i>Davalliaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Humata pusila</i>	<i>Davalliaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Humata sessilifolia</i>	<i>Davalliaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Dennstaedtia samoensis</i>	<i>Dennstaedtiaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Microlepia todayensis</i>	<i>Dennstaedtiaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Dicksonia brackenridge</i>	<i>Dicksoniaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Dryopteris hasseltii</i>	<i>Dryopteridaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Dryopteris subarborea</i>	<i>Dryopteridaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Tectaria crenata</i>	<i>Dryopteridaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Tectaria latifolia</i>	<i>Dryopteridaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Tectaria degeneri</i>	<i>Dryopteridaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Elaphoglossum blumeinum</i>	<i>Elaphoglossaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Elaphoglossum milnei</i>	<i>Elaphoglossaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Equisetum ramossissimum</i>	<i>Equisetaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Hymenophyllum polyanthos</i>	<i>Hymenophyllaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Trichomanes humile</i>	<i>Hymenophyllaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local</i>

			<i>custom medicine</i>
<i>Trichomanes meiforium</i>	<i>Hymenophyllaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Hypolepis elegans</i>	<i>Hypolepidaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Lindsaea herveyi</i>	<i>Lindsaeaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Lindsaea pacifica</i>	<i>Lindsaeaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Liindsaea repens</i>	<i>Lindsaeaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Tapeinidium denhamii</i>	<i>Lindsaeaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Lomagramma cordipinna</i>	<i>Lomariopsidaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Bolbitis lonchophora</i>	<i>Lomariopsidaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Lomagramma polyphylla</i>	<i>Lomariopsidaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Lycopodium cernuum</i>	<i>Lycopodiaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Lycopodium foliosum</i>	<i>Lycopodiaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Lycopodium serratum</i>	<i>Lycopodiaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Angiopteris evecta</i>	<i>Marattiaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Marattia smithii</i>	<i>Marattiaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Nephrolepis hirsututa</i>	<i>Nephorolepidaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Nephrolepis saliga</i>	<i>Nephorolepidaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>
<i>Belvisia callifolia</i>	<i>Polypodiaceae</i>	<i>Pteridophytes</i>	<i>Leaves and inner bark use for local custom medicine</i>

**Some Pteridophytes pictures**







Regarding Fauna in this proposed conservation area, there are some very rare and endemic species' that are in this ecosystem along the mountain chain. This includes the famous Santo Mountain Starling and the Santa Cruz Dove that is also seen here by the communities. However, fauna unlike the flora is yet to be assessed and this is one thing the community would like to see happen in this project in order for them to know the real value of their biodiversity. The other endemic species would be the cave bats that still need to be known. Below are pictures of 2 endemic birds found in the proposed conservation area.



Figure 2-Santo Mountain Starling

Photos by:



Figure 3-Santa Cruz Dove

[www.birdlife.org](http://www.birdlife.org)

## 11.0 -CHALLENGES

In a workshop held in 2014 at Kerepua community, the community members identified the main threats to their biodiversity. The top priority identified on the list of threats is human beings themselves. This is especially with over harvesting and other deliberate actions that disrupt or affect the population of flora and fauna as well as their habitats in the area. The community has also listed down other threats like bush fires. Since this area is mostly

grassland, sometimes when the community members farm the land, it is a practice that they burn after brushing an area to plant and this in some incident has caused fire to burn hectares of land destroying both the ecosystems and their habitats.

Since the vegetation on the coastal areas around this community is mostly grass land and shrubs it is most vulnerable to bushfires during dry seasons. The coast is mostly dominated by Bamboo and Wild Cane that are both vulnerable to fire.

Some areas on the coast are experiencing landslides. For instance, this is a locally owned coconut plantation that has been through land slide recently.

Coastal erosion is another challenge for Kerepua community and threat to biodiversity. Trees and shrubs along the coast are being slowly washed away by the waves and river close by. Below is a classic example of coastal erosion on the beach at Kerepua community.

The community also identified challenges for them in terms of development. They stated that feral pigs that are putting much pressure on the community in terms of food. The community has raised its concern on high competition for food between the community and feral pigs which eats anything and everything it comes across in the gardens. The pigs feed on taro, cassava, yams, sweet potatoes and vegetables.

Another major challenge for the community is transportation and access to services. Kerepua community is on the west coast of the island and has only one means of transportation back and forth from Kerepua to Tasiriki which is by boat. From Tasiriki, they would then hire a vehicle to get to Luganville town. According to the community, one return trip to town would cost them around 54,000vt and this is way too much for a farmer to afford.

The further challenge the community is facing is limited telecommunication. This particular community does not have reception of both telecommunication providers in Vanuatu, Digicel and Telecom. If any community member would like to talk to anyone in town or other Islands in Vanuatu, they would have to take a boat back to Tasiriki to make contact which is again 24,000vt for a return trip.

## 10.2-LANDSLIDES



Image of Landslide taken on the West Coast Santo  
By Jessie Kampai-2014



Image of Bush fire taken at Kerepua. -Jessie Kampai 2014

### 10.3 Coastal Erosion



Fallen tree washed away by the sea

Photo by: Jessie Kampai-2014

### 11.4 -INVASIVE & ALIEN SPECIES

Kerepua Community is vulnerable to invasive and alien species' like every other community on Santo and other parts of Vanuatu. This community is battling feral pigs that destroy their root crops all year around. While other communities are vulnerable to weeds this particular community has to compete for harvest of root crops and vegetables with feral pigs.

### 11.0 -KEREPUA COMMUNITY PROPOSED ACTION PLAN

Kerepua community as mentioned earlier has a huge land mass with diverse biodiversity both marine and terrestrial from reef to ridge. Among these resources some of which are endemic and or rare species and needs protecting. Having realising this, the community through the Biodiversity workshop held in May 2014, has decided to develop a Community

Conservation Area as an action for next year 2016. Kerepua community has decided to engage in Community based conservation to utilize their resources. Seeing also that Kerepua community is the land owner of the famous Tabwemasana, and many tourists and hikers have showed interest in hiking there, the community has decided to protect and conserve the resources around this area and turn it into eco-tourism. This would provide hikers or interested individuals going there a trip worth as it will not just be the hiking but also get to see the different wildlife in the area and especially those that are endemic and rare that you can only find in this spot and nowhere else in the world. However, in achieving this plan, the community would first need to someone or a group of professionals in flora and fauna who will help them do a proper assessment of what species' are there as several numbers of scientists have been there but did not provide the community with the full knowledge of the biodiversity in the area. This information will then be documented and kept in the community as well as entered into a website to be shared with the rest of the nation, regional and international communities should they be interested in visiting the proposed conservation site.

Since transport cost is relatively hire, the community believes that hiking Tabwemasana and conserving their resources plus endemic and rare species would be bonus to the package for the visitors.

In achieving this action plan, the community has its strengths and weaknesses therefore, in the action plan they have identified areas where they would need a donor to fund some of this activities as well as partners assisting them and ensuring they achieve this plan. Having discussed this, they proposed that since Live & Learn Vanuatu has worked with them previously, they would like to see its continuous support in coordinating the process and helping them achieving this plan should there be available funding's from potential donors.

## Kerepua Proposed Action Plan

Action Steps	By Whom	Resources and Support Available / Needed		Potential Barriers or Resistance	Evaluation / Monitoring	Communication Plan for Implementation
What needs to be done?	Who will take actions?	Resources Available	Resources Needed (financial, human, equipment, expertise and other)	What individuals and organizations might resist? How?	How do I know it works or I've accomplished the goal?	What individuals and organizations should be informed about / involved with these actions?
2. Assessment on Flora & Fauna	Community Committee and extension partners	Guides to guide the officers to the proposed site	Human resource to do assessment 2 foresters,1 environment officer,1 surveyor Equipment's—Compass, Tapes, GPS Finance-Allowances, Airfares, Land & sea transport costs Accommodation	N/A	Assessment report compiled and submitted by DoF Environment & Surveyor	DEPC DOF Survey dept.
3.Meeting with community to discuss conservation recommendations and or terms and conditions	Community & extension partners		Airfares Land & Sea transport cost Accommodation Workshop cost	N/A	Report on meeting outcomes submitted	Community DEPC Torba Province
4. Application launch for registration of conservation site	Community & extension partners		Application fee	N/A	Report on progress	Community
5.Reforestation & rehabilitation By June 2016	Community & extension partners		Seedlings from forestry -Poly bags -Airfares -Land and sea transport -1 forestry Officer	N/A	Nurseries have been set up-report produced and submitted	Provincial government Forestry –Santo

6. Conservation workshop to develop Management Plan and community consultations	Community & extension partners		Facilitators -1 environment Officer	N/A	Report on workshop produced	Environment Community Province
7.Registration of the conservation site By February 2016	Community & extension partners		Registration fees Transport cost-Sea and land Airfares Accommodation	N/A	Conservation site registered	SANMA Provincial gov't

\* The above Action Plan was developed by the Kerepua Community. The Action Plan will need to ensure actions align with the required process to register Community Conservation Areas under the Environmental Protection and Conservation Act 2010.

# **PROPOSED ACTION PLAN FOR KURUMAMBE COMMUNITY**

## **TONGOA ISLAND, SHEPHERDS GROUP**

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## **1.0 EXECUTIVE SUMMARY**

The project *Education for action; Empowering local communities for Biodiversity Conservation* in Vanuatu is funded by Critical Ecosystem Partnership Funds (CEPF) through collaboration with local NGO, Live & Learn Vanuatu. Live & Learn Vanuatu office is working with communities in CEPF priority sites to raise awareness on the importance of biodiversity and how communities can work together to address threats to biodiversity. Live & Learn is hoping this will eventually lead to increased recognition and consideration of the value of local biodiversity evident in decision making about land use. Live & Learn has worked with the communities to create Action Plans to undertake conservation actions. This document highlights the Action Plan for Kuramambe Community on the island of Tongoa, as the custodians of Tongoa-Laika island.

## **2.0 OBJECTIVE**

The aim of this document is to empower local communities to protect and manage globally significant biodiversity at priority Key Biodiversity Areas underserved by current conservation efforts.

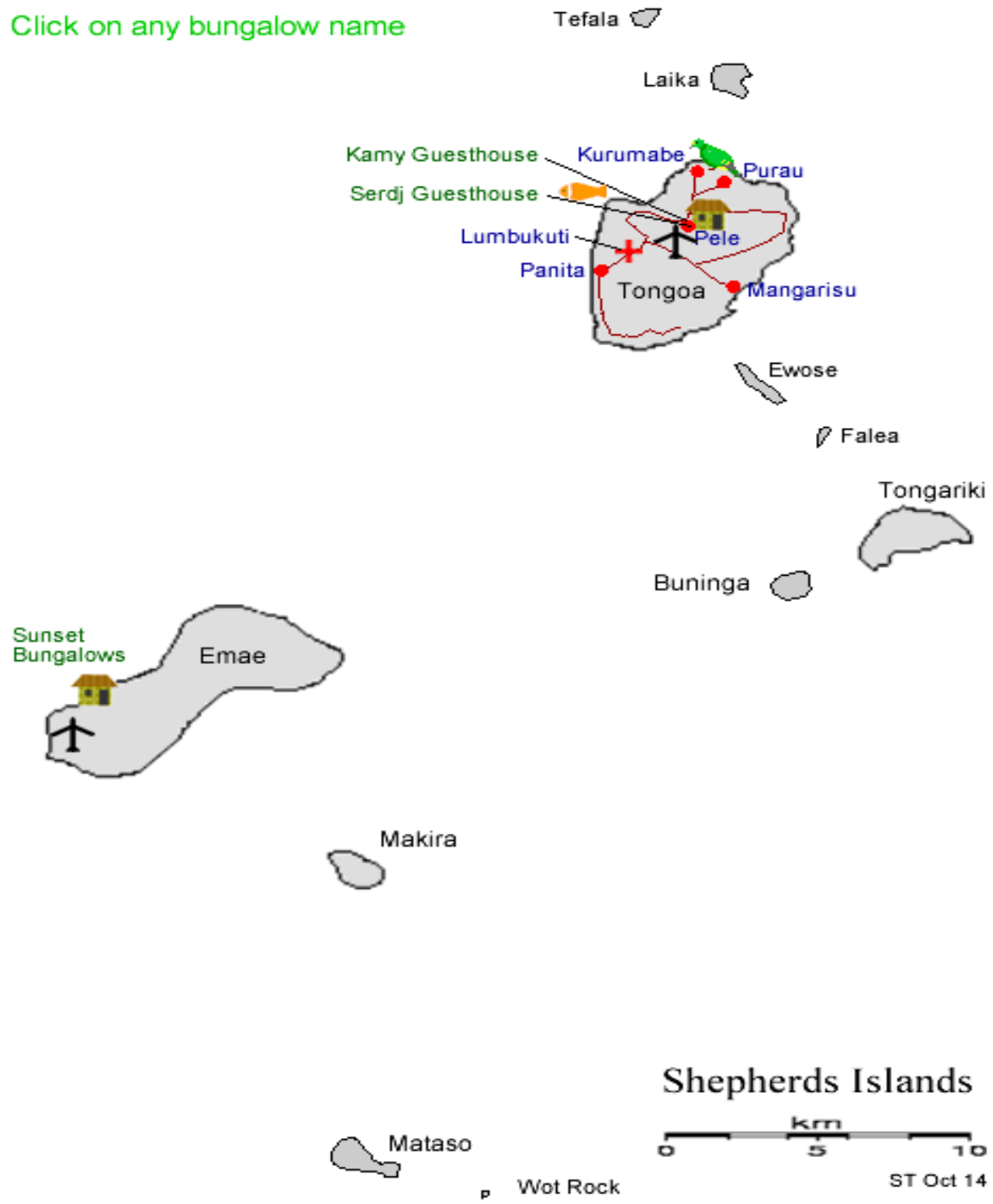
## **3.0 CEPF Program**

The Critical Ecosystem Partnership fund is a global leader in enabling civil society to participate in and benefit from conserving some of the world's critical ecosystems. The CEPF program provides funds for non-governmental and private sector organisations to help biodiversity hotspots, earth's most biologically rich yet threatened areas. This support provided equips civil society groups to conserve their environment and influence decisions that affect lives, livelihoods and, ultimately, the global environment for the benefit for all.



## 4.0 THE ISLAND OF TONGOA

Click on any bungalow name



#### **4.1 PHYSICAL GEOGRAPHY**

Tongoa Island is located in the Shepherds Group Islands. It is surrounded by much smaller Islands of Laika and Tefala on the eastern side with Ewose, Falea, Tongariki and Buninga on the western side. The aggregate land area is 88 square kilometres.

The region includes two submarine volcanoes known as Kuwae and Makura. The islands are principally in the outlines of the calderas of these volcanoes.

Tongoa has 14 villages in all namely Bonga bonga, Meriu, Panita, Lumbukuti, Revenga, Lupalea, Pele, Woraviu, Purau, Kurumambe, Matangi, Itakoma, Mangarisu and Euta. Tongoa Island has Blacksand beaches and was densely forested until TC Pam destroyed all the vegetation in March 2015.

#### **5.0 POPULATON**

Tongoa itself is densely populated. According to the 2009 census (*Vanuatu statistics office*) the total population of Tongoa Island is numbered around 3634 people. This figure is from all the 14 villages around the Island.

#### **6.0 LIVELIHOODS – (INCOME GENERATING ACTIVITIES)**

Tongoa Island like every other offshore Island in Vanuatu lives off subsistence farming. The sources of incomes are mostly from the land. Farmers sell the produce from their farms like Yams, Taro's and small farm holders for cattle, pigs and chicken.

If there is an opportunity, farmers would send their root crops by sea (ship) to Port Vila to be sold at the central market. Other produces would be woven mats to be sold at the Port Vila market and in the past recent years, there has been rise in the sale of mutton birds on Laika Island.

#### **7.0 KURUMAMBE COMMUNITY**

Kurumambe community has around 300 people. This includes all men, women and children. The community is the land owner for Tongoa-Laika causing it to be well known for its mutton birds that is sold among other communities and even in Port Vila for protein. Kurumambe is one of the oldest communities or settlement on Tongoa Island and it is 5 minutes' drive to the Airport.

#### **8.0 LIVE & LEARN'S ENGAGEMENT AT KURUMAMBE**

Live & Learn Vanuatu under its project Education for Action: Empowering Local Communities for Biodiversity Conservation at CEPF Priority Sites in the Solomon Islands and Vanuatu has chosen this site to work with basically implementing strategic directions 1 – empower local communities to protect and manage globally significant biodiversity at priority Key Biodiversity Areas underserved by current conservation efforts and investment priorities:

- Raise awareness about the values of biodiversity and the nature of threats and drivers among local communities at priority sites
- Support local communities to design and implement locally relevant conservation actions that respond to major threats at priority sites.

The project started in March 2014 and has run 2 workshops in total at Kurumambe community. The two workshops were based on the two investment priorities highlighted above. The first workshop was organised on 11<sup>th</sup> September 2014 with the objectives below: The objectives of the workshop are for the communities to (i) Understand what biodiversity is (ii) Importance of their local biodiversity as a biodiversity hotspot (iii) Understand the role biodiversity plays in providing ecosystem services, resources and livelihoods (iv) Recognising the threats to local biodiversity. Like all government and NGO agencies involved in natural resource management, Live & Learn actively encourage these community level initiatives.

The second workshop was held was held in August 2015 to finalise the action plan. The workshop was facilitated in a way that community members revisit the resources and the challenges and or threats to these resources identified in the first workshop and come up with ways in which they can protect and conserve should they agree to protect and conserve these resources.

## 9.0 BIODIVERSITY ON THE ISLAND –TONGOA

Tongoa Island is a Volcanic Island with lots of resources despite its size and location. In terms of biodiversity, it harbours some of the native, rare and endemic species in Vanuatu. It is also unique due to its volcanic history and thus the facts are still evidential to date. The Island is rich both in flora and fauna. The rare species in terms of fauna would include species like the *RoyalParrot finch* (Diamond bird) commonly known to the natives as Taputi.



Underground steam that can cook food in an hour just like baking in an earth ovens by itself. All you need to do is bury whatever you want to cook underground and you can eat it in an hour's time

**10.0 Below are some of the floras identified by the community members in a workshop at Kurumambe village**

<b>Scientific Name</b>	<b>Family</b>	<b>Uses</b>
Canarium indicum	BURSE	Nuts are eaten. Timber species
Calophyllum inophyllum	GUTTI	Flesh inside nuts are used for fish poisoning
Pisonia unbellifera	NYCTA	Leaves are used for traditional custom medicine
Burckella obovate	SAPOT	Park is used for traditional custom medicine
Barrington asiatica	LECYT	Park and leaves are used for traditional custom medicine
Syzygium malaccense	MYRTA	Fruits are eaten
Casuarina equisetifolia	CASUA	Inner park is used for traditional custom medicine
Dracontomelon vitiense	ANACA	Nuts are eaten... Timber species and also use for boat building
Myristica fatua	MYRIS	Inner park is use for traditional custom medicine
Inocarpus fagiferus	LGPAP	Nuts are eaten
Acacia spirorbis	LGMIM	Inner park is use for traditional custom medicine
Kleinhovia hospital	STERC	Inner park is use for traditional custom medicine
Pometia pinnata	SAPIN	Fruits are eaten. Leaves are used for traditional custom medicines
Gyrocarpus americanus	HERNA	Inner park is use for traditional custom medicine
Erythrina variegata	LGPAP	Use for fencing
Terminalia catappa	COMBR	Nuts are eaten. Timber spp.
Barringtonia edulis	LECYT	Nuts are eaten
Mangifera indica	ANACA	Fruits are eaten
Pterocarpus indicus	LGPAP	Timber species and also use for building canoe
Macaranga dioica	EUPHO	Leaves are used in bush latrines and branches as fuel wood

10.1 images of Flora on Tongoa Island both native, rare and endemic identified by the community in a workshop at Kurumambe on the 11<sup>th</sup> September 2014.



## 10.2 Fauna identified on Tongoa Island

Tongoa Island harbours some of the rare and endemic species to Vanuatu in terms of fauna. These species includes the famous *Erythrura regia* commonly known as the Royal parrot finch and to the local community of Tongoa as Taputi. The other species would include Wedge tailed-shear water commonly known as the mutton bird and again in the local dialect as Koroliko. Megapod was also identified next in line to the two species mentioned above and others more further down the line according to the community members

Below is the table listing down some of the fauna identified on the Island

Scientific name	Common name	Local Name	Importance & uses according to the community
<i>Erythrura regia</i>	Royal Parrot Finch	Taputi	Rare bird that most visitors would love to see so community must protect
Wedge Tailed Shear water	Mutton birds	Koroliko	Main source of income to community however, need to protect and conserve some breeding areas for the future
Megapod		Namalau	Only lays one egg in a year so need to protect and conserve this species
N/A	Cattle	Buluk	Helps graze and cleans up the community, source of protein
N/A	Pig	Pig	Highly valued in custom ceremonies, source of protein
N/A	Chicken	Toa	Highly valued in custom ceremonies, source of protein
	Crabs	Crabs	Source of protein

## 10.3 Below are some random pictures of Fauna on Tongoa Island



Image of pigs taken at Kurumambe Village, Tongoa



Image of cattle taken at Kurumambe village-Photo by: Jessie Kampai



Picture of Megapod Eggs taken at Kurumambe Village, Tongoa Island. Photo by: Jessie Kampai



*Erythrura regia*- Royal Parrot Finch commonly known as Taputi

## 11.0 BIODIVERSITY ON LAIKA ISLAND

Laika Island is an isle just offshore Tongoa Island. It is about 3 hours ride from Tongoa. The Island is very rich both in terrestrial and marine resources. The Island is a home to mutton birds, crabs, Flying foxes, Megapod's. The island is covered with palm tree plantation and other native species.



Image of Laika Island on the right

### 11.1 Below is the list of flora identified on Laika Island

Local Name	Scientific name	Family Name	Uses
Palm trees			Community uses this for wrapping up food
Navel	<i>Barringtonia edulis</i>	Lecythidaceae	Nuts are eaten
Narara	<i>Acacia spirobis</i>	Mimosaceae	Provides habitat to birds
Nabalango			Young leaves are eaten
Natapoa	<i>Terminalia catappa</i>	Combretaceae	Nuts are eaten and timber species tree
Poison fish tree	<i>Barringtonia asiatica</i>	Lecythidaceae	Nuts crushed and use for fish poisoning
Nabanga			Provides habitat to birds and especially flying foxes
Coconut	<i>Cocos nucifera</i>	<i>Arecaceae</i>	Juice inside nut is consumed and flesh eaten, leaves are used for roofing and stem for post
N/A	<i>Premna corymbosa</i>	verbenaceae	Young leaves are used for traditional custom medicine

Nagalat	<i>Dendrocnide latifolia</i>	Urticaceae	Inner park used for traditional custm medicine
N/A	<i>Trema orientalis</i>	Ulmaceae	Young leaves are used for traditional custom medicine
Nakatambol	<i>Dracontomelon vitiense</i>		Nuts are eaten, timber used for boat building

### 11.2 Below are pictures of Flora taken on Laika Island after TC Pam



Image of *Terminalia catappa* taken on Laika Island-Photograph by: Jessie Kampai



Image of palm trees taken on Laika Island-Photograph by: Jessie Kampai



Image of young *Cocos nucifera* taken on Laika Island after TC Pam-Photograph by Jessie Kampai

### 11.3 Fauna on Laika Island

Laika is especially rich known for its fauna. It is the home to the animal and bird kingdom as some people might say. The surrounding communities and of course Kurumambe go there once in a while to get their source of protein. The fauna on the Island includes Megapode, mutton birds, Crabs, Flying foxes, and of course the marine resources. Fishermen would go there for big catches in times of celebrations in order to cater for a huge number of people.

Below are pictures of Fauna taken on the Island just after Tropical Cyclone Pam this year.



## 12.0 Challenges

Kurumambe community has its own strength and weaknesses. In terms of biodiversity, the community is facing the challenge of high population growth compared to the resources they have. According to the community, this has caused several challenges as a result of the high rate of growth the community or Island as a whole is experiencing at the moment. Below are some challenges identified highlighted at the workshop that might be the main ones.

### 12.1 Overharvesting

Overharvesting of natural resources is becoming a challenge to the community. This includes both flora and fauna. Since the population is growing however the resources is not enough to cater for each and every person in the community. This has caused community members to overharvest the resources like Megapod eggs, Mutton birds and marine resources.



Image of Crab -Photograph by: Jessie Kampai



Megapod's Egg taken on Laika Island-  
Photograph by Jessie Kampai



An empty hole (habitat) where mutton bird used to be before flying off. Photograph by: Jessie Kampai



Image of Crab a community member reported as too small yet this is being harvested by the communities now



Vanuatu Flying Fox hanging from the tree-  
Photograph by: Jessie Kampai

## 12.2 Loss of habitat

Loss of habitat is another challenge for the community. As mentioned earlier, the population is growing however, the land is not. Therefore, people need to do more clearings for the purposes of farming to support their families. This is causing loss of habitat for the ecosystem. For instance, the Royal Parrot Finch, the community said before it used to live among the trees just by the village. However, these days if a visitor wants to see the bird, they will have to go further to be able to see it.



Some images taken on Tongoa & Laika on clearings for the purposes of development and farming.

## 12.3 Natural disaster

Natural disaster is something that is beyond our control. According to the community, it is a huge contributing factor to loss of biodiversity for smaller Islands like Tongoa and Tongoa –Laika. For a category five cyclone like TC Pam to hit Tongoa it means total destruction or wipe off of the resources they have.

Below are images taken on Tongoa –Laika after Tropical Cyclone Pam.



### **13.0 Proposed Action Plan for Tongoa-Laika**

Tongoa –Laika has had a very challenging process in the drafting of this document. Before TC Pam, the community planned to go directly into protection and conservation of their resources on Laika Island and Kurumambe community. Kurumambe community is more to do with protection of Megapod eggs and protecting habitat for biodiversity. However, after Pam stroked, the community has come to put their focus more on restoring their resources and or biodiversity. With Laika Island status in total destruction after Pam, the community decided to focus firstly on reforestation to restore the habitat loss and the issue of biodiversity on the island-Laika. This will help them achieve their goal in the near future should they think of engaging in other initiatives. Since the community also earns its revenue from this small Island, they have decided to do reforestation to bring back the birds, flying foxes and megapods etc to the Island as at the moment there is a huge gap in habitat loss causing all these species to find somewhere else to live. The Island as is well know is also home to the mutton birds (Wedge tailed-shear waters) therefore, the community has decided to protect and conserve part of the Island while the community members can still harvest the chicks on the other end. This will help the communities to still earn money but at the same time reserve some birds for the future.

Proposed Action Plan For Tongoa -Laika

Action Steps	By Whom	Resources and Support Available / Needed		Potential Barriers or Resistance	Evaluation / Monitoring	Communication Plan for Implementation
What needs to be done?	Who will take actions?	Resources Available	Resources Needed (financial, human, equipment, expertise and other)	What individuals and organizations might resist?How?	How do I know it works or I've accomplished the goal?	What individuals and organizations should be informed about / involved with these actions?
1. Conduct Assessment of resources-Laika Island	Community committee and extension partners		Human resource-Assessment team Catering Airlines Land & Sea transport costs Accommodation costs Per diems	Extreme weather pattern	Assessment report compiled and submitted	Community members , Shefa Provincial gov't

2. Reforestation on Laika Island	Community Committee and extension partners	Guides & Community members to do planting of species of interest.	Human resource to do assessment 2 foresters, 1 environment officer, 1 surveyor ,2 LLV Officers Equipment's—Compass, Tapes, GPS Finance-Allowances, Airfares, Land & sea transport costs Accommodation	N/A	Reforestation report compiled and submitted by DoF Environment & Surveyor	DEPC DOF Survey dept.
3.Meeting with community to discuss conservation recommendations and or terms and conditions	Community Committee and extension partners		Airfares Land & Sea transport cost Accommodation Workshop cost	N/A	Report on meeting outcomes submitted	Community DEPC SHEFA Province
4. Tour guide training	Community Committee and extension partners	Participants	Facilitator, Catering, Allowance Airfares, Accommodation	N/A	Report on training provided and submitted	Community,, SHEFA Province
5. Application launch for registration of conservation site	Community Committee and extension partners		Application fee	N/A	Report on progress	Community

6. Hygiene and nutrition, food preparation training with mama's	Community Committee and extension partners	Participants	Facilitator, Airfares, Allowance, Accommodation	N/A	Report on training provided	Community, TVET, SHEFA Province
7. Follow up Assessment of Flora & Fauna on Laika & Kurumambe	Community Committee and extension partners	Guides and Assistance provided within the community to assist in Assessment	Facilitator's, Airfares, Allowance, Accommodation	N/A	Report of Assessment & findings provided	Community, Department of Forests, Department of Environment Protection and Conservation, Live & Learn
6. Conservation workshop	Community Committee and extension partners		Facilitators -2 LLV officer -1 environment Officer	N/A	Report on workshop produced	Environment Community Province
7.Registration of the conservation site By February 2016	Community Committee and extension partners		Registration fees Transport cost-Sea and land Airfares Accommodation	N/A	Conservation site registered	SHEFA Provincial gov't Community Environment

## Appendix 5: Teachers Train the Trainers Training Report

# Teachers Train the Trainer's Training Report Kerepua Primary School West Coast, Santo Island

**Date: 20 August 2014**

Venue: Kerepua School, West Coast Santo



**Prepared by  
Jessie Kampai**

The workshop is a one day workshop organised at Morua, Shepherd Islands Headquarter for teachers from Kerepua primary school, Elia and Wusi Primary School. The Training is designed to improve environmental education within the school system and raise wider awareness of biodiversity and its values. There were 15 teachers in all who attended the workshop. *(See list of participants attached to this report as Attachment 1)*

The objectives of the workshop are outlined below:

- Familiar with resources
- Familiar with new teaching techniques

- Familiar with Biodiversity, value, threats and activities
- Able to use above to improve teaching about Biodiversity Conservations in Schools

## 1. Self- Assessment Survey

The self-Assessment survey is done at the beginning of the training. The purpose of this activity is to establish baseline knowledge on how much people know re biodiversity before the training begins. It is also to identify knowledge gaps so that education can target relevant areas and to determine the success of the project in achieving the learning outcomes, or identify where follow up effort is required.

### Part 1: Pre- education baseline survey

#### (a) Quantitative results

General audience: Community members or teachers prior to participation in CEPF education workshops

Location/s: Kerepua School –West Coast Santo

Date: 20 August 2014

Description of group (participants): Community members

Facilitator/s: Jessie Kampai

Key learning statements  'I can ...'	Self-assessment rating Green: Achieved Amber: Partially achieved Red: Not achieved							
	Green		Amber		Red		Total participation	
	Male	Female	Male	Female	Male	Female	Male	Female
Explain what is meant by the word 'biodiversity'	**	*	**	*	***	**	7	4
Identify reasons why biodiversity is important to myself and other people	**	*	**	*	***	**	7	4
I have the resources to teach about biodiversity its values and threats	*	*	** *	*	***	**	7	4
I have the knowledge and skills to teach about biodiversity its values and threats	*	*	***	*	***	**	7	4
Have an understanding of teaching techniques that can enhance my learning to teach about biodiversity its values and threats	**	*	***	*	**	**	7	4
I can confidently communicate about biodiversity to my students and my peers	*	*	** *	*	***	**	7	4
Confidently teach my students activities they can take/do to protect/conserv their biodiversity	*	*	***	*	***	**	7	4



## **2. Introductory session**

1. Introductory session on Biodiversity
2. Resource introduced to teachers, history, purpose, structure and content
3. New teaching approaches in the Resources
4. Carry out Scavenger Hunt and Spice of Life with teachers participates.
5. Split into groups and gives each group 1 activity to prepare and present
6. Group planning session/discussion. How can we/ will we include this resource/activities into our students learning/our teaching
7. Barriers and Bridges
8. Orchid and Onions

## **3. At a Glance**

1. Module opening Page
2. Module Page
3. Module Introduction-This page provides teachers a ‘Snapshot’ or a summary of what you will find inside the module
4. Activity Summary table-This provides the summary of the activity’s aim, outcome, relevant subject and suggested timing
5. Topic Background reading –Before each activity, you will find a short text that introduces the activity concept and can be used as preparation for the learning activity
6. Case Studies-Provide practical examples for students
7. Activity-
8. Teacher’s notes-At the beginning of most activities, these notes give tips to assist you to present the activity.
9. Teachers notes-At the beginning of each activity, there is a list of practical information to assist you with planning. This contains suggested timing, subject areas, glossary words (which lead to words in the glossary at the back of the book) and materials required.

## **4. Structure of Book Introductory session**

Title: Discovering Biodiversity

Content:

- Welcome
- Introduction
- Enriching your teaching

Module 1: Discovering Biodiversity

Module introduction

Topic 1: Biodiversity in your local area

Topic 2: Made for the Job

Topic 3: Types of Biodiversity

Topic 4: Connections between Living things

Topic 5: Exploring Habitats

Module 2: The Value of Biodiversity

5 Topics

Module 3: Biodiversity-understanding the threats

## 5. Activity -Biodiversity Diary

Outcomes

Students will be able to:

- Examine how human beings derive all their food, many medicine and many industrial products from Biodiversity

Ask participants to bring any product from Biodiversity at their homes to the workshop. Ensure they have their names labelled clearly on their own stuffs in order to return to them after the activity

Items to be collected

1. Medicine/Medicinal items
2. Food or Drink
3. Building materials
4. Laundry or bathroom items
5. Clothing
6. School items
7. Art & Craft
1. Cultural activity

Before doing this activity, draw a coconut tree on a board or butchers paper and ask the participants to list down what resources we get from the different parts of the coconuts, or what resources or materials can be produced from the tree itself.

This should give the students or participants a fair idea of what Biodiversity has provided for us.

Ask the students or participants to discuss this among each other and present their views to the whole group. After presentation do the biodiversity table

Biodiversity Use Table

Item	Use	Origin from nature
------	-----	--------------------

This activity should show the participants or a student how important is biodiversity to us. The diary should include a description of anything they use that comes from biodiversity and all the ways Biodiversity affects their lives.

Note// -The items to be filled in the table are items previously collected from home by the students

Name of Plant	How did you use it or how did it affect you	Parts used
---------------	---	------------

Food-The variety of food that we eat is one way that biodiversity affects us daily. Everything we eat has been derived from plants and animals

Clothing-From cotton to silk to wool much of what we wear comes directly from nature. Even synthetic fibres like nylon or Polyester are made from the fossilised remains of plants.

Animals-They work for us, feed us, clothe us, entertain us, live with us as pets and even become symbols and mascots for our sports team.

Medicine-Biodiversity is like a medicine chest

*This activity will help participants see how all the living organisms, plants and animals are somehow connected to each other.*

## **6. Activity-Natural Connections/Scavenger Hunt**

1. A living thing that depends on Soil
2. A living thing that is not a plant or animal, but feed on dead things
3. An animal that eats live plants
4. An animal home that is in or on a plant
5. A plant that needs an animal to help it reproduce
6. A plant that grows on another plant
7. An animal that eats dead things
8. A plant that deliberately provides animals with something to eat
9. A living thing that needs sunlight to grow
10. An animal that helps a plant to spread its seeds
11. An animal that eats other animals
12. An animal that uses a home provided by another animal

## **8. Activity-Why care about Biodiversity**

Plants and animals provide us with food, medicine, building products and other products. For medical and economic reasons we should conserve diversity of life because there may be many other products yet to be discovered that could save lives and benefit society.

It is important to protect the diversity of life because biodiversity helps maintain important ecological processes such as oxygen production; pollination and flood that, in turn, help support all life on earth

Our lives would not be as rich if we lost species such as Cassowaries, beetles, Cuscus, frogs, lizards and Crocodiles and the habitats they live in. The rich diversity of life also allows many ways to enjoy nature, such as bush walking, fishing, camping, swimming and having picnics. Imagine what your life would be like without this

It is important to protect the diversity of life because the planet belongs to future generations. No generation has the right to destroy the environment and resources on which future generations depend. It is our responsibility to take care of the diversity of life

It is important to protect the diversity of life because biodiversity provides inspiration imagination, Art, music and poetry of life. Examples in nature are also the inspiration for many of our technological advances, such as flight

It is important to conserve the diversity of life because all species have a right to exist

It is important to protect the diversity of life because nature plays an important role in culture, tradition and people's beliefs. Many ceremonies and customs are linked with natural things and animals are essential for certain cultural practices

## **9. Alternative activity for teachers to choose from the manual**

The next activity was organised by the teachers. The teachers were each given a Biodiversity Education Manual and were divided into three groups. The teachers were then asked to identify one activity in the manual they would like to run with other participants. Each group were given 15 minutes to look through the selected activity and run it with the whole group as if they were doing the activity with their students in the classrooms.

Space for species was one activity that all the schools picked out. Below is the outline and details of the activity

### **Space for species**

Outcome:

Students will be able to:

- Identify human activities that leads to the destruction or loss of habitat
- Explain how loss of habitat affect plant & animal species

Tuning in

1. Tell the students the following: Imagine you are an animal (e.g. frog, snake, bird, stick insect, dragonfly, butterfly, pig etc.) living on a small island. Imagine that the habitat you live is being reduced by a number of activity-logging, fire, clearing for gardens or plantations of oil palm or copra. The plants that you need to survive are running out and it is too far to escape to another island. Even if you did, the same is happening there.
2. Ask the students to suggest some of the challenges animals and plants face every day to survive. Answers could include the following: being more vulnerable to predators or diseases; inability to find enough food to survive; not enough places to shelter; population too small to be able to find a mate to breed etc. Write the students ideas up on the blackboard.
3. Developing understanding-In this part of the activity, students will be involved in a simulation/ role play that will explore the problems associated with habitat loss. Ask four of your students to volunteer for a role, and provide them with a role card such as the ones below:

Role No. 1

You represent a logging company that comes in and clears the forest in this area.

Role No. 2

You are a farmer who comes into the area and clears some land for your large cash crop.

Role No. 3

You are a road builder who comes into the area because it is starting to develop and you have been asked to build a road next to the forest.

Role No. 4

You are a factory builder and you want to build three factories on the river next to the forest to make a lot of money.

4. Ask the students to each carry a chair and place them in a large circle. The circle should be large enough so that everyone can walk around easily, with a room to move. Ask the students (with the exception of the four volunteers) to stand inside the circle. Tell the students that circle represents a forest habitat and that the students standing inside the circle represents plants and animals that exist in the forest. If you do not have any chairs, use a rope- but you will need a couple of volunteers to help you hold the rope.
5. While the majority of the students are getting the habitat ready, make sure the four students understand their roles.
6. When the habitat is ready tell the students in the circle that this is their home (habitat) and that you all require a particular amount of space to live but, unfortunately, there are many pressures on this space that affect your lives.
7. Round one
  - Tell the students in the habitat circle to walk to walk around and enjoy their space. Then ask the student with 'Role No. 1' card to come to the circle and read out their role.
  - Explain to the students in the circle that this student will be acting his or her role. Ask students what will happen. How do they feel? Do they have enough room to move around?

Repeat the process with the student who has 'Role No. 2' card and so on until you have completed four rounds of the game.

Note: After each round, the round, the circle should be getting smaller, and at the end of round four, the circle should be very small so that students inside do not have much room to move. You can also ask some students to leave the circle as it gets smaller; this represents a decline in the population. For some extra fun, you could ask these students to act out a 'dramatic death' as they are excluded from their habitat.

8. To make sure that the students understood the purpose of the activity, have a debrief session with them. Ask student if they understood what was happening and how it relates to real life.

### **Attachment 1: List of participants**

1. Kency Frank
2. Linges Frank
3. Mandes Ulboe
4. Maria Pune
5. August Mali
6. Agnes Mwailarua
7. Ezekiel Luitan
8. David Robson
9. Mark Lolo
10. Dorian Sava
11. Jeslina Maki

**Part 1: Pre- education baseline survey**

(a) Quantitative results

General audience: Teachers prior to participation in CEPF education workshops

Location/s: Kerepua –West Coast Santo

Date: 20 August 2014

Description of group (participants): Community members

Facilitator/s: Jessie Kampai

Key learning statements  'I can ...'	Self-assessment rating Green: Achieved Amber: Partially achieved Red: Not achieved							
	Green		Amber		Red		Total participation	
	Male	Female	Male	Female	Male	Female	Male	Female
Explain what is meant by the word 'biodiversity'	*** *** *	****					7	4
Identify reasons why biodiversity is important to myself and other people	*** *** *	****					7	4
I have the resources to teach about biodiversity its values and threats	*** *** *	****					7	4
I have the knowledge and skills to teach about biodiversity its values and threats	*** *** *	****					7	4
Have an understanding of teaching techniques that can enhance my learning to teach about biodiversity its values and threats	*** *** *	****					7	4
I can confidently communicate about biodiversity to my students and my peers	*** *** *	****					7	4
Confidently teach my students activities they can take/do to protect/conservе their biodiversity	*** *** *	****					7	4

## Part 1: Pre- education baseline survey

### (b) Qualitative results

<b>Key learning statements</b> <b>'I can ...'</b>	Significant remarks or stories from participants in relation to the learning statements (identify age / gender):
Explain what is meant by the word 'biodiversity'	Biodiversity is all life forms –the different Plants, Animals, Insects and all life Organisms and the ecosystem in which they live.
Explain why the area where I live has been selected as a priority site for biodiversity conservation	I personally think Tongoa –Laika has been selected as a 'priority site' for biodiversity conservation because it has some of the native and endemic species that requires attention and or should be protected due to its significance or rareness.
Describe the main threats to biodiversity in my place	The main threats to biodiversity in Tongoa Laika are overharvesting and natural disasters.
Identify reasons why biodiversity is important to myself and other people	Biodiversity is important to me and my community as we need food to keep us alive, trees to provide us with shelter, oxygen and firewood. Biodiversity or our environment and or resources are everything to us. Without it we cannot exist.
Describe actions that we can take to conserve biodiversity	I think the first step to conservation is awareness. People need to know about biodiversity, its values and need to recognise its threats in order to consider biodiversity conservation.
Describe the plans in place or actions we are going to take to	I believe the communities have something bigger in mind to do regarding this issue. In Schools what we can do is

<b>Key learning statements</b> <b>'I can ...'</b>	Significant remarks or stories from participants in relation to the learning statements (identify age / gender):
protect biodiversity where I live	implement activities such as replanting of trees and this is one activity that my colleague and I who attended this training have agreed to implement when we get back to school.



## **Matavanga Teachers Train the Trainers Report West Gaua**

**Organisation Legal name:**Live & Learn Environmental Education

**Application Code:**64252



**Prepared by  
Jessie Kampai**

### **Teachers Training the Trainers workshop**

The objectives of the workshops are:

- Familiar with resources
- Familiar with new teaching techniques
- Familiar with Biodiversity, value, threats and activities
- Able to use above to improve teaching about Biodiversity Conservations in Schools

#### **1. Introduction**

The workshop is a one day workshop and is organised for teachers to introduce the new teaching techniques in the resource. The training is provided to teachers so they can use the resource and teach it to their students. The resource is designed to improve environmental education within the school system, raise wider awareness of biodiversity and its values. Encourage information sharing and cooperation within and between sectors and between local communities to conserve and wisely use natural resources and raise community awareness of the provisions of environmental and natural resource legislation.

## 2. Self –Assessment Survey

This is a survey the team does with the teachers after the training to measure the knowledge taken from workshop and whether the workshop objectives have been achieved or not. This will also help the facilitator to see the difference from the first survey done at the beginning of the workshop and at the end of the workshop.

### Part 1: Pre- education baseline survey

#### (a) Quantitative results

General audience: Community members or teachers prior to participation in CEPF education workshops

Location/s: Matavanga School, Dolav Community-West Gaua

Date: 14/8/2014

Description of group (participants): 5 Primary School teachers

Facilitator/s: Jessie Kampai

Key learning statements  'I can ...'	Self-assessment rating							
	<b>Green:</b> Achieved <b>Amber:</b> Partially achieved <b>Red:</b> Not achieved							
	Green		Amber		Red		Total participation	
	Male	Female	Male	Female	Male	Female	Male	Female
Explain what is meant by the word 'biodiversity'	1						1	4
Identify reasons why biodiversity is important to myself and other people	1			1		3	1	4
I have the resources to teach about biodiversity its values and threats			1	1		3	1	4
I have the knowledge and skills to teach about biodiversity its values and threats	1			1		3	1	4
Have an understanding of teaching techniques that can enhance my learning to teach about biodiversity its values and threats	1			1		3	1	4
I can confidently communicate about biodiversity to my students and my peers	1			1		3	1	4
Confidently teach my students activities they can take/do to protect/conserv			1			4	1	4

## **Session 1: Introductory session**

9. Introductory session on Biodiversity
10. Resource introduced to teachers, history, purpose, structure and content
11. New teaching approaches in the Resources
12. Carry out Scavenger Hunt and Spice of Life with teachers participates.
13. Split into groups and gives each group 1 activity to prepare and present
14. Group planning session/discussion. How can we/ will we include this resource/activities into our students learning/our teaching
15. Barriers and Bridges
16. Orchid and Onions

## **Session 2: At a Glance**

10. Module opening Page
11. Module Page
12. Module Introduction-This page provides teachers a ‘Snapshot’ or a summary of what you will find inside the module
13. Activity Summary table-This provides the summary of the activity’s aim, outcome, relevant subject and suggested timing
14. Topic Background reading –Before each activity, you will find a short text that introduces the activity concept and can be used as preparation for the learning activity
15. Case Studies-Provide practical examples for students
16. Activity-
17. Teacher’s notes-At the beginning of most activities, these notes give tips to assist you to present the activity.
18. Teachers notes-At the beginning of each activity, there is a list of practical information to assist you with planning. This contains suggested timing, subject areas, glossary words (which lead to words in the glossary at the back of the book) and materials required.

## **Session 3: Structure of Book Introductory session**

Title: Discovering Biodiversity

Content:

- Welcome
- Introduction
- Enriching your teaching

Module 1: Discovering Biodiversity

Module introduction

Topic 1: Biodiversity in your local area

Topic 2: Made for the Job

Topic 3: Types of Biodiversity

Topic 4: Connections between Living things

## Topic 5: Exploring Habitats

### Module 2: The Value of Biodiversity

5 Topics

### Module 3: Biodiversity-understanding the threats

## Session 4: Activity -Biodiversity Diary

### Outcomes

Students will be able to:

- Examine how human beings derive all their food, many medicine and many industrial products from Biodiversity

Ask participants to bring any product from Biodiversity at their homes to the workshop. Ensure they have their names labelled clearly on their own stuffs in order to return to them after the activity

### Items to be collected

10. Medicine/Medicinal items
11. Food or Drink
12. Building materials
13. Laundry or bathroom items
14. Clothing
15. School items
16. Art & Craft
2. Cultural activity

Before doing this activity, draw a coconut tree on a board or butchers paper and ask the participants to list down what resources we get from the different parts of the coconuts, or what resources or materials can be produced from the tree itself. This should give the students or participants a fair idea of what Biodiversity has provided for us.

Ask the students or participants to discuss this among each other and present their views to the whole group. After presentation do the biodiversity table

### Biodiversity Use Table

Item	Use	Origin from nature
------	-----	--------------------

This activity should show the participants or a student how important is biodiversity to us. The diary should include a description of anything they use that comes from biodiversity and all the ways Biodiversity affects their lives.

Note// -The items to be filled in the table are items previously collected from home by the students

Name of Plant	How did you use it or how did it affect you	Parts used
---------------	---	------------

Food-The variety of food that we eat is one way that biodiversity affects us daily. Everything we eat has been derived from plants and animals

Clothing-From cotton to silk to wool much of what we wear comes directly from nature. Even synthetic fibres like nylon or Polyester are made from the fossilised remains of plants.

Animals-They work for us, feed us, clothe us, entertain us, live with us as pets and even become symbols and mascots for our sports team.

Medicine-Biodiversity is like a medicine chest

*This activity will help participants see how all the living organisms, plants and animals are somehow connected to each other.*

### **Session 5: Activity-Natural Connections/Scavenger Hunt**

13. A living thing that depends on Soil
14. A living thing that is not a plant or animal, but feed on dead things
15. An animal that eats live plants
16. An animal home that is in or on a plant
17. A plant that needs an animal to help it reproduce
18. A plant that grows on another plant
19. An animal that eats dead things
20. A plant that deliberately provides animals with something to eat
21. A living thing that needs sunlight to grow
22. An animal that helps a plant to spread its seeds
23. An animal that eats other animals
24. An animal that uses a home provided by another animal

### **Session 6: Activity- Why care about Biodiversity**

Plants and animals provide us with food, medicine, building products and other products. For medical and economic reasons we should conserve diversity of life because there may be many other products yet to be discovered that could save lives and benefit society.

It is important to protect the diversity of life because biodiversity helps maintain important ecological processes such as oxygen production; pollination and flood that, in turn, help support all life on earth

Our lives would not be as rich if we lost species such as Cassowaries, beetles, Cuscus, frogs, lizards and Crocodiles and the habitats they live in. The rich diversity of life also allows many ways to enjoy nature, such as bush walking, fishing, camping, swimming and having picnics. Imagine what your life would be like without this

It is important to protect the diversity of life because the planet belongs to future generations. No generation has the right to destroy the environment and resources on which future generations depend. It is our responsibility to take care of the diversity of life

It is important to protect the diversity of life because biodiversity provides inspiration imagination, Art, music and poetry of life. Examples in nature are also the inspiration for many of our technological advances, such as flight

It is important to conserve the diversity of life because all species have a right to exist  
It is important to protect the diversity of life because nature plays an important role in culture, tradition and people's beliefs. Many ceremonies and customs are linked with natural things and animals are essential for certain cultural practices

## **Session 7: Alternative activity for teachers to choose from the manual**

The next activity was organised by the teachers. The teachers were each given a Biodiversity Education Manual and were divided into three groups. The teachers were then asked to identify one activity in the manual they would like to run with other participants. Each group were given 15 minutes to look through the selected activity and run it with the whole group as if they were doing the activity with their students in the classrooms.

Space for species was one activity that all the schools picked out. Below is the outline and details of the activity.

### **Space for species**

Outcome

-Students will be able to:

- Identify human activities that leads to the destruction or loss of habitat
- Explain how loss of habitat affect plant & animal species

Tuning in

9. Tell the students the following: Imagine you are an animal (e.g. frog, snake, bird, stick insect, dragonfly, butterfly, pig etc.) living on a small island. Imagine that the habitat you live is being reduced by a number of activity-logging, fire, clearing for gardens or plantations of oil palm or copra. The plants that you need to survive are running out and it is too far to escape to another island. Even if you did, the same is happening there.
10. Ask the students to suggest some of the challenges animals and plants face every day to survive. Answers could include the following: being more vulnerable to predators or diseases; inability to find enough food to survive; not enough places to shelter; population too small to be able to find a mate to breed etc. Write the students ideas up on the blackboard.
11. Developing understanding-In this part of the activity, students will be involved in a simulation/ role play that will explore the problems associated with habitat loss. Ask four of your students to volunteer for a role, and provide them with a role card such as the ones below:

Role No. 1

You represent a logging company that comes in and clears the forest in this area.

Role No. 2

You are a farmer who comes into the area and clears some land for your large cash crop.

Role No. 3

You are a road builder who comes into the area because it is starting to develop and you have been asked to build a road next to the forest.

Role No. 4

You are a factory builder and you want to build three factories on the river next to the forest to make a lot of money.

12. Ask the students to each carry a chair and place them in a large circle. The circle should be large enough so that everyone can walk around easily, with a

room to move. Ask the students (with the exception of the four volunteers) to stand inside the circle. Tell the students that circle represents a forest habitat and that the students standing inside the circle represents plants and animals that exist in the forest. If you do not have any chairs, use a rope- but you will need a couple of volunteers to help you hold the rope.

13. While the majority of the students are getting the habitat ready, make sure the four students understand their roles.
14. When the habitat is ready tell the students in the circle that this is their home (habitat) and that you all require a particular amount of space to live but, unfortunately, there are many pressures on this space that affect your lives.
15. Round one
  - Tell the students in the habitat circle to walk to walk around and enjoy their space. Then ask the student with 'Role No. 1' card to come to the circle and read out their role.
  - Explain to the students in the circle that this student will be acting his or her role. Ask students what will happen. How do they feel? Do they have enough room to move around?

Repeat the process with the student who has 'Role No. 2' card and so on until you have completed four rounds of the game.

Note: After each round, the round, the circle should be getting smaller, and at the end of round four, the circle should be very small so that students inside do not have much room to move. You can also ask some students to leave the circle as it gets smaller; this represents a decline in the population. For some extra fun, you could ask these students to act out a 'dramatic death' as they are excluded from their habitat.

16. To make sure that the students understood the purpose of the activity, have a debrief session with them. Ask student if they understood what was happening and how it relates to real life.

Below is the survey carried out with teachers after the training to find out how much they have learned from the workshop and whether or not the workshop has achieved its objectives.

## **Pre- education baseline survey**

### (a) Quantitative results

General audience: Community members or teachers prior to participation in CEPF education workshops

Location/s: Matavanga School, West Gaua

Date: 14/08/2014

Description of group (participants): Primary School teachers

Facilitator/s: Jessie Kampai

Key learning statements  'I can ...'	Self-assessment rating							
	<b>Green:</b> Achieved <b>Amber:</b> Partially achieved <b>Red:</b> Not achieved							
	Green		Amber		Red		Total participation	
	Male	Female	Male	Female	Male	Female	Male	Female
Explain what is meant by the word 'biodiversity'	*	* * * * *					1	4
Identify reasons why biodiversity is important to myself and other people	*	* * * * *					1	4
I have the resources to teach about biodiversity its values and threats	*	* * * * *					1	4
I have the knowledge and skills to teach about biodiversity its values and threats	*	* * * * *					1	4
Have an understanding of teaching techniques that can enhance my learning to teach about biodiversity its values and threats	*	* * * * *					1	4
I can confidently communicate about biodiversity to my students and my peers	*	* * * * *					1	4
Confidently teach my students activities they can take/do to protect/conserv their biodiversity	*	* * * * *					1	4



## Part 1: Pre- education baseline survey

### (b) Qualitative results

This survey has been done with a female grade 3 teacher who has not been to Vanuatu Institute of Teachers Education.

<b>Key learning statements</b> <b>'I can ...'</b>	Significant remarks or stories from participants in relation to the learning statements (identify age / gender):
Explain what is meant by the word 'biodiversity'	In my view, Biodiversity is all life forms around us –the different animals, plants, insects and other organisms in their ecosystem.
Explain why the area where I live has been selected as a priority site for biodiversity conservation	I believe the area where I live has been selected as a priority site for biodiversity because there are some species in my area that are endemic, rare and important that are not in the other places so we need to protect and conserve them.
Describe the main threats to biodiversity in my place	The main threats to biodiversity in my place are overharvesting, natural disasters, and deforestation. I believe this are the main threats in my place.
Identify reasons why biodiversity is important to myself and other people	Biodiversity is important to myself and other people because it provides us with our daily needs. For instance, Human beings cannot live without trees, food and nutrition sources from the forest and marine.
Describe actions that we can take to conserve biodiversity	The actions we can take to conserve our biodiversity is by encouraging our fellow community members to protect and conserve our resources and to use them wisely. In schools what we can do is encourage students to plant trees and take good care of their environment.

<b>Key learning statements</b> 'I can ...'	Significant remarks or stories from participants in relation to the learning statements (identify age / gender):
Describe the plans in place or actions we are going to take to protect biodiversity where I live	In our school we have decided to replant trees where they have been cut down or cleared for development on school grounds.

### **Monitoring & Evaluation**

Name of the workshop: Biodiversity Education Workshop

Subject of the workshop: TOT for teachers

Place where workshop has been conducted: Dolav-West Gaua

Date: 12 August 2014

Instructor name: Jessie Kampai

Signed by the concerned person: Brian Ling

Was the presentation clear and relevant to the topic?-

The presentation was very clear and relevant to the topic.

Was the workshop session well organised?

The workshop was well organised compared to other previous workshops held in the community. The workshop began on time.

Was the instruction material provided sufficient and relevant?

The instruction material (Biodiversity Education Manual is sufficient and relevant to suit the teachers need in classrooms and especially the activities and lessons in the manual that teachers can just pick out from the book and teach it to their students as it is presented in a way that is easy, clear and simple enough for teachers to teach.

What did you like most of this workshop?

My personal view of the workshop was well presented and I like the way the presenter explained things clearly for everyone to understand plus the resources distributed to teachers was like a bonus and this will compliment what knowledge teachers have to teach the students to become more aware of environmental issues around us. And for that I would like to salute Live & Learn Vanuatu and CEPF (donor) for taking this initiative to organise these workshops.


According to you which areas of this workshop needed improvements so as to make it even better?

I think Live & Learn should organise more similar workshops in other parts of Vanuatu as well as the resource is truly a bonus for schools regarding environmental issues.

Would you like to attend a similar type of workshop again in the future?

I would really love to attend similar types of workshops should there be any organised in the near future.

Signature of the institutional Authority:



### **List of Participants**

1. Brian Ling
2. Mary Ling
3. Regina Charles
4. Madlen Woi
5. Patricia Tor

# Teachers Workshop Report

## Morua, Sherpherd Islands Headquarter

### Tongoa Island

**Date: 12 September 2014**

**Project Title: Education for Action:** Empowering Local Communities for Biodiversity Conservation at CEPF Priority Sites in the Solomon Islands and Vanuatu

**Organisation Legal name:** Live & Learn Environmental Education

**Application Code:** 64252

**Prepared by**  
**Jessie Kampai**

The workshop is a one day workshop organised at Morua, Shepherd Islands Headquarter for teachers from 7 primary schools namely Ere Primary School, Kutudaula Primary School, Naworaone Primary School, Noteij Primary School, Lekanon Centre School, Hiwelo School and Malasa School. The Training is designed to improve environmental education within the school system and raise wider awareness of biodiversity and its values. There were 15 teachers in all who attended the workshop. (*See list of participants attached to this report as Attachment 1*)

The objectives of the workshop are outlined below:

- Familiar with resources
- Familiar with new teaching techniques
- Familiar with Biodiversity, value, threats and activities
- Able to use above to improve teaching about Biodiversity Conservations in Schools

### **3. Self- Assessment Survey**

The self-Assessment survey is done at the beginning of the training. The purpose of this activity is to establish baseline knowledge on how much people know re biodiversity before the training begins. It is also to identify knowledge gaps so that education can target relevant areas and to determine the success of the project in achieving the learning outcomes, or identify where follow up effort is required.

#### **Part 1: Pre- education baseline survey**

##### (a) Quantitative results

General audience: Community members or teachers prior to participation in CEPF education workshops

Location/s: Morua –Tongoa Headquarters

Date: 12 September 2014

Description of group (participants): Community members

Facilitator/s: Jessie Kampai

Key learning statements  'I can ...'	Self-assessment rating Green: Achieved Amber: Partially achieved Red: Not achieved							
	Green		Amber		Red		Total participation	
	Male	Female	Male	Female	Male	Female	Male	Female
Explain what is meant by the word 'biodiversity'	*** ***	**** ***					6	7
Identify reasons why biodiversity is important to myself and other people	*** *	***	**	****				
I have the resources to teach about biodiversity its values and threats	**	*	***	****	*	***	6	7
I have the knowledge and skills to teach about biodiversity its values and threats	**	*	*** *	****		**	6	7
Have an understanding of teaching techniques that can enhance my learning to teach about biodiversity its values and threats	•		*** **	**** *	*	**		
I can confidently communicate about biodiversity to my students and my peers	*	*	*** **	**** *		**		
Confidently teach my students activities they can take/do to protect/conserv their biodiversity	*	*	*** *	**** *	*	**		

#### **4. Introductory session**

17. Introductory session on Biodiversity
18. Resource introduced to teachers, history, purpose, structure and content
19. New teaching approaches in the Resources
20. Carry out Scavenger Hunt and Spice of Life with teachers participates.
21. Split into groups and gives each group 1 activity to prepare and present
22. Group planning session/discussion. How can we/ will we include this resource/activities into our students learning/our teaching
23. Barriers and Bridges
24. Orchid and Onions

#### **4. At a Glance**

19. Module opening Page
20. Module Page
21. Module Introduction-This page provides teachers a ‘Snapshot’ or a summary of what you will find inside the module
22. Activity Summary table-This provides the summary of the activity’s aim, outcome, relevant subject and suggested timing
23. Topic Background reading –Before each activity, you will find a short text that introduces the activity concept and can be used as preparation for the learning activity
24. Case Studies-Provide practical examples for students
25. Activity-
26. Teacher’s notes-At the beginning of most activities, these notes give tips to assist you to present the activity.
27. Teachers notes-At the beginning of each activity, there is a list of practical information to assist you with planning. This contains suggested timing, subject areas, glossary words (which lead to words in the glossary at the back of the book) and materials required.

#### **5. Structure of Book Introductory session**

Title: Discovering Biodiversity

Content:

- Welcome
- Introduction
- Enriching your teaching

Module 1: Discovering Biodiversity

Module introduction

Topic 1: Biodiversity in your local area

Topic 2: Made for the Job

Topic 3: Types of Biodiversity

Topic 4: Connections between Living things

Topic 5: Exploring Habitats

Module 2: The Value of Biodiversity

5 Topics

Module 3: Biodiversity-understanding the threats

## 6. Activity -Biodiversity Diary

Outcomes

Students will be able to:

- Examine how human beings derive all their food, many medicine and many industrial products from Biodiversity

Ask participants to bring any product from Biodiversity at their homes to the workshop. Ensure they have their names labelled clearly on their own stuffs in order to return to them after the activity

Items to be collected

17. Medicine/Medicinal items
18. Food or Drink
19. Building materials
20. Laundry or bathroom items
21. Clothing
22. School items
23. Art & Craft
3. Cultural activity

Before doing this activity, draw a coconut tree on a board or butchers paper and ask the participants to list down what resources we get from the different parts of the coconuts, or what resources or materials can be produced from the tree itself. This should give the students or participants a fair idea of what Biodiversity has provided for us.

Ask the students or participants to discuss this among each other and present their views to the whole group. After presentation do the biodiversity table

Biodiversity Use Table

Item	Use	Origin from nature
------	-----	--------------------

This activity should show the participants or a student how important is biodiversity to us. The diary should include a description of anything they use that comes from biodiversity and all the ways Biodiversity affects their lives.

Note//-The items to be filled in the table are items previously collected from home by the students

Name of Plant	How did you use it or how did it affect you	Parts used
---------------	---	------------

Food-The variety of food that we eat is one way that biodiversity affects us daily. Everything we eat has been derived from plants and animals

Clothing-From cotton to silk to wool much of what we wear comes directly from nature. Even synthetic fibres like nylon or Polyester are made from the fossilised remains of plants.

Animals-They work for us, feed us, clothe us, entertain us, live with us as pets and even become symbols and mascots for our sports team.

Medicine-Biodiversity is like a medicine chest

*This activity will help participants see how all the living organisms, plants and animals are somehow connected to each other.*

## **7. Activity-Natural Connections/Scavenger Hunt**

A living thing that depends on Soil

A living thing that is not a plant or animal, but feed on dead things

An animal that eats live plants

An animal home that is in or on a plant

A plant that needs an animal to help it reproduce

A plant that grows on another plant

An animal that eats dead things

A plant that deliberately provides animals with something to eat

A living thing that needs sunlight to grow

An animal that helps a plant to spread its seeds

An animal that eats other animals

An animal that uses a home provided by another animal

## **8. Activity-Why care about Biodiversity**

Plants and animals provide us with food, medicine, building products and other products. For medical and economic reasons we should conserve diversity of life because there may be many other products yet to be discovered that could save lives and benefit society.

It is important to protect the diversity of life because biodiversity helps maintain important ecological processes such as oxygen production; pollination and flood that, in turn, help support all life on earth

Our lives would not be as rich if we lost species such as Cassowaries, beetles, Cuscus, frogs, lizards and Crocodiles and the habitats they live in. The rich diversity of life also allows many ways to enjoy nature, such as bush walking, fishing, camping, swimming and having picnics. Imagine what your life would be like without this

It is important to protect the diversity of life because the planet belongs to future generations. No generation has the right to destroy the environment and resources on



which future generations depend. It is our responsibility to take care of the diversity of life

It is important to protect the diversity of life because biodiversity provides inspiration imagination, Art, music and poetry of life. Examples in nature are also the inspiration for many of our technological advances, such as flight

It is important to conserve the diversity of life because all species have a right to exist

It is important to protect the diversity of life because nature plays an important role in culture, tradition and people's beliefs. Many ceremonies and customs are linked with natural things and animals are essential for certain cultural practices

## **9. Alternative activity for teachers to choose from the manual**

The next activity was organised by the teachers. The teachers were each given a Biodiversity Education Manual and were divided into three groups. The teachers were then asked to identify one activity in the manual they would like to run with other participants. Each group were given 15 minutes to look through the selected activity and run it with the whole group as if they were doing the activity with their students in the classrooms.

Space for species was one activity that all the schools picked out. Below is the outline and details of the activity.

### **Space for species**

Outcome:

Students will be able to:

- Identify human activities that leads to the destruction or loss of habitat
- Explain how loss of habitat affect plant & animal species

Tuning in

17. Tell the students the following: Imagine you are an animal (e.g. frog, snake, bird, stick insect, dragonfly, butterfly, pig etc.) living on a small island.

Imagine that the habitat you live is being reduced by a number of activity-logging, fire, clearing for gardens or plantations of oil palm or copra. The plants that you need to survive are running out and it is too far to escape to another island. Even if you did, the same is happening there.

18. Ask the students to suggest some of the challenges animals and plants face every day to survive. Answers could include the following: being more vulnerable to predators or diseases; inability to find enough food to survive; not enough places to shelter; population too small to be able to find a mate to breed etc. Write the students ideas up on the blackboard.

19. Developing understanding-In this part of the activity, students will be involved in a simulation/ role play that will explore the problems associated with habitat loss. Ask four of your students to volunteer for a role, and provide them with a role card such as the ones below:

Role No. 1

You represent a logging company that comes in and clears the forest in this area.

Role No. 2

You are a farmer who comes into the area and clears some land for your large cash crop.

Role No. 3

You are a road builder who comes into the area because it is starting to develop and you have been asked to build a road next to the forest.

Role No. 4

You are a factory builder and you want to build three factories on the river next to the forest to make a lot of money.

20. Ask the students to each carry a chair and place them in a large circle. The circle should be large enough so that everyone can walk around easily, with a room to move. Ask the students (with the exception of the four volunteers) to stand inside the circle. Tell the students that circle represents a forest habitat and that the students standing inside the circle represents plants and animals that exist in the forest. If you do not have any chairs, use a rope- but you will need a couple of volunteers to help you hold the rope.
21. While the majority of the students are getting the habitat ready, make sure the four students understand their roles.
22. When the habitat is ready tell the students in the circle that this is their home (habitat) and that you all require a particular amount of space to live but, unfortunately, there are many pressures on this space that affect your lives.
23. Round one
  - Tell the students in the habitat circle to walk to walk around and enjoy their space. Then ask the student with 'Role No. 1' card to come to the circle and read out their role.
  - Explain to the students in the circle that this student will be acting his or her role. Ask students what will happen. How do they feel? Do they have enough room to move around?

Repeat the process with the student who has 'Role No. 2' card and so on until you have completed four rounds of the game.

Note: After each round, the round, the circle should be getting smaller, and at the end of round four, the circle should be very small so that students inside do not have much room to move. You can also ask some students to leave the circle as it gets smaller; this represents a decline in the population. For some extra fun, you could ask these students to act out a 'dramatic death' as they are excluded from their habitat.

24. To make sure that the students understood the purpose of the activity, have a debrief session with them. Ask student if they understood what was happening and how it relates to real life.

### **Attachment 1: List of participants**

1. Daniel Manarongo
2. Philip Andrew
3. Rebecca John
4. Dick Toara
5. Josephine Tasaruru

6. Mathias Roy
7. Marie Rose
8. Netty Stephen
9. Nathan Kalo
10. Robin Joses
11. Nadia Roy
12. Martha Joseph
13. Nathalie Marius
14. Roger Karie
15. Josephine Manaseh

**Part 1: Pre- education baseline survey**

**(a) Quantitative results**

General audience: Teachers prior to participation in CEPF education workshops

Location/s: Morua –Sherpherds Headquarters

Date: 12 September 2014

Description of group (participants): Community members

Facilitator/s: Jessie Kampai

Key learning statements  'I can ...'	Self-assessment rating Green: Achieved Amber: Partially achieved Red: Not achieved							
	Green		Amber		Red		Total participation	
	Male	Female	Male	Female	Male	Female	Male	Female
Explain what is meant by the word 'biodiversity'	*** *** *	***** *****					7	8
Identify reasons why biodiversity is important to myself and other people	*** *** *	***** *****					7	8
I have the resources to teach about biodiversity its values and threats	*** *** *	***** *****					7	8
I have the knowledge and skills to teach about biodiversity its values and threats	*** *** *	***** *****					7	8
Have an understanding of teaching techniques that can enhance my learning to teach about biodiversity its values and threats	*** *** *	***** *****					7	8
I can confidently communicate about biodiversity to my students and my peers	*** *** *	***** *****					7	8
Confidently teach my students activities they can take/do to protect/conserv their biodiversity	*** *** *	***** *****					7	8

## Part 1: Pre- education baseline survey

### (b) Qualitative results

<b>Key learning statements</b> <b>‘I can ...’</b>	Significant remarks or stories from participants in relation to the learning statements (identify age / gender):
Explain what is meant by the word ‘biodiversity’	Biodiversity is all life forms –the different Plants, Animals, Insects and all life Organisms and the ecosystem in which they live.
Explain why the area where I live has been selected as a priority site for biodiversity conservation	I personally think Tongoa –Laika has been selected as a ‘priority site’ for biodiversity conservation because it has some of the native and endemic species that requires attention and or should be protected due to its significance or rareness.
Describe the main threats to biodiversity in my place	The main threats to biodiversity in Tongoa Laika are overharvesting and natural disasters.
Identify reasons why biodiversity is important to myself and other people	Biodiversity is important to me and my community as we need food to keep us alive, trees to provide us with shelter, oxygen and firewood. Biodiversity or our environment and or resources are everything to us. Without it we cannot exist.
Describe actions that we can take to conserve biodiversity	I think the first step to conservation is awareness. People need to know about biodiversity, its values and need to recognise its threats in order to consider biodiversity conservation.

<b>Key learning statements</b> <b>'I can ...'</b>	Significant remarks or stories from participants in relation to the learning statements (identify age / gender):
Describe the plans in place or actions we are going to take to protect biodiversity where I live	I believe the communities have something bigger in mind to do regarding this issue. In Schools what we can do is implement activities such as replanting of trees and this is one activity that my colleague and I who attended this training have agreed to implement when we get back to school.