

Community Based Coastal Resource Management (CBCRM) plan for West Efate- Lelema Area



The Community of Lelema

October 2014

Project for Promotion of Grace of Seas in Coastal Villages, Phase 2
Vanuatu Fisheries Department
Japan International Cooperation Agency
IC Net Limited



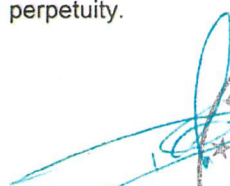
FOREWORD

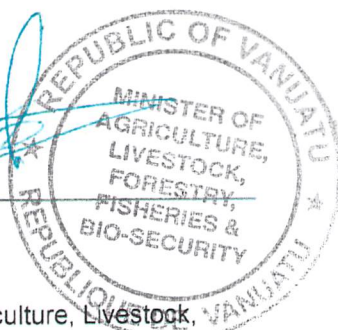
Coastal Marine resources have long played an important role as a daily source of protein for the inhabitants of coastal Vanuatu. In addition, marine resources have developed markedly in recent years, such that nowadays they contribute not only to income generation, but also provide a resource for the burgeoning tourist industry. Coastal resources provision the growing population of Vanuatu; they also provide entertainment for thousands of tourists. Therefore, the sustainable use of coastal resource is now of crucial important to both the food security and tourist sectors of the economy. As a consequence, the need for coastal resource management continues to increase significantly in our nation.

The Vanuatu Fisheries Department has supported people to elaborate their own management plans in coastal communities like the Crab Bay Area of Malakula Island, North West Area of Efate Island, and Aneityum Island. At the same time, the Department has encouraged community members to improve their own capacity for coastal resources management by collaborating with the "Project of Grace of the Seas for the Coastal Villages in Vanuatu", which is financed by the Japan International Cooperation Agency (JICA).

The Government of Vanuatu is convinced that sound coastal resource management will be achieved through the efforts of these communities, and that the results will serve as a model of resource management and thereby be extended to other coastal communities.

We wish to request that all stakeholders put their hands and heads to work alongside the members coastal communities, to realize the sustainable use of our natural resource in perpetuity.


David Tosul
Minister
Ministry of Agriculture, Livestock,
Forestry, Fisheries and Biosecurity




William Naviti
Acting Director
Fisheries Department



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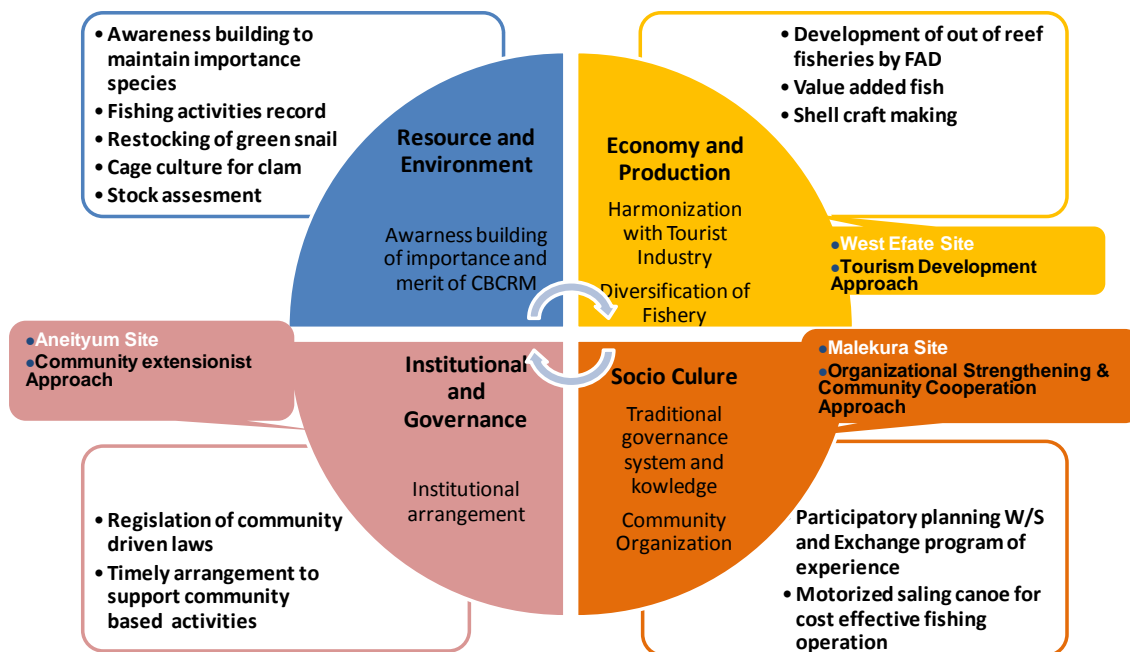
1. Introduction

1.1 Introduction

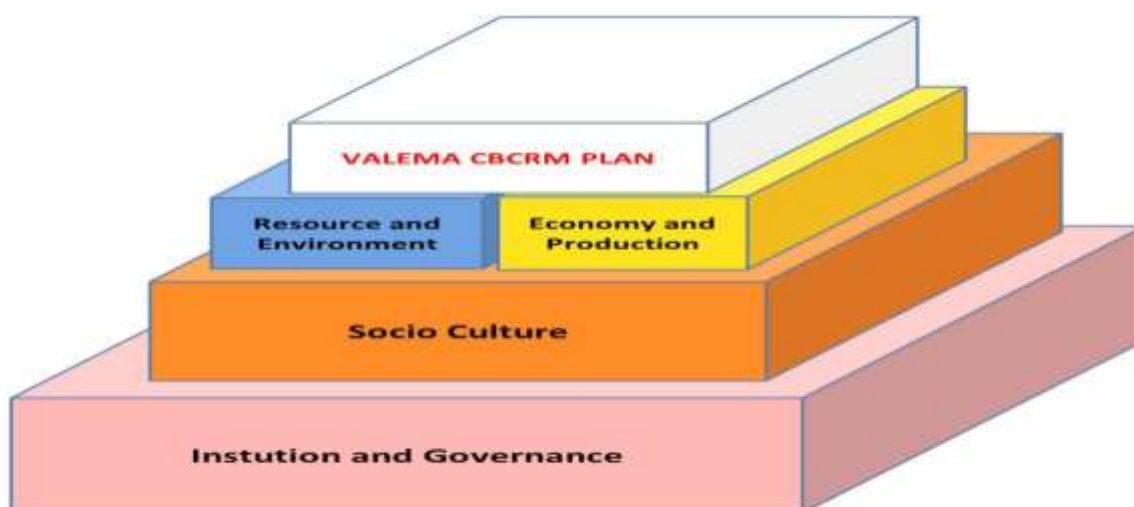
CBCRM (Community Based Coastal Resource Management) consists of resource management measures together with supporting measures based on four perspectives.

These are:

1. The resource and environment perspective, including scientific resource survey and awareness raising on the importance of resource management,
2. The economy and production perspective, mainly the introduction of alternative sources of income to reduce dependence on coastal resources,
3. The social and culture perspective, to establish a solid organization based on traditional experience and knowledge for the implementation of CBCRM, and
4. The Institutional and governance perspective for government and NGOs to support the above three perspectives.



VALEMA is the term given to the CBCRM approaches applied in the three target sites of the JICA Project for "Promotion of Grace of Seas in Coastal Villages in Vanuatu, Phase 2". The term is derived from Vanuatu, Lelema, Malakula, and Aneityum.



One accomplishment of the Project is that community members formulated the CBCRM Plan. The Plan consists of two main parts. The first is regulation to promote resource management, and the second is the action plan to support the promotion of resource management.

One of the most important lessons learned during implementation of the pilot projects is that resource management can be promoted effectively only when combined with supporting measures. Bearing this in mind, community members made a three-five year Action Plan.

1.2. CBCRM and Related Issues

Some general issues characterize CBCRM in Vanuatu. These are described in this section.

Fragility of Traditional Social Systems

The recent shift to a market-based economy has increased the movement and relocation of people to Port Vila, the capital city, to earn cash incomes. This trend appears to have led to a devaluation of traditional social systems, one result of which is the reduced importance of the traditional management of fisheries and resources.

Limited Alternative Means of Improving Livelihoods

To enable residents to carry out CBCRM on a voluntary basis when the need for cash income is increasing, it is essential to provide them with other means to make a living when resources are unavailable owing to conservation activities or other constraints. However, that is difficult to do within the community alone.

Efficacy of Traditional Resource-Management Zones

The effectiveness of these zones is unclear because no baseline surveys or similar activities have been conducted. Many zones are small, at just a few hundred square meters. Further, many have been established based a community' own notions, rather than on scientific grounds.

Target sites in West Efate include the communities of Lelepa and Mangaliliu.

These communities, sites in Phase I of the project (2006 – 2009), were where the following activities were implemented: 1) Release of Trochus, Green snail, and Giant clam seeds and concentration of spawning Giant clam, 2) Formulation of fisheries-resource management plans for the Lelepa and Mangaliliu coasts, and 3) Designation of no-fishing zones.

As a result of those activities the following issues became clear in Lelepa and Mangaliliu.

Low rate of compliance with existing management measures and frequent disputes among resource users

Although CBCRM plans were formulated for the Lelema (Lelepa and Mangaliliu), almost no activities have taken place owing to a lack of practical plans. Awareness of the importance of CBCRM was low.

Conflict between resource users from different communities owing to overlapping fishing grounds

no effective monitoring system is in place despite the fishing area belonging to Lelepa and Mangaliliu being easily accessible from other communities.

Lack of readiness and awareness among stakeholders to work together

Unlike other islands, inhabitants of Lelepa and Mangaliliu have easy access to income earning opportunities in Port Vila. As a consequence, the willingness of community members to work together for the sake of the community is weakening.

2. CBCRM plan

2.1 Target Species

The target species described below are of major importance to coastal communities throughout Vanuatu. Three resources have gone through the normal boom and bust cycle. As a result the Fisheries Department is considering implementation of the following strategy:

- i) The species currently open for harvesting, such as Sea cucumber and Trochus, will be managed under a rotational strategy to control harvesting in different provinces and reduce the risk of overharvesting. The total harvest per area at a given time will be determined using Total Allowable Catch (TAC);
- ii) Once stock assessment has determined that resources have recovered, the rotational system will be replaced by the TAC alone.

In the Lelema area the following target species are managed using local rules established by the CBCRM Committee and aimed at enabling stocks to recover: The three species are:

- Green snail. Commercial harvesting of this resource is banned nationwide until 2019. (See the attached report from the EFTAV Project for more information on the status of Green snail in the Lelema area.)
- Trochus. This resource shows some evidence of stock recovery, but stocks are currently too low to permit harvesting even in the taboo areas. Therefore it is recommended that the current ban on Trochus harvesting in the Lelema Reef area be continued for the next three to five years, during which time a stock assessment can be conducted (See the EFITAV Project report for more information.)
- Sea cucumber. The harvestable stock of Sea cucumber in Lelema is part of the TAC for Efate B (see Fig. 1) .Sea cucumber companies cannot purchase the TAC without the permission of the Lelema CBCRM Committee and Lelema Council of Chiefs. This approach is currently enforced by the Fisheries Department, under the *Fisheries Act*.

2.2 Objectives of the resource management in West Efate

In West Efate, management of only small areas located just in front of communities is ineffective, since the same resource could be exploited by external communities. The objective of resource management in West Efate is to expand the management area (Fig.1), with effective monitoring and a sound management structure. The management area shown in the map is sub-divided into seven smaller areas. The target species and regulations applied in each sub-area differ slightly (Table 1, 2)..



Fig. 1: Expansion of the management area

Table 1: New Taboo Regulation at Lelema (Lelepa – Mangaliliu)

Management Area and location	Banned Species	Banned Fishing Method	Alternatives	Responsible Persons
Vatunmanko S17° 37' 828" E168° 12' 643" – Loubouluk S17° 39' 176" E168° 11' 266"	Trochus, Green Snail, Prawn, Land Crab, Sea Crab, Fish (including Aquarium fish), Turtle, shells, Small Green Snail, Giant Clam, Chiton(Tamuruku), Sea cucumber, Clam shells and Octopus	- Dive fishing during day and night.	- Seasonal fishing (Loubouluk-Tuktuk Bay). - Eco-tourism	MPA, Chiefs of Council and Park Rangers. (1 Chief) Vanua-Tai (resource monitor network)
Vatunmanko S17° 37' 828" E168° 12' 643" - Toalima S17° 35' 159" E168° 14' 565"	Trochus, Giant Clam, shells, Land Crab, Sea Crab, Prawn, Clam Shell, Octopus, Chiton (Tamuruku), Sea cucumber Clam shells and Aquarium fish	- Dive fishing during day and night.	- Seasonal fishing - Eco-tourism	MPA, Lelema Council of Chiefs and Park Rangers (Longoro). (4 Chiefs) Vanua-Tai
Loubouluk S17° 39' 176" E168° 11' 266" – Tuktuk Bay S17° 42' E168° 10'	Trochus, Green Snail, Land Crab, Sea crab, shells, Turtle, Giant Clam, aquarium fish, Sea cucumber (Mamu) and Clam shells	- Free take zone	- Seasonal fishing - Eco-tourism	MPA, Lelema Council of Chiefs members and Park Rangers (Longoro). (2 Chiefs) Vanua-Tai
Lapos-Nangsum Rumta S17° 36' 119" E168° 13' 459" – Viltoka – Naurvatlap S17° 36' 775" E168° 12' 759"	Fish, Giant Clam, Clam Shell, shells, Green snail, Trochus, Sea cucumber, Octopus and Aquarium fish	- Dive fishing during night.	- Seasonal fishing - Eco-tourism	MPA, Lelema Council of Chiefs and Park Rangers (Longoro) (2 Chiefs) World Heritage Tourism Committee (W.H.T.C.) Vanua-Tai

<p>Lelepa Taboo area</p> <p>Auba</p> <p>S17° 36' 775"</p> <p>E168° 12' 759"</p> <p>- Lakposa</p> <p>S17° 36' 119"</p> <p>E168° 13' 459"</p>	<p>Giant Clam, Fish, Turtle, shells, Clam Shell, Octopus, Trochus, Green snail and Sea cucumber.</p>	<p>- Ban on all fishing activities</p> <p>- Conservation</p>	<p>- Eco-tourism</p>	<p>MPA, Lelema Council of Chiefs and Park Rangers (Longoro). (Chief)</p> <p>W.H.T.C.</p> <p>Vanua-Tai</p>
<p>Hat Island</p>	<p>Trochus, Green Snail, Prawn, Land Crab, Sea Crab, Fish (including Aquarium fish), Turtle, shells, Small Green Snail, Clam Shell, Tamaruku, and Sea cucumber (Mamu).</p>	<p>- Ban on all fishing activities</p> <p>- Conservation</p>	<p>- Eco-tourism</p>	<p>MPA, Lelema Council of Chiefs and Park Rangers (Longoro).</p> <p>W.H.T.C. (1 chief)</p> <p>Vanua-Tai</p>
<p>Notes</p>	<ul style="list-style-type: none"> - Banned areas are supported by the Fisheries Regulations. - Penalties: 1 Pig, 1 stem (stampa) of Kava, 5 Mats, or some food crops - Women can collect dead shells in the taboo areas for shell polishing and handicraft making. - The season period will be decided by the responsible people in the area. 			

Table 2: Taboo Regulation, Alternatives, and Access requirements at Lelema (Lelepa – Mangaliliu)

Management Area	Banned Species	Alternatives	Access requirements (Commercial)	Lelema requirements	Responsible Stakeholders
Vatunmanko – Loubouluk	Trochus, Green Snail, Prawn, Land Crab, Sea Crab, Fish (including Aquarium fish), Turtle, shells, Small Green Snail, Clam Shell, Chiton (Tamuruku), and Sea cucumber	<ul style="list-style-type: none"> - Seasonal fishing (Loubouluk-Tuktuk Bay). - Eco-tourism - Deep sea fishing - Forestry - Agriculture - Livestock 	<ul style="list-style-type: none"> - Investment Plan -Approval from relevant government agencies. -Approval from Shefa Province. -Approval from Lelema Council of Chiefs 	<ul style="list-style-type: none"> -MOA between investor and Lelema Council of Chiefs. -Sign Copies of approved documents. 	<ul style="list-style-type: none"> -Government institutions -Shefa Province -Lelema Council of Chiefs W.H.T.C.
Vatunmanko - Toalima	Trochus, Giant Clam, shells, Land Crab, Sea Crab, Prawn, Clam Shell, Octopus, Chiton (Tamuruku), Aquarium fish and Sea cucumber	<ul style="list-style-type: none"> - Seasonal fishing - Eco-tourism Activity - Deep sea fishing - Forestry - Agriculture - Livestock 	<ul style="list-style-type: none"> - Investment Plan -Approval from relevant government agencies. -Approval from Shefa Province -Approval from Lelema Council of Chiefs 	<ul style="list-style-type: none"> -MOA between investor and Lelema Council of Chiefs. -Sign Copies of approved documents. 	<ul style="list-style-type: none"> -Government institutions -Shefa Province -Lelema Council of Chiefs
Loubouluk – Tuktuk Bay	Trochus, Green Snail, Land Crab, Sea crab, shells, Turtle, Giant Clam, aquarium fish, and Sea cucumber (Mamu)	<ul style="list-style-type: none"> - Seasonal fishing - Eco-tourism - Deep sea fishing - Forestry - Agriculture - Livestock 	<ul style="list-style-type: none"> - Investment Plan -Approval from relevant government agencies. -Approval from Shefa Province. -Approval from Lelema Council of Chiefs 	<ul style="list-style-type: none"> -MOU between investor and Lelema Council of Chiefs. -Sign Copies of approved documents. 	<ul style="list-style-type: none"> -Government institutions -Shefa Province -Lelema Council of Chiefs W.H.T.C.
NangsumRumta	Fish, Giant Clam, Clam	<ul style="list-style-type: none"> - Seasonal fishing 	<ul style="list-style-type: none"> - Investment Plan 	<ul style="list-style-type: none"> -MOU between 	<ul style="list-style-type: none"> -Government

– Viltoka – Naurvatlap.	Shell, shells, Green snail, Trochus, Aquarium fish and Sea cucumber	Eco-tourism - Deep sea fishing - Forestry - Agriculture - Livestock	-Approval from relevant government agencies. -Approval from Shefa Province. -Approval from Lelema Council of Chiefs	investor and Lelema Council of Chiefs. -Sign Copies of approved documents.	institutions -Shefa Province -Lelema Council of Chiefs
Lelepa Taboo area Aupa - Lakposa	Giant Clam, Fish, Turtle, shells, Clam Shell, Octopus, Trochus, Green snail and Sea cucumber.	- Eco-tourism - Deep sea fishing - Forestry - Agriculture Livestock	- Investment Plan -Approval from relevant government agencies. -Approval from Shefa Province. -Approval from Lelema Council of Chiefs	-MOU between investor and Lelema Council of Chiefs. -Sign Copies of approved documents.	-Government institutions -Shefa Province -Lelema Council of Chiefs
Hat Island (island)	Trochus, Green Snail, Prawn, Land Crab, Sea Crab, Fish (including Aquarium fish), Turtle, shells, Small Green Snail, Clam Shell, Tamaruku, and Sea cucumber (Mamu).	- Eco-tourism - Deep sea Fishing	- Investment Plan -Approval from relevant government agencies. -Approval from Shefa Province. -Approval from Lelema Council of Chiefs	-MOU between investor and Lelema Council of Chiefs. -Sign Copies of approved documents.	-Government institutions -Shefa Province -Lelema Council of Chiefs

Mangaliliu MPA members

1. Harry Kalkoa (Park Ranger), 2. William Billy (Tasivanua), 3. Leisara Kalotiti (Handicraft), 4. Bruce Kalkoa (Youth), 5. Supus Kalsau Kalmel, Council of chiefs

Lelepa MPA members

1. Kalsale Sikot, 2. Tari Manutai (Turtle Monitors), 3. Max Kalsong (MPA member), 4. Truti Kalotiti (Shell Craft), 5. Lilian Reuben, 6. Fartpar Micka (Chief)

2.3. Strategies

Integrated management focusing on tourism development

In this area, shellfish resources were restocked during Phase 1 of the Project, and community-based activities were initiated for their management. Therefore it can be said that a “Shellfish Resource Centered Management Approach” was taken first as a basis. Building on such an achievement, the communities made use of an external opportunity by linking their management of shellfish with CBCRM. With a tourism development plan for West Efate being formulated, using the only World Heritage site in Vanuatu, community members in West Efate gradually recognized the potential of coastal resources as touristic resources, which led to an expansion of their existing taboo areas.

A FAD Committee, formulated under the Project and led by a prominent member of the community, has played a key role in promoting FAD installation and fishing (two were installed by the Project and a third by the community), in formulating shell polishing groups, and the conservation of reef resources, among other things. The women’s shell-polishing group has set aside 10 percent of the income from sales for training new members and to provide a start-up fund for those who have completed training. The women’s group also set up a roadside station on Efate Island and secured marketing through an existing shop and another to be established soon in Port Vila, and managed by ACTIV (Alternative Community Trade in Vanuatu), a charitable association.

2.4 Action Plan to support CBCRM

As explained in the Introduction, one of the most important lessons learned during the implementation of the pilot projects is that resource management needs effective supporting measures. Bearing this in mind, community members made an Action Plan based on the four perspectives of the VALEMA approach (see 1.1 Introduction).

2.5 Linkage between management and measures to generate alternative income

Without proper supervision, measures to generate alternative income could have an adverse effect on the promotion of CBCRM. Community members discussed this point and set up the management Accordingly (Fig. 2).

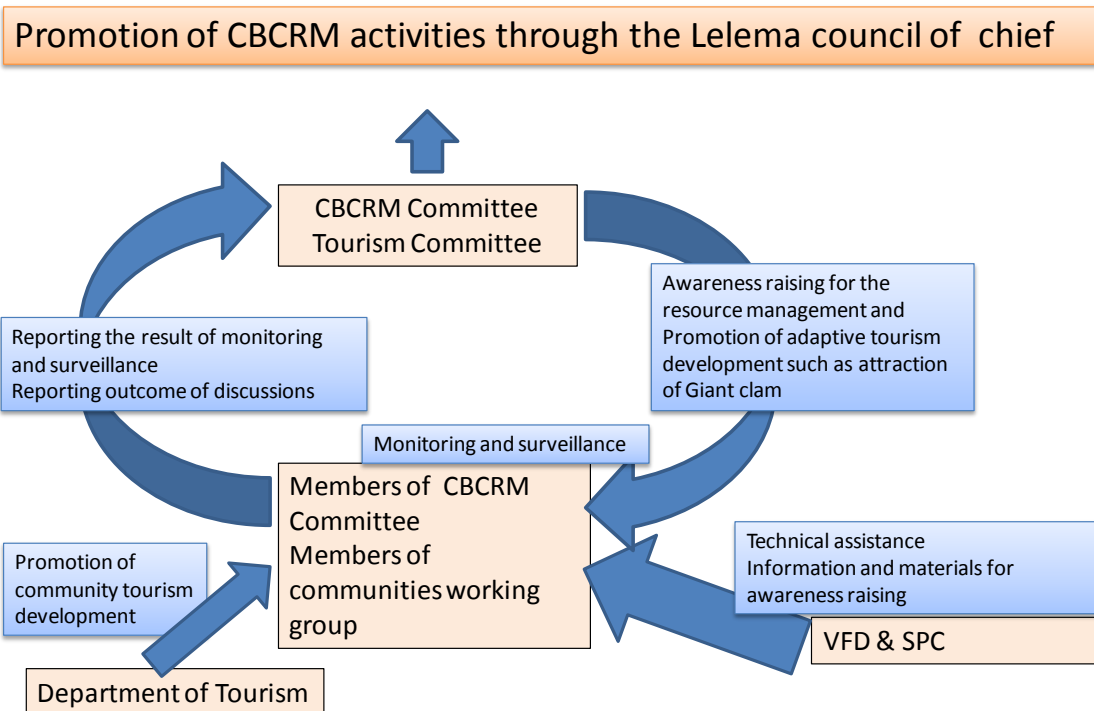


Fig. 2: Tourism development and management of overexploited resource (Giant clam, green snail)

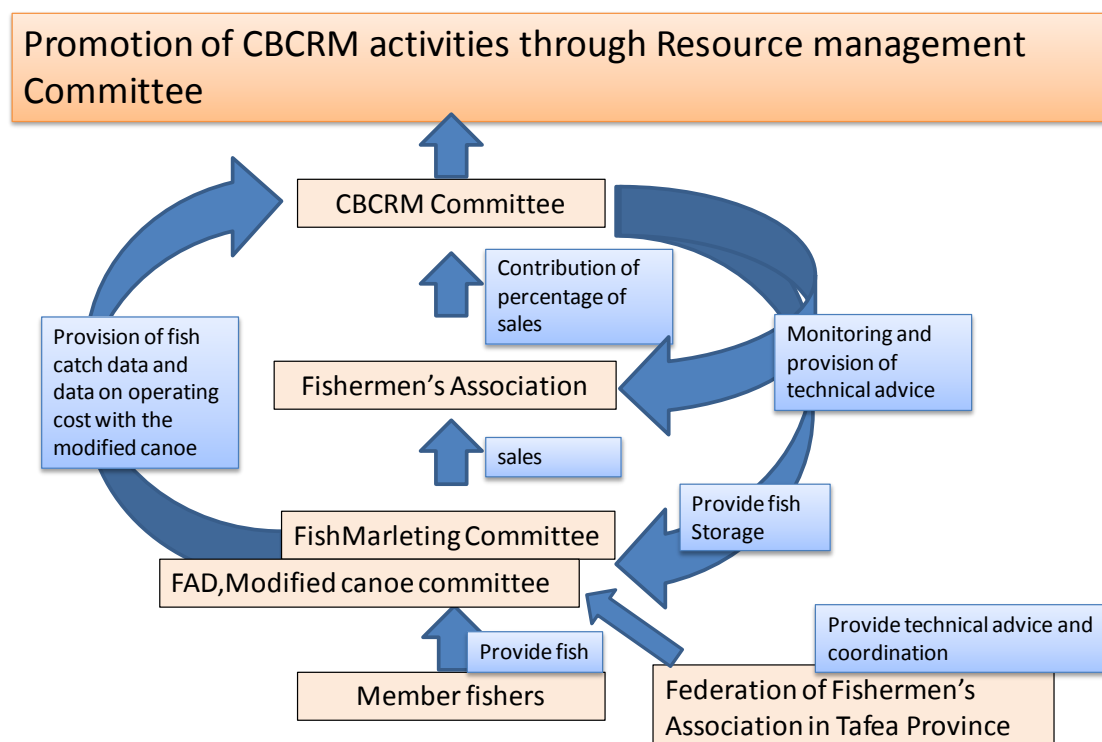
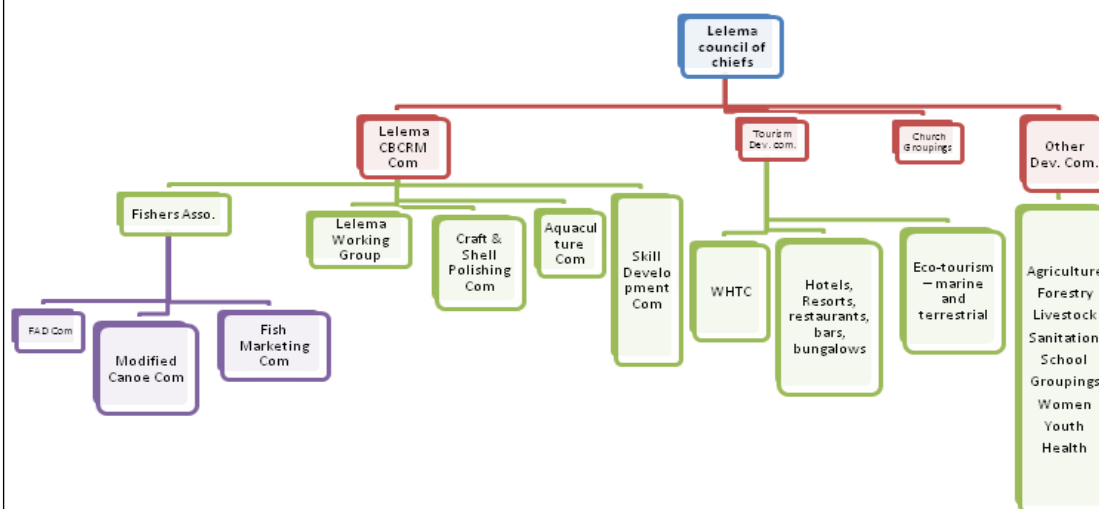


Fig. 3: Diversification of fishery, marketing and value addition to fisheries product

2.6 Lelema Council of Chiefs organizational structure (as of July 2014)

Fig 4: LELEMA COUNCIL OF CHIEFS STRUCTURE



Stakeholders:

- National Government – Departments of Fisheries, Agriculture, Livestock, Forestry, Tourism, Internal Affairs, Vanuatu Police force, and Others.
- Provincial Government – SHEFA
- NGO's – Wan Smol Bag, Live and Learn, Roi Mata Domain
- Lelema Council of Chiefs - Chiefs from Mangaliliu and Lelepa Island
- Lelema CCBRM Committee – Mangaliliu CCBRM Team and Lelepa CCBRM Team
- Other Lelema committees - Those Identified under this plan
- Lelema Working Group –Those Identified under this plan
- Donor group – JICA, SGP, Museum, Climate Change adaptation program, others

2.7 Monitoring and reviewing process

As shown in the Lelema organizational structure (Fig. 4), the Lelema Council of Chiefs is the supreme body responsible for the overall implementation of the Plan Committees, including the CBCRM team. This supreme body will be required to report regularly to the Council of Chiefs, as it requests. Matters arising from the Plan will be presented to the Council of Chiefs during its the meetings. During its regular meetings the Council of Chiefs will discuss all matters arising from the Plan, and decisions will be made known to the respective committees. As necessary, the Council of Chiefs may request the participation of Government institutions, Shefa Province, and other stakeholders.

The CBCRM component is critical to this Plan, thus during meetings of the Council of Chiefs the team is required to report regularly on the status of CBCRM and the progress of the Action Plan . Decisions on amendment of the Plan can be discussed by the Lelema Council of Chiefs only after thorough consultation with the respective committees/groups under the Plan.

2.8 Dispute resolution

This section of the Plan deals with dispute resolution arising from any area¹ access and resources use (see “Lelema Council of Chiefs organization structure”). Offences committed within the jurisdiction of the Lelema Council of Chiefs will be dealt with at the community level. Offences against national legislation and regulations will be dealt with by the relevant Government agency, in close collaboration with the CBCRM Committee and the Lelema Council of Chiefs.

The relevant community enforcement groups, committees and working groups will be responsible for implementing and enforcing the Plan at the community (Lelema) level.

¹ The term “Area” refers to the Lelema customary land boundary

Acknowledgements;

The Lelema CBCRM Management Plan Formulation Committee wishes to thank those members of the community who participated in all meetings and consultations within the two communities of Lelepa and Mangaliliu, and who thereby contributed to the completion of this Plan. The community of Lelema is grateful to JICA for funding the “Grace of the Sea Project”. The community is grateful to the ICNET Team of Seko-san, Iinuma-san, Nishiyama-san, Fuji-san, and Takayama-san for their immeasurable assistance and perseverance in completing this Plan and the associated Action Plans. The assistance of FAI Company, especially that of Sone-san and Kikutani-san, is also greatly appreciated. The community wishes to thank the Government of Vanuatu, especially the Department of Fisheries officers, Director William Naviti, Graham Nimoho and George Amos, for their tireless efforts in organizing and mobilizing the community consultation process that ensured completion of this Plan.

The community of Lelema is ever grateful for the unstinting support of its Paramount Chief, Chief Murmur, for his strong leadership of the community CBCRM Plan formulation team that successfully completed and launched this Plan. The Lelema community is thankful to the team members, Chief Murmur, Chief Arier Turi, Mr. Max Kalsong, and Mr. Harry Kalkoa, for their dedication and the time they devoted on behalf of the community to successfully complete this Plan. The efforts and assistance of those not specifically mentioned is nevertheless much appreciated, and to them Chief Murmur wishes to say “Apsawio”.

To the ancestors of the Lelema people;

***“Apsawi kumu te matu. Tetekan, Keke, Tat, Tatu, Papu, Tatia.
Msala kumu nawiana na ego puel”.***

None of this achievement of hard work and success would have been achieved without the divine blessing of the Creator, God the Father.

Attachment: Action plan to support CBCRM

“©” indicates the activity which Fisheries Dep. is in charge of

Activities	Period																In charge of Activity	
	2014				2015				2016				2017				Fisheries Dep.	Community / Others
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Output 1: To strengthen coastal resource management measures																		
1.1: Establish MPA committee																		
1.1.1: Liaise at Lelema Council of Chiefs meetings																		Chief Mormor
1.1.2: Organize community meetings																		Chief Mormor for Mangaliliu, Wilson Billy for Lelepa
1.1.3: Select MPA Committee members																		Chief Mormor for Mangaliliu, Wilson Billy for Lelepa
1.1.4: Formulate MPA Committee																		Chief Mormor for Mangaliliu, Wilson Billy for Lelepa
1.2: MPA rules and regulations																		
1.2.1: Make draft of MPA rules and regulations																		Max in Lelepa, Harry in Mangaliliu
1.2.2: Present the draft to community and receive feedback																		Max in Lelepa, Harry in Mangaliliu
1.2.3: Finalize the rules and regulations																	©	MPA committee chairman

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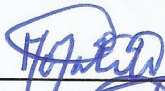
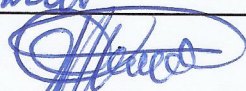
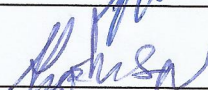

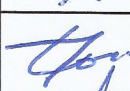
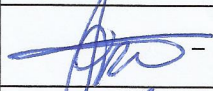


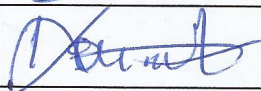
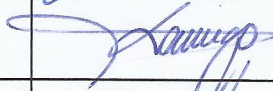

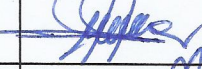
Long dei ia, Saturday 27th September 2014

Mifala we i saenem community- Based Coastal Resource Management (CBCRM)

manejimen plan ia stap deklarem se;

Ol man we oli sign nao oli luk save (kim raet) blong ol aria we i stap long plan blong kam manejmen eria.

Evri man o pipol we oli gat raet mo interest long Komuniti Manejmen Eria ia oli akri mo sapotem long CBCRM.

Location	Name	Signature
Mangaliliu	Paramount Chief Murmur	
Mangas	Chief Meto	
Fatkau	Chief Napangau	
Vatenling	Chief Arier	
Utaon	Chief Tivate	
Natapau	To be named	
Mangororiki	Chief Masong	
Losa	Chief Tunguluman	
Sukuluku	Chief Patok	
Siviri	Chief Mantai	
Tuktuk	Chief Masepong	
Alpat	Chief Vartapar	
Lelepa	Chairman wilson Billy	