

Country Name		<b>The Project for Promotion of the Grace of the Sea in Coastal Villages (Phase 1 &amp; 2)</b>									
The Republic of Vanuatu											
<b>I. Project Outline</b>											
Background	<p>Vanuatu is a small island country in the South Pacific with 80% of its population in rural areas or on remote islands. Most communities are scattered along coastal areas, and communities heavily depend on coastal resources such as fish and shellfish for their livelihoods including foods and income. However, in recent years, coastal resources have undergone a marked decrease because of overfishing, environmental degradation caused by development, and ecological changes under the global climate change. With this background, Phase 1 of the project was implemented in order to practice community-based coastal resource management (CBCRM) in the model sites. However, since CBCRM activities were not firmly established and limitedly implemented while aquaculture technologies for seed production and intermediate breeding of shellfish were established, Phase 2 of the project was implemented to establish an applicable model of sustainable CBCRM and to practice the model through enhancement of technical capacity of the Vanuatu Fisheries Department (VFD).</p>										
Objectives of the Project	<p>[Phase 1] Through transferring appropriate techniques of propagation and culture of the targeted coastal resource species to communities, the project aimed at practicing CBCRM at the model sites, thereby contributing to improvement of the livelihoods of communities in and around the model sites.</p> <p>[Phase 2] Through strengthening the capacity of VFD, the project aimed at practicing CBCRM in the target areas including remote islands, thereby contributing to enhancement of coastal environment conservation and sustainable utilization of coastal resources in and around the target areas.</p>										
	<p>[Phase 1]</p> <ol style="list-style-type: none"> <li>Overall Goal: Livelihood of coastal communities are improved through CBCRM at the model sites and the resource propagation effect of the target species infects around the model sites.</li> <li>Project Purpose: CBCRM is practiced at the model site in the target area.</li> </ol> <p>[Phase 2]</p> <ol style="list-style-type: none"> <li>Overall Goal: 1) Conservation of coastal environment and sustainable utilization of coastal resources are enhanced in target areas. 2) CBCRM are promoted in other rural coastal areas.</li> <li>Project Purpose: CBCRM is effectively practiced at target areas through adequate technical assistance from the Vanuatu Fisheries Department (VFD).</li> </ol>										
Activities of the Project	<p>[Phase 1]</p> <ol style="list-style-type: none"> <li>Project Site: 3 target areas<sup>1</sup> (3 provinces of Shefa, Malampa, and Tafea) and 2 model sites<sup>2</sup> (Mangaliliu and Lelepa in Shefa Province)</li> <li>Main Activities: 1) transfer of techniques of seed production and intermediate breeding of the target species, 2) promotion of extensive culture and propagation of the target species by the communities, 3) suggestion of livelihood improvement methods of communities.</li> </ol> <p>[Phase 2]</p> <ol style="list-style-type: none"> <li>Project Site: 1) Mangaliliu, Lelepa, Moso in Efate Island, Shefa Province, 2) Uri, Uripiv, Amal-Crab Bay in Malakula Island, Malampa Province, 3) Analkauhat, Mystery Island in Aneityum Island, Tafea Province</li> <li>Main Activities: 1) strengthening of capacity of VFD to support CBCRM, 2) acquisition of skills and knowledge of CBCRM by communities, 3) compilation of experiences and lessons learned from CBCRM activities.</li> </ol> <p>Inputs for Phase 1 and Phase 2 (to carry out above activities)</p> <table border="0"> <tr> <td>Japanese Side</td> <td>Vanuatuan Side</td> </tr> <tr> <td>1) Experts: 2 persons (Phase 1), 7 persons (Phase 2)</td> <td>1) Staff allocated: 16 persons (Phase 1), 12 persons (Phase 2)</td> </tr> <tr> <td>2) Trainees received: 6 persons (Phase 1), none (Phase 2)</td> <td>2) Land and facilities: office space, facilities for hatchery and nursery, equipment for seed production, coastal resource survey and others (Phase 1&amp;2)</td> </tr> <tr> <td>3) Equipment: vehicle, equipment for seed production, coastal resource survey and others (Phase 1), fish aggregating devices, portable GPSs, data loggers, electric charts and others (Phase 2)</td> <td>3) Local cost: field trip cost (fuel), cost for electricity, water, telephone, internet, and others (Phase 1&amp;2)</td> </tr> </table>			Japanese Side	Vanuatuan Side	1) Experts: 2 persons (Phase 1), 7 persons (Phase 2)	1) Staff allocated: 16 persons (Phase 1), 12 persons (Phase 2)	2) Trainees received: 6 persons (Phase 1), none (Phase 2)	2) Land and facilities: office space, facilities for hatchery and nursery, equipment for seed production, coastal resource survey and others (Phase 1&2)	3) Equipment: vehicle, equipment for seed production, coastal resource survey and others (Phase 1), fish aggregating devices, portable GPSs, data loggers, electric charts and others (Phase 2)	3) Local cost: field trip cost (fuel), cost for electricity, water, telephone, internet, and others (Phase 1&2)
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Project Period	[Phase 1] March 2006 - March 2009 [Phase 2] December 2011 - November 2014	Project Cost	[Phase 1] (ex-ante) 280 million yen, (actual) 274 million yen [Phase 2] (ex-ante) 220 million yen, (actual) 261 million yen								

<sup>1</sup> Target areas were areas from which the project invited participants to training and workshops organized by the project in the model sites.

<sup>2</sup> Model sites were communities in which the project implemented its activities directly to formulate the model of CBCRM.

Implementing Agency	[Phase 1] Department of Fisheries (DF), Ministry of Agriculture, Quarantine, Forestry and Fisheries (MAQFF) [Phase 2] Vanuatu Fisheries Department (VFD <sup>3</sup> ), Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity (MALFFB <sup>3</sup> )
Cooperation Agency in Japan	[Phase 1] Fisheries Research Agency, Okinawa Prefectural Fisheries and Ocean Research Center [Phase 2] IC Net Limited

## II. Result of the Evaluation

<Special perspectives to be considered at the ex-post evaluation>

Phase 1 and Phase 2 of the project were evaluated in a unified manner in this ex-post evaluation in order to capture the outcome brought about by the project and its sustainability as a whole.

### 1 Relevance

<Consistency with the Development Policy of Vanuatu at the Time of Ex-Ante Evaluation and Project Completion>

The project was consistent with the development policy of Vanuatu. At the time of ex-ante evaluation of Phase 1, the “Priority and Action Agenda” (2003) prioritized the marine resources management by coastal communities for fisheries development. At the time of project completion of Phase 2, based on the Agenda, MALFFB formulated the ministerial “Corporate Plan” (2014-2018) and developed some specific plans for improving co-management of coastal and inshore resources with local communities.

<Consistency with the Development Needs of Vanuatu at the Time of Ex-Ante Evaluation and Project Completion >

The project was consistent with the development needs of Vanuatu for the coastal resource management. At the time of ex-ante evaluation of Phase 1, while the improvement and dissemination of CBCRM was highly required because communities had traditionally owned properties of coast sea areas and its resources to some extent, sufficient efforts have not been made by VFD due to personnel, technical and budgetary constraints. At the time of project completion of Phase 2, the CBCRM system developed by the project was highly evaluated not only in the country but also in the Pacific region, and expected to be disseminated to the entire country and to the Oceanian small island states such as Solomon Islands and Tonga.

<Consistency with Japan’s ODA Policy at the Time of Ex-Ante Evaluation>

Based on the “Okinawa Initiative” (2003) announced at the 3<sup>rd</sup> Pacific Islands Leaders Meeting (PALM3), the Japan’s ODA policy for Vanuatu at the time of ex-ante evaluation of Phase 1 designated rural development as four priority areas including livelihood improvement in rural areas, support for infrastructure development, and strengthening the capacity of maintenance and management. At the time of ex-ante evaluation of Phase 2, under the prioritized areas of environment/climate change, it was targeted to promote adequate conservation and utilization of coastal resources through the cooperation of the government and communities<sup>4</sup>.

<Evaluation Result>

In light of the above, the relevance of the project is high.

### 2 Effectiveness/Impact

<Status of Achievement of the Project Purpose at the time of Project Completion>

The Project Purpose of Phase 1 was achieved by the time of project completion. Over 230 villagers participated in the workshops conducted by the project (Indicator 1), the resource management system developed by the project was applied to five target species including 3 species of giant clam, trochus and green snail (Indicator 2), and according to the observation by VFD, the communities in the model sites practiced periodical monitoring on the target species (Indicator 3).

The Project Purpose of Phase 2 was achieved by the time of project completion. The communities in the target areas started more than one management and supporting measures including the meetings for formulating and updating their CBCRM plans and the announcement of CBCRM regulations to community members (Indicator 1), and the self-evaluation of community members conducted in the pilot projects showed scores increased in seven out of eight assessment areas including community awareness, status of coastal resources, and economic stability of fishing households (Indicator 2).

<Continuation Status of Project Effects at the time of Ex-post Evaluation>

The project effects have been continued after the completion of Phase 2 of the project. While not in the all target areas, but in some areas including Mangaliliu, Lelepa and Moso, broodstock restocking has been continuously conducted by VFD and resulted in the increase of the number of broodstocks of four target species except giant clam (*T. gigas*). As for community activities, out of seven communities involved in the project in the target areas, six communities continue their CBCRM activities in one form or another. In Mangaliliu, Lelepa and Moso, communities are practicing periodical monitoring on the growth of giant clam (*T. gigas*), and in Uri, Uripiv and Amal-Crab Bay, communities are conducting monitoring on resources on ad-hoc basis. According to the interviews with community members, they keep conducting community meetings and monitoring with the awareness on the necessity of resource management and compliance on regulations, and they are aware of the increase in coastal resources and their income as a result of these CBCRM activities. Knowing the recruitment<sup>5</sup> patterns of the target species identified by the project, communities in the target areas continue the reseedling and translocation by themselves with their own initiative. According to the community members, this has never happened before the project.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

The Overall Goal of Phase 1 has been partially achieved at the time of ex-post evaluation. The volume of the target species has been increased according to the visual judgement of VFD and the Japanese experts (Indicator 1), the income of households in communities has increased along with the increase of coastal resources (Indicator 2). The number of broodstocks of the target species has been increasing except giant clam (*T. gigas*) (Indicator 3). Nevertheless, giant clam (*T. gigas*) transplanted by the project keep growing and its survival rate of 60% to 75% is notably high. The propagation techniques introduced by the project have not been applied to other species other than the target species of the project (Indicator 4)

The Overall Goal of the Phase 2 has been achieved at the time of ex-post evaluation. Amal-Crab Bay, one of the target areas of the project, has been authorized by the government as a Marine Protected Area (MPA) and the increase in the population of trochus, dugongs,

<sup>3</sup> DF and MAQFF have been renamed to VFD and MALFFB in 2013 with some institutional and functional changes while keeping their major responsibilities and mandates unchanged. The abbreviations of VFD and MALFFB are used in this report regardless of the phases.

<sup>4</sup> Source: Japan’s ODA Databook (2005, p.964; 2011, p.981)

<sup>5</sup> Recruitment refers to a life history stage of a fish surviving to enter the fishery or to be caught.

turtles and others has been observed in and around MPAs (Indicator 1), and the CBCRM activities has been extended to other provinces through the activities of the project of the Secretariat of the Pacific Community (SPC) and Phase 3 of the project (Indicator 2).

<Other Impacts at the time of Ex-post Evaluation>

There are some positive impacts confirmed at the time of ex-post evaluation. Some community chiefs involved in the project has designated some new taboo areas<sup>6</sup> and banned night diving on their own initiatives based on the knowledge they earned in the project. According to the interviews with community members, because the amount of coastal resources has been increased, not only the community members directly involved in the project but also other local people in and around the target areas of the project are enjoying the increase in income from coastal resources. The increased income has enabled them to afford to pay children's school expenses, household appliances, electric appliances and new fishing gears. More women become involved not only in family budget but also in village economy and resource management such as data collection through the women's participation in tourism activities such as seashell handicrafts and fish café<sup>7</sup>. No resettlement and land acquisition, and no other negative impact has been caused by the project.

<Evaluation Result>

Therefore, the effectiveness/impact of the project is high.

Achievement of Project Purpose and Overall Goal

Aim	Indicators	Results										
[Phase 1]												
Project Purpose: Community-based coastal resources management is practiced at the model site in the target area.	Indicator 1 150 villagers participate in workshop of resource management.	Status of the Achievement: achieved (continued) (Project Completion) 239 villagers in total participated in various workshops on resource management. (Ex-post Evaluation) Villagers participated in the workshops are involved in the community activities such as the community meetings and the monitoring of resources.										
	Indicator 2 Resource management system is applied for 5 species.	Status of the Achievement: achieved (partially continued) (Project Completion) Resource management system has been applied to 5 target species including 3 species of giant clam ( <i>T. gigas</i> , <i>T. squamosa</i> and <i>T. maxima</i> ), trochus and green snail. (Ex-post Evaluation) Broodstock restocking of 5 species has been continued and resulted in the increase in the number of individuals as shown below in the table for the Overall Goal. Seed production of trochus and green snail has been terminated because it was found to be less efficient than broodstock restocking. Breeding of giant clam has been continued in the hatchery but terminated in 2015 due to the damage of facilities caused by Tropical Cyclone Pam.										
	Indicator 3 Periodical Monitoring.	Status of the Achievement: achieved (continued) (Project Completion) The project completed seed production of the two species except giant clam ( <i>T. gigas</i> ), trochus and green snail, and the communities in the model sites started weekly monitoring on those species in their respective reef with the assistance of VFD. (Ex-post Evaluation) Communities in Mangaliliu, Lelepa and Moso keep periodical monitoring of the growth of giant clam ( <i>T. gigas</i> ) with the leadership of communities' Resource Management Committees organized by the project. All other communities in the target areas continue their monitoring in one form or another.										
Overall Goal: Livelihood of coastal communities are improved through the community-based resources management at the model sites and the resource propagation effect of the target species inflicts around the model sites.	Indicator 1 Increasing the volume of the target species.	(Ex-post Evaluation) achieved It was confirmed by the visual inspection done by VFD and the Japanese experts in Phase 3 of the project that the volume of the target species except giant clam ( <i>T. gigas</i> ) has been reproduced and increased. Giant clam ( <i>T. gigas</i> ) transplanted by the project <sup>8</sup> has been growing but not increased yet since it takes time to propagate themselves.										
	Indicator 2 The number of households whose livelihood have improved at the model sites.	(Ex-post Evaluation) achieved According to the interviews with community members, their livelihoods have been improved through the increase of fisheries products selling to hotels and restaurants, establishing new market channels to urban areas, tourism business such as handicrafts sales, snorkeling and fish café.										
	Indicator 3 The number of broodstock of the shellfish at the model sites.	(Ex-post Evaluation) achieved The number of broodstock of shellfish at the model sites (Unit: <i>T. gigas</i> : the number of individuals, others: the number of individuals in a hectare) Mangaliliu										
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<sup>6</sup> No-fishing areas designated by communities initiated mainly by the village chiefs.

<sup>7</sup> Restaurants for tourists run by fishermen's families managing catching, cooking and serving by family members.

<sup>8</sup> Giant clam (*T. gigas*) became extinct in Vanuatu, and the project has transplanted them from Tonga.

		<table border="1"> <tr> <td>Giant Clam (T. squamosa)</td> <td>75/ha</td> <td>NA</td> <td>NA</td> <td>125/ha</td> </tr> <tr> <td>Giant Clam (T. maxima)</td> <td>100/ha</td> <td>NA</td> <td>121.4/ha 141.2/ha</td> <td>150/ha</td> </tr> <tr> <td>Trochus</td> <td>75/ha</td> <td>NA</td> <td>90.0/ha 22.5/ha</td> <td>150/ha</td> </tr> <tr> <td>Green Snail</td> <td>&lt; 5.0/ha &lt; 5.0/ha</td> <td>NA</td> <td>NA</td> <td>170/ha 130/ha</td> </tr> </table> <p>Note 1: NA: no data available Note 2: The number in upper line indicates the number inside of taboo areas, in lower line indicates the number outside of taboo areas</p> <p>Lelepa</p> <table border="1"> <thead> <tr> <th>Year</th> <th>2009</th> <th>2013</th> <th>2014</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Giant Clam (T. gigas)</td> <td>97</td> <td>88</td> <td>NA</td> <td>73</td> </tr> <tr> <td>Giant Clam (T. squamosa)</td> <td>50/ha</td> <td>NA</td> <td>NA</td> <td>100/ha</td> </tr> <tr> <td>Giant Clam (T. maxima)</td> <td>125/ha</td> <td>NA</td> <td>NA</td> <td>150/ha</td> </tr> <tr> <td>Trochus</td> <td>75/ha</td> <td>NA</td> <td>NA</td> <td>150/ha</td> </tr> <tr> <td>Green Snail</td> <td>&lt; 5.0/ha</td> <td>NA</td> <td>NA</td> <td>90.0/ha</td> </tr> </tbody> </table> <p>Source: Project Completion Report (2015), VFD</p> <p>Although the number of broodstock of giant clam (T. gigas) has been decreasing, its survival rate for 8 years is about 60% in Mangaliliu and 75% in Lelepa which are notably high.</p>	Giant Clam (T. squamosa)	75/ha	NA	NA	125/ha	Giant Clam (T. maxima)	100/ha	NA	121.4/ha 141.2/ha	150/ha	Trochus	75/ha	NA	90.0/ha 22.5/ha	150/ha	Green Snail	< 5.0/ha < 5.0/ha	NA	NA	170/ha 130/ha	Year	2009	2013	2014	2017	Giant Clam (T. gigas)	97	88	NA	73	Giant Clam (T. squamosa)	50/ha	NA	NA	100/ha	Giant Clam (T. maxima)	125/ha	NA	NA	150/ha	Trochus	75/ha	NA	NA	150/ha	Green Snail	< 5.0/ha	NA	NA	90.0/ha
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	Indicator 4 The improvement of implementation capacity in the propagation of the new target species.	(Ex-post Evaluation) not achieved The propagation techniques introduced by the project have not been applied to any other new species due to VFD's insufficient technical capacity and resources.																																																		
[Phase 2]																																																				
Project Purpose: CBCRM is effectively practiced at target areas through adequate technical assistance from the VFD.	Indicator 1 More than one management as well as supporting measure(s) are implemented by communities in accordance with the CBCRM plan at each target area.	Status of the Achievement: achieved (continued) (Project Completion) The communities in the target areas have started a variety of CBCRM activities including voluntary meetings to formulate and update their CBCRM plans, and announced CBCRM regulations to the community members in these meetings. In Efate and Aneityum, the communities recognized the potential of off reef fishery and introduced Fish Aggregating Device (FAD) <sup>9</sup> developed by the project. (Ex-post Evaluation) Most of communities in the target areas are conducting monitoring of their coastal resources on ad-hoc basis, while some communities are conducting on regular basis. The project identified the recruitment patterns of the target species, and some communities in the target areas are continuing the reseedling and translocation of these species.																																																		
	Indicator 2 The results of CBCRM evaluation at each target area show increased scores gained in at least six out of eight assessment areas.	Status of the Achievement: achieved (continued) (Project Completion) Self-evaluation of CBCRM conducted by the members of Resource Management Committees and community group members involved in the pilot project showed increased scores in seven areas in 1) community awareness, 2) management plan, 3) compliance and enforcement of CBCRM regulations, 4) monitoring and evaluation of CBCRM activities, 5) status of coastal resources, 6) impact of fishing activities on the resources, and 7) economic stability of the households. (Ex-post Evaluation) Community members keep conducting some CBCRM activities such as community meetings and monitoring on resources.																																																		
Overall Goal: 1) Conservation of coastal environment and sustainable utilization of coastal resources are enhanced in target areas. 2) CBCRM are promoted in other rural coastal	Indicator 1 More than one environmental and/or resource indicators showed positive changes.	(Ex-post Evaluation) achieved Amal-Crab Bay has been authorized by the government as a Marine Protected Area (MPA), and Northwest Efate is currently preparing for applying for the authorization. The increase of the population of trochus, dugongs, turtles and others has been observed in and around MPAs.																																																		
	Indicator 2 CBCRM activities are extended to more than one province(s) outside of target areas.	(Ex-post Evaluation) achieved The "SPC/WORLDFISH Project" (2014-2017) <sup>10</sup> has been implemented in 3 provinces of Malampa, Tafea and Sanma applying the concept of the "Grace of the Sea" and some management tools developed by the project. Phase 3 of																																																		

<sup>9</sup> FAD has been introduced to disperse the fishing grounds to outer reef areas to compensate the limitations of the fishing grounds in inner reef areas.

<sup>10</sup> A project jointly conducted by the WorldFish and the Secretariat of the Pacific Community (SPC) to restore the breeding populations of sea cucumber to its productive level.

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Source: questionnaire to and interviews with VFD, Provincial Offices and community members in Lelepa, Mangaliliu, Malakula and Tanna.

### 3 Efficiency

[Phase 1] Both the project cost and the project period were within the plan (ratio against the plan: 98%, 100%). The outputs were produced as planned.

[Phase 2] Although the project period was within the plan, the project cost exceeded the plan (the ratio against the plan: 100%, 119%). The outputs were produced as planned.

Therefore, efficiency of the project was fair.

### 4 Sustainability

#### <Policy Aspect>

The latest government policies continuously emphasize the importance and necessity of co-management of coastal resources by the government and communities. The “Vanuatu National Fisheries Sector Policy” (2016-2031) announced by MALFFB in 2017 placed the high priority on the need for fisheries management, advancing small-scale sustainable domestic fisheries, and aquaculture developments using local operations around its provinces.

#### <Institutional Aspect>

The organizational structure and responsibilities and mandates of VFD have been expanding coping with the expansion of its functions incorporating aquaculture, laboratory works, and others. Along with the expansion of functions, the number of VFD’s staff has been increased during and after Phase 1, which is currently sufficient to carry out its core mandates. The organizational structure and functions of the Provincial Offices have also been expanding, though the number of staff has not been increased accordingly and has been insufficient for their increasing works. One officer in a Provincial Office is responsible for two to three islands in average, which are 15 to 20 km apart from each other. As for CBCRM, there is only one officer in charge in one Provincial Office, and he/she is responsible for CBCRM activities in the entire area of the Province. Retention rate of officers in VFD and the Provincial Offices has been very high. Only one out of eight officials in VFD involved in the project has left his position to be promoted, while the rest including ones in the Provincial Offices have been in their job positions during and after the project.

#### <Technical Aspect>

Technical and social management level of the staff of VFD and the Provincial Offices is high enough to continue the CBCRM activities introduced by the project. Project management techniques including the project site selection, project formulation, management planning, and problem analysis learned from the project are currently applied by the staff of VFD and the Provincial Offices to their projects. The fishery development officers (former extension officers) and community members keep applying techniques such as fishing methods, fish size limits, taboo areas management, watching on banned species including green snail and trochus. Besides a variety of training on CBCRM provided by Phase 3 of the project, the Secretariat of the Pacific Community (SPC) periodically conducts training programs on fishing methods and fishing technologies including the construction and deployment of Fish Aggregating Devices (FAD). Nearly 30 kinds of manuals, textbooks and guidelines prepared by the project, and they have been continuously utilized by the fishery development officers and community members, because the information introduced in those manuals are easy to understand and apply at site by community members.

#### <Financial Aspect>

Although the budget for VFD is on a rising trend (Table 1), the amount has been insufficient for its activities according to the questionnaires to and interviews with the staffs of VFD and the Provincial Offices. Large portion of the investment budget for fisheries development including CBCRM activities has been supported by the development partners such as JICA, SPC, the United Nations Development Programme (UNDP), the Asian Development Bank (ADB), and NGOs.

Table 1. Annual Budget for VFD

Unit: million vatu

Year	2012	2014	2015	2017	2018
Amount	92	111	151	147	159

Source: VFD

#### <Evaluation Result>

In light of the above, some problems have been observed in terms of institutional and financial aspects of the implementing agency. Therefore, the sustainability of the project effect is fair.

### 5 Summary of the Evaluation

Each of the Project Purpose of Phase 1 and Phase 2 was achieved at the respective time of project completion by formulating CBCRM methods in the model sites in Phase 1 and by verifying the effectiveness of the CBCRM methods in the target areas in Phase 2. The Overall Goals have been mostly achieved by increasing the volume of the coastal resources in and around the project target areas, and by contributing to the improvement of livelihoods of local people. As for sustainability, while VFD has improved its institutional and technical capacities for CBCRM, the Provincial Offices have been suffering from the manpower shortage. The budget for CBCRM activities has been insufficient and covered by the support from the development partners. As for efficiency, the project cost of Phase 2 exceeded the plan. Considering all of the above points, this project is evaluated to be satisfactory.

## III. Recommendations & Lessons Learned

### Recommendations for Implementing Agency:

- The tourism using giant clam shell has a potential to be an alternative income source for community members, which could be a compensation for the control and conservation of coastal resources. While the project has introduced some tools and ideas for tourism activities, the tourism promotion depends on the self-help endeavors of communities. Therefore, for encouraging their efforts, it is recommended for VFD to provide communities with any technical and financial assistance.
- Through Phase 1 and Phase 2, the project has developed a wide variety of combinations of CBCRM tools and their application methods. Therefore, it is recommended for VFD and the Provincial Offices to widen their application to other areas by adjusting them to local contexts through Phase 3 of the project.
- In order to firmly fix the co-management of coastal resources with communities, it is recommended for VFD and the Provincial Offices to follow-up and provide aftercare for the target areas of Phase 1 and Phase 2.

Lessons Learned for JICA:

- In this project, while quantitative indicators were set for the Overall Goal such as the increasing volume of the target species and the number of households whose livelihood have been improved, quantitative data have not necessarily been collected by the project. If an indicator is appropriate, the data should be collected; if an indicator is not appropriate, the indicator should be changed to be an appropriate one.
- The target of a coastal resource management project is the recovery and increase of coastal resources, which takes long time longer than the 3 to 5 years typical JICA's technical cooperation project. It took about 6 years to see the growth and increase in giant clams and green snails transplanted by Phase 1. Therefore, it is recommended to design a multi-phase project under a long term program considering the reproduction spiral of natural resources.



Fish café serving fish for protecting lobster  
Mystery Island in Aneityum Island, Tafea Province



Transplanting of giant clam