

Participatory Forest Management for Sustainable Utilization of Non Timber Forest Products (NTFP) surrounding the Protected Area of Rinjani and Mutis Timau Mt, Nusa Tenggara Indonesia PD.521/08 Rev. 3 (I)

TECHNICAL REPORT I - 2012

TRAINING MODULE DEVELOPMENT TO IMPROVE THE CAPACITY OF LOCAL COMMUNITY GROUPS FOR SUSTAINABLE UTILIZATION OF NON TIMBER FOREST PRODUCTS



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Serial Number	:	PD 521/08 Rev.3(I)
Starting Date of the Project	:	June 2011
Actual Duration of the Project	:	27 months
Original Budget (USD)	:	US\$ 490,374.00 (ITTO) Switzerland : \$ 400,000.00 Japan : \$ 45,187.00 U.S.A. : \$ 45,187.00
Actual Project Cost (USD)	:	US \$ 400.402
Type of Report	:	Project Technical Report I - 2012
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Place of Issued	:	Jakarta
Date of Issued	:	May 2012

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Summary¹

Limited capacity of local community organizations or groups in forest management and utilization of non-timber forest products (NTFPs) has been a critical problem in Rinjani Protected Forest and Mutis Timau conservation. A "Modified Action Research Method" was applied to understand the existing problems of community groups and the management of NTFPs in these two forest areas. For the research component (21 December 2011 to 15th March 2012), a series of data collection activities were carried out such as in-depth interviews with group and community leaders, focus group discussions and workshops. Results of these approaches reveal that many critical issues were found on communities' knowledge and skills in group management and in non-timber forest product technical skills (in production, processing and marketing components). On the basis of these results, a series of modules for capacity building activities were developed which consist of 11 modules covering three main topics, first introduction to non-timber forest product vision and facilitation skills, second, group management skills, and third, facilitating partnership development for effective management of NTFP. The results and the outputs of this "research" component will be used for the "action" component to develop the capacity of the targeted community groups and the related field agents in around Rinjani protected forest and Mutis Timau conservation forest.

¹ Part of a project entitled "Participatory Forest Management for Sustainable Utilization of Non Timber Forest Products (NTFP) surrounding the Protected Area of Rinjani and Mutis Timau Mt, Nusa Tenggara Indonesia".

1. Introduction

The Nusa Tenggara region of southeastern Indonesia comprises of two provinces, West and East Nusa Tenggara (*Nusa Tenggara Barat-NTB and Nusa Tenggara Timur-NTT*). The region is one of the poorest in Indonesia, but its forests play a vital role in water catchments and in the economic development of local communities.

Although scarce and fragmented, Nusa Tenggara's forests are important at the local, regional and international levels. At the local level, communities use forest areas as grazing lands for livestock and collecting fuel wood. Given Nusa Tenggara's arid climate, forested areas play a critical regional role as water catchment areas, because of their location in the steep, mountainous interior. The unique ecology of forested areas and their high level of endemic species and biodiversity lead to international importance to their conservation.

The Rinjani and Mutis Mountains are classified legally as important protected areas in Nusa Tenggara region because of their function as watershed that supplies water to the southern part of Lombok and Timor Island. However, water supply has decreased about 40% over the last 15 years because of deforestation in Rinjani and Mutis Timau. The forests have been under significant pressure over the last decade. As described in the Provincial Planning Board of West Nusa Tenggara report in 2002, about 30% of the Rinjani area has been deforested in the previous decade. The removal of the forest cover has impacted on the vital water supplies from Rinjani leading to flooding, soil erosion, and irregular water supplies.

One of the reasons of deforestation on the Rinjani and Mutis Timau protected area is forest encroachment by the local communities because they do not obtain tangible benefits from the designated protected area. Actually, the local community could obtain permit for collecting non-timber forest products from the protected area as a source of income supplement but only a few local community groups have the required permits for utilizing non-timber forest products. Out of 80 villages at the surrounding protected area of Rinjani, less than 15 have obtained permits for utilization of non-timber forest products from the protected area. These permits are awarded by the concerned local authority through village cooperatives and issued by the Regent through a regional regulation. However, not all of those cooperatives (koperasi) that have obtained permits are able to conduct operations in the field because they have limited capacities in utilizing the nontimber forest products sustainably. Obtaining the utilization permit is in itself a serious problem for local communities because the communities do not have the capacity to establish cooperatives as required by law and PERDA (the local provincial government regulation). Also the regulations governing the utilization of NTFP's are complicated.

In the meantime, according to WWF research there are about 36 commodities of Non Timber Forest Products which can be collected from protected forest and have the potential to be used sustainably such as honey, sandalwood, gaharu, resin, rattan, bamboo, tamarind, candlenut, coffee, cacao. The list also includes seeds and many wood barks, leaves and fruits which are naturally available around Rinjani and Mutis Timau Mountains. This huge potential cannot yet be tapped for reasons mentioned above.

If unsustainable forest utilization practices continue and local communities who live in the surrounding of Mt Rinjani and Mutis Timau Protected Area (PA) have no tangible benefit from the protected area they will not support conservation of the protected areas and as a result encroachment of the forests will continue. These encroachment activities will lead to forest degradation which contributes to flooding, soil erosion, irregular water supplies and continued poverty. The combined result will be a negative impact in Nusa Tenggara region. It is of utmost importance that the local community who live in the surrounding protected area is empowered in order to be able to participate in the sustainable utilization of the forest resources. This will prevent them from encroach the forests as they will receive economic incentives for their participation in sustainable utilization of This will lead also to the conservation of the protected area. It is NTFP's. absolutely necessary to give the local community access and provide opportunity to participate in utilizing sustainably NTFP's if these protected areas are to be secured and conserved.

Lack of capacity and skills has been a real barrier to their participation in forest management and utilization of NTFPs. For that reason, rural communities have been excluded from decision-making and have been denied access to important forest resources. It is difficult for the local community to participate in utilizing NTFP's with the existing limited capacity. In order to achieve optimum results of the community empowerment program, the initial step will be to improve community's capacity. At the same time, local government's capacity should also be improved so that they can formulate a more effective policy framework to support sustainable utilization of NTFP's through involvement of local stakeholders and communities.

This study was conducted to assess community groups and field agents' needs for capacity building activities. On the basis of this need assessment, a specific module has been developed and a series of training activities has been scheduled. The capacity for local communities as a key stakeholder will be improved through the provision of skills and trainings in group management and entrepreneurship.

2. Applied methodology

2.1. Options for Methodologies

Modified Participatory Action Research (MPAR) method was applied to this study (Muktasam, 2001). It is called as modified as the study did not fully encouraged community participation in the whole process of research and action. The methode combine quantitative and qualitative research methods and data collection techniques such as review of secondary data, Focus Group Discussion, in-depth interviews, and workshops. Secondary and primary data collection was carried out in the study.

Research activities had led to the identification of issues on community groups, the needs for capacity building, and the subject matters for capacity building activities (modules). Action part of this "action-research" will be done after the completion of research activities, and this include a series of training at the district down to the village and community levels.

Several qualitative data collection processes applied to this action-research are presented briefly in the following section:

- (1) Data collection through Focus Group Discussions, in-depth interviews, and workshops: To understand the existing condition of forest community groups a series of focus group discussions was carried out at those targeted villages such as *Sedau, Setiling* and *Santong (for Rinjani protected forest)*. Participants of the discussions were from community group representatives, village formal and informal leaders. Each focus group discussion lasted from one to two hours discussing several key questions such as presented in the following list.
 - (i). Are there any community groups in this village or area, including those involved in forest management?
 - (ii). Are there any structure?
 - (iii). What is the groups' size?
 - (iv). What are the activities of the groups?
 - (v). Any rules applied?
 - (vi). What are the main NTFPs in this area?
 - (vii). What are the activities done by the local community to produce, process and market these main NTFPs?

viii). Any groups' plan?

(ix). What are the problems of the groups and NTFPs management?

- (2) **Draft development:** On the basis of the data collected from these focus group discussions, a tentative draft of capacity building modules was developed which indicates the contents and the structure of the modules. The draft consist of three main subjects, namely, introduction to capacity building activities, group management skills, and facilitating partnership for sustainable utilization of NTFPs.
- (3) **Discussion of module draft and revision through workshops, from district level to the national level (Department of Forestry):** To get more inputs from key stakeholders, then a series of workshops were conducted at the district to the provincial level (Central Lombok, So'e, Mataram, and Jakarta). The results of these workshops helped to improve the module draft, substance and structure. Rewriting and revision of the draft were carried out as a follow up activities after the workshops.
- (4) Finalization of the module: The final modules then developed based on the results of the workshops, carried out from the districts (Central Lombok, So'e, and Mataram) to the national levels (at the Ministry of Forestry – Jakarta).

ACTIVITIES		JANUARY			FEBRUARY			MARCH			
	1	2	3	4	1	2	3	4	1	2	3
(1) Additional data collection through FGD on community forestry groups											
(2) The first draft of "module outline"	5										
(3) FGD/In-depth interviews at Sedau – reconfirmation and identification of training needs		1 1									
(4) Scoping study for "improvement" module contain			18- 19								
(5) FGD/In-depth interviews at Setiling & Santong – reconfirmation and identification of training needs (to maximize the utilization of NTFPs and Community Forest)					i .						
(6) Workshop/In-depth interviews at North and Central Lombok government											

A detail work plan for the module development is presented in the following table.

(7) Module re-writing/finalization						
(8) Workshop at Mutis Timau						
(9) Finalization of the module						

2.2. Justifies and describes the applied methodology

The following table summarized the applied methods for data collection and justification and a short description of each method.

Applied methods for	Justification	Description
data collection (1) Focus Group Discussion	Get good data in e very short and limited time (less than 3 month contract) and covering many places and community groups (9 villages in Rinjani dan Mutis Timau); get collective perceptions of issues and options to address them	In addition to the WWF works, this study did 3 additional focus group discussions in the three communities around Rinjani protected forest (Sedau, Setiling and Santong). The main participants of the focus group discussion were those representatives of the community groups and local formal and informal leaders. Several key questions were asked and the responses were recorded or written in the planno papers.
(2) In-depth Interview	Informant interview is an important approach to find more detail information on the subject (the existing conditions of local forest community groups, and the utilization of NTFPs)	In-depth interviews with group and community leaders were done after the focus group discussions to get more detail information on the subjects (community forest group's activities and problems; issues on NTFP management, etc.) – in Rinjani and Mutis Timau.
(3) Workshop	Not only a good forum for sharing the findings and ideas but also provide a good chance to learn from key stakeholders	A serried of workshops were carried out at the district, provincial and national levels, namely at Central Lombok, North Lombok, and South Central Timor or Timor Tengah Selatan (So'e), at Mataram (NTB, provincial level), and Jakarta (at the Ministry of Forestry) – total of 5 workshop. The first 4 workshop were attended by the key stakeholders at district and provincial level

3. Presentation of the Data

Results of data collections are as follows:

Table 1.	The Existing Conditions of Community Groups at Santong

ASPECTS OF COMMUNITY GROUPS	SALUT VILLAGE	MUMBUL SARI VILLAGE
GROUP EXISTENCE	There are "Community Forestry Groups", but have unclear structure; Block 1 to 7 are considered as sub-groups and become one community group at the village level	There are community forestry groups named as "Sari Munder", covering Block 1 to 4 ; there are also honey community groups such as "Saru Madu 1" & "Sari Madu 2"; Outside the forest, there are several groups such as "palm sugar group" (has no structure) and farmer groups named "Pade Angan" (for food crop activities)
GROUP STRUCTURE	The group structure at the village level consist of head (acted by the village head), secretary and treasure (these two positions are not clear); The same structure is applied at the sub-group level.	At each block there are head, secretary and treasurer and group members. This group also has a head, secretary, treasurer and members.
GROUP SIZE	Group size range from 25 to 37 farmers at each block with an area of 310 ha	The group size is 117 farmers (Sari Munder group with a range between 27 – 36 member/block); The honey groups has 24 male farmers and 24 female farmers each and a total of 48 members.
GROUP ACTIVITIES	The groups have limited activities, and only for data collection and permit processing purposes – for forestry management right; The groups affiliated with Santong Farmer Cooperative named "MAJU BERSAMA" (Headed by H. Atim); The groups also performed roles in communicating information for the progress of permit processing;	The community forestry group has limited roles – only for forest management permit processing where in collaboration with other community groups affiliated with Santong Farmer Cooperative. The group mostly performs communication roles and decision making body; Honey is the only NTFP that has been managed well under the groups, while the others are managed individually.

Continued		
ASPECTS OF COMMUNITY GROUPS	SALUT VILLAGE	MUMBUL SARI VILLAGE
GROUP RULES	There have been traditional rules named "awiq-awiq" (unwritten) but not for NTFP management.	No specific rules for NTFPs, but general rules named "awiq-awiq" for general forest protection.
MAIN COMMODITY	Candlenut, durian, and bamboo; The price of coffee/cocoa/banana/cashew/ candlenut are low and farmer just a price taker. Some farmers are involved in informal money lander and sell their product before harvesting them.	Honey, candlenut, durian, and bamboo; The price of coffee/cocoa/banana/cashew/candle nut are low and farmer just a price taker. Some farmers are involved in informal money lander and sell their product before harvesting them.
GROUP PLAN	There is pan to establish farmer cooperative, and away from the existing Santong Cooperative to serve the local community better; The research team suggested not to move out from the existing cooperative but to expand the structure for better and strong bargaining power and networking.	Same as the group as Salut, the community at this village is also want to establish their own cooperative to serve their member better; With limited roles of the exiting cooperative, the price of bamboo at this village was about Rp 7000 at the village level; farmer should subtract cost for harvesting (1000/bamboo), transportation cost (1000- 2000/bamboo), loading to the truck (500/bamboo), and cutting price in order to load it easily to the truck (500/bamboo); bamboo buyers are from Gunungsari sub district; bamboo population is relatively high; there has been an effort to cultivate bamboo.
PROBLEMS AND EXPECTATION IN NTFP MANAGEMENT	The community and the groups have not done a serious efforts manage the NTFPs, even they have not though about managing them. Most farmers and community produce and sell NTFPs individually for subsistence or home needs only. For bamboo, there are few households involved in processing activities, but they do it based on demand. If there is no demand for it, then they do not anything. Training on jack fruit processing had been done, but no clear follow- up activities.	The problems faced by the community and the groups at this village are similar to those faced by Salut village. The groups and the community have not aware of doing more for their NTFPs. However, the community in this village a bit ahead as they have been involved in auction market (pasar lelang). However, the community claims that the price offer at the auction market is lower than the real market at the village level. As result, they do not interest to sell their product at the auction market).

Table 2The Existing Conditions of Community Groups at Setiling

- (1) There are forest community groups with a very general role in forest and NTFP management.
- (2) The total number of community groups at the target villages are as follows: Lantan 17 groups; Aikberik 54 groups; Setiling 19 groups; Karang sidemen 19 groups)
- (3) Business activities of NTFP are running by individual and not in a group and only for particular commodity such as bamboo.
- (4) An association of NTFPs has not exist (the recent meeting of the community forestry forum recommended for the importance of establishing a Community Forestry Communication Forum in NTB as an advocacy media for promoting sustainable community forest)
- (5) There has been a farmer cooperative, but has limited roles, especially to get community forest management permit.
- (6) There is no specific rule for NTFP management. The existing rules mosly deal with forest security such as "no one is allowed to cut tree and only allowed to harvest NTFPs".
- (7) Community Feorestry Groups as Setiling has developed their vision and dream which is more advance then forest community groups in other forest areas such as in Sedau & Santong – "The existence of a trading house to address NTFP marketing and management".
- (8) There are about 13 institutions that have performed direct and strategic roles in community forestry management so far such as village government, Gapoktan Rimba Lestari, Forestry Office of Central Lombok, and local NGOs. However, the role of these institutions seems to be partial and based on the project approach still lack of coordination and integration.
- (9) The community forestry groups are expecting the critical roles of research institutions in developing and promoting better management of NTFPs such as the University of Mataram and The Forest Research and Development Agency.
- (10) The community groups as Setiling have not implemented such standard for NTFP management except for several NTFPs such as bamboo, Jack fruit and palm (aren).
- (11) The supporting facilities that are available to support NTFP management at the moment are: road, market, the financial capital, training technologies for farmer field school, product processing tools, and meeting venue/room.

Table 3The Existing Conditions of Community Groups at Sedau

- (1) There are community forestry groups, but not for NTFPs.
- (2) There are around 1 to 3 "community groups" trained for banana and jeck fruit processing, but have not performed well.
- (3) There were training activities carried out for house wife on banana, talas and jack fruit chips, tomato and sentul sweets, but mostly partial and no clear follow-up activities.
- (4) Groups have several problems such as marketing, financial capital and partnership development.
- (5) An association for NTFPs has not existed and most activities on NTFPs are running individually. The community expressed their bad experience with cooperative.
- (6) No specific rules for NTFPs at the community forestry groups. They only have "awiq-awiq" (local name for groups' rules) that focus only to protect the forest from illegal logging and forest destruction in general unwritten rules.
- (7) Limited supporting facilities to support the groups at LEBAH SUREN and SELENAIK for NTFP management.
- (8) At SELEN AIK: there is a group named "Masyarakat Perduli Lingkungan MPL", with broad membership consist of those who managing forest and those outside the forest.

- (9) At LEBAK SUREN: there is a "Lebak Suren" community group with members from forest and non-forest cultivators.
- (10) Groups at these locations have had clear organizational structures such as head, secretary and treasurer, and sub-groups. However, these groups do not have specific division dealing with NTFPs.
- (11) These two groups (at Selen Aik and Lebak Suren) in collaboration with other community groups as Lebak Sempage and Kumbi are in the process of proposing forest management permit to the Forestry Minister, however stag at the Provincial Forestry Office (has not been signed due to "Tahura/Forest Park" issue and conflict).

On the other hand, this study also found an ideal condition of the community groups perceived by the community as presented in below.

Table 4 Community Perceptions of Ideal Community Groups for Forest and NTFP Management (Results of Stakeholder Workshop at So'e – for Mutis Timau Protected Forest)

- 1. Active and self-managed
- 2. Productive
- 3. Better access for information
- 4. Believe in God
- 5. More creative leaders and members
- 6. Enterpreunership
- 7. Supported by the government staff continually
- 8. Growth from in-side and out-side (bottom-up and top-down initiative and process)
- 9. Meeting the community needs
- 10. Have ability to manage programs
- 11. Clear status
- 12. Have adequate capacity
- 13. Able to improve community welfare
- 14. The group members are aware of the group objective and goals, and why they need the groups
- 15. Clear and good leadership
- 16. Effective group rules
- 17. Need by the community
- 18. Sustainable
- 19. Better access to information
- 20. Special groups for NTFPs
- 21. Open and transparent management
- 22. Good and respective leaders
- 23. Self-reliance in producing, processing and marketing of NTFPs
- 24. There are clear vision of the groups clear direction and planned of group activities.

4. Analysis and Interpretation of the Data and Results

In line with the methods used in this study, quantitative and qualitative data analysis was applied. In qualitative data analysis, the steps taken for data analysis consist of (1) **Data Reduction** that started from the first day of data collection, from the field based on the field notes and continued throughout the data collection activities which consisted of activities such as (a) data editing to check

the accuracy and valid of data, (b) data analysis (c) categorization and grouping of data, (d) memo writing; (2) **Data Presentation** in froms of (a) matrix, (b) network and diagram; and (3) **Conclusion Development**. Field verification was made to develop tentative conclusions, then the conclusions were presented and discussed again with key informant and the community leaders (Creswell, 1994), either through individual contact or group discussions. The use of in-depth interviews, focus group discussions and workshops had allowed the study team to validate the findings – meeting the triangulation technique.

The findings of the study highlight the gaps between the existing performance of the community groups and NTFP management with the ideal and expectation of groups and NTFP performance. These gaps are graphically presented in the following figures.

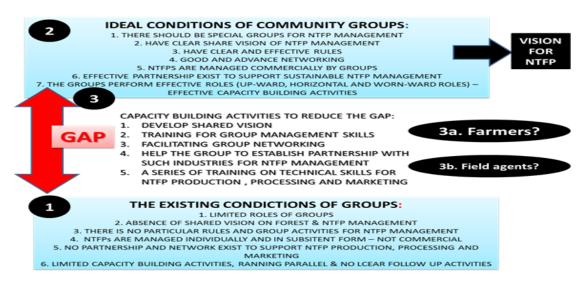


Figure 1. Identified Gap on Group Performance for Forest and NTFP Management

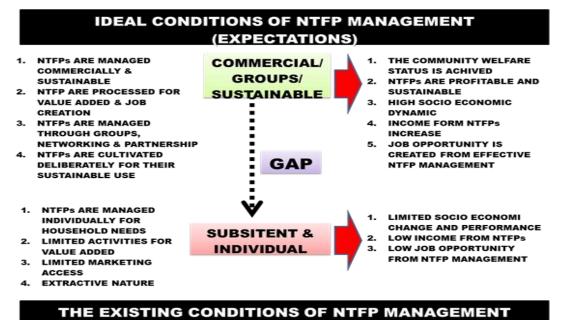


Figure 2. Identified Gap on the Existing and the Ideal NTFP Management

On the basis of this gap analysis, the study concluded and suggested the need for capacity building activities. The processes and the contents for these capacity building activities then were developed as they are provided in the training modules.

5. Conclusions

On the basis of data collected from this study and the data analysis, the following conclusions are made:

- (1) There have been some community groups established at the targeted villages of at the study sites Rinjani and Mutis Timau forest areas. These community groups are mostly for general forest management and have no particular vision and activities related to NTFP management.
- (2) The community groups in both Rinjani and Mutis have not performed well to support effective utilization and sustainable management of NTFPs. The study found that the groups mostly active for getting forest management permit (organizing community into blocks and facilitating meeting and decision making).
- (3) There are gaps between the ideal and the existing performance of the groups, and some capacity building activities are needed to reduce the gap. The gaps also identified in the ideal and existing management of NTFPs, and there is a need to reduce the gap by promoting capacity building activities to improve community awareness, knowledge, skills, attitudes, perception and practices.
- (4) The gaps identified in group and NTFP management have led to the development of capacity building contents and structure (modules). The final contents and process of the capacity building activities (modules) had been developed through a series of workshop and discussion that took place from January to March 2012 (as given in the work plan; and even went beyond that time frame, where additional activities were carried out in April and May 2012). The following table shows the final contents of the modules.

PART 1: INTRODUCTION TO CAPACITY BUILDING

- 1. Need Assessment for Capacity Building
- 2. Developing Shared Vision for NTFP Sustainable Management
- 3. Roles Community Groups in NTFP Management and Utilisation
- 4. Become a Profesional Trainer and Facilitator

PART 2: MANAGING COMMUNITY GROUPS FOR NTFP MANAGEMENT

- 5. Formation of Community Groups
- 6. Group Rules
- 7. Coflict Management in Groups
- 8. Developing Culture of "Action-Reflection" in Community Groups and

Government Organisations

PART 3: PARTNERSHIP DEVELOPMENT TO SUPPORT NTFP SUSTAINABLE MANAGEMENT

- 9. Introduction to Value Chain Analysis for NTFPs
- 10. Partnership Facilitation: An Alternative to Empower Groups
- 11. Group Capacity Building for NTFP Production and Processing Technical Skills

CLOSURE

REFERENCES

6. Recommendations

These findings and modules could be used to help the local community groups increase their capacity in managing the forest and especially in managing and utilizing NTFPs. The local government and their field staff should also be trained to improve their skills in working with the local community groups. More specific recommendations are as follows:

- (1) An intensive training is needed for the leaders of the groups whom will be a facilitator or trainer for their respective community groups.
- (2) Training for the Trainer is also needed for the government staff and field agents (using the findings and the modules).
- (3) Once the community leaders and field agents trained, then a series of training and facilitations are recommended for the community groups at the respective project sites in NTB and NTT.

As the findings and the modules used and piloted for the trainings, monitoring and evaluation is needed to revise and improve the modules.

7. Implications for practice

The findings and conclusions from this study (research part) highlight the critical issues of forestry community groups and government agencies where most of groups have not performed well in supporting effective forest management and sustainable use of NTFPs. The community groups that have been established for forest management have not performed their ideal roles such as 'down-ward roles, horizontal roles, and up-ward roles'.

The study also highlight limited roles of government agencies in supporting community groups. Lack of knowledge and skills could be the main factors that affecting the poor performance of government staff (especially those field agents who are working with community groups). Practical implications of these findings are as follows:

- (1) The need for a systematic and well planned capacity building activities to help the groups and field agents improve their performance. The modules developed through this research could be used for this capacity building activities in all targeted areas (Rinjani protected forest and Mutis Timau conservation forest areas).
- (2) As this action research applied the "action learning" paradigm, a continuous action learning should be promoted and it is followed iterative process. Once the capacity building activities completed, then another reflection should be done to see whether the modules would have been useful and the training or capacity building activities have been effective to promoted intended performance.
- (3) The focus of capacity building activities should cover two major areas, namely (a) group management knowledge and skills, and (b) the management of NTFPs which cover technical knowledge and skills of production, processing, and marketing systems.
- (4) The need for system and multi stakeholder approach in promoting more effective community groups and NTFP management.

Annexes

Annex 1.	Community Perceptions of Ideal Management of NTFPs (Results of Stakeholder
	Workshop at So'e – for Mutis Timau Protected Forest)

NTFP	PRODUCTION	PROCESSING	MARKETING
BAMBOO	Higher bamboo production; intensification of community garden; inventory of bamboo species; availability of bamboo silviculture techniques; sustainable bamboo forest; qualified human resource for bamboo cultivation; cultivate high quality bamboo; bamboo root and steam are available; special bamboo nursery; growing various bamboo species; extending bamboo planting area; cultivating high quality bamboo; bamboo as timber/wood substitute.	Qualified and skillful human resources for bamboo processing; availability of partners and companionship – supervisory services; good knowledge and skill for bamboo conservation and processing; various processing products – office and household furniture; strong groups; craft and furniture industries; modern; laminated bamboo; processing tools and equipment's are available.	Marketing institutions are available such as cooperative; partnership; supporting policies; internal and external network exist; stable price; effective roles of government – facilitating partnership; market information is available, and strong bargaining power.
HONEY	Need to intensify and strengthen cultivated honey and bee production; traditional honey bee cultivation need to be replicated/expanded; increasing the quantity and quality; the need for more and good quality feeding (flowers) for better quality honey and high productivity; honey production within and beyond the forest area; need for forest conservation – sustainable; continue and wax production	Improving the quality of the product – meeting the SNI standard; better packaging; and processing technologies; post-harvest management; support for financial capital; better support for equipment/facilities and skills; farmers should have good knowledge for right "harvesting" for production sustainability; using new and more advance technologies; exist of educational tourism; trained and professional human resources; modern process.	Partnership with cooperative; inter- island markets; do avoid middleman; better market information; strengthening farmer bargaining position; develop and through networking; need investor; the label should be bona fide; better price and guaranteed; direct marketing to customers and outlets; group and cooperative approach; working with pharmacy industries
MEDICINAL PLANT (EMPON2)	Adequate production level with various species and types;	Processing for value added should be done at the village level; qualified human	Through group approach for better and strong

	economic of scale – large scale; more advance cultivation technologies; for commercial purposes and needs; by all farmer groups at all villages; high yield seeds are available; high productivity and continue/sustainable; inside and outside the forest – including backyard and garden; intensification and extensification.	resource for processing; modern processing techniques; supporting extension activities and program; availability of post- harvest technologies – modern and natural preservation; the community ability to use the products for healthcare; half way processing products; working with other parties; processing for spices, cosmetics and drugs; better storage and processing; good support for financial capital; better packaging for instant use.	bargaining position; price guarantee and available markets; develop network; more active village cooperative; identify market; better marketing management; partnership with drug industries; domestic and outside market; supporting policies; market information is available – through media such as newspaper and radio; selling to pharmacy industries; working with private sectors.
CANDLENUT	The community deliberately grow the trees; higher quality and productivity to meet the market demand; more advance cultivation techniques; intensification and extensification ; progressive nursery system	More and various processing products; modern; high quality of processing outputs; high quality and skillful human resource (including those who produce candlenut oil); more use of the products – not only for cooking; well organized activities; availability of processing/preservation technologies; more professional processing for more value added.	Through groups and network with cooperatives; guarantee for price and market; domestic and nondomestic market; support for marketing information and policies; working with third parties/private sector/cooperative s; selling to oil/drug industries; selling processing products; the existence of marketing association.

Annex 2. Community Perceptions of Ideal Community Groups (Results of Stakeholder Workshop at So'e – for Mutis Timau Protected Forest)

- 13. Active and self-managed
- 14. Productive
- 15. Better access for information
- 16. Believe in God
- 17. More creative leaders and members
- 18. Enterpreunership
- 19. Supported by the government staff contionuelly
- 20. Growth from in-side and out-side (bottom-up and top-down initiative and process)
- 21. Meeting the community needs
- 22. Have ability to manage programs
- 23. Clear status
- 24. Have adequate capacity
- 25. Able to improve community welfare
- 26. The group members are aware of the group objective and goals, and why they need the groups
- 27. Clear and good leadership
- 28. Effective group rules
- 29. Need by the community
- 30. Sustainable
- 31. Better access to information
- 32. Special groups for NTFPs
- 33. Open and transparent management
- 34. Good and respective leaders
- 35. Self-reliance in producing, processing and marketing of NTFPs
- 36. There are clear vision of the groups clear direction and planned of group activities.

Annex 3. Photo of NTFP development training needs



Figure 1. Collaborative mapping process of NTFP development needs in the area of Aiberik village, Central Lombok

Figure 2. : Collaborative mapping process of NTFP development needs in the area of Santong village, North Lombok.



Figure 3. The process of gathering requirements for capacity building with government in Central Lombok District

Figure 4. . The process of gathering requirements for capacity building with government in NTB.

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