

## **Taninthayi Nature Reserve Project**

### **Consultancy Report for Community Forestry Survey**

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## Acronyms

1. ASL	Above Sea Level
2. ATL	Adman Transportation Limited
3. ADRA (Myanmar)	Adventist Development and Relief Agency (Myanmar)
4. CBFiM	Community Based Fire Management
5. CF	Community Forestry
6. CFI	Community Forestry Instruction
7. CFUG	Community Forestry User Group
8. FD	Forest Department
9. FFI	Flora and Fauna International
10. GBH	Girth at Breast Height
11. LOU	Local Operating Unit
12. MGTC	Mottama Gas Transporting Company
13. MMK	Myanmar Kyat
14. MOF	Ministry of Forestry
15. MOECAP	Ministry of Environmental Conservation and Forestry
16. NC	National Consultant
17. NTFC	Non Timber Forest Product
18. RECOFTC	Regional Community Forestry Training Centre
19. SCALE UP	Sustainable Community Alternative Livelihood Enhancement and Undermine Project
20. TNR	Taninthayi Nature Reserve
21. TNRP	Taninthayi Nature Reserve Project
22. TPC	Taninthayi Pipeline Company
23. WCS	Wildlife Conservation Society
24. WWF	World Wildlife Fund

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Consultancy Report on Community Forestry**

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## **Tanintharyi Nature Reserve Project**

### **Consultancy Report on Community Forestry Survey**

#### **1. Introduction**

Forest Management in Myanmar had been strongly focused on the sustainable supply of wood and timber production. This will require sustainable management of entire forest ecosystem with the inclusive of the forest dependent local communities. To achieve the sustainable forest management, the forest development and management system requires the effective participation of local communities as well as providing sense of ownership and addressing their needs.

Forest offers goods and services for the people providing a range of inputs: fuel wood, fodder for livestock, timber and medicinal plants, nutrient cycling and compost for agriculture, amongst other benefits such as ecosystem services. In Myanmar, forests play a pivotal role of local communities for generating basic needs as well as necessary income for their livelihood. Due to inadequate electric supply and limited supply of gas for energy, the role of firewood and charcoal still plays a major role for household supply of energy. This is why establishment of village firewood plantations has been emphasized in the new constitution of 2008. Apart from wood and timber, Non Wood Forest Products (NTFP) plays an important role for the local communities who reside in the vicinity of the natural forests. The NTFP are very important for the local communities not only for aiming at their subsistence needs but also derived towards small and medium size to forest –based industries in future.

To achieve sustainable forest management in Taninthayi Nature Reserve, the shifting cultivation is the most serious threat and another major problem is illegal logging for subsistence and commercial purpose and so that the establishment of Community Forestry, inter alia, is one of the ways to solve the problems of shifting cultivation and illegal logging. (Bo Ni, 2012).

In 1995, by the approval of the minister of the Ministry of Forestry, the Director General of Forest Department issued the Community Forestry Instruction (CFI) for granting rights to the community for managing trees and forest land. The Community Forestry Instruction is a first ever legal framework that recognized the peoples' participation in forest management activities in Myanmar.

The forest enactment allows for community forestry establishment and the instructions made under Forest Act provides for a land and trees tenure of 30 years with royalty and tax exemption for domestic utilizations. Most community forests relied heavily on donor support, which is found to be non-sustainable once the donors left, despite the concerted efforts of Forest Department, Non Government Organization and community in the initial stage (Kyaw

*Tint, 2011*). Therefore, the study was conducted to point out the opportunities and constraints for the development of CF in a sustainable basic in TNR area where CF is seemed to be one of the possible solutions to address the threats to Sustainable Reserve Management and livelihood development of local communities.

## **2. Objectives**

1. To identify strength and weakness of certified Community User Groups after receiving certificates from Forest Department.
2. To promote levels of participation, work schedule, sharing duties, responsibilities and benefit sharing among members of User Groups.
3. To evaluate the performance and implementation of Community Forestry User Groups.

## **3. Methodology**

1. Participatory Rapid Assessment (PRA) tools
2. Secondary data

The secondary data reviewed for the consultancy report on Community Forestry survey are as following.

1. Community Forestry Instruction, Forest Department, 1995
2. Myanmar Forestry Policy 1995
3. Evaluation report for Taninthayi Nature Reserve Project, 2014by Saw Win
4. Development of Community Forestry in Myanmar by Saw Win 2012
5. Consultancy Report on Community Forestry, Tint Swe, National Consultant, 2008
6. Consultancy Report on Community Forestry, Bo Ni, National Consultant, 2012
7. Community Forestry in Myanmar; Progress & Potential by Kyaw Tint, Oliver Springate-Baginski and Mahm Ko Ko Gyi

3. Open discussion

The open discussion (or) focus group discussions were conducted by travelling to the CF established villages and met with CF Users' Group at public places such as, monasteries, primary school and LOU offices. During the discussion, National Consultant inquire about the development and potential of Community Forestry, lesson learned from CFs, agro-forestry practice, land allocation system in buffer zone, solution on land conflict, innovation for ecotourism, wildlife conservation and wild fire protection and provision of revolving funds. From this discussion, the awareness of local communities in conserving natural forest and water sources and environment, development of agro-forestry in Buffer Zone and initiation of

ecotourism. They also realized to effectively use the revolving fund that was provided by TNRP for the improvement of the livelihood of local communities.

#### 4. Capacity building for staff and Community Forestry User Groups

The National Consultant accompanied with Project Director, Park Warden, conducted training workshop related to Community Forestry and Environment Conservation to the project staffs and Forest Users' Group. The awareness raising about sustainable biodiversity, global warming and climate change were also talked to CFUG.

#### 4. Facts about Tanintharyi Nature Reserve Project

Taninthayyi Nature Reserve, TNR, was established and legally notified by Ministry of Forestry, (MOF) now, Ministry of Environmental Conservation and Forestry (MOCAF) on the 30<sup>th</sup> of March 2005. TNRP is the first cooperative project between the Government of the Union of Myanmar, represented by the Forest Department and Mottama Gas Transportation Company Limited (MGTC), Taninthayyi Pipeline LLC (TPC) and Adman Transportation Limited (ATL) to conserve tropical rain forests and their constituent biodiversity in the Taninthayyi region of southern Myanmar. The basic strategy of the project is to use funding derived from the operation of the MGTC, TPC and ATL pipelines to support the establishment and long- term operation of the Reserve which will be implemented by the Forest Department.

The project area of Taninthayyi Nature Reserve (TNR) is situated at the Dawei District between Dawei River and Myanmar-Thailand border, Taninthayyi Region, consist of eastern part of Heinze-kaleinaung Reserve Forest and Luwaine Reserve Forest. It consists of the eastern part of Heinze Kaleinaung Reserve Forest 85,728 hectares (211,836 acres) and Luwaing Reserve Forest 84,273 hectares (208,240 acres). This area encompasses approximately 1700 square kilometers (656 square miles) or 170,000 hectare (420,077 acres).

A long term period of approximately 30 years is expected to support TNR depending on the estimated life of the pipelines' operation. The initial period four years (2005-2008) and the phase II four years (2009-2012) are successfully concluded and the phase III is currently implementing four years (2013-2016).

The objectives of the project are as followings.

- (1) To preserve all natural habitat types and populations of important native species and globally threatened flora and fauna.
- (2) To improve appreciate and understanding of biodiversity and socio-economic values of TNR amongst stakeholders at all levels.

(3) Taninthayi Nature Reserve Project can be managed resources by community based natural resources.

#### 4. A. Community Forestry Development in Myanmar

After the issue of Community Forestry Instruction (1995), community forestry activities have been implemented by Forest Department with the support of various development projects organized by Non-Government Organization and International Non-Government Organization. Most Community Forestry relies heavily on donor support which is found to be non-sustainable once the donors left, despite the concerted efforts of Forest Department, Non-Government Organizations and community in the initial stage. This kind of support is really needed for the livelihood enhancement of the communities as well as for the sustainability of the Community Forestry.

The progress of establishment of Community Forestry up to September 2012 has an area of about (47,204) hectares managed by (710) Forest Users' Groups with Community Forestry certificates and Users' Group members of (29,945) persons.

#### 4. B. Community Forestry Certifications in TNRP

With the support of TNRP, twelve Community Forests were established and had been awarded CF certificates in line with Community Forestry Instruction, by the Assistant Director of Forest Department of Dawei District, from 2011 to 2014. The certified CF in TNRP area are as follows.

SNo.	Village CF	Place	Acres	CFUGs	Certified
1.	YarPhoo	HeinZeKaLeinAung RF, Compt 26,27	591	70	1.12.14
2.	TharYarMon	HeinZeKaLeinAung RF, Compt, 1,2,4	1052	54	28.7.11
3.	MiChaung Hlaung	HeinZeKaLeinAung RF, Com, 25,26,27	3332	76	28.7.11
4.	Zimbar(1)	HeinZeKaLeinAung RF, Com 23,24	2167	62	28.7.11
5.	Zimbar(2)	HeinZeKaLeinAung RF, Compt 52,53,54	878	30	28.7.11
6.	Zimbar(3)	HeinZeKaLeinAung RF, Com, 31,32	1766	43	12.4.14
7.	KyaukShut	LuWaineRF, C-1,2,5	2161	86	12.4.14
8.	YeBone	LuWaineRF, C-7,8,9	936	56	28.7.11



9.	HnanKye-1	LuWaineRF,C- 63	136	24	12.4.14
10.	HnanKye-2	LuWaineRF,C -63	404	79	12.4.14
11.	OakTharYan	LuWaineRF,C-72	403	35	28.8.14
12.	ThetKelKwet	LuWaineRF,C67,69	150	36	12.4.14
		<b>TOTAL</b>	<b>13976</b>	<b>671</b>	

The Reserve Management Team of Taninthayi Nature Reserve Project contributes revolving fund and provides not only training concerning Community Forestry but also forest and cash plant with free issue. Reserve Management Team allotted agro-forestry practice in accordance with Community Forestry Management Plan, so that the Community Forestry in Taninthayi Nature Reserve Project is success and progressive and hopefully to the sustainable development for long time.

## 5. Activities of National Consultant

During the consultancy period the National Consultant carried out field observation in Community Forestry area and core area, searching for new potential Community Forestry , capacity building, conducting training for Forest Users' Group and staffs from Forest Department and Taninthayi Nature Reserve Project, meeting with Community Forestry Users' Group and consultation with regional, district and township level forest officers. The activities of National Consultant have been described with the following table.

SNo	Activities	Community Forestry	Frequency
1.	Field observation in order to study the land use management and natural forest conservation, establishment of Community forest plantation, agro-forestry practice and consulted with Community Forestry Users' Group.	1.Yaphoo 2.Tharyarmon 3.MichaungHlaung 4.Zimber-1 5.Zimber-2 6.Zimber-3 7.Kyaukshut 8.Yebone 9.Hnankye-1	3 4 3 4 3 5 7 6 3

		10.Hnankye-2 11.OakTharYan 12.Thetkelkwet	2 4 8
		<b>Total</b>	<b>52</b>
2	Capacity building, conducting training	1.Staff from FD and TNRP 2.CFUG from 12 CF	1 1
		<b>Total</b>	<b>2</b>
3.	Finding priority villages for CF establishment, field observation for CF areas, formation of CFUG and Management Committee.	1.Wonbort 2.Heinze 3.Mayanchaung 4.Loakthaing 5.Kyauk kadin 6.Akesakhan	7 3 2 1 1 1
		<b>Total</b>	<b>15</b>
4.	Meeting with non- CF Users	1.Zimber 2.Kyaukshut	2 2
		<b>Total</b>	<b>4</b>
5.	Consultation with Director, Assistant Director, Staff Officer in Forest Department	Director Assistant Director Staff Officer	1 2 3
		<b>Total</b>	<b>6</b>
		<b>Grand Total</b>	<b>69</b>

## **6. Time Sheets**

In March 2015, the national consultant observed the 12 certified Community Forestry and consulted with Community Forestry User Group, to identify the natural forestry conservation, community owned forest plantations, land sharing for agro-forestry practice, water source conservation and water supply system and utilization of village use zone.

In April 2015, the main activity of the national consultant is to find out the new priority villages for Community Forestry and select WonBort and Heinze villages. For WonBort village, national consultant accompanied with Deputy Ranger of ThetKelKwet Local Operating Unit and villagers explored the proposed Community Forestry area, LuWaing Reserve Forest, Compartment 65.

In May 2015, the national consultant observed the forest vegetation and giant trees in KyaukShut Community Forestry area, LuWaine Reserve Forest, compartment 5 and YeBone Community Forestry area LuWaine Reserve Forest, Compartment 9.

In June 2015, the national consultant conducted environmental conservation training for the staff from Local Operating Units and the training on Community Forestry Instruction and agro-forestry practice for the Users' Group in Environmental Education Centre, Michaung Laung Village. Power Point projector and flipcharts are used as visual aids for better understanding. The Time Sheet during the consultancy period can be seen in attachment-2.

## **7. Field observations**

During the consultation with CFUG in twelve CF of TNRP, the field observation was also conducted in Community Forestry area as well as Community Forestry plantations, Agro-forestry plots and water sources/water fall. The findings for twelve CF by the field observation have been described as follows.

### **7.1. Yebone Community Forestry**

The Community Forestry User Group members are Karen and Dawei ethnic and the religion is Christian and Buddhist. The community forest is about 5 miles far from Yebone village and bamboos could be carried along the Yebone Chaung.

On 8<sup>th</sup> March, left for Yebone and met CFUG in the evening at LOU office and discussed about the activities and achievement of Yebone Community Forestry. They have already established (6) acres of Pyinkado plantations from 2012 to 2014 and they received funds from the charge of bamboo production. Taninthayi Nature Reserve Project provided, Myanmar Kyats MMK (5) millions as revolving fund and the management committee lent maximum MMK (200,000) to each Forest Users' Group member for their livelihood improvement.

On 9<sup>th</sup> March, National Consultant accompanied with TNRP, LOU staffs left for Yebone CF area, LuWaine Reserve Forest and observed CF plantations which are established from 2012

to 2014, {N14° 53' 738", E98° 22' 82"} and to be followed patching and weeding in this rainy season. Taungya is cut for agro-forestry in so call Village Use Zone up land area. The establishment of community forest (monoculture with forest trees) in Yebone is the best practice among the Community Forestry in Taninthayi Nature Reserve Project. The forest trees distributed inside the Community Forest area are **ThitKhauk** (*Aporosa villosula* Kurz) **Phetwon**, (*Macaranga denticulate*), **Phet-than** (*Heterophragma adenophylla*) **Zinbyun** (*Dillenia parviflora*) and **Panga** (*Terminalia chebula*).

On 12<sup>th</sup> May, the National Consultant went once again to Yebone and observed the natural forest along the boundary of Community Forestry and core area, giant trees, **Kaunghmu** (*Anisoptera scaphula*), girth at breast height (gbh) is (30) feet and about (100) feet height, and **Kadwut** (*Ficus semicordata*) (36) feet GBH and (120) feet height [N14 □54'81",E98 □24'20"] are suddenly found at the top of the Mount PinSe, [N14°55'27",E9818'10"], ASL (1247)feet and the forest tree species such as Kaunghmu, Kadwut, Zinbyun, Danyin, Kywe-Danyin, Letpan and KyeeZe are even distribution and vigor. The Mount Sibin is about (7) miles from Yebone and so that the Forest Users' Group has ecotourism opportunity to observe giant trees likewise Kaunghmu, Kadwut and TaungThayet.



## 7.2. Kyaukshut Community Forestry

The Forest User Group members are Dawei ethnic and Buddhist. The Community Forest is about (2) miles far from Kyaukshut and from the existing (2) water sources, Nwelein and Myiwataung, water supply system was carried out by the donation of Yadanar (TOTAL) and Taninthayi Nature Reserve Project. In 2015, Taninthayi Nature Reserve Project provided MMK (5) millions to Forest Users' Group as revolving fund for their active participation in Community Forestry activities. The Forest Users' Group established (8) acres of Community Forest (with Mahogany) from 2012 to 2014 {N14° 34' 32", E98° 12' 53"} and follow up patching and weeding are essential to improve plantations.

On 14<sup>th</sup> March 2015, the National Consultant explored for Kyaukshut Community Forest accompanied with project staff and Forest User Group and observed Nwelein and Myintaung water sources. The forest surrounding these 2 water sources are degraded and bamboo is dominated. Yadanar donated the pipe line for water supply system from Nwelein water source {N14° 35' 27", E98° 12' 32"}, and Taninthayi Nature Reserve Project donated the pipeline for water supply from Myintaung water source {N14° 35' 16", E98° 12' 59"} for Kyaukshut village.

On 28<sup>th</sup> April, national consultant once again went to Kyaukshut Community Forestry to observe agro-forestry practice and natural forest condition inside Community Forestry area. Kyaukshut Community Forestry User Group members by their own arrangement shared (12) acres each of (18) CFUGs to implement agro-forestry. The agro-forestry practice is initiated in 2014 and they cultivated (18) acres (N14° 34' 54", E98° 12' 69") concentrately and in 2015, the site preparation (5) acres has been established agro-forestry practice, with Pyinkado (*Xylia xylocarpa*), Mahogany (*Swietenia machrophylla*), Cashew nut, Beetle nut and Danyin, along the besides of Kamyauk Chaung. Then proceed to LuWaing Reserve Forest, Compartment 5, and along the boundary of Community Forestry and Core area, observed giant tree of **Taungthayet** (*Gluta tavoyana*), girth at breast height (GBH), 24 feet and height 100 feet with buttress and **Thitmin** (*Podocarpus wallichianus*), KyeZe (*Phoebe panaculata*) are found at the top of the Mount Mingala, (N14° 34' 28", E98° 13' 46"), above sea level is (1400) feet. Regarding to the observation, National Consultant noticed that Kyaukshut Community Forestry has ecotourism opportunity because of not only attractive agro-forestry practice but also having giant forest trees and available for one day round trip.





### 7.3. Zimber (1) Community Forestry

The Community Forestry Users' Group members are the Kayin ethnics and Christian, the community forest is gently slope land along Zimber Chaung and Wabyanthe chaung could be utilized as sedentary farming.

On 13<sup>th</sup> March 2015, left for Zimber and consulted with CFUGs at village administrator's house and then proceed to Community Forestry area besides the bank of Zimber Chaung, the flat (1500) acres is intended to establish as agro-forestry practice and the rest (667) acres allocated as protected forest. The Forest Users' Group shared (15) acres each of (62) members as land tenure by their own arrangement, without involvement of the project staff for measuring and demarcating process, to establish agro-forestry practice. The old existing orchards of cashew nut and betel-nut were reformed as Community Forestry according to their own willingness. The tree species distributed in natural forest are **Pyinkado** (*Xylia xylocarpa*), Myaukchaw (*Homolium tomentosum*), Kokko (*Albizia lebbec*) and Zinbyun (*Dillenia paviflora*).



Protective forest area, in CF



Existing cashew nut orchards in CF

### 7.4. Zimber (2) Community Forestry

The Forest User Group member are kayin ethnics, Buddhist and the Community Forestry area is (3) miles far from Zimber village and cover by mostly slope lands, however along Mainmapan Chaung and Yaetagon Chaung are gently slope lands for horticulture.

On 31<sup>st</sup> March, national consultant left for Zimbar(2) Community Forestry and observed the situation of natural forest near by the Mainmapan Chaung (N14° 38' 21", E98° 12' 04") which flows entire year. The Community Forestry Plantation in 2012 (N14° 38' 18", E98° 12' 12") has to be carried out the follow up activities such as weeding and patching. The Forest Users' Group shared (10) acres each of (30) members to implement agro-forestry practice in flat area. The tree species, **Pyinkado** (*Xylia xylocarpa*), **Kanyin** (*Dipterocarpus abtusifolia*), **Kadwit** (*Ficus semicordata*) and **Kadat** (*Crateva magna*) are distributed along the bank of Mainmapan Chaung. As per information from the villagers, giant **Pyinkado** (*Xylia xylocarpa*)

and **KaungHmu** ( *Anisoptera scaphula* ) are vigorously grown in mountainous core area and so that, the illicit logging could be occurred and so that the scantlings could be carried throughout the Zimbar Chaung.



CF signboard



Degraded forest at Mainmapan Chaung

### 7.5. Zimber (3) Community Forestry

The Forest Users' Group members are Dawei ethnics and Buddhist and Taninthayi Nature Reserve Project provided revolving fund MMK (5) millions in 2015 to enhance their livelihood.

On 12<sup>th</sup> March 2015, the National Consultant left for Zimber(3) Community Forestry and consulted with Community Forestry User's Group and then went to Community Forestry area and observed tree inventory demonstration led by Flora and Fauna International. The Community Forestry User's Group members should follow up tree inventory activities in further area in Community Forest. Regarding to the tree inventory, Pyinkado (*Xylia xylocarpa*) is abundance and Panga (*Ternanalia chebula*), Thitseint (*Ternanalia bellerica*) and Zinbyun (*Dillenia parviflora*) are also distributed (16) to (19) juvenile forest trees in (0.1) acre of randomized sample plot and average GBH is 10''to 3'11''and 30 'to 55' in height and so that the Community Forestry site is young aged fellow land of shifting cultivation. The Users' Group shared (10-15) acres each of (43) members by their own management, in order to establish agro-forestry practice.



Tree Inventory led by FFI



Consultation with CFUG for providing revolving fund



## 7.6. ThetKelKwet Community Forestry

The Forest Users' Group members are Dawei ethnics and Buddhist and the main objective of Community Forestry formation is watershed conservation for waterfall which is huge and obvious and from this water fall, Taninthayi Nature Reserve Project donated water pipe line system to Thetkelkwet village in 2015.

On 16<sup>th</sup> March 2015, the National Consultant left for ThetKelKwet Community Forestry and interviewed the Community Forestry User Group, and then observed waterfall inside community forestry area, LuWaine Reserve Forest, Compartment 67, which is implemented water supply system, donated by Taninthayi Nature Reserve Project and the waterfall could be expected for ecotourism opportunity. The National Consultant also observed the Community Forest plantation (2) acres of Pyinkado and Mahogany, which is established in 2014, LuWaine Reserved Forest, Compartment 69, the patching and weeding should be followed up in this rainy season. The new taungya (2) acres were cutting adjacent to the 2014 Community Forest plantation, to establish Community Forest plantation in 2015.



## 7.7. Oak Thar Yan Community Forestry

The Forest Users' Group is Dawei ethnics and Buddhist, the Community Forestry area is located at the southern-most of Taninthayi Nature Reserve at Reserved Forest boundary pillar No.83, and situated in the uppermost site of Ye-Dawei car road because of the private owned rubber orchards have been already established upsides the car road.

On 17<sup>th</sup> March 2015, National Consultant went to OakTharYan Community Forestry (313) acres in Luwaing Reserve Forest, Compartment (72), which is separately (2) places, regarding to the management plan, the (290) acres are proposed water conservation (200) acres and gap-planting (90) acres and the rest (23) acres are intended to establish agro-forestry



practice. The Community Forestry User Group, shared agro-forestry (23) acres to all (35) members and they are willing to transform gap-planting (90) acres to agro-forestry practice. The Community Forestry certificate was issued in late 2014 and so that currently the community forestry is the beginning stage.



Southernmost CF boundary



Water source in CF

### 7.8. Hnankye Community Forestry (1)

The Forest Users' Group members are Dawei ethnics and Buddhist, they are living at the eastern bank of Dawei River. The Community Forestry area is situated besides the Ye-Dawei road and their main objective is to conserve water source.

On 18<sup>th</sup> March 2015, the National Consultant left for Hnankye and then consulted with Community Forestry User Group in the evening. On 19<sup>th</sup> March 2015, morning went to the Community Forestry area accompanied with Forest Users' Group and observed community Forest plantation (2) acres which are established in 2014, patching and weeding should be followed. The Forest Users' Group shared the land by their own agreement to establish agro-forestry plantations.

On 24<sup>th</sup> May 2015, once again left for Hnankye and observed the land preparing (20) acres for (20) Forest Users' Group members {N14° 26' 25.4", E98° 11' 0.7"} to establish agro-forestry practice in bamboo dominated area, near by the Chauk Chaung. The Forest Users' Group members are enjoy to establish cashew nut orchards mixed with forest trees, Pyinkako, Mahogany and Kanyin (seedlings could be collected from the forest) and plant up land rice as agro-forestry practice.



Degraded forest in CF



Agro-forestry practice in CF

### 7.9. Hnankye Community Forestry (2)

On 19<sup>th</sup> March 2015, National Consultant observed Hnankye Community Forestry (2) which is adjacent to Hnankye Community Forestry (1), the main objective of the Community Forestry formation is in order to conserve water source which is supplied water to Hnankye village and “Taninthayi Friend Association” former “World Vision” donated water supply system and the Community Forestry User Group is awareness in sustainability of water.



### 7.10. MiChaungLaung Community Forestry.

MichaungLaung old village is homogenous in religious and culture, because of all household members is Kayin Ethnic and Christian and all households in village involve in Community Forestry. In the Community Forestry area, about (1200) acres of land with gentle slope which mostly locate in 3 valleys namely Blobalo Chaung, Nyapal Chaung and Htanpaekauk Chaung. The equitable ownership of Community Forestry land in both quality and quantity among the Forest User Group members has to be considered.

On 22<sup>nd</sup> March 2015 evening, National Consultant accompanied with the staff from MichaungLaung Local Operational Unit, left for MichaungLaung (Old) village and consulted with the Community Forestry User Groups. MichaungLaung Community has been awarded with a Community Forestry certificate, the first and foremost in Taninthayi Nature Reserve Project. All households of MichaungLaung village involve in Community Forestry and all the villagers are Kayin Ethnic people. The Community Forest is divided by 4 main streams, Balo Balo Chaung, Nyarpel Chaug, HtanPinKauk Chaung and WarPyan Chaung and the water source from HtanPinKauk Chaung supply water 1 mile far MichaungLaung village. The forest area (247) acres have been conducted inventory in 2013, however hasn't covered yet over all Community Forest. The Community Forestry User's Group shared (20) acres each for (70) members, by their own management to establish agro-forestry in flat area near by the Dawei River, they arranged (264) acres for forest conservation as per management plan.

On 23<sup>rd</sup> March 2015, explored Community Forestry area, start from service tract, Dawei River Bridge, firstly observed agro-forestry plantations of 2012, in which cultivated up land rice, cashew-nut, betel-nut, Pyinkado (*Xylia xylocarpa*) and Mahogany (*Swietenia machrophylla*). The

cashew nut and betel-nut orchards are existing before the Community Forestry was established. The way towards the protected forest area, found agro-forestry plantations established in 2014, implemented by (2) acres of U Saw Lah Htoo, (2) acres of U Saw Khae Yu {N14° 42' 28", E98° 08' 49"} and also the new taungya cut by U Saw Kar Kar, {N14° 42' 43", E98° 08' 49"} nearby NyarPel Chaung and the taungya of U Saw Htoo Thar {N14° 41' 53", E98° 08' 38"} and U Saw Naw Naw {N14° 42' 09", E98° 08' 38"} are situated very closed to Balo Balo Chaung, so that project staff need to monitor on site selection of taungya cutting for agro-forestry purpose. As per verbal information from MichaungLaung Operational Unit staff, in 2013 the Community Forestry User's Group carried out gap planting (15) acres with Pyinkado (*Xylia xylocarpa*) seedlings in degraded forest area and the agro-forestry plantation (65.5) acres has been established in 2014 and prepared for (90) acres in 2015, however, regarding to the Community Forestry Management Plan, the agro-forestry has to be implemented (105) acres per year. Actually MichaungLaung Community Forestry is the most active in agro-forestry practice among the Community Forestry in Taninthayi Nature Reserve Project.



CF Chair consulting in CFUGs' meeting



Existing cashew nut orchards in CF area

### 7.11. TharYar Mon Community Forestry

The Forest Users' Group members are Mon ethnics and Buddhist, on 24<sup>th</sup> March 2015, the National Consultant left for Yaphoo village and conducted the meeting on Community Forestry Development at the monastery and in the evening went to TharYarMon village by motor bike, accompanied with the Yaphoo Local Operating Unit staff and consulted with Chairman of TharYarMon Community Forestry, and realized that the land of Community Forestry is conflict between the former founder of TharYarMon village and the Community Forestry User's Group and so that the activities are detained and no more improve in Community Forestry development.

On 25<sup>th</sup> March 2015, the National Consultant, project staff and Community Forestry User's Group members explored the Community Forestry area at the boundary pillar {N45° 01'



04", E98° 02' 14"} and noticed that juvenile Pyinkado (*Xylia xylocarpa*) and bamboo are dominated, so that the Community Forest is young aged fellow land.

On 20<sup>th</sup> June 2015 morning, the colleagues of Taninthayi Nature Reserve Project, Forest Department, Police Force and Yaphoo Village Tract administrator held meeting on the topics of Community Forestry Development, environmentally producing on Non-Timber Forest Products and forest conservation, at Tharyarmon State Primary School. The (80) villagers attended and then conducted the workshop on systematically producing and utilizing of forest products.



Degraded forest in CF



Agro-forestry practice in CF

### 7.12. Yaphoo Community Forestry

The Forest Users' Group members are Mon ethnics and Buddhist, their main objective is to conserve water source of Hnan Payoke Chaung, which is 4 miles far from the west of Yaphoo and water supply system is essential for their water sufficient.

On 24<sup>th</sup> March 2015, National Consultant left for Yaphoo and consulted with Community Forestry Users' Group and attended the meeting on Community Forestry Development and re-elected the Community Forestry Management Committee. The flat area, near the bank of Nat Gyi Sin Chaung is 25% of Community Forestry area and available for agro-forestry practice. As per the verbal information from the village administrator of Yaphoo village, the villagers from KyweTaLin village, adjacent to Yaphoo, encroached and planted cashew nut and beetle nut, inside the Community Forestry area. The land encroachment into CF should be solved in time with the discussion between CFUG and non CF users and Forest Department and TNRP should assist for facilitation and legal backup for the problem.



Water source, HnanPayoke Chaung in CF area



Extension on CFI & Wildlife Conservation

## 8. Terms of Reference, TOR of National Consultant for Community Forestry Survey

The main responsibility of the National Consultant is to evaluate the participation, performance and implementation of CFUG and to promote the awareness on the Community Forestry concept on both CFUG and project staff. Moreover, National Consultant is assigned to assist Reserve Management Team of TNRP for natural resource conservation and to identify the strength; weakness and challenges of Community Forestry in Taninthayi Nature Reserve Project. Therefore the National Consultant assessed the following items due to the TOR and discussed as follows.

### 8.1. Identifying area where such uses are not sustainable or are otherwise detrimental to the TNR's resources.

The area or size of Community Forestry in Taninthayi Nature Reserve Project are different each other, the largest size of Community Forestry is MichaungLaung and the total area is (3332) acres for (76) Community Forestry members, so that the individual land tenure is (44) acres and currently the Community Forestry User Group shared the land based on their agreements. At least (20) acres of land have been allocated to each users that is too much area more than their enabling conditions.

The smallest size of Community Forestry is ThetKelKwet, the total land tenure is (150) acres for (36) Community Forestry User Group, which is situated separately (2) compartments and so that, the individual land tenure is (4) acres only and the main objective is to conserve water fall which is supplied water not only for ThetKelKwet village but also for WonBort village which is (3) miles far from ThetKelKwet village. Therefore the reliable size of land tenure should be from (5) to (10) acres for individual Community Forestry Users' Group members.

### 8.2. Identifying opportunities for establishment of fuel-wood plantations, village woodlots and NTFP plantations

Amongst the (12) certified Community Forestry in Taninthayi Nature Reserve Project, there is no fuel wood plantation because of fuel wood was not a concern for most of the

villagers and it was not a worthwhile to form fuel- wood plantation in a pool of horticulture farm in and round the semi-equatorial region, however for future, fuel- wood plantations have to be established and introduce to provide efficient stoves. The Non Timber Forest Product, NTFP are alternative source of both food and income for rural people and thus play as integral part of resource use system, however, collections of Non Timber Forest Product are informal and quite often illegal. An important consideration to complement natural stocks is potential for Non Timber Forest Products, NTFP, production through domestication and intensive cultivation. In determining the type of Non Timber Forest Product, NTFP, to be initiated, minimum criteria should be familiar, ease of management and secure market condition. *Wa-u* (round yam) (*Amorphophallus campanulatus*), cardamom, Danyin (*Archidendron jiringa*) and bamboos have been collected from the natural forests and market is ready in place in the area.

In accordance with the discussion in Zimber village, on 5<sup>th</sup> June 2015, the Forest Users' Groups prefer to grow Non Timber Forest Product as Wa-U, Lime, ShanDaNyin (*Parkia leiophylla*) and Pepper.

From the entrance of Taninthayi Nature Reserve area, the southern most part, all forests along the Ye-Dawei motor road almost inside LuWaine Reserve Forest, are transformed to juvenile rubber plantations, in accordance with field exploration in 2010, the totally (470.40) acres has been intruded and the relevant map is attached.

The whole northern part of the project area, along the Ye-Dawei motor road, falls in Heinze-Kaleinaung Reserve, also replaced by many rubber plantations and covered almost all over the accessible areas. Reserve Management Team should collaborate with Forest Department to eliminate the encroachment of rubber orchards because the access to NTFPs collection by local communities is limited due to the land encroachment.

### **8.3. Finding out potential new villages for Community Forestry**

The National Consultant explored to Wonbort, Heinze, Kyezudaw, Alesakhan, Kyauk-kadin, Loukthaing and Mayanchaung villages to find out the potential new villages for Community Forestry.

The WonBort village is initiated to establish new Community Forestry allocated in LuWaing Reserve Forest, compartment (64) and (65), explored and surveyed on 6<sup>th</sup> April 2015 of which (158) acres for (34) Community Forestry User Group and submitted application to Forest Department, YePhyu Township and they explored and re-surveyed on 24<sup>th</sup> May 2015 accompanied with Thitkelkwet Local Operational Unit staff, and the Forest Users' Group pre-conducted management plan, the National Consultant submitted to Project Director, Taninthayi Nature Reserve Project.

For HeinZe Community Forestry, the initiative villagers explored and surveyed on 2<sup>nd</sup> May 2015 of which (238) acres to conserve watershed area of Louk Chaung. The Community

Forestry User Group was formed with (22) members, however the proposed Community Forest is land at the disposal of the State and so that, has to be transformed as Reserve Forest or Protected Public Forest conducted by the Forest Department, Taninthayi Region, to be able to certify Community Forestry.

On 8<sup>th</sup> June 2015, the ceremony of planting forest trees in KyeZuDaw village, reallocated village after ceasefire process at Government and Karen National Unity (KNU), met with village administrator and they want to establish Community Forestry to make sure water conservation for Luwaine Chaung, inside Luwaine Reserve Forest, about (400) acres by (52) Forest Users' Group, all the household of entire village.

For Alesakkhan, the villagers aren't interested to establish Community Forestry; however the villagers from Kyauk-kadin, Loukthaing and Mayanchaung villages are willingly to establish Community Forestry to conserve water sources in HeinzeKalaingAung Reserved Forest which is situated outside Taninthayi Nature Reserve.

#### **8.4. Finding out challenges and weakness of implementation of CF activities among of Users' Group with their management plans.**

Regarding to the field observations, the Community Forestry Users' Group of Kyaukshut, Yebone, Zimbar-1, Zimbar-3, Michaunglaung, Oaktharyan, Thitkekkwet and Hnankye conducted clear felling and burned in summer to establish Community Forest plantations (monoculture with forest tree species only) and so call agro-forestry (forest tree and perennial cash plants) however they are not active to plant forest trees in accordance with agro-forestry practice. The National Consultant noticed that the forest trees planting could not start yet till the end of June and so that National Consultant is afraid that the deforestation could be caused by the so call agro-forestry and the ignorance of project staffs and that would become major challenge.

National Consultant verified the **challenges and weakness** of implementation of Community Forestry activities among Users' Group with their management plans are as followings;

- (a) The establishment of community forests, agro-forestry plantations and gap planting (Enrichment planting) haven't been implemented yet, as per target in management plan. (eg. Michaunglaung CF)
- (b) The Forest Users' Groups are neglecting to submit their annual reports. The record keeping is also worrying poor.
- (c) The Forest Users' Groups implemented fire line along the boundary of Community Forestry area and Core area, during the hot season, however, they never didn't sweep and not assigned fireman, and so that, some Community Forestry area are burnt, caused by taungya fire burning for private rubber orchards.

(d) TharYarMon Community Forestry was awarded certificate on 28<sup>th</sup> July 2011, however the Users' Group has no more progress because of land conflict between the former authorized person and the Forest Users' Group.

(e) Land encroachment problem has been occurred only in Yaphoo CF area which was established in 2014 and the villagers from KyweTaLin village nearby Yaphoo village encroached and implemented as farm land or orchards, without permission from Forest Department or Community Forestry Management Committee of Yaphoo.

(f) Conflicts of land allocation within CFUG has been found in Zimber(1) CF and that will create inactive participation of users in CF the exiting orchards (Cashew nut, betel-nut, betel leaves, banana and lime) the individual land tenured is up to(20) acres wide are consisted in Community Forestry area, however they didn't want to replant forest trees likewise, Pyinkado, Mahogany regarded to the Community Forestry Instructions.

#### **8.5. Identifying the strength and weakness on implementing of Forest Users' Group, after receiving certificates from Forest Department**

Regarding to the field observation, the strength and weakness of Users' Groups on their performance of Community Forestry activities are as followings.

##### **A. Strength**

1. The Forest Users' Groups are becoming institutionalized and motivated to protect and improve environmental services (likewise water supply) and basic needs (fuel wood, fodder, shelter, etc.) and for income money opportunities.
2. Almost the Forest Users' Groups are protecting and managing effectively in Community Forestry.
3. The distribution of benefits and costs from Community Forestry is fair and equitable, particularly the distribution of revolving fund, provided from Taninthayi Nature Reserve Project, is equal.
4. The Forest Users' Groups are initiating wider community development initiatives, such as building community infrastructure like schools and bridges, using timber and cash generated from community forest.

##### **B. Weakness**

1. As Taninthayi Nature Reserve is Nature Reserve and so that the purpose is to conserve the reserve as naturally and therefore the regeneration improvement of forest conditions in CF area has not been motivated.
2. The Forest Users' Groups' achievements are not sustainable because the high dependency on the support of TNRP has been observed.



#### **8.6. Finding out new species of cash crop for agro-forestry practice**

Regarding to the discussion with Forest Users' Group in Zimbar, Yebone and Kyaukshut, they would like to cultivate Durian, Rhambutan, Mingosteen and Agar-wood as new species of cash crop in agro-forestry practice for future in order to enhance their livelihood. The Forest Users' Group at Yebone, Kyaukshut and Zimber requested to provide Round Yam (Wa-U) as potential cash crop to TNRP. TNRP should focus on the provision of Wa-U seedlings as per livelihood activities of the project. Agro-forestry practice should be allowed as per community forestry management plan, where the forests are degraded and bamboo is abundant in order to enhance the livelihood of Forest User's Group.

#### **8.7. Finding out new income generation approach**

The main income generation for the Forest Users' Group is farming and homestead gardening and for new income generation, the Forest Users' Group are willingly to breed pigs. The establishment of Community Forestry Users' Group owned nurseries for cash crop species will be essentially needed for their sustainable secure livelihood. Regarding to the field observation, Community Forestry in Kyaukshut and Yebone has ecotourism opportunity because of not only occurrence the giant tree like KaungHmu, TaungThayet and Kadwit with GBH up to 30 feet and one day round trip by walk but also observe the agro- forestry plantations on the way and for ThitKelkwet Community Forestry, the visitors can enjoy with the huge water-fall, which flow throughout entire year.

**Ecotourism** is the alternative income generation in Community Forestry area of Kyaukshut, Yebone and Thetkelkwet. In Kyaukshut and Yebone, not only the giant tree, KaungHmu, Kadwit and Taungthayet trees are grown well and amazing in diversified tree species along the border of core and Community Forestry area but also the prominent agro- forestry plantations have been established on the way to the forest and takes for one day trip from both villages. For Thetkelkwet Community Forestry, the unique prominent waterfall which flows well entire year near Thetkelkwet village and would be attracted visitors to come and enjoy at waterfall.

It is applicable to support vertical development of outputs from the existing orchards in Community Forestry area, by means of producing value added products.

A lot of bamboos and rattans are consisted in Community Forestry area and it is opportunity to produce handicrafts and furniture for commercial purpose and making bamboo charcoal is expecting for Dawei Deep Sea Port investment.

## **8.8. Capacity Building**

### **8.8.1. Conduct specific training for staff and Community Forestry Users' Groups**

The training on Community Forestry Development for project staff and Forest Users' Group was conducted on 27<sup>th</sup> and 28<sup>th</sup> June 2015 at Michaunglaung Environmental Education Centre. The participants are (30) staff from Forest Department, Yephyu Township and Taninthayi Nature Reserve Project and (24) from Community Forestry Users' Group and the training was successfully accomplished by the assistance of Reserve Management Team. The National Consultant conducted not only training and but also workshop concerning about Community Forestry Instruction, Community Forestry Development in Myanmar, Community Forestry Activities in ASEAN countries, Sustainable Environmental Conservation, Environmental Issues, Conservation on Water Sources and REDD+ (Reduce Emission from Deforestation and forest Degradation Conservation of biodiversity enhancement of forest stocks and sustainable management of forests) process.

In this training workshop, the participants discussed in (2) groups about the Challenges and Opportunities in Community Forestry activities in Tanintharyi Nature Reserve Project and emphasized on the conflict caused by the inequitable land sharing among the Forest Users' Group. The participants are interesting and active in learning and discussion during training workshop.



### **8.8.2. Tree planting ceremonies**

The period of the National Consultant for Community Forestry Survey is in rainy season, so that 2 times of tree planting ceremony has been held. On 8<sup>th</sup> June 2015, Kyezudaw village, Karen ethnics, Christian who are ceasefire with Government, conducted tree planting ceremony in front of primary school. On 18<sup>th</sup> June 2015, the tree planting ceremony has been held once again in MyaukChaw village, Mon ethnics who are from ceasefire MonPyiThit Party area. The holding of tree planting ceremony in TNRP, especially in Karen and Mon ceasefire area, is good practice to enhance awareness on forest conservation.

### 8.8.3. Forest Fire control in Community Forest area

From biodiversity point of view Taninthayi Nature Reserve lies within the “Bio-unit 5d” (Uga, 2002) and Tenasserim-South Thailand semi-evergreen moist forest region which is nationally important, regionally significant and globally outstanding. The area has been identified by WWF as one of the threatened terrestrial ecosystem of the world and particularly as this area is connected to the Western Forest Complex of Thailand, it will be of significance for one of the important trans-boundary Protected Area in Asia.

The use of fire to clear land for permanent or shifting agriculture and settlement by local communities is wide spread in South East Asia, including Myanmar. Shifting cultivation practice is assumed to be a kind of activity that destroys forest resources, without fully understanding its underlying concept. Therefore, special control measures may be needed to access, plan and implement such that the long term integrity of Taninthayi Nature Reserve and core and buffer zone is assured.

Control fire use appears to be initiative taken by indigenous people, with the intention of avoiding damage to neighboring fields or villages and to protect forests. Hence, “community cohesion”, “Secure land tenure” and “attachment to local resources” are important for controlled fire use. Community Based Fire Management (CBFiM) is appropriate and applicable for the effective management of fire in Taninthayi Nature Reserve.

During summer in 2015, the Forest Users’ Group implemented fire lines along the boundary of Community Forest, however, lack of sweeping and fireman was not assigned, so that, wild fire burned inside the Community Forests, mainly in HnanKye Community Forest area. Regarding to the MODIS information the wild fire burned from 15<sup>th</sup> to 18<sup>th</sup> April and as per field exploration, the (103) acres of forest vegetation was burned and Taninthayi Nature Reserve Project has to conduct a comprehensive rehabilitation plan. On 8<sup>th</sup> May, Forest Range Officer of Law Enforcement Team, and colleagues sown the seeds of Pyinkado (*Xylia xylocarpa*), In (*Dipterocarpus alatus*) and Pan Padauk (*Pterocarpus indica*) on bare land of fire burned, as the assisted natural regeneration and restoration activities.



Extinguishing wild fire with water



Explore in fir burnt forest

### **8.9. Provision of revolving fund from Taninthayi Nature Reserve Project**

Taninthayi Nature Reserve Project, Reserve Management Team provided revolving fund MMK (5) million to Yebone Community Forestry in 2014 and also allotted to Kyaukshut and Zimber(3) Community Forestry revolving fund MMK (5) million each in April 2015 for their livelihood enhancement based on the criteria on participation and activities. The Community Forestry Management Committee made decision to lend money to satisfied Forest Users' Group members as priority and the average amount is MMK (200,000) for each member with low rate of interest. In Yebone, the CF management committee lent MMK 200,000 each to UFUG and the interest rate is 2% per month and they save as their CF fund and increased MKK (7) million update, in Zimber (2), lent MKK 200,000 to (10) member and MKK 100,000 to (30) member and in Kyaukshut, the CF management committee lent MKK 200,000 to (24) member, MKK 100,000 to (1) member and the rest MKK 100,000 is saved in bank. The CFUG pleased to receive revolving fund.

TNRP should consider the impacts for provisions of revolving funds to CFUG within the same village (eg. Zimber(1) & (3)) and should conduct the capacity building programs in order to meet the criteria for provision of revolving fund.

### **9. Formation of Village Use Zone**

According to the Operational Management Plan, village use zone is designated as areas surrounding established villages, usually radius of 1-2 kilometer, where traditional land use, including agriculture, gathering of forest products are allowed except hunting of protected species. The Village use zone formation includes the following process.

1. Socio economic surveys
2. Data collection of supply and demand of forest products for the community.
3. Area to be designated as Village Use Zone.
4. Inventory of tree species in the Village Use Zone.
5. Development of village use maps using participatory methods.
6. Prescription of annual yield for sustainable supply of forest products for the villagers.

The following activities are allowed in the village use zone, according to the Management Plan in 2009.

1. Agriculture (subsistence)
2. Agro-forestry (Timber and fuel-wood)
3. Burning with proper control
4. Dwelling (Temporary)
5. Fishing(Subsistence)
6. Gathering Non Timber Forest Product (NTFP)
7. Land rehabilitation

8. Livestock grazing
9. Logging subsistence (woodlots)
10. Reforestation (Native species)

The following steps are still necessary for the development of village use zone.

1. Discussion at township level
2. Discussion with village management level
3. Ground survey with village user groups
4. Inspection of village use zone map with villagers
5. Meeting with villagers
6. The development of village use zone
7. Development of important resource base from village use zone
8. Development of village use zone map
9. Development of face value tickets for extraction of forest products from village use zone.

Regarding to the Management Framework of Taninthayi Nature Reserve, establishment of village use zone for every village is essential to make a balance of access to forest resources of Taninthayi Nature Reserve buffer zone.

Of course, the village use zones are designated in Zmber, Yebone and Kyaukshut villages by Wildlife Conservation Society ,WCS, in 2011, for example in Zimber, the village use zone is allocated at the head of Mainmapan Chaung, area (441.6) acres, however the villagers could not utilize because of (5) miles apart from Zimber village and the relevant map is attached. (Saw Win, 2014).

## **10. Re-electing Community Forestry Management Committee**

The Community Forestry Management Committees should be re-elected regarding to the principles of Management Plan. During the period of the National Consultant, the Management Committee in Kyaukshut, Yaphoo and Thetkelkwet are changed due to unfitness of health, so that the Forest Users' Group conducted re-election for the new Management Committee by votes, however, other Community Forestry are working forward with their strong confidence.

## **11. Discussions**

Amongst the (12) Community Forestry in Taninthayi Nature Reserve Project, Yebone, Kyaukshut, Michaung Hlaung , Zimber (1), (2), (3), Hankywe (1), (2), ThetKelKwet and OakTharYan are active in establishment of Community Forestry plantations and agro-forestry plantations and also aware in forest conservation because they believed that sustainability of water source is depending on the forest situation. The major livelihood of the people who are

living near Taninthayi Nature Reserve is cultivating orchards of cashew-nut, betel-nut, and lime, however, the investor from Dawei, Yephyu and Ye Township, encroached rubber plantations inside the Taninthayi Nature Reserve, mostly along the Ye-Dawei car road from the southernmost to HnanKye village, totally (493.46) acres. Not only erecting signboards of prohibition and but also extension services to the villages which are situated along the roadside of Ye-Dawei car road should be controlled the encroachment.

The National Consultant observed the giant forest trees of KaungHmu, Taungthayet and Kaduit along the boundary of Community Forestry area and Core area in Kyaukshut, Yebone and Zimmer. Totally (32) days of field observation has been carried out and so that this consultancy report is based mainly on the field observation.

The National Consultant discussed with the non-CF Users of Community Forestry in KyaukShut, Zimmer and Yebone and recognized that although they are interesting in Community Forestry activities, they have to take care on homestead garden or orchards tenure and haven't no more family member to implement activities in Community Forestry. The CFUG understood that TNRP allocated CF in buffer zone only and strictly prohibited in core area. They shared land by their own agreement and if they face land conflict, they informed to TNRP management team and finally they solved due to their understanding and agreement each other.

The workshop for Community Forestry Development was held on 7<sup>th</sup> March 2015, at Michaunglaung Environmental Education Centre, the staff and Forest Users' Group members participated actively and shared experiences and knowledge among them. In this workshop, Reserve Management Team delivered the fire-extinguishers to the selected (5) Community Forestry.

The posters for fire protection are erected at every certified Community Forestry villages and the National Consultant is interested to erect Community Forestry posters and the draft is submitted to Project Director and with attachment.

## **12. Suggestion**

1. The sharing and measuring of Agro-forestry area should be allocated under the supervision of staff of LOU and collaborated CF Users.
2. The Project staffs of TNRP should collect the information about the hunting and illegal logging in TNR area and then collaborate with Forest Department to obtain Sustainable Forest Management in TNR.
3. TNRP should arrange to provide tree seedlings to CFUG's in order to plant the trees at the first rain.
4. At every Local Operating Unit the establishment of nurseries for forest tree seedlings, such as Pyinkado and Mahogany should be carried out and also reserved seedlings for one year ahead.

### 13. Recommendation

This Community Forestry Survey is not complete and recommend for conducting further study for the issues of land tenure, food security, and gender and resource constraints with a more detail social science approach.

1. Community Forestry may still be attract to local community as a route to more secure land tenure ,especially as taungya cultivation typically lacks tenure security.
2. The INGO, Flora and Fauna International (FFI) conducted training and demonstration for tree inventory in the community forest, in March 2015 and the Community Forest User Groups should continue inventory throughout their community forests.
3. The Reserve Management Team should cooperate and collaborate with relevant stakeholders in order to secure income generation of Forest Users' Groups.
4. Training for project staff and Forest Users' Groups should be on going and the subject will be based on the progress of the Community Forestry establishment activities.
5. To secure the sustainable livelihood of Forest Users' Groups, the nurseries for cash crop species, such as cashew nut, betel-nut, durian and agar-wood has to be established in every Community Forestry.
6. The workshop for Forest Users' Groups should be held for quarterly to be able to share their information, experience and Knowledge and cooperate among the Community Forestry.
7. Land tenure in Community Forestry is the major interesting of the Forest Users' Group and forest conservation is their second priority in Taninthayi Nature Reserve, so that should be changed their mindset by means of conducting training, workshop and meetings.
8. The conflict on inequitable land sharing is the huge challenges among the Forest Users' Group and that should be solved urgently by collaborating Forest Department, Taninthayi Region and Reserve Management Team of TNRP.
9. The Forest Users' Groups are interested to grow Pyinkado, because of native forest species rather than Mahogany, exotic species and as well as cash crop seedlings like Shandanyin (*Parkia leiophylla*) for agro-forestry plantation under Community Forestry program, more varieties of cash crop seedlings should be raised through consultation with Forest Users' Groups well in advance such that the required species and number of seedlings can be readily available by the next planting season.
10. The rehabilitation process in the natural forest, nearby Heinze and Hnankye Community Forestry area about (100) acres by MODIS and ground survey which was caused by the wild fire burning in 2015 summer, should be rehabilitated with silvicultural practice such as enrichment planting.

11. Taungya cutting in uphill inside so call Village Use Zone such as Yebone Community Forestry should be prohibited and ought to take action.
12. The development of management plan should be informed and consulted to every villager, in order to avoid land conflict likewise Tharyarmon Community Forestry.
13. The main objective of Community Forestry establishment in Taninthayi Nature Reserve is to conserve water sources. The ecosystem is still in good status and it is quite different practice from the dry zone area where the forests are depleted and mostly bare land, and reforestation is essential, so that Reserve Management Team should take care in delivery on land tenure right for agro-forestry practice.
14. The existing orchards of cashew-nut and betel-nut are consisted in Community Forestry establishment at Zimber and Michaunglaung according to the willingness of cultivators, however they are neglect to replant forest trees due to the CF Management Plan under CFI.
15. Trial production of bamboo charcoal is expected to be a profitable commodity in the future when the Dawei Deep Sea Port is implemented and so that the technology for bamboo charcoal making should be provided.

#### **14. Conclusion**

Community Forestry is a major activity to reduce the threats of Taninthayi Nature Reserve. Livelihood improvement of Community Forestry Users' Group is a major solution to eliminate shifting cultivation in and around the Tanintheyi Nature Reserve. The Community Forestry is not only dealing with forestry but also with sociology which is still too strong for most of the foresters who generally are conservatives.

Community Forestry alone cannot mitigate the poverty which is the main reason for heavy dependence on the natural resources. Training for Forest Users' Group should be technically oriented to their livelihood such as horticulture, the impact of the use of pesticides and fertilizers and making compost.

The objective of the Taninthayi Nature Reserve Project is not only protection and sustainable management of significant ecosystems and endangered wildlife system, but also consideration of the improvement of the livelihood of local communities in the vicinity of Taninyhayi Nature Reserve to have rights to participate and develop actively for the promotion of material and spiritual benefits for them.

The activities of Community Forestry of Taninthayi Nature Reserve Project are in good progress at participation, extension, awareness of Community Forestry and nature conservation, however still weakness in monitoring, reporting and keeping documentary evidence, agro-forestry practice and establishment of community forest plantations.



Finally the Taninthayi Nature Reserve Project can be monitored the natural resources and enhanced livelihood of local community nearby project area by means of Community Forestry Establishment.

## Tanintharyi Nature Reserve Project

### Community Forestry Survey

#### Participatory Rapid Assessment (PRA) Tools for CF information, Kyaukshut CF

1. Date 14<sup>th</sup> March 2015
  2. Time 08:00
  3. Venue LOU office, **Kyaukshut village**
  4. Participants
    1. U Than Zaw Chairman, CF Management Committee
    2. U Thein San Member
    3. U Ohn Han CFUG
    4. U Kyaw Tin CFUG
    5. UChit Maung CFUG
    6. U Win Ngwe Deputy Ranger, Yebone
    7. U Maung Naing Forester
- 
- (1) Question: Where and how many acres in your Community Forestry?
- Answer: Our CF is situated in Luwine Reserve Forest, Compartment 1, 2, 5 and total CF area is (2161) acres.
- (2) Question: How many members, Community Forestry User Group in your CF?
- Answer: Totally (87) members.
- (3) Question: Do you know about the CF Management Plan?
- Answer: In Kyaukshut CF, Natural Forest Conservation (1100) acres, Water Source Conservation (671) Forest plantation (190) acres and Agro-forestry (200) acres, totally is (2161) acres.
- (4) Question: Did you share your agro-forestry area to all of your CFUG?
- Answer; Yes. We have already shared land for agro-forestry equally (10) acres for (20) CFUG.
- (5) Question: How do you share the forest land for agro-forestry practice?
- Answer: We shared the forest land for agro-forestry by traditional measurement.
- (6) Question: Did you utilize GPS?
- Answer: No. We don't have GPS.
- (7) Question: Do you demarcate boundary between the adjacent plantations?
- Answer: No. We don't have boundary demarcation.
- (8) Question: Do the LOU staffs participate in your land sharing process?
- Answer: No. We shared by ourselves.
- (9) Question: Do you have plan for establishment of community owned forest plantation and which species of seedlings has been planted?

- Answer: We have plan to establish community owned forest plantation (20) acres for (10) years, from 2012 to 2014 we have established (6) acres of Pyinkado.
- (10) Question: Did you receive revolving fund from TNRP?
- Answer: Yes. We received MMK 5 million as revolving fund in 2015 and we lent MMK 200,000 to all CFUG, with 2% interest rate and our revolving fund is increased MKK (7) million updated.
- (11) Question: Do you have fund and how do you collect?
- Answer; We have fund MMK 50,000 by collecting from bamboo production.
- (12) Question: What kind of tree species do you like for cash plants?
- Answer: We like especially cashew nut, betel nut and lime as cash plants.
- (13) Question: Do you have fuel wood plantations?
- Answer: NO, we haven't because we can collect fuel wood from our orchards.
- (14) Question: Do you have NTFP plantation?
- Answer: No, we haven't but we like Wa-U (round yum), TNRP can't provide Wa-U.

## Tanintharyi Nature Reserve Project

### Community Forestry Survey

#### Participatory Rapid Assessment (PRA) Tools for CF information, Zimber-3 CF

1. Date 11<sup>th</sup> March 2015
  2. Time 18:00
  3. Venue Village Administrative office, **Zimber village**
  4. Participants
    1. U Win Naing Chairman, CF Management Committee
    2. U Win Zaw Secretary, CF Management Committee
    3. U Than Lwin Member, CFUG
    4. U Win Ngwe Deputy Ranger, Yebone
    5. U Maung Naing Forester
- 
- (1) Question: Where and how many acres in your Community Forestry?  
 Answer: Our CF is situated in HeinZe Kalein Aung Reserve Forest, Compartment 31, 32 and total CF area is (1766) acres.
  - (2) Question: How many members, Community Forestry User Group in your CF?  
 Answer: Totally (43) members.
  - (3) Question: Do you know about the CF Management Plan?  
 Answer: In Zimber-3 CF, Natural Forest Conservation (700) acres, Water Source Conservation, bamboo forest (403) acres, Gap planting (30) acres, Forest plantation (65) acres and Agro-forestry (568) acres, totally is (1766) acres.
  - (4) Question: Did you share your agro-forestry area to all of your CFUG?  
 Answer; Yes. We have already shared land for agro-forestry equally (10- 15) acres for all CFUG.
  - (5) Question: How do you implement for your agro-forestry practice?  
 Answer: We plant forest trees along the fence.
  - (6) Question: How do you share the forest land for agro-forestry practice?  
 Answer: We shared the forest land for agro-forestry by traditional measurement.
  - (7) Question: Did you utilize GPS?  
 Answer: No. We don't have GPS.
  - (8) Question: Do you demarcate boundary between the adjacent plantations?  
 Answer: No. We don't have boundary demarcation.
  - (9) Question: Do the LOU staffs participate in your land sharing process?  
 Answer: No. We shared by ourselves.
  - (10) Question: Do you have plan for establishment of community owned forest plantation and which species of seedlings has been planted?

- Answer: We have plan to establish community owned forest plantation (65) acres for (15) years and in 2014 we have established (4) acres of Pyinkado and we prepare land (5) acres to cultivate (5) acres in 2015.
- (11) Question: Did you receive revolving fund from TNRP?
- Answer: Yes. We received MMK 5 million as revolving fund in 2015 and we lent MMK 200,000 to (10) member and MKK 10,000 to (30) member, the interest rate is 2% for the duration of 4 month.
- (12) Question: Do you have fund and how do you collect?
- Answer; We have fund MMK 50,000 by collecting tax from bamboo production.
- (13) Question: What kind of tree species do you like for cash plants?
- Answer: We like especially cashew nut, betel nut and lime as cash plants.
- (14) Question: Do you have fuel wood plantations?
- Answer: NO, we haven't because we can collect fuel wood from our orchards.
- (15) Question: Do you have NTFP plantation?
- Answer: No, we haven't but we like Wa-U (round yum), TNRP can't provide Wa-U sufficiently.

### Attachment 3-1-3

#### Taninthayi Nature Reserve Project

#### Community Forestry Survey

#### Participatory Rapid Assessment (PRA) Tools for Community Forestry information, Yebone Village

- |                 |                            |                                |
|-----------------|----------------------------|--------------------------------|
| 1. Date         | 8 <sup>th</sup> March 2015 |                                |
| 2. Time         | 16:20 PM                   |                                |
| 3. Venue        | LOU office, Yebone         |                                |
| 4. Participants | 1.Daw Naw Ah Phaw          | member CF management committee |
|                 | 2.U Aung Naing soe         | CFUG member                    |
|                 | 3.U Htay Win               | CFUG member                    |
|                 | 4.U Than Htun Oo           | CFUG member                    |
|                 | 5.Daw Khin Thandar Htun    | CFUG member                    |
|                 | 6.U Aung Min Soe           | Deputy Ranger, TNRP            |
|                 | 7.U Saw Showlamore         | Patroller                      |
- (1) Question    where and how many total acres in your CF?
- Answer        Yebone CF is situated in Luwine Reserve Forest, Compartment 7, 8, 9 and totally 936 acres.
- (2) Question    How many CFUG in your CF?
- Answer        Totally 56 CFUG member.
- (3) Question    How many acres of community owned forest plantations did you established?
- Answer        We have established (8) acres of CF owned forest plantation from the year 2012 to 2015, (2) acres per year.
- (4) Question    Did you received revolving fund from TNRP?
- Answer        We received MMK 5 million from TNRP as revolving fund in 2013.
- (5) Question    How did you manage revolving fund?

- Answer      CF management committee lent MMK 200,000 for (25)CFUG alternatively with 2% interest rate for 4 month terms and now revolving fund is increased up to MMK 7.7 million.
- (6) Question      How did you manage funds for CF sustainability?
- Answer      We collected MKK 5 per bamboo for fund from commercial traders.
- (7) Question      Do you have fuel wood plantations and NTFP plantations?
- Answer      We haven't fuel wood plantation because we can get fuel wood from our orchards easily and NTFP could be collected from forest.

**Tanintharyi Nature Reserve Project**

**Community Forestry Survey**

**Participatory Rapid Assessment (PRA) for non- participants in CF, Zimber village**

Date: 5<sup>th</sup> June 2015

Time: 13:00

Venue: U Than Hteik's house

**A. Consult with U Than Hteik, Zimber village**

1. Question: Why did you not participate with CF?

Answer: In previous, I was the CFUG in Zimber (1) CF and now we have multi commodity shop at our house and (5) members in our family, we also have (7) acres of betel nut, cashew nut orchard, so that we haven't extra time to participate in CF.

2. Question: How do you feel in Zimber CF.

Answer: The CFUG are working well.

**B. Consult with U Aung Win San, Zimber village**

1. Question: Why didn't you participate with Zimber CF?

Answer: I was a member of CFUG, Zimber-1 CF in previous and now I have (14) acres of rubber and (1) acre of lime orchards and I haven't extra time to do CF activities.

2. Question: How do you think on Zimber CF?

Answer: They are working for their CF activities.



**Taninthayi Nature Reserve Project**

**Community Forestry Survey**

**Participatory Rapid Assessment (PRA) for non –participant in CF, Kyaukshut**

Date: 21<sup>st</sup> May 2015

Time: 19:00

Venue: LOU office, Kyaukshut village

**A. Consultation with U Kyi Ohn, Kyaukshut**

1. Question: Why didn't you participate in Kyaukshut CF?

Answer: I am interested in CF, however I am not in good health and we have 2 in my family. I have (10) acres of cashew nut and lime orchards.

2. Question: How do you feel on Kyaukshut CF?

Answer: They are unity and working well in CF activities. I have constructive outlook.

**B. Consultation with U Lin Myo Hteik, Kyaukshut**

1. Question: Why aren't you CFUG in Kyaukshut CF?

Answer: I am living alone and I haven't relations. I am working in multiple such as taungya cutting, weeding and paddy cultivation in Kyaukshut and other villages.

2. Question: How do you think on Kyaukshut CF?

Answer: I am interested in CF, but I am single.

## Taninthayi Nature Reserve Project

### Community Forestry Survey

#### Participatory Rapid Assessment (PRA) tools for finding new CF in Wonbort village

Date;	5 <sup>th</sup> April 2015	
Time:	20:00 PM	
Venue:	Village Administrative office, Wonbort village	
Participants:	U Nyan Thar	Village Administrator
	U San Myint	Wonbort village
	U San Nyunt	Wonbort village
	U Han Nyunt	Wonbort village
	U Win Shein	Wonbort village
	U Sein Win	Deputy Ranger
1. Question:	Do you interest in CF?	
Answer:	Yes. We all are interested in CF.	
2. Question:	Why do you want to establish CF?	
Answer:	We faced water scarcity in hot season and now we get water from the water source in Luwine Reserved Forest which is 3 mile from our village.	
3. Question:	Did you search the area for CF establishment?	
Answer:	Now we proposed CF in Luwine Reserved Forest, Compartment 65, which is 5 mile from our village but it's besides the Ye-Dawei motor car road.	
4. Question:	Why do you propose that area?	
Answer:	Because (2) streams which flow entire year are situated in that proposed area.	
5 Question:	How many CFUG will participate in CF?	
Answer:	In Wonbort village, there are 56 households and about 40 CFUG may be participated.	



**Taninthayi Nature Reserve Project**

**Community Forestry Survey**

**Participatory Rapid Assessment (PRA) tool for finding new CF in Mayan Chaung village**

Date: 16<sup>th</sup> May 2015

Time; 13:00 PM

Venue: Village Administrative office

Participants: 1. U San Win Village Administrator, Mayan Chaung village  
2. U Aung Soe Mayan Chaung village  
3. U Kyaw Min Mayan Chaung village  
4. U Thei Ko Deputy Ranger  
5. U Myo Win Forester

1. Question: Do you and the villagers interest in Mayan Chaung village and why?

Answer: We all are interested in CF, because we want to conserve streams which supplying water for our village.

2. Question: How about water supply for your village?

Answer; Now, we have 2 water supply pipes donated by Yadanar INGO.

3. Question: Where is the proposed CF area?

Answer: We proposed CF in HeinZeKalineAung Reserved Forest, where 1 waterfall is situated and 4 miles far from our village, but it's not inside TNRP area.

4. Question: What activities are carried out for CF?

Answer: We have already engaged with Forest Department, Yephyu Township and we cleaned the route along the boundary line of CF area for survey.

5. Question: How about flora and fauna in proposed CF?

Answer: In our proposed CF, Kanyin, Kadwit, Thitsho and Mayan tree species are in vigorous growth and barking deer, wild pig and monkeys could be found, because it's primary forest.