



The Union of the Republic of Myanmar
Ministry of Environmental Conservation and Forestry
Forest Department

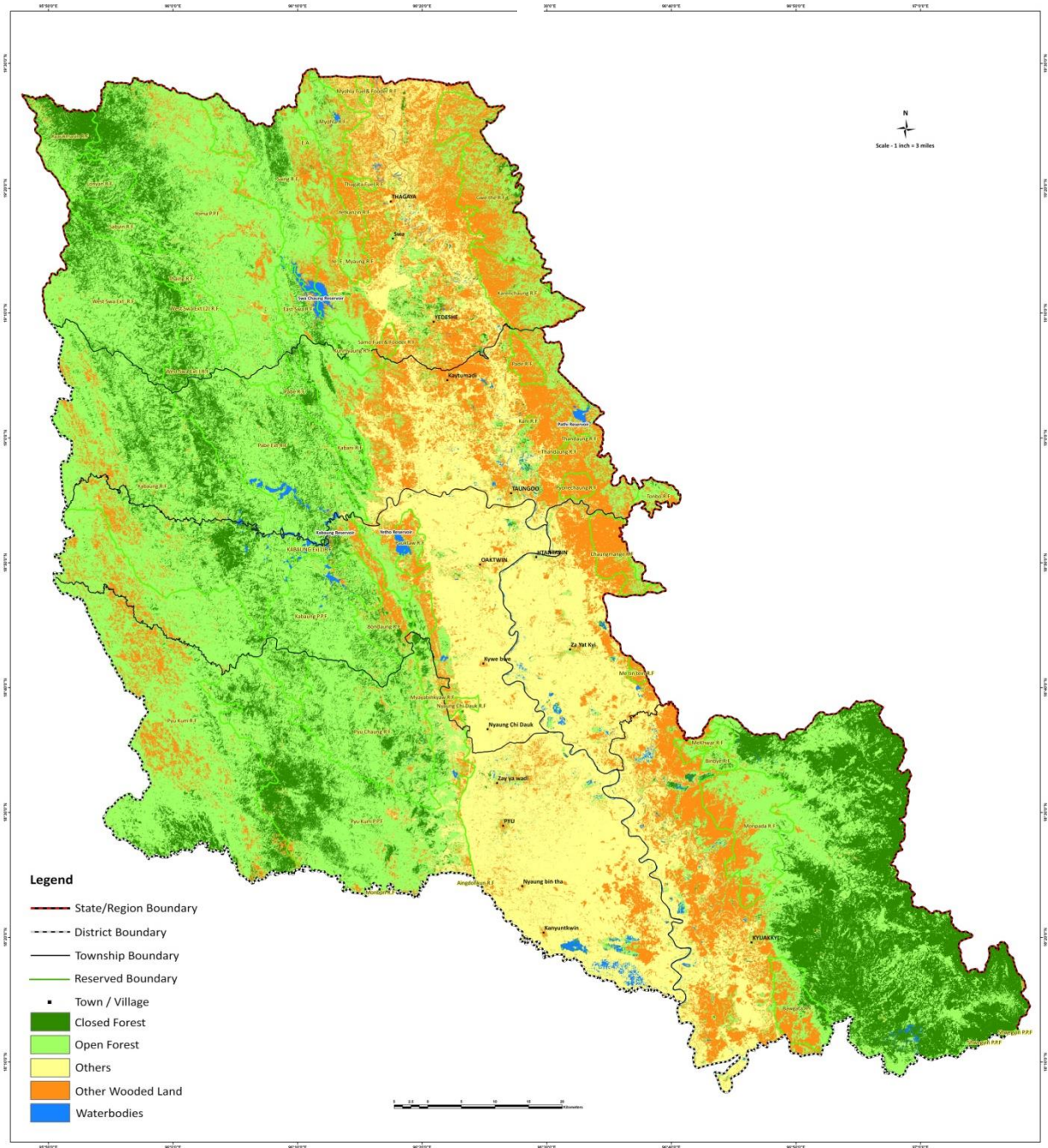
Mitigation of Climate Change Impacts through Restoration of Degraded Forests
and **REDD-Plus** Activities in Bago Yoma Region, Myanmar
(2013-2014)

**Report on Socio-Economic status of
Taunggo District, Bago Division in Myanmar**



December, 2012

Report on socio-economic status of
Taungoo District. Bago Division in Myanmar



Forest cover map of Taungoo District (FRA 2010)

This report mainly aims to reflect socio-economic status of rural communities at Taungoo District and their attitudes on forest and minor forest resources, and also to assess dependency on forest resources for their livelihoods to contribute baseline data to project on Mitigation of Climate Change Impacts through Restoration of Degraded Forests and REDD-plus Activities in Bago Yoma Region, Myanmar jointly implemented by Myanmar Forest Department and Korea Forest Services.

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1 Introduction

Each and every nation over the world has been striving to improve country's socio-economic status for development and well-being of its nationals throughout the human history. Thus, it has been widely accepted that socio-economic status is one of the most important indicators for measuring the development of a country. Therefore, socio-economic survey has been essential in order to assess the development of a country.

Myanmar is rich in natural resources. Among them, forest resources are essential from the point of views of socio-economic development particularly for rural community. Forests of Myanmar are highly diverse ecosystems, supplying many resources and generating vital in-come and employment. According to Forest Resource Assessment (FRA) 2010 report, annual deforestation rate in Myanmar in 2010 is 0.91% and currently 47% of country total area is covered by forests.

In Myanmar, about 70% of country total population live in rural area and highly depend on natural resources including forests for their livelihoods. Moreover, rural population is ever increasing. Owing to the fact that, it has been estimated that deforestation in Myanmar will be gradually increased. Therefore, Government of Myanmar (GoM) has endeavored to achieve Sustainable Forest Management (SFM). Meanwhile, GoM has paid its utmost attention to reduce poverty and development of rural area.

At global and regional levels, there are evidences of unprecedented environmental changes such as the earth's surface is warming, glaciers and polar ice caps are melting and sea level is rising, frequency and magnitude of droughts and cyclone are increasing. Consequently, crops and livestock production are seriously affected and foods security and socio-economic status are unstable. People from developing countries are more likely to be vulnerable to impacts of environmental changes.

1.1 Climate Change

These environmental changes are basically stemmed from climate change issues mainly caused by Green House Gas (GHG) emission. The Inter-governmental Panel for Climate Change (IPCC) estimate of emissions from tropical deforestation in the 1990s was 1.6 billion tons of carbon per year equating to 20% of global GHG emissions. Thus, United Nations Framework Convention on Climate Change's (UNFCCC) COP-15 acknowledged that without solving this problem, the efforts to mitigate the climate change cannot be succeeded. There-fore UNFCCC has introduced Reducing Emission from Deforestation and Forest Degradation (REDD+) mechanism to reduce carbon emission from forestry sector.

1.2 REDD+

Theoretically, REDD+ mechanism consists of five major activities such as reducing emission from deforestation and forest degradation, forest conservation, sustainable forest management and carbon enhancement to earn carbon credits. In order to achieve activities above mentioned, REDD+ strategies and road maps, MRV system, stakeholder consultation, benefit sharing system including socio-economic development and safeguards are needed to formulate and implement. Thus, REDD+ mechanism is originally come out for climate change mitigation but it also contributes SFM and socio-economic development of forest dependent local communities. Similarly, biodiversity conservationists are eager for the long-term funding streams that forest carbon projects may offer.

However, there are many criticisms on REDD+ project that are land-based carbon project good for local people, biodiversity, and ecosystem services? Because of its potential to re-duce greenhouse gas emissions while simultaneously benefiting local communities and bio-diversity, it has been greatly expected that REDD+ is an appropriate solution to reduce de-forestation, to conserve biodiversity, to improve socio-economic of pro-poor forest dependent communities, to mitigate climate change and so on. But there might be potential negative impacts on socio-economic of land less people and restrictions on local community to access forest resources for their subsistence needs. In short, REDD+ can bring inequity unless proper considerations.

1.3 Socio-economic

Therefore, design and implementation of REDD+ projects are crucial importance to assess and monitor the negative impacts on local biodiversity and the socio-economic and livelihoods of people living in and around a project sites. The International Association for Impact Assessment (IAIA 2003) defines social impacts, for the purpose of social impact assessment, as changes to one or more of the following:

- People's way of life – how they live, work, play, and interact on a day-to-day basis;
- Their culture – their shared beliefs, customs, values, and language or dialect;
- Their community – its cohesion, stability, character, services, and facilities;
- Their political systems – the extent to which people participate in decisions that affect their lives, the level of democratization that is taking place, and the resources provided for this;
- Their environment – the quality of the air and water people use; the availability and quality of the food they eat; the level of hazard or risk, dust, and noise they are exposed to; the adequacy of sanitation, their physical safety, and their access to and control over resources;
- Their health and wellbeing – health is a state of complete physical, mental, social, and spiritual well-being, and not merely the absence of disease or infirmity;
- Their personal and property rights – particularly whether people are economically affected, or experience personal disadvantages which may include a violation of their civil liberties;
- Their fears and aspirations – their perceptions about their safety, their fears about the future of their community, and their aspirations for their future and the future of their children.

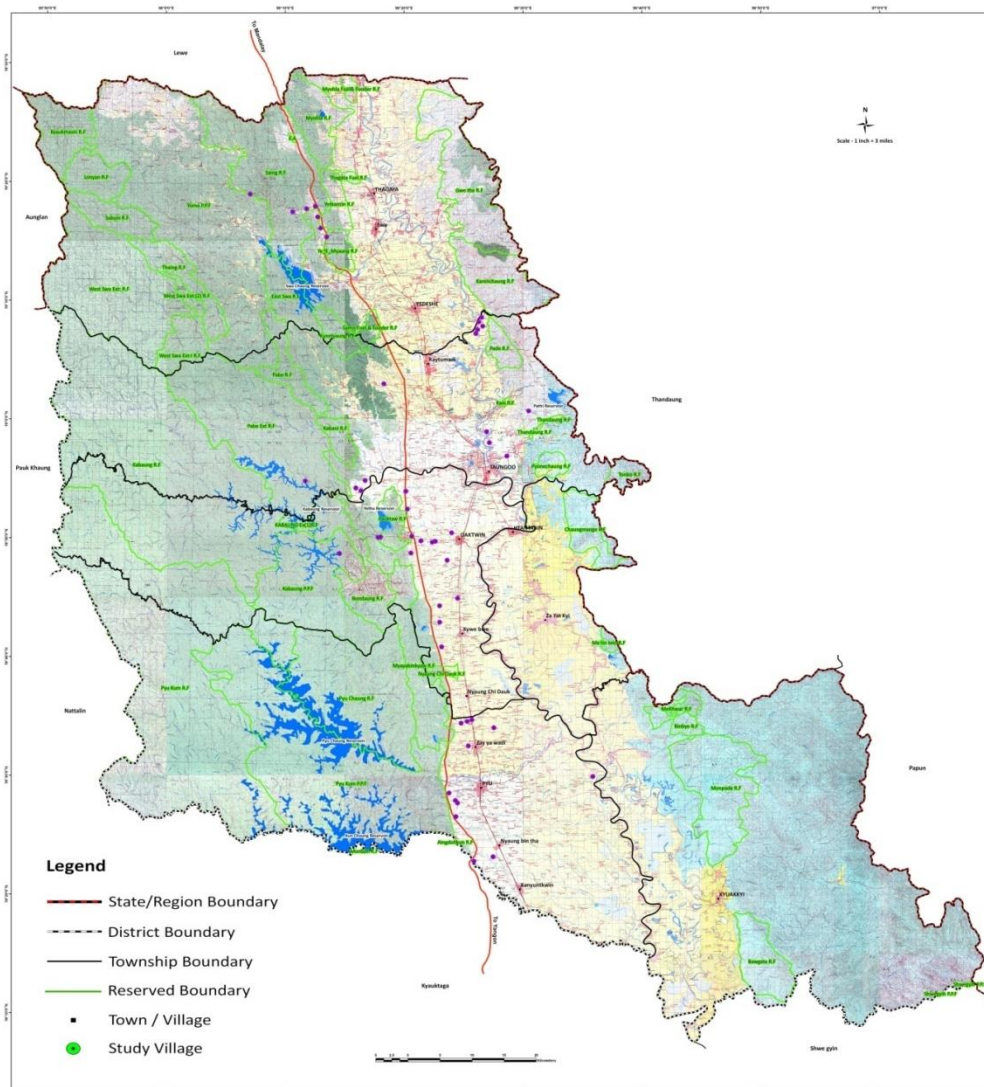
The IAIA also defines social impact assessment as “the processes of analyzing, monitoring, and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, and projects), and any social change processes invoked by those interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment”.

However, it has been fully accepted that conducting socio-economic survey is very much resources and time consuming works. Thus, it needs to prepare a survey form in order to be a credible work and to avoid collecting unnecessary data. Keeping in mind above mentioned concepts, the Forest Department (FD) has recognized that REDD+ is the most appropriate and timely mechanism for Myanmar to achieve SFM and socio-economic development of rural communities and initiated a first

ever REDD+ pilot project at Taungoo District in the Bago Yoma Region in Myanmar. FD also recognizes the role of socio-economic survey prior to the project; a socio-economic survey has been conducted at the proposed project area in order to know the without project scenario and find the way to reduce the negative socio-economic impacts on local community.

2 Study Area Information and Methodology

Study area (Taungoo District) is located at the eastern part of Bago-Yoma and a part of Bago Division. It is comprised of eight townships. Four townships out of the eight, namely Ye-De-Shae, Pyu, Taungoo and Oak-Twin townships are located at the foothills of the eastern part of Bago-Yoma. Therefore, it has been assumed that communities form these townships are more likely to be restricted to access forest resources if REDD+ activities were implemented. Therefore, survey team conducted socio-economic surveys mainly focused on these four townships.



Map showing the Location of study villages for socio-economic survey

2.1 Survey Period

It has started from 17th to 22nd July, 2012, altogether (6) days.

2.2 Survey Team

The survey team was comprised of 5 members and led by Dr. Rosy Nay Win (Staff Officer). List of team members are as follow;

| No. | Name | Designation | Department |
|-----|-----------------------|-----------------------------|----------------------------------|
| 1. | Dr. Rosy Naywin | Staff Officer (Team leader) | Forest Research Institute, Yezin |
| 2. | U Win Oo Naing | Assistant Research Officer | Forest Research Institute, Yezin |
| 3. | U Bili Naywin | Research Assistant - 2 | Forest Research Institute, Yezin |
| 4. | Daw Myint Myint San | Research Assistant - 2 | Forest Research Institute, Yezin |
| 5. | Daw Kay Zin Than | Range Offcier | Forest Research Institute, Yezin |
| 6. | Daw Nway Mon Mon Aung | Range Officer | Forest Research Institute, Yezin |

2.3 Survey Objectives

In order to know and document the socio-economic status of forest dependent communities nearby the project area to develop without project scenario and later it will be utilized to assess the both positive and negative impacts on forest dependent communities during and after the project

2.3.1 Specific Objectives

- To record the socio-economic status of rural communities in selected four townships
- To investigate the attitudes of local communities on forest and forest resources conservation
- To assess dependency on forest resources for their livelihoods

2.4 Methodology

2.4.1 Survey Form

Before survey, a survey form shown in Annex 1 has been developed by survey team basing to meet the mentioned objects. Basically, survey form is comprised of 4 parts; namely family information, livelihood, forest resources based livelihood, personal opinion on forest status. In addition, education and health care information of surveyed villages were recorded.

2.4.2 Defining Survey villages and households

Due to time and resource constraints, survey team could not use systematic sampling to define survey villages and households. However, 10 villages have been selected for each township (Survey area has 4 townships, thus altogether 40 households were interviewed during the survey) based on accessibility, nearness to forests and dependency on forests for livelihoods.

In each village, household level interview surveys had been conducted. In this context, 10 percent of total household were interviewed in each village. Altogether 444 households were interviewed from 40 villages. List of survey villages form four townships are shown in Table 1.

2.5 Findings

2.5.1 Village Level

First of all, village information such as Township name, village name and numbers of households, population, education, health care and religion were investigated and results were shown in Table 1.

Table 1. Showing basis information of surveyed villages

| Township name | | Ye-Da-Shae (□□□□□□□□) | | | | | |
|---------------|---------------|--------------------------|----------------------|------------|------------------|---------------|--------------------|
| No . | Village Name | Myanmar Name | Number of Households | Population | School (Primary) | Clinic | Religion |
| 1 | Ze-phyu-pin | □□□□□□□□ □□ | - | - | - | - | - |
| 2 | 6 mile | (□) □□□□□ | 70 | 235 | yes | no | Buddhist |
| 3 | 20 Households | □□□□ (□□) □□□ | 26 | 103 | yes | no | Buddhist |
| 4 | Gone Min Kwin | □□□□□□□□ □□□□□ | 108 | 470 | yes (Gov.) | under constr. | Buddhist |
| 5 | 7 mile | (□) □□□□□□□□ □□□□□ | 56 | 197 | yes | no | Buddhist |
| 6 | 8 mile | (□)□□□□□ | - | - | yes | no | Buddhist |
| 7 | Kabae | □□□□ | 46 | 185 | yes | no | Buddhist |
| 8 | Nine mile | (□) □□□□□ | 130 | 1300 | yes | no | Buddhist |
| 9 | Zayepauk | □□□□□□□□ □ | 75 | 460 | yes | yes (Private) | |
| 10 | Gyo Gone | □□□□□□□□ □□□ | 68 | 375 | yes | no | Buddhist |
| Township name | | Pyu (□□□□) | | | | | |
| No . | Village Name | Myanmar Name | Number of Households | Population | School (Primary) | Clinic | Religion |
| 1 | Khin-tan-lay | □□□□□□□□ □□□ | 80 | 426 | yes | no | Buddhist |
| 2 | Kyaung-su | □□□□□□□□ □□ | 160 | 1000 | yes(Gov.) | no | Buddhist/ Hindu |
| 3 | Kin-tan-gyi | □□□□□□□□ □□□□ | 225 | 1140 | yes(Gov.) | no | Buddhist |
| 4 | Shan-pat-ta | □□□□□□□□ □□□ | 110 | 593 | yes | no | Buddhist |
| 5 | Painnaekone | □□□□□□□□ | 153 | 750 (Est.) | yes | no | Buddhist |

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| | | | | | | | |
|----|---------------|--------------------|-----|------|-----|----|------------------------|
| | | □□□□ | | | | | |
| 6 | Ye-o-sin | □□□□□□□□ □□ | 186 | 756 | yes | no | Buddhist |
| 7 | Kywe-ma-ku | □□□□□□□□ □ | 135 | 534 | yes | no | Buddhist |
| 8 | Tho-gyi-Kayin | □□□□□□□□ □□□□□□ | 103 | 634 | yes | no | Buddhist/ Christian |
| 9 | Pyauung-the | □□□□□□□□ □ | 220 | 1068 | yes | no | Buddhist |
| 10 | San-chaung | □□□□□□□□ □□□ | 162 | 845 | yes | no | Buddhist/ Hindu |

| Township name | | Taungoo (□□□□□□□□) | | | | | |
|---------------|---------------|--------------------|----------------------|------------|------------------|---------|----------|
| No | Village Name | Myanmar Name | Number of Households | Population | School (Primary) | Clinic | Religion |
| 1 | In-waing | □□□□□□□□ □□ | 103 | 303 | yes | no | Buddhist |
| 2 | Nyar-ta-lu | □□□□□□□□ | 45 | 270 | yes | (Nurse) | Buddhist |
| 3 | Taung-thar | □□□□□□□□ | 67 | 180 | no | no | Buddhist |
| 4 | Ku-yin-chaung | □□□□□□□□ □□□□□□ | 71 | 310 | yes | no | Buddhist |
| 5 | Htone-bo | □□□□□□□□ | 210 | 941 | no | no | Buddhist |
| 6 | kayinywargyi | □□□□□□□□ □□□□ | 300 | 1200 | yes(Gov.) | yes | Buddhist |
| 7 | Kye-in | □□□□□□□□ □ | 335 | 1528 | yes(Gov.) | no | Buddhist |
| 8 | Mee-taing-taw | □□□□□□□□ □□□□ | 35 | 141 | no | no | Buddhist |
| 9 | Padauk-kone | □□□□□□□□ □□□□□□ | 75 | 347 | no | no | Buddhist |
| 10 | Pe-gyi-kone | □□□□□□□□ □□ | 90 | - | no | no | Buddhist |

| Township name | | Oak-Twin (□□□□□□□□□□) | | | | | |
|---------------|--------------|-----------------------|----------------------|------------|------------------|--------|-----------------------|
| No | Village Name | Myanmar Name | Number of Households | Population | School (Primary) | Clinic | Religion |
| 1 | Tein-myote | □□□□□□□□ □□ | 74 | 465 | yes | no | Christian |
| 2 | Thayet-kon | □□□□□□□□ □□ | 156 | 671 | yes | yes | Buddhist |
| 3 | Let-pan-kone | □□□□□□□□ □ | 160 | - | yes(Gov.) | no | Buddhist Christian |
| 4 | Baw-di-kone | □□□□□□□□ □□□ | 70 | 240 | yes | yes | Buddhist Christian |
| 5 | Kun-thi-chan | □□□□□□□□ □□□□ | - | - | - | - | - |
| 6 | Bu-ta-let | □□□□□□□□ | 61 | - | yes | yes | Christian |
| 7 | Tauktat | □□□□□□□□ □ | 29 | 150 | yes | no | Buddhist |
| 8 | Ye Thoe | □□□□□□□□ | 138 | - | yes | no | Buddhist |
| 9 | Yaeshan | □□□□□□□□ | 170 | 477 | yes | no | Buddhist |
| 10 | Thar Yar | □□□□□□□□ | 193 | 965 | yes(Gov.) | no | Buddhist |

| | | | | | | | |
|--|-----------------|-----------------------|--|--|--|--|-----------|
| | Gone (Chin Ywa) | □□ (□□□□□□□□ □) | | | | | Christian |
|--|-----------------|-----------------------|--|--|--|--|-----------|

It has been found out that the total numbers of households vary from village to village and the maximum total number of households is more than 330 (Kye-in 335) and the minimum total number of households is less than 30 (20 Household 26). Basing on the total number of households, population in villages is also varying. Regarding the education, 36 villages have primary school supported by either government or community. However, concerning the health care, only 4 villages has clinic. For religion, most villages are Buddhist but some villages are mixed Buddhist and Christian. Hindu is only in one village.

2.5.2 Household Level

Throughout the survey, survey team had used the predefined survey form to record the socio-economic status of interviewed households. In this context, number of interviewed households vary from village to village base on total number of households in each village (Only 10% of households are interviewed). Numbers of interviewed households from each village are shown in Table 2.

Table 2. Showing basic information of interviewed households

| Township name Ye-Da-Shae (□□□□□□□□) | | | | | | |
|--------------------------------------------|---------------|----------------------|--------------------------|--------|-----------------------|--------|
| No . | Village Name | Number of Households | Number of interviewed HH | Native | Average population/HH | Remark |
| 1 | Ze-phyu-pin | - | 6 | 5 | 4.7 | |
| 2 | 6 mile | 70 | 7 | 2 | 4.4 | |
| 3 | 20 Households | 26 | 3 | 0 | 4 | |
| 4 | Gone Min Kwin | 108 | 11 | 8 | 4.4 | |
| 5 | 7 mile | 56 | 5 | 0 | 3.6 | |
| 6 | 8 mile | - | 7 | 0 | 4 | |
| 7 | Kabae | 46 | 5 | 2 | 3.6 | |
| 8 | Nine mile | 130 | 7 | 0 | 3 | |
| 9 | Zayepauk | 75 | 8 | 1 | 4.9 | |
| 10 | Gyo Gone | 68 | 8 | 4 | 4.6 | |
| Township name Pyu (□□□□) | | | | | | |
| No . | Village Name | Number of Households | Number of interviewed HH | Native | Average population/HH | Remark |
| 1 | Khin-tan-lay | 80 | 9 | 8 | 5 | |
| 2 | Kyaung-su | 160 | 16 | 15 | 5.4 | |
| 3 | Kin-tan-gyi | 225 | 15 | 15 | 4 | |
| 4 | Shan-pat-ta | 110 | 11 | 9 | 4.9 | |
| 5 | Painnaekone | 153 | 9 | 9 | 3.9 | |
| 6 | Ye-o-sin | 186 | 10 | 10 | 3.2 | |
| 7 | Kywe-ma-ku | 135 | 15 | 9 | 3.9 | |
| 8 | Tho-gyi-Kayin | 103 | 13 | 12 | 5.6 | |
| 9 | Pyauung-the | 220 | 21 | 21 | 5.8 | |

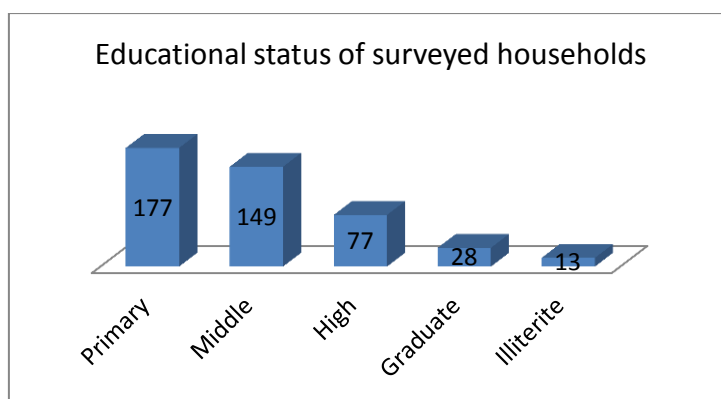
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| 10 | San-chaung | 162 | 9 | 5 | 6.4 | |
|------------------------------------------|--------------------------|----------------------|--------------------------|--------|------------------------|--------|
| Township name Taungoo (□□□□□□□) | | | | | | |
| No | Village Name | Number of Households | Number of interviewed HH | Native | Average population/H H | Remark |
| 1 | In-waing | 103 | 11 | 7 | 5.5 | |
| 2 | Nyar-ta-lu | 45 | 6 | 6 | 4.2 | |
| 3 | Taung-thar | 67 | 10 | 10 | 5.7 | |
| 4 | Ku-yin-chaung | 71 | 8 | 5 | 5 | |
| 5 | Htone-bo | 210 | 18 | 17 | 5.5 | |
| 6 | kayinywargyi | 300 | 31 | 19 | 4.9 | |
| 7 | Kye-in | 335 | 25 | 22 | 5 | |
| 8 | Mee-taing-taw | 35 | 10 | 8 | 3.6 | |
| 9 | Padauk-kone | 75 | 7 | 0 | 4.9 | |
| 10 | Pe-gyi-kone | 90 | 9 | 9 | 4.7 | |
| Township name Oak-Twin (□□□□□□□□) | | | | | | |
| No | Village Name | Number of Households | Number of interviewed HH | Native | Average population/H H | Remark |
| 1 | Tein-myote | 74 | 7 | 7 | 7.1 | |
| 2 | Thayet-kon | 156 | 15 | 15 | 5 | |
| 3 | Let-pan-kone | 160 | 15 | 3 | 4.5 | |
| 4 | Baw-di-kone | 70 | 7 | 6 | 3 | |
| 5 | Kun-thi-chan | - | 10 | 8 | 6.3 | |
| 6 | Bu-ta-let | 61 | 5 | 0 | 6 | |
| 7 | Tauktat | 29 | 9 | 0 | 5.3 | |
| 8 | Ye Thoe | 138 | 11 | 10 | 5.2 | |
| 9 | Yaeshan | 170 | 22 | 21 | 3.6 | |
| 10 | Thar Yar Gone (Chin Ywa) | 193 | 13 | 12 | 5.1 | |

The maximum number of interviewed households per village is ranging from 31 (Kayinywargyi) to 3 (20 Household). Regarding migration, it has been noticed that all of the households from seven villages (four from Ye-Da-Shae, one from Taungoo and two from Oak-Twin) were migrated from another place in their generation. Reasons for migration into those villages are not so clear but probably due to livelihoods and marriage. Maximum average population per household varies from village to village and the maximum is 7.1 (Tein-myote) and minimum is 3 (Nile Mile and Baw-di-kone).

2.5.3 Educational Status

Educational status of surveyed households was recoded basing on 5 classes. The finding is shown in Chat 1.



Chat 1. Showing the educational status of 444 surveyed households

| Township Name | Total number of HH | Primary | Middle | High | Graduate | Illiterate |
|---------------|--------------------|---------|--------|------|----------|------------|
| Phyu | 128 | 56 | 30 | 31 | 9 | 2 |
| Taunggo | 135 | 58 | 54 | 11 | 6 | 6 |
| Oak-Twin | 114 | 43 | 27 | 30 | 11 | 3 |
| Ye-Da-Shae | 67 | 20 | 38 | 5 | 2 | 2 |
| Total | 444 | 177 | 149 | 77 | 28 | 13 |

2.5.4 Living Standards

Most of the houses are made of local product such as timber floor, bamboo wall and thatch roofing. Living Standard, in this case, has been identified basing on their type of houses. Findings are shown in Chat 2.

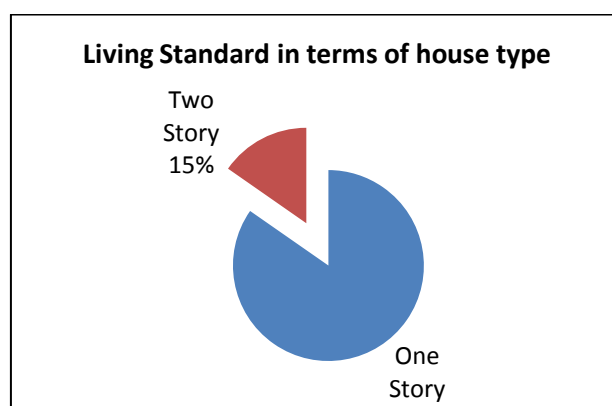


Chart 2. Showing the living standard in terms of house types of interviewed households

| Township | One Story | Two Story | Total |
|------------|-----------|-----------|-------|
| Phyu | 102 | 26 | 128 |
| Taunggo | 122 | 13 | 135 |
| Oak-Twin | 88 | 26 | 114 |
| Ye-Da-Shae | 64 | 3 | 67 |

| | | | |
|-------|-----|----|-----|
| Total | 376 | 68 | 444 |
|-------|-----|----|-----|

2.5.5 Family Properties

Survey team also recorded the properties of households for both entertainment and their livelihoods. Findings are shown in Chart 3.



Plate 1. Recorded Photos of survey team during the interviewed surveyed

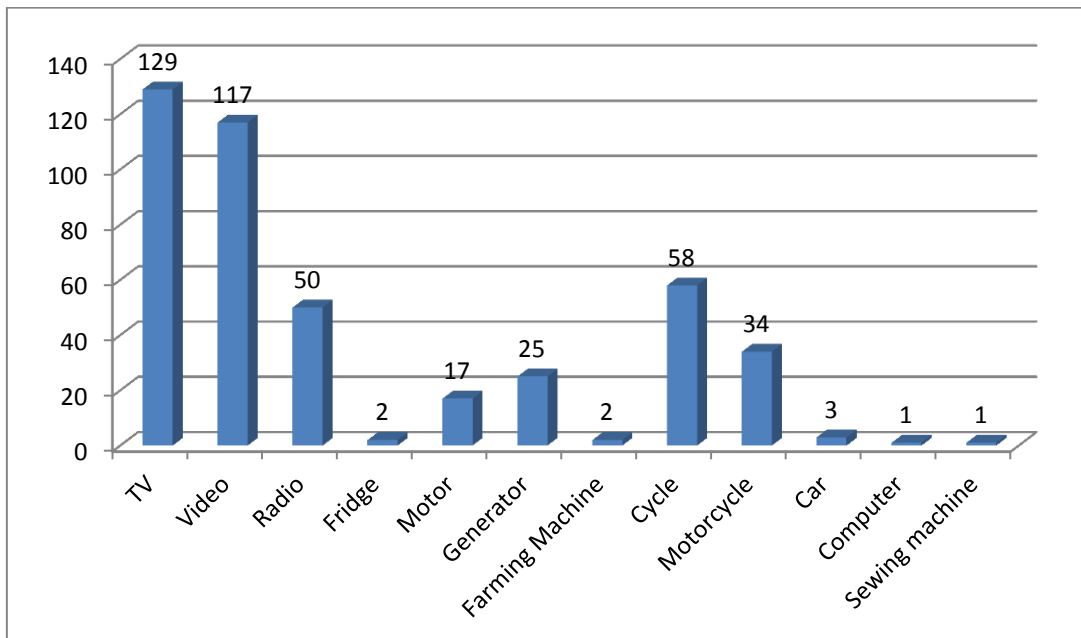


Chart 3. Showing the properties of interviewed households for entertainments and livelihoods

2.5.6 Occupations

During the survey, survey team has investigated the livelihoods of households and it has been noticed that the livelihoods of local community are very diverse and findings are shown in Chart 4.

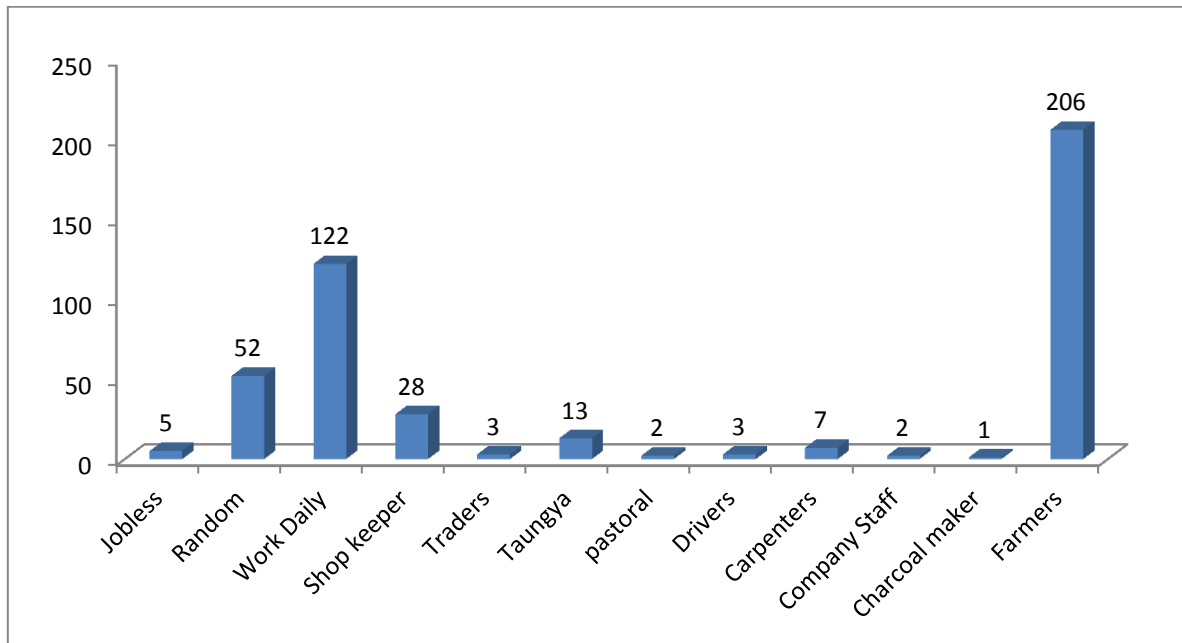


Chart 4. Showing the diverse livelihoods of interviewed households

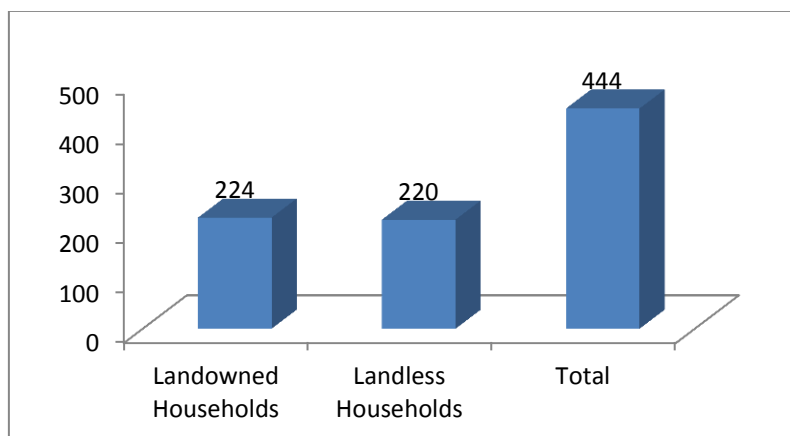
| | Jobless | Random | Work Daily | Shop keeper | Traders | Taungya | pastoral | Drivers | Carpenters | Company Staff | Charcoal maker | Farmers |
|------------|---------|--------|------------|-------------|---------|---------|----------|---------|------------|---------------|----------------|---------|
| Phyu | 1 | 21 | 39 | 9 | 2 | 5 | | | 2 | 1 | | 48 |
| Taunggo | 1 | 19 | 31 | 5 | | 5 | | | 1 | | | 73 |
| Oak-Twin | 1 | 12 | 21 | 9 | | 3 | 1 | 2 | 3 | | | 62 |
| Ye-Da-Shae | 2 | | 31 | 5 | 1 | | 1 | 1 | 1 | 1 | 1 | 23 |
| Total | 5 | 52 | 122 | 28 | 3 | 13 | 2 | 3 | 7 | 2 | 1 | 206 |



Plate 2. Recorded Photos of survey team during the interviewed surveyed

2.5.7 Landownership

Landownership is one of the important criteria to judge the dependency on forest resources for their livelihoods. Thus, survey team has endeavored to record the number of landowners and area of their lands. Findings are shown in Chat 5.

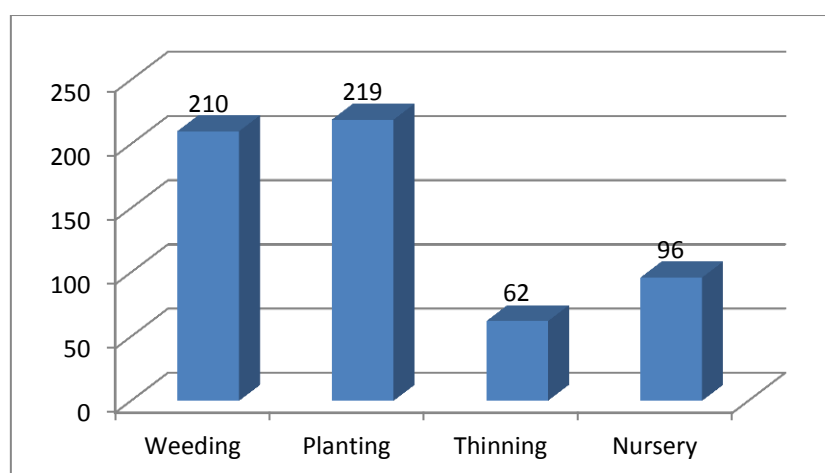


Chat 5. Showing the status of landownership among the interviewed households

| Township | Land owned Households | Landless Households | Total |
|------------|-----------------------|---------------------|-------|
| Phyu | 57 | 71 | 128 |
| Taunggo | 79 | 56 | 135 |
| Oak-Twin | 63 | 51 | 114 |
| Ye-Da-Shae | 25 | 42 | 67 |
| Total | 224 | 220 | 444 |

2.5.8 Participation in forest operations related occupation

Survey team also investigate the participation of survey households in forest operation related occupation. The findings are shown in Chat 6. Regarding the forest operation activities, it has been identified as 4 types namely; weeding, planting, thinning and nursery works. Regardless of the current occupation, this investigation recorded their past experiences in forest operations.



Chat 6. Showing the number of households involved in forest operations out of 444 households

| Township | Total number of HH | Weeding | Planting | Thinning | Nursery |
|------------|--------------------|---------|----------|----------|---------|
| Phyu | 128 | 62 | 69 | 23 | 36 |
| Taunggo | 135 | 50 | 47 | 5 | 16 |
| Oak-Twin | 114 | 48 | 48 | 19 | 20 |
| Ye-Da-Shae | 67 | 50 | 55 | 15 | 24 |
| Total | 444 | 210 | 219 | 62 | 96 |

2.5.9 Forest products utilizing

Survey households are more or less dependent on forest products for constructing their house and for cooking. Different types of forest products are identified and the total numbers of households which used these different forest products were recorded. Findings are shown in Chat 7.

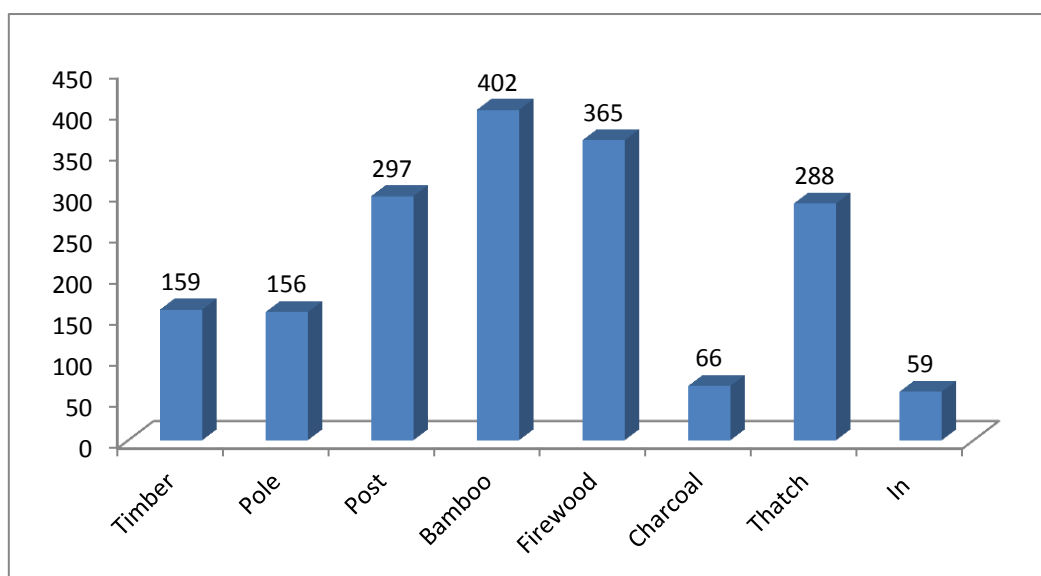


Chart 7. Showing the number of households utilize different forest products out of 444 households

| Township | Total number of HH | Timber | Pole | Post | Bamboo | Firewood | Charcoal | Thatch | In |
|------------|--------------------|--------|------|------|--------|----------|----------|--------|----|
| Phyu | 128 | 47 | 31 | 93 | 117 | 113 | 24 | 87 | 4 |
| Taunggo | 135 | 52 | 46 | 83 | 119 | 107 | 16 | 79 | 32 |
| Oak-Twin | 114 | 44 | 48 | 73 | 103 | 87 | 15 | 73 | 13 |
| Ye-Da-Shae | 67 | 16 | 31 | 48 | 63 | 58 | 11 | 49 | 10 |
| Total | 444 | 159 | 156 | 297 | 402 | 365 | 66 | 288 | 59 |

2.5.10 Attitude on establishing forest plantation

Attitude on establishing forest plantation has been investigated and recorded during the survey and the survey results showed that 12% of total interviewed households do not like or not answer. The main reasons are limited livelihood activities, difficult to collect firewood and reducing areas to collect minor forest products. The remaining 88% do like establishing forest plantation because of job opportunities. Findings are shown in Chat 8.

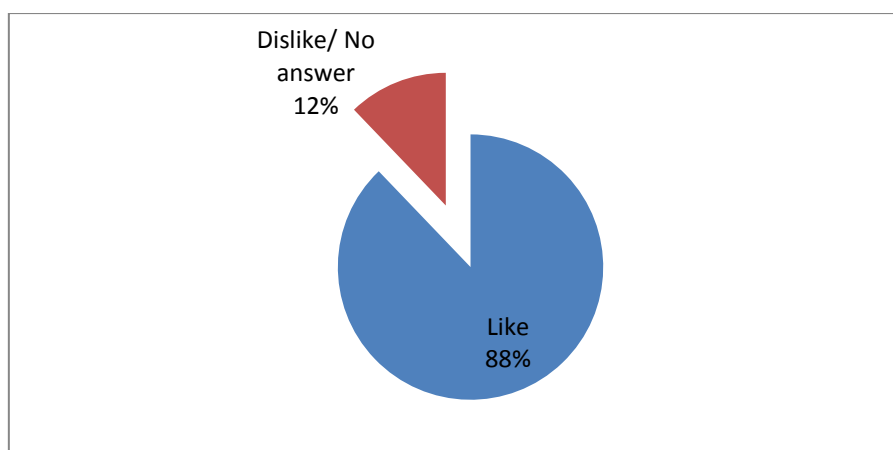


Chart 8. Showing the attitude of interviewed households on establishing forest plantation

| Township | Total number of HH | Like | Dislike/ No answer |
|------------|--------------------|------|--------------------|
| Phyu | 128 | 118 | 10 |
| Taunggo | 135 | 121 | 14 |
| Oak-Twin | 114 | 95 | 19 |
| Ye-Da-Shae | 67 | 56 | 11 |
| Total | 444 | 390 | 54 |

2.5.11 Perceptions on forest cover status

Survey team also asked the own opinion of interviewed households about the forest cover status mainly basing on their experiences. Then Findings are shown in Chart 9.

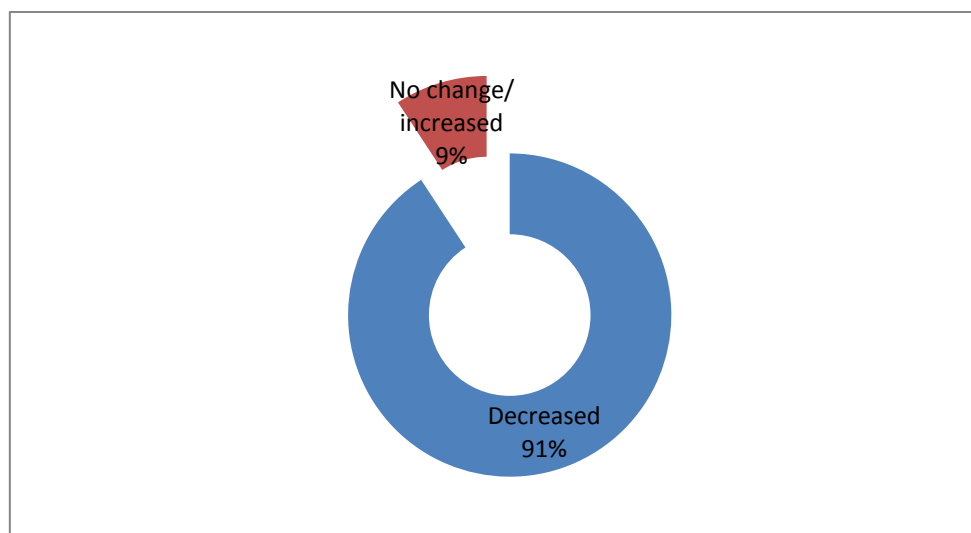


Chart 9. Showing the perceptions on forest cover status by interviewed households

| Township | Total number of HH | Decreased | No change/ increased |
|----------|--------------------|-----------|----------------------|
| Phyu | 128 | 108 | 20 |
| Taunggo | 135 | 128 | 7 |
| Oak-Twin | 114 | 109 | 5 |

| | | | |
|------------|-----|-----|----|
| Ye-Da-Shae | 67 | 58 | 9 |
| Total | 444 | 403 | 41 |

2.6 Conclusion

Although 444 households were interviewed, some households did not response the set questionnaire. In addition, it has been found out that the set questionnaire did not directly cover all the criteria prescribed in IAIA standard. However, survey results clearly show that almost half of surveyed households depend on forest and forest resources for their livelihoods and at least one third of surveyed households depend on forest and forest products to construct their households. Also more than 90 % of surveyed households need bamboo and firewood for their subsistence needs. It is also noticed that half of the surveyed households have experienced in forest operations such as weeding and planting. Thus, it can be concluded that these households could be invaluable labor in REDD+ implementation. Moreover, 91% of surveyed households agreed that forests nearby the villages have been decreased due to over exploitation of forest resources.

The author did not participated during the surveys and this report mainly based on the quantitative survey results. Thus qualitative assessment on socio-economic of local communities is completely out of the scope of report. However, it could be better if the qualitative assessment would be included in it for later monitoring and evaluation processes.

3 Annex 1

Survey Form

“မြန်မာနိုင်ငံ၊ ပဲခူးရိုးမဒေသရှိ တောပျက်များအား ပြန်လည်ပြုစုထိန်းသိမ်းခြင်းနှင့် REDD-plus လုပ်ငန်း စဉ်များ ဆောင်ရွက်ခြင်းဖြင့် ရာသီဥတုပြောင်းလဲမှု အကျိုးဆက်များ လျော့ကျစေခြင်း လုပ်ငန်းစီမံကိန်း” အတွက်တောင်ငူခရိုင်ရှိ ဒေသခံပြည်သူများ၏ လူမှုစီးပွားရေးအခြေအနေ စာရင်းကောက်ပုံစံ

ရက်စွဲ။

မေးမြန်းသူ၏ အမည်။

၁။ ကိုယ်ရေး/မိသားစုဆိုင်ရာအချက်အလက်များ

- (က) လူမျိုး
- (ခ) အသက်
- (ဂ) မွေးရပ်ဇာတိ

| စဉ် | ကျား/မ | ဆွေမျိုးတော်စပ်ပုံ | အသက် | ပညာအရည်အချင်း | အလုပ်အကိုင် | လူမျိုး | ဘာသာ |
|-----|--------|--------------------|------|---------------|-------------|---------|------|
| | | | | | | | |

- (ဃ) ဤရွာတွင်နေထိုင်သည်မှာ နှစ်မည်မျှကြာပြီလဲ။
- (င) ပြောင်းရွှေ့လာပါက ဘာကြောင့်ပြောင်းရွှေ့လာပါသလဲ။ ဘယ်အချိန်ကပြောင်းလာပါသလဲ။
- (စ) လူမှုရေးအဆင့်အတန်း (အိမ်အမျိုးအစား၊ ပိုင်ဆိုင်သည့်ပစ္စည်းများ စသည်ဖြင့်) ဘယ်လောက်ရှိပါသလဲ။

| နေအိမ်အမျိုးအစား | | | ပိုင်ဆိုင်ပစ္စည်းအမျိုးအစား |
|------------------|---------|-------|-----------------------------|
| တစ်ထပ် | နှစ်ထပ် | အခြား | |
| | | | တီဗွီ၊ ဗွီဒီယို |
| | | | ရေဒီယို |
| | | | ထော်လာဂျီ |
| | | | အခြား |

၂။ အသက်မွေးဝမ်းကြောင်း

- (က) အဓိကလုပ်ဆောင်နေသည့် အသက်မွေးဝမ်းကြောင်းကို ဖော်ပြပါ။
- (ခ) စိုက်ပျိုးမြေပိုင်ဆိုင်မှုရှိပါသလား။ ရှိပါက စိုက်ဧကမည်မျှရှိပါသလဲ။
- (ဂ) သီးနှံထွက်ရှိမှုသည် မည်မျှရှိပါသလဲ။ တစ်နှစ်စာအတွက်လုံလောက်မှုရှိပါသလား။

| သီးနှံအမျိုးအစား | မြေပိုင်ဆိုင်မှုဧက | ထွက်နှုန်း | ဈေးနှုန်း | နှစ်စဉ်ရငွေပျမ်းမျှ |
|------------------|--------------------|------------|-----------|---------------------|
| စပါး | | | | |
| မြေပဲ | | | | |
| ပြောင်း | | | | |

| | | | | |
|------------------------------|--|--|--|--|
| နိမ့် | | | | |
| ဟင်းသီးဟင်းရွက် | | | | |
| အခြားသီးနှံများ | | | | |
| အခြားဝင်ငွေရသည့်လုပ်ငန်းများ | | | | |

၃။ သစ်တောလုပ်ငန်းများနှင့် စပ်လျဉ်းသည့် အသက်မွေးဝမ်းကြောင်း

(က) သစ်တောလုပ်ငန်းများတွင် ဝင်ရောက်လုပ်ကိုင်ဘူးပါသလား။ ဘယ်လုပ်ငန်းမှာလုပ်ဆောင်ဖူးပါသလဲ။

| | |
|-------------------------|-------------------------|
| (က) ပေါင်းရှင်းခြင်း | (ဃ) ပင်ကျပ်နှုတ်ခြင်း |
| (ခ) သစ်ခုတ်ခြင်း | (င) အပင်ပျိုးထောင်ခြင်း |
| (ဂ) အပင်စိုက်ပျိုးခြင်း | (စ) အခြား |

(ခ) သစ်တောများမှ မည်သည့်သစ်တောထွက်ပစ္စည်းများထုတ်ယူရရှိပါသလဲ။ (နောက်ဆုံး ယူနစ် တစ်ခု ရအောင်မေးရန်)

| အမျိုးအစား | သစ်မျိုး | အရေအတွက် | ရေတွက်ပုံ | စုဆောင်းရခြင်း ရည်ရွယ်ချက် | ၁လ(သို့) ၁နှစ် သုံးစွဲသည့်ပမာဏ | ကာလ ပေါက်ဈေး |
|--------------------------------|----------|----------|-----------|-------------------------------|-----------------------------------|-----------------|
| သစ် | | | | | | |
| မျော | | | | | | |
| တိုင် | | | | | | |
| ဝါး | | | | | | |
| ထင်း | | | | | | |
| မီးသွေး | | | | | | |
| သက်ကယ် | | | | | | |
| အခြားသစ်တောထွက် ပစ္စည်းများ | | | | | | |

(ဂ) အနီးအနားရှိ သစ်တောကြီးများမှ ရရှိသော သစ်မဟုတ်သည့် သစ်တောထွက်ပစ္စည်းများကို ဖော်ပြပါ။

(၁) ဝါး (၂) ပျားရည် (၃) မှို (၄) မျှစ် (၅) သက်ငယ် (၆) သစ်ခွ (၇) ကြိမ် (၈) ဆေးဖက်ဝင် အပင်များ (၉) အခြား

(ဃ) သစ်တောထွက်ပစ္စည်းများမှ ဝင်ငွေသည် အိမ်ထောင်ဝင်ငွေစုစုပေါင်း၏ ဘယ်နှစ်ရာခိုင်နှုန်းခန့် ရှိပါသလဲ။

(င) အိမ်ဆောက်ရာတွင် မည်သည့်ပစ္စည်းများ အသုံးပြုပါသလဲ။ အသုံးပြုသည့်ပစ္စည်းများကို အဓိက မည်သည့်နေရာမှ ရရှိပါသလဲ။

(၁) သစ် (၂) မျော (၃) တိုင် (၄) ဝါး (၅) သက်ကယ် (၆) အခြား

(က) သဘာဝတော (ခ) စိုက်ခင်း (ဂ) ကိုယ်ပိုင်စိုက်ပျိုးမြေ (ဃ) အခြား

(စ) အိမ်တစ်လုံးဆောက်ရန်အတွက် မျော၊ တိုင်၊ ဝါးအလုံးရေ မည်မျှကုန်မည်နည်း။ ခန့်မှန်းဖော်ပြ ပေးပါ။ ဝယ်မည်ဆိုပါက မည်မျှ ခန့်မှန်းကုန်ကျနိုင်ပါသလဲ။

- (ဆ) နှစ်မည်မျှကြာလျှင် အိမ်ကိုပြန်ပြင်ဆောက်ပါသလဲ။
- (ဇ) သင့်မိသားစု တစ်နေ့လျှင် ထင်းမည်မျှလိုအပ်ပါသလဲ။
 - ၁လ လျှင် - လှည်းအစီးရေဘယ်လောက်လိုအပ်လဲ။
 - ၁ပတ်လျှင် ခေါင်းရွက်/ ပုခုံးထမ်းဘယ်လောက်လိုအပ်လဲ။
 - လှည်းတစ်စီးလျှင် ခေါင်းရွက်မည်မျှ ရှိသလဲ။
- (ည) ထင်းကိုမည်သည့်နည်း/မည်သည့်နေရာမှ စုဆောင်းရယူပါသလဲ။
 - (က) စိုက်ခင်း (၂) သဘာဝတော (ဂ) လယ် (ဃ) ယာ (င) လမ်းဘေး (စ) အခြား
- (ဋ) ကျွဲ၊ နွားဘယ်မှာ ကျောင်းသလဲ။ စားကျက်မြေလုံလောက်ပါသလား။ ကျွဲ၊ နွား တစ်ရှင်းအတွက် နေ့စဉ်အစာ ဘယ်လောက်ဖိုးကျွေးရမလဲ (စားကျက်မြေမရှိပါက)
- (ဌ) ကျေးရွာဝန်းကျင်တွင် စိုက်ခင်းများ တည်ထောင်တာကို ကျေနပ်သဘောကျပါသလား။
 - ဘာကြောင့်လဲ။ (၁) သဘောကျပါသည်။ (၂) သဘောမကျပါ။ (၃) မသိပါ။
- (ဍ) သဘာဝတောများကို FD မှ စနစ်တကျထိန်းသိမ်းနေသည်ကို ကျေနပ် သဘောကျပါသလား။
 - ဘာကြောင့်လဲ။ (က) သဘောကျပါသည်။ (ခ) သဘောမကျပါ။ (ဂ) မသိပါ။
- (ဎ) သစ်တောများထဲတွင် အမဲလိုက်ခြင်းလုပ်ဆောင်ပါသလား။ ဘယ်နှစ်ကြိမ်အမဲလိုက်ပါသလဲ။
 - ဖမ်းဆီးရရှိသည့် တိရစ္ဆာန်အမျိုးအမည်ကို ဖော်ပြပေးပါ။

၄။ ရွာပတ်ဝန်းကျင်ရှိ သစ်တောများအပေါ် ဒေသခံပြည်သူများ၏ အမြင်

- (က) ရွာပတ်ဝန်းကျင်ရှိ သစ်တောများ၏ အခြေအနေမှာ လွန်ခဲ့သည့်နှစ်များနှင့် နှိုင်းယှဉ်ပါက ပြောင်းလဲမှု ရှိပါသလား။

| တိုးပွားလာသည် | လျော့နည်းလာသည် | သိသိသာသာနည်း | ပြောင်းလဲမှုမရှိ | မသိပါ |
|---------------|----------------|--------------|------------------|-------|
| | | | | |

- (ခ) ပြောင်းလဲမှုရှိပါက ပြောင်းလဲရခြင်း၏ အဓိကအကြောင်းရင်းမှာ မည်သည့်အရာဟုထင်ပါသလဲ။

- (၁) တောင်ယာခုတ်ခြင်း
- (၂) တရားမဝင်သစ်ခုတ်ခြင်း
- (၃) မီးသွေးဖုတ်ခြင်း
- (၄) ထင်းခုတ်ခြင်း
- (၅) တောမီးလောင်ခြင်း
- (၆) ရောဂါကျခြင်း
- (၇) NTFP များအလွန်အကျွံထုတ်ယူခြင်း
- (၈) အခြား

- (ဂ) သစ်တောများပြောင်းလဲလာခြင်းကြောင့် ဒေသခံပြည်သူများအပေါ် အကျိုးသက်ရောက်မှုများ ရှိပါ သလား။ ရှိပါက မည်ကဲ့သို့အကျိုးသက်ရောက်မှုများ ရှိသည်ကို ဖော်ပြပေးပါ။
 - (က) ၁၀၀% (ခ) ၇၅% (ဂ) ၅၀% (ဃ) ၂၅% (င) ၀% (စ) မသိပါ။

- (ဃ) သစ်တောပြုန်းတီးမှုကို ကာကွယ်ရန်အတွက် ဦးစားပေးလုပ်ဆောင်သင့်သည့် အချက်များကို ဖော်ပြပေးပါ။
- (င) တရားမဝင်သစ်ခုတ်ခြင်းများ ဤကျေးရွာတွင်ရှိပါသလား။ ရှိ / မရှိ၊ ရှိပါက –
 - (က) ကျေးရွာမှ လူများလား၊ (ခ) အခြားဒေသကလူတွေလား။
 - (ဂ) မိမိသုံးဖို့လား။ (ဃ) စီးပွားဖြစ်ထုတ်ယူတာလား။