



THE REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF NATURAL RESOURCES AND ENVIRONMENTAL
CONSERVATION FOREST DEPARTMENT

“Enhancing Conservation and Sustainable Management of Teak Forests and Legal and Sustainable Wood Supply Chains in the Greater Mekong Sub-region” Project (PP-A/54-331)”

Basic Silvicultural Operation Training Completion Report



Basic Silvicultural operation Training
Myanmar Component
August 2020

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Basic Silvicultural Operation Training Completion Report

Introduction

Natural teak forest is dominant in Myanmar; thus, the country plays a significant role in the global teak trade. Myanmar has the largest area of natural teak forests (almost 50 percent of 29 million ha in the GMS) and is the number one producer of teak logs in the world. Natural teak forests are traditionally managed under the Myanmar Selection System (MSS) and the Modified Myanmar Selection System (MMSS). These regulations are considered outdated and need to be adjusted to cope with modern requirements. Planted teak area in Myanmar covers approximately 390,000 ha. Currently, the teak plantations are still young and produce only low-dimension logs from thinning.

To establish the successful plantation, the silvicultural operations/ practices are one of the most important activities. Silviculture is the set of site specific tools used in forest/ plantation management; weeding thinning, pruning, improving, harvesting, regeneration, etc. In practice, the tending and regeneration operations are needed to accomplish both outcomes at once, i.e. most common actions- cut trees or leave trees. So silvicultural operations become more and more important for the plantation management, and the quality and skill of the forest staffs related to the silvicultural operations is needed to upgrade time to time, especially for the thinning, assistant natural regeneration, enrichment planting, improvement felling, pruning and cleaning operations which are based on the plantation species and objective.

Therefore, the basic silvicultural operation training which was held from 24th to 28th of August, 2020 at the Forest Research Institute (FRI) through the financial support of ITTO-Mekong (Teak) Project (PP-A/ 52-331). The project ‘**Enhancing Conservation and Sustainable Management of Teak Forests and Legal and Sustainable Wood Supply Chains in the Greater Mekong Sub-region**’ is aimed at assisting governments, local communities and smallholders to enhance teak forest management, production and marketing to facilitate the establishment of legal and sustainable wood supply chains while improving national economy and local communities’ livelihood in the Greater Mekong Sub-region. The Activity provides an opportunity to achieve sustainable forest management policies and national strategic objectives on the sustainable development of natural Teak forest resources and legal markets.

Forest Department and ITTO signed MoU on 28th October 2019 to implement this regional collaboration project “Enhancing Conservation and Sustainable Management of Teak Forests and Legal and Sustainable Wood Supply Chains in the Greater Mekong Sub-region”. Forest Research Institute (FRI) is the implementation agency and the project areas are the Taungoo District and Ottara District which are located at the Bago Yoma Mountain Range, Home of Teak.

This training aimed to upgrade the skill/ quality of the field level forestry staffs (Forest guard and Foresters) through the understanding the lecture and practical operations. There were totally 18 trainees from the divisions of Head Quarter of Forest Department such as Forest Administration Division, Watershed Management Division, Plantations and Natural Forest Division, and Forest Research Institute.



Opening Ceremony

Basic Silvicultural Operations Trainings was held from 24 to 28 August 2020 at the Forest Research Institute (FRI). There were totally 18 trainees who are Foresters and Forest Guards and Foresters working at the Forest Research Institute and Head Quarter of Forest Department. The training was organized and followed by the instructions for the COVID-19 of Ministry of Health and Sports (MOHS). The training opening ceremony was held on 24 of August 2020 at the Auditorium of Forest Research Institute. At the

training opening ceremony, on behalf of National Coordinator of Myanmar Component, Mr. Ngwe Thee, Deputy Director of Forest Research Institute delivered the opening remarks. The Officials and Researchers from Forest Research Institute (FRI), the trainers and the trainees attended the opening ceremony.

In the opening remarks, Mr. Ngwe Thee pointed out the forestry sector has contributed significantly to the country's economy and timber, particularly teak wood, has been a major source of export earnings for many years. More than a century and a half of scientific management the natural forests of Myanmar are still in comparatively good extent and condition. However, due to demographic pressure and various kinds and extend of human intervention, forest degradation is being encountered. And Myanmar government not only promote sustainable forest management but also to solve environmental issues such as global warming, climate change, arresting deforestation and biodiversity loss. So the forest plantations were established to fulfill people's basic needs and country's economic too. And our forestry staffs' skill/ quality related to the forest and plantation silvicultural operations are needed to upgraded and updated. In the conclusion, he said that we would sincerely and strongly encourage all the trainees to take opportunity of this training to get successfully and to promote your skill related to the silvicultural operations by lecture/ theory and also practical.



Training

This training was about 5 days in which the following subjects were taught in theory: the forest types and forest plantations, the forest tending/ silvicultural operations such as Assistant Natural Regeneration (ANR), Enrichment Planting (EP), Improvement Felling (IF), Weeding, Pruning and Fire Protection, and Thinning. The training schedule and the trainees are attached in ANNEX 1 and 2.



Body temperature testing and Hand wash

After delivering the opening remarks, the group photo with all trainees and the attended participants was taken, and the training was started as the agenda. During the training, all the lecture were in Myanmar language.



Group Photo at the Opening Ceremony

In day 1 (24th August 2020), firstly, the entrance testing to the trainees was done. And Dr. Zar Chi Hlaing, Staff Officer, Forest research Institute presented about the ITTO-Mekong (Teak) Project's activities, the expected outputs and the workplan. In her presentation, she presented Myanmar Component's implementing activities and explained the planned activities at the project sites: No. 5 Moe Swe Research Station and No. 7 Letpan Khon Research Station. And the training



schedule including training norms, the practical operations were also explained with the demonstration plots related to the thinning and assistant natural regeneration (ANR) operations.

The lecture about the importance and benefits from the forests and plantations was given by Mr. Aung Thu-1, Director of Forest Research Institute. In his lecture, he mainly focused on the forest and its benefits to the human beings, the relationship between the forest and plantation services and people, and the importance of forest and plantation management/ silvicultural operations. And he concluded his lecture with the questions and answers with all trainees.



Dr. Tual Cin Kain, Assistant Director of Forest Research Institute gave the Natural Forests and Plantations and its activities lecture. He explained that the natural forest types in the world, and the eight forest types that exist in Myanmar, the species composition and structure of these forests, and also the 16 types of forest operations that Forest Department of Myanmar conducts in the natural forest and forest plantations, and the activities of Myanmar

Rehabilitation and Reforestation Program (MRRP). Then the assistant natural regeneration (ANR) operation's lecture was given by Mr. Ye Lwin Aung, Range Officer of Forest Research Institute. The theory related with the ANR and the operation procedures were explained in his lecture. After finishing Mr. Ye Lwin Aung's lecture, the day 1 was accomplished.

In day 2 (25th August 2020)'s morning session, Ms. Ni Zin Phoo, Range Officer of Forest Research Institute gave the enrichment planting (EP) operation lecture. She explained that the definition of EP, types of EP and the procedures of EP operation. Then, Dr. Zar Chi Hlaing explained the improvement felling (IF) operation in which types of IF, the operation processes including the reporting. In the afternoon session, the pruning, cleaning, weeding and fire protection lecture was given by Ms. Su Myat Hinn, Range Officer. She





explained these operations' processes for the natural forest and forest plantations, and the mutual discussion with the trainees was done. And then, Mr. Tun Tun Win, Staff officer of Forest Research Institute gave the thinning operation lecture. He explained the process of the thinning in the forest plantation and natural forest. He pointed out the thinning is also one of the important thing in the forest/ plantation silvicultural operations, and also the thinning calculation was explained.

practical was conducted at the demonstration plot where is located at compartment (28,31) of Ngalike Reserved Forest. The Staff Officer and other staffs from the Ottara Thiri Township of Forest Department, Nay Pyi Taw collaborated in the practical. The trainees learnt about the process of the ANR in practical, and they conducted ANR at the demonstration plots. In day 4 (27th August 2020), the thinning practical was conduct at the Teak planting stocks trial where was at compartment (24) of Ngalike Reserved Forest. Mr. Aung Thu-1, Director of Forest Research Institute joined the thinning practical and also he gave the lecture about the thinning in the field.



In day 3 (26th August 2020), the ANR

In day 5 (28th August 2020), field Report and group discussion related to the practical operation (thinning) was in the morning session. Then, the training evaluation test was conducted to the trainees how the trainees understood the theory and practical related to the basic silvicultural operations that learnt during the training. After that, the training closing ceremony was held at the Seminar room of Director Office of Forest Research Institute. Mr. Aung Thu-1, Director/ National Coordinator, Forest Research Institute gave the closing remarks and the certificates were issued to the trainees. The training was successfully accomplished.





Thinning Practical at Teak Planting Stocks Trial



Assistant Natural Regeneration (ANR) Practical at Teak Planting Stocks and ANR Trial



Group photo at Teak Planting Stocks and ANR Trial

Conclusion

The basic silvicultural operations training was organized on from 24th to 28th August, 2020 at the Forest Research Institute, Yezin, and it was together theory and practical teaching as the hand-on training. This training gave the benefits to the trainees as to upgrade their skill/ quality related to the forest silvicultural operations. And the ITTO-Mekong (Teak) Project is tanked for organizing like this training for the field level forest staffs who are one of the main and important field level staffs of the forestry activities.



Closing remarks by Mr. Aung Thu-1, Director/ National Coordinator, Forest Research Institute at the training closing ceremony



Certification at the training closing ceremony

Basic Silvicultural Operations Training Schedule (24th – 28 August 2020)

Date	08:30 – 09:30	09:30 – 10:15	10:15 – 11:05	11:05 – 12:00		13:30_ 14:20	14:20 – 15:10	15:30 – 16:20	16:20 – 17:10	
24-Aug-2020 (Monday)	Opening Ceremony	Training Entrance testing	Introduction about the ITTO-Mekong (Teak) Project (Dr. Zar Chi Hlaing, Staff Officer)	The importance and benefits from the forests and plantations (Mr. Aung Thu-1, Director)		Natural Forests and Plantations and its activities (Dr. Tual Cin Kain, Assistant Director)		Assistant Natural Regeneration (ANR) (Mr. Ye Lwin Aung, Range Officer)		
	09:00-09:50	09:50- 10:40	10:40- 10:55	10:55- 11:45	11:45-12:30	13:30- 14:20	14:20-15:10	15:30- 16:20	16:20-17:10	
25-Aug 2020 (Tuesday)	Enrichment Planting (EP) (Ms. Ni Zin Phoo, Range Officer)		Teak Break	Improvement Felling (IF) (Dr. Zar Chi Hlaing, Staff Officer)		Lunch (12:00- 13:30)	Pruning, Cleaning, Weeding and Fire Protection (Ms. Su Myat Hinn, Range Officer)		Thinning (Mr. Tun Tun Win, Staff Officer)	
26-Aug-2020 (Wednesday)	Practical: Assistant Natural Regeneration (Practical teaching: Ottara Thiri Township, Forest Department)			Practical: Assistant Natural Regeneration (Practical teaching: Ottara Thiri Township, Forest Department)			Practical: Assistant Natural Regeneration (Practical teaching: Ottara Thiri Township, Forest Department)		Practical: Assistant Natural Regeneration (Practical teaching: Ottara Thiri Township, Forest Department)	
27-Aug-2020 (Thursday)	Practical: Thinning (Practical teaching: Ottara Thiri Township, Forest Department)			Practical: Thinning (Practical teaching: Ottara Thiri Township, Forest Department)			Practical: Thinning (Practical teaching: Ottara Thiri Township, Forest Department)		Practical: Thinning (Practical teaching: Ottara Thiri Township, Forest Department)	
28-Aug-2020 (Friday)	Field Report and Group Discussion related to the practical operations			Field Report and Group Discussion related to the practical operations			Training ending testing		Closing Ceremony	

Basic Silvicultural Operations Training Schedule (24th – 28 August 2020)
Trainees List

No.	Name	Rank	Division
1.	Mr. Ye Naing	Forester	Forest Research Institute, Forest Department
2.	Mr. Min Thu	Forester	Forest Research Institute, Forest Department
3.	Mr. Myint Zaw	Forester	Forest Research Institute, Forest Department
4.	Mr. Zin Maung Mang Tun	Forester	Watershed Management and Conservation Division, Forest Department
5.	Mr. Khing Zaw Lin	Forest guard	Forest Research Institute, Forest Department
6.	Mr. Aung Pyae Phyoo	Forest guard	Forest Research Institute, Forest Department
7.	Mr. Thiha Zaw	Forest guard	Forest Research Institute, Forest Department
8.	Mr. Tin Tun Oo	Forest guard	Forest Research Institute, Forest Department
9.	Mr. Win Tun Aung	Forest guard	Forest Research Institute, Forest Department
10.	Mr. Akar Soe	Forest guard	Forest Research Institute, Forest Department
11.	Mr. Wai Yan Kyaw	Forest guard	Forest Research Institute, Forest Department
12.	Mr. Zin Ko Ko Min	Forest guard	Forest Research Institute, Forest Department
13.	Mr. Myo Min Zaw	Forest guard	Forest Research Institute, Forest Department
14.	Mr. Si Thu Aung	Forest guard	Administration Division, Forest Department
15.	Mr. Hein Htet Aung	Forest guard	Administration Division, Forest Department
16.	Mr. Ye Htet Naing	Forest guard	Natural Forest and Plantations Division, Forest Department
17.	Mr. Myo Min Naing	Forest guard	Natural Forest and Plantations Division, Forest Department
18.	Mr. Ni Tut Kyaw	Forest guard	Natural Forest and Plantations Division, Forest Department