

**REPORT ON**  
**TRAINING OF MASTER TRAINERS ON**  
**HORTICULTURE, FRUITS NUTS AND SPICES**



**DATE: 21<sup>st</sup> -25<sup>th</sup> OCTOBER' 2019**

**VENUE: IETC, MEDZIPHEMA.**

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**MAJOR ABBREVIATION:**

ATMA: Agriculture Technology Management Agency

CSS: Centrally Sponsored Scheme

DLIC: District Level Implementing Committee

FOCUS: Fostering of Climate Resilient Upland Farming System in North east India

FIG: Farmers Interest group

IFAD: International Fund for Agriculture Development

TRC: Terrace Rice Cultivation

STL: Soil Testing Lab

PIT: Project Implementing Team

VLIC: Village Level Implementing Committee

### **1.1 OBJECTIVES OF THE TRAINING**

To enhance the capacity to provide training to Block/Circle Officers, Village Level Workers, and Lead Farmer's in the following areas:

1. Establishment of fruit nursery
2. Improved management of fruit and nut orchard
3. Establishment of vegetables and spices nursery
4. Improved cultivation practices of vegetables and spices
5. Processing, storage and marketing of spices, fruits and nuts

### **1.2 TRAINING METHODOLOGY:**

1. Class room sessions
2. Group activities
3. Short duration films
4. On the site Demonstration of Nursery Techniques

### **1.3 TRAINING MATERIALS AND AIDS REQUIRED:**

1. Laptop
2. Over head projector and screen/white wall surface
3. White Board and markers and duster
4. A pin up board
5. Laptop with HDMI port and cable of sufficient length
6. Pen-drive

### **2.1 INNUGURATION SESSION:**

5 (five) days training programme was successfully conducted at IETC Conference Hall Medziphema. The innugural programme was held on 21<sup>st</sup> October 2019 at 10:00 AM, With, Dr. Along Tzudir, PIT, FOCUS as the chairperson where he welcomed all the delegates and participants He also presented the overview of the FOCUS project. Short speeches were delivered by Ms S. Tianiu Jt. Secretary and SPD FOCUS, Dr. C. P. Mohan, FAO National consultant, where they thanked all the participants and highlighted the importance of the training programme. All together there were 32 participants from ATMA, IETC and State Agriculture Department attended the training programme with four resource persons Prof. Dr. C. P. Mohan, Prof. Dr. Pailune, HOD-Horticulture SASRD, Dr. Maiti Dept. of Horticulture SASRD and Ms. Imtimongla and two members from PMU-FOCUS, Dr. Along Tzudi, PIT-FOCUS and Mr. Rukuosietuo Kuotsu, Manager-KM.

### **2.2 TECHNICAL SESSION:**

The Technical session was for five days with high participation from the participants in discussion and interaction to gain knowledge from the highly qualified, knowledgeable and experienced resource persons who came for the technical session. There was also a laboratory visit to State Bio Control lab and Bio-Fertilizer lab. The training scheduled and topics are given in ANNEXTURE-1.

**2.3 VALEDICTORY AND THANKSGIVING:** The training programme ended with distribution of certificates. Dr. Watila Director SAMETI and Vice principal IETC in her valedictory speech encouraged all the participants to disseminate the knowledge they have learned in their respective districts.

### 3. TRAINING OUTCOMES

1. Participants will enhance their knowledge and understanding of various steps involved in establishment of fruit nursery and its maintenance
2. Participants will enhance their knowledge and understanding in the management of fruit orchard
3. Participants will enhance their knowledge and understanding of various steps involved in establishment of vegetables and spices nurseries and their maintenance
6. Participants will enhance their knowledge and understanding in the cultivation of vegetables and spices
7. Participants shall enhance their capacity to train Block/Circle Officers, Village Level Workers, and Lead Farmers and enable them to conduct successful training of farmers in the above areas

### 4. MAJOR OBSERVATIONS MADE BY FAO TEAM.

While conducting the five-day training workshop for master trainers on Agronomy and TRC, the FAO trainer's team also made some observations on the training atmosphere and reaction of the participants:

- 1) All participants from all 8 districts were actively participated in the whole discussion process till the last day and were enthusiastic to learn more how they can give solution to their farmers.
- 2) Facilitation by trainers and visualization tools, such as photographs, videos, papers, etc., can greatly encourage the participation of the trainees, especially the trainees from the village level.
- 3) Through the interactive participation in the group case study and practice, trainees could think about all related issues about their own field functionaries and obtained some agreement by discussion with other trainees;
- 4) With the presentation, both trainees and trainers have a clear picture about importance of Agronomy and TRC in this project.
- 5) They were also clear about the role and importance of FAO in this project.

### ANNEXURE 1:

**Registration: 30 Minutes prior to commencement of training program**

Duration	Time	Topics	Method	Aid/ Materials	
<b>21 October 2019 (MONDAY)</b>					
30 minutes	10.00 to 10.30	Inauguration			Dr.S.Tainiu, State Project Director, FOCUS , &Jt.Secretary, Govt. of Nagaland, Dr.

					Along Tzudir, Coordinator, TOT- Horticulture- FOCUS and C P Mohan National Consultant-FAO Ms.ImtiMomti, National Consultant, FAO
60 minutes	10.30 to 11.30	Introduction to establishment of fruit nursery: Importance, infrastructure etc.	Lecture and interactio n	Presentations	C.P.Mohan National Consultant-FAO
<b>15 minutes</b>	<b>11.30 to 11.45</b>	<b>Tea break</b>			
75 minutes	11.45 to 13.00	Nursery layout, Equipment and tools required and their uses	Lecture and interactio n	Presentations	C.P.Mohan National Consultant-FAO
<b>60 minutes</b>	<b>13.00 to 14.00</b>	<b>Lunch break</b>			
75 minutes	14.00 to 15.15	Planning and preparation for Establishment of Fruit Nursery	Lecture and interactio n	Presentations	Dr.Pailune, HoD- Horticulture, SASRD
<b>15 minutes</b>	<b>15.15 to 15.30</b>	<b>Tea break</b>			
75 minutes	15.30 to 16.45	Management practices: common pests and diseases and their recommended management practices	Lecture and interactio n	Presentation by trainer; Open house discussions on indigenous practices	Dr.Pailune, HoD- Horticulture, SASRD
15 Minutes	16.45 to 17.00	Q & A	Interactio ns	Interactions	C P Mohan National Consultant-FAO
		<b>22 October 2019 (TUESDAY)</b>			
15 minutes	10.00 to 10.15	Recap/feedback by selected participants	5 minutes per participan		C P Mohan National Consultant-FAO

			t (random)		
75 minutes	10.15 to 11.30	Management practices: Propagation; nutrient and water management;	Lecture and interaction	Presentations	C P Mohan National Consultant-FAO
<b>15 minutes</b>	<b>11.30 to 11.45</b>	<b>Tea Break</b>			
75 minutes	11.45 to 13.00	Record maintenance and discussions on good practices.  Discussions on some common mistakes in nursery management	Lecture and interaction	Presentations and discussions on indigenous practices	C P Mohan National Consultant-FAO
<b>60 minutes</b>	<b>13.00 to 14.00</b>	<b>Lunch break</b>			
75 minutes	14.00 to 15.15	Establishment of Orchards: Floor management of established fruit orchards	Lecture and interaction	Presentations and discussions on indigenous practices	Dr.Maiti, Horticulture, SASRD
<b>15 minutes</b>	<b>15.15 to 15.30</b>	<b>Tea Break</b>			
90 minutes	15.30 to 17.00	Scientific management of canopy in orchards	Lecture and interaction	Presentations, discussions and video	Dr.Maiti, Horticulture, SASRD
		<b>23 October 2019 (WEDNESDAY)</b>			
<b>Full day</b>	<b>09.30 to 16.30</b>	<b>Field Visit to Horticulture nursery and Farm</b>			<b>C P Mohan National Consultant-FAO Ms.ImtiMomti, National Consultant, FAO and Dr.AlongTzudir, Coordinator, PIT, FOCUS, Nagaland</b>
<b>24 October 2019 (FRIDAY)</b>					
15 minutes	09.30 to 09.45	Recap/feedback by selected participants	5 minutes per		C P Mohan National

			participan t		Consultant-FAO
75 minutes	09.45 to 11.00	Best orchard management practices and Rejuvenation of old orchards	Lecture and interactio n	Presentations and discussions	Dr.Maiti, Horticulture, SASRD
75 minutes	11.00 to 12.15	Harvesting practices and harvesting index / maturity indices , yield and post harvest management	Lecture and interactio n	Presentations and discussions	C P Mohan National Consultant-FAO
75 minutes	12.15 to13.30	Post Harvest Management and Processing and value addition	Lecture and interactio n	Presentations and discussions	C P Mohan National Consultant-FAO
<b>30 minutes</b>	<b>13.30 to 14.00</b>	<b>Shortened Lunch break</b>			
<b>Half Day</b>	<b>FIELD VISIT TO Dept. of Entomology, Dept. of Plant Pathology and Dept. of Horticulture for exposure specimens, interaction with subject specialists and practical sessions on budding and grafting.</b>				
<b>25 October 2019 (FRIDAY)</b>					
15 minutes	09.30 to 09.45	Recap and discussions on field visit	5 minutes feedback	by participants	C P Mohan National Consultant-FAO
60 minutes	09.45 to 10.45	Establishment of nursery and cultivation practices of important spice crops	Lecture and interactio n	Presentations and discussions	Dr.Maiti, Horticulture, SASRD
60 minutes	10.45 to 11.45	Cultivation of vegetables and spices: Package of practices of important crops	Lecture and interactio n	Presentations and discussions	Dr.Maiti, Horticulture, SASRD
75 minutes	11.45 to 13.00	Cultivation of vegetables and spices: Package of practices of important crops- contd	Lecture and interactio n	Presentations and discussions	Dr.Maiti, Horticulture, SASRD
<b>60 minutes</b>	<b>13.00 to 14.00</b>	<b>Lunch break</b>			



60 minutes	14.00 to 15.00	Nursery acts, regulations, NHB registration etc.	Lecture and interaction	Presentations and discussions	C P Mohan National Consultant-FAO
<b>15 minutes</b>	<b>15.00 to 15.15</b>	<b>Tea Break</b>			
45 minutes	15.15 to 15.45	Recap and Feedback	Participants	5 minutes each and Responses	C P Mohan National Consultant-FAO
45 minutes	15.45 to 16.45	Valediction and evaluation			Dr.R.E.Lotha, Director , Horticulture, Government of Nagaland, Dr.C.S.Maity, Resource Person, C P Mohan National Consultant-FAO Ms.ImtiMomti, National Consultant, FAO; Dr.AlongTzudir, Coordinator, PIT, FOCUS, Nagaland

## ANNEXURE-2

<b>LIST OF PARTICIPANTS</b>			
1	Lhuveto Keyho	Horti. Inspector,Phek	9089572531
2	H.Anyak Phom	A.H.O. Longleng	9612431814
3	C.Pongshak Phom	A.H.O. Longleng	9612165782
4	Seroba Sangtam	H.E.A. Kiphire	8787882847
5	Pangchong Konyak	H.E.A Longleng	9862769075
6	Chapi Chale	H.E.A. Phek	9774402118
7	Lily Tungoe	ATM Wokha	9862735492
8	Yatetla Longkumer	ATM Zunheboto	8720982916

9	Benjele Semy	ATM Kohima	8256903149
10	Nuksanginla Jamir	ATM Mokokchung	8837343696
11	Tiamangba Pongen	ATM Mon	Tia.pongen@gmail.com
12	Tzudimeren Jamir	HEA,DHO Zunheboto	8794116697
13	Y.Shanchobeni Humtsoe	Hort.Inspector Wokha	9862329228
14	Shikmeth Konyak	Hort,Inspector, Mon	shikmethkonyak@gmail.com
15	Chonbenthung Kithan	Hort Inspector, MON	Chonbenkits12@gmail.com
16	S.Tainiu	SPD.FOCUS-IFAD	8730090843
17	Chenithung Tsanglao	HI Wokha	8413028912
18	Vibeilie Mere	HEA Kohima	9402812888
19	Merennungba Imchen	ATM Kiphire	8974106382
20	Akaito Kiba	HEA Zunheboto	8414954102
21	Keduwete-U Lomi	BTM ATMA Phek	8729858818
22	Kevilekho Usou	AHO Kohima	8787592889
23	C.P. Mohan	National Consultant FAO	9448497007
24	Intimongla	National Consultant FAO	9862141679
25	Rukuosietou Kuotsu	Manager-KM FOCUS,PMU	8794432301
26	L.Chingshak Paulong	ATM-ATMA Longleng	7005157688
27	Pauline Alila	Prof.Head,Dept.Of Hort	9436012736
28	Sunep Akong	Comp.Asst.Focus-Ifad	8575147895
29	Dr.Alongba Tzudir	PIT-FOCUS	7005485500
30	Rampaukai	PIT-FOCUS	7005885339
31	Talimeren	AHO Mokokchung	9862815987
32	Takosunep	HI Mokokchung	8575498617
33	Hesilo	HI Kiphire	8575170768

## 5. PHOTO GALLERY



**During Photo session and Training hall at SAMETI Medziphema**



**DURING FIELD VISIT AT DIMAPUR**



## AT DR. SOSANG MUSHROOM LABORATORY.



## VISIT AT ENTOMOLOGY LAB. SASRD MEDZIPHEMA.

### 7. THE OUTLINE OF THE TRAINING MANUAL

- Introduction top establishment of fruit nursery.
- Management practices: Propagation, nutrient and water management; Common pest and diseases and their recommended and management practices.
- Record keeping.
- Production calendar.
- Orchard management (Citrus): Pest and disease management practices, Harvesting practices, maturity indices and harvesting index.
- Rejuvenation of old orchards, Processing and value addition.
- Nursery establishment of vegetable and spices.
- Cultivation of vegetable and spices. Nutrient pest and disease management.
- Nursery acts, rules and regulation prevalent in state.