



# 3<sup>rd</sup> ANNUAL REPORT 2010-11



**CENTRAL INSTITUTE OF HORTICULTURE  
MEDZIPHEMA: NAGALAND**

## **CIH Annual Report, 2010-2011**

Medziphema, Nagaland

Published by

Director

### **Central Institute of Horticulture**

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## Foreword

The North East region despite its immense scope for horticulture development, its potential still remains to be fully tapped. Lack of sufficient volume of quality planting materials, proper technical know how, awareness on latest improved production technologies, improved varieties, post harvest management practices and marketing linkage has been one of the major factors contributing to the low growth rate of horticulture produce in the region. Being identified as one of the major hot spots for cultivation of a varied number of fruits, vegetables, flowers and spices, the North East region of India can no doubt be at par with the other countries in terms of quality of horticulture produce as well as production and productivity. However, constraints in marketing of most of the produce especially the perishables have barred all efforts leading to huge post harvest losses thereby resulting in huge monetary loss.

With its 5<sup>th</sup> year of establishment, the Central Institute of Horticulture has come a long way contributing tirelessly for the development of horticulture sector in NER. I am happy that the Central Institute of Horticulture, Medziphema, Nagaland has created a momentum in the field of horticulture, imparting trainings to transfer modern technologies to the rural mass, setting up demonstration farms in different areas of North East region so as to change the attitude of the farming community by seeing and believing. The marketing initiative taken by the institute in collaboration with various organizations is commendable. Such a venture has not only exposed and encouraged the growers to compete with the farmers of other states but also made realization about the quality of their produce. With the growing consciousness for health and environment protection, a shift to organic farming is a felt need. The institute has also actively coordinated with different organization for promoting organic farming in the region. The Director with her team has been tirelessly putting an effort in achieving the objectives of the institute.

I am happy that the institute is bringing out its 3<sup>rd</sup> Annual Report which successfully marks the progress and achievements during the year 2010-11.

(Gorakh Singh)







# CENTRAL INSTITUTE OF HORTICULTURE

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*Dr. Akali Sema*  
Director

## From the Director's Desk

The Central Institute of Horticulture presents its 3<sup>rd</sup> Annual Report with its targets and achievements during the period 2010-11. Various activities both on farm and off farm in areas of transfer of technology, agri business promotion, capacity building and participation, technology demonstration, farm development activities, workshops/ seminars and publications by the institute during the year had been compiled and reported in this publication.

During the year, CIH has made some significant contribution towards horticulture development in the region. As a part of capacity building and transfer of technology, the institute has conducted 8 trainer's trainings and 34 farmer's trainings where 341 officials and 2150 farmers/beneficiaries have been trained in all states of NER. Demonstrations on improved production technologies were carried out both on farm and off farm. Establishment of nucleus mother block and rootstock block for fruit crop as well as raising rootstock were taken up during the year as farm developmental activities. The institute has established demonstration farms on High Density Planting and Canopy Management and organic model farms in Meghalaya, Assam and Nagaland.

With the growing consciousness for efficient, judicious and quality production, adoption of modern production technologies has become a felt need for the farming community. Realizing the importance, the Institute also extended its reach through mass media and publications for the farmers and extension functionaries in the NER. The Institute has to its credit a number of publications in the form of folders, manuals, bulletins and manuals with special reference to focus horticultural crops of North East Region which will be a tool for catering to the additional needs of the master trainers and farming community. These publications were also translated into local dialects for ease of reference for the farmers in particular.

To equip the farmers with the right kind of know-how for improved production technologies and marketing of the quality produce, CIH has taken a lot of new initiatives for the benefit of the farmers during the year by organizing exposure trips, exhibitions, buyers seller meet etc. to provide suitable market linkages to the horticulture crops growers of the region and giving an opportunity to the farmers to showcase their produce and earn a premium for their high quality horticulture produce. Direct marketing of Nagaland Pineapples at Dilli Haat, New Delhi and North East Horti Fest at Lal Bagh, Bangalore is such examples which proved to be successful calling for greater demand of horticulture produce from the region.

With ardent dedication, the Institute has also been involved with the farmers on farm. Practical demonstration on farm during trainings, assisting and equipping farmers with knowledge on production technologies, propagation, harvesting and post harvest operations during the season are some key initiatives of the institute. Marketing of the farmers produce which has been one of the major set back in the horticulture sector has been tirelessly equated to an extent with the CIH staffs working together with various organizations and the growers themselves helping them right from farm to the point of market destination.

CIH, though a small team works, together day in and day out for the upliftment of the institute in particular and the horticulture sector development of the region in general. With the help of horticulture commissioner and his officials at DAC, Ministry of Agri. and Cooperation, GoI, State Horticulture Department, other organizations like NHB, NRCM and ICAR, Jharnapani, SASRD-NU, Medziphema and many NGOs and other organizations within NER, the institute has been able to achieve whatever it has during the year, and look forward to their full cooperation in future as well.

  
Dr Akali Sema

## A GLANCE AT CIH

Central Institute of horticulture was established in the year 2006 for the holistic development of horticulture sector in the North East Region. Located at Medziphema, Nagaland about 30 km from Dimapur city and 44 km from the capital city Kohima the Institute spreads over an area of 43.50 hectare. The main thrust areas of the Institute are refinement and demonstration of identified technologies pertaining to the region; production and supply of quality seed and planting material; training and capacity building of state govt. officials, field functionaries and farmers on different aspects of horticulture development including organic farming, monitoring of centrally sponsored programmes in the area of horticulture, post harvest management, processing, value addition, marketing and agribusiness promotion.

### ***Vision***

*To emerge as the pioneering, innovative, farmer focused and self-supporting horticultural institute in the country.*

### ***Mission***

*To provide excellent, innovative and relevant training to all stakeholders so as to empower individuals and enable horticulture industry to bring socio-economic development in North East Region.*

### ***Objectives***

- *Capacity building by training of trainers & farmers/ beneficiaries.*
- *Demonstration of improved technologies.*
- *Follow-on extension support in the field of horticulture.*
- *Promotion of organic cultivation of horticultural crops.*
- *Establishing convergence and synergy among programmes in the field of horticulture.*
- *Monitoring of Centrally sponsored programmes in the area of horticulture.*



## PANORAMA OF NORTH EAST INDIAN HORTICULTURE

The North Eastern Region of India is blessed with highly diversified and fragile biodiversity. Owing to its diverse agro climatic conditions and fertile soil, the region renders a suitable terrain for horticulture produce, commanding a high potential. From a primitive affair, horticulture in the North East Region has poised a quantum jump with the initiation of various programmes and schemes for promoting horticulture industry particularly HMENH. The North East Region accounts for 367.2 ha total area under fruit crops with a total production of 3404.4 MT; 405.8 ha total area under vegetable crops with a total production of 6098 MT; 1.46 ha total area under floriculture with a total production of 3219 MT; 119.1 ha total area under plantation crops with a total production of 207 MT and 121.82 ha total area under spices with a total production of 314.82 MT annually (2009). Production of horticulture crops ranging from fruits, vegetables, flowers, spices and plantations has shown vertical growth in the recent years with the intervention of high yielding varieties, improved production technologies and quality planting materials etc. The growing awareness and hype for organic produce has also boosted the North East economy as the region has natural advantages for organic cultivation. Protected cultivation of high value crops like colored capsicum, cherry tomatoes, strawberry and flower crops is the upcoming trend in horticulture wherein the North East Region can be accounted as one of the players exporting quality produce within and outside the state. It is encouraging to note that Anthurium of North East Region is being successfully marketed in European and Middle East Countries. However, lack of awareness of post harvest management practices and adequate marketing remains a setback. Therefore efforts should be concentrated and stepped up to meet the pressure of increased production through accelerated creation of post harvest management and marketing infrastructures. The economy of the North Eastern Region being primarily agrarian, horticulture can be a watch word for progress of the region.

### State wise Area, Production and Productivity of Horticulture Crops in North East Region

State	Fruit			Vegetable			Flower			Plantation			Spices		
	A	P	Pdy	A	P	Pdy	A	P	Pdy	A	P	Pdy	A	P	Pdy
Arunachal Pradesh	72.0	107.9	1.5	4.2	38.5	9.1	-	-	-	-	-	-	7.63	43.34	5.68
Assam	117.3	1575.5	13.4	255.2	4569.9	17.9	-	-	-	88.8	163.7	1.84	27.37	18.55	0.68
Manipur	38.4	281.9	7.3	19.9	22.8	11.2	-	-	-	-	-	-	8.89	7.84	0.87
Meghalaya	32.9	294.8	8.9	44.3	415.8	9.4	-	-	-	12.4	17.1	1.38	17.41	72.01	4.14
Mizoram	27.1	328.3	12.1	10.6	179.1	16.9	0.04	142	3550	6.6	8.2	1.24	22.67	80.63	3.56
Nagaland	30.8	223.7	7.3	10.4	78.3	7.5	0.02	17	850	1.1	1.6	1.45	7.22	38.62	5.35
Sikkim	12.2	18.5	1.5	28.7	147.7	5.1	0.18	200	1111	-	-	-	26.58	41.73	1.57
Tripura	36.9	573.8	15.6	32.5	446.9	13.7	1.22	2860	2344.3	10.2	16.4	1.60	3.96	12.10	3.06
<b>TOTAL</b>	<b>367.6</b>	<b>3404.4</b>	<b>67.6</b>	<b>405.8</b>	<b>6098</b>	<b>90.8</b>	<b>1.46</b>	<b>3219</b>	<b>7855.4</b>	<b>119.1</b>	<b>207</b>	<b>7.51</b>	<b>121.82</b>	<b>314.82</b>	<b>24.91</b>

Area in ha ('000); Production in MT ('000); Productivity in MT/ha

Source: NHB Database 2009-2010

# Achievements

Central Institute of Horticulture has made some significant achievements in the following areas

- Market initiatives in collaboration with NHB, ICCOA and State Horticulture Department especially for pineapple and other niche horticulture crops in NER
- Facilitated farmers for availing NHB schemes
- Created brand name for Nagaland pineapples through exhibiting in bigger platform
- Establishment of mother block for scion production in citrus, cashew, guava, litchi, mango, peach, aonla, bael of about 4.5 ha area
- Constructed an eco friendly office building from locally available resource – Bamboo office
- Successfully conducted a number of trainings at both farmers and officers level in all states of NER
- Has carried out many promotional activities for organic farming and is now in the process of establishing organic model farms in different states of NER

## 1. FARM DEVELOPMENT ACTIVITIES

During the period under report about 4 ha of land has been developed for undertaking various plantation of horticulture crops viz., passionfruit, cashew, citrus, guava and aloe vera.

### 1.1 Raising of rootstock for grafting/ budding

- For raising rootstock for mango, seeds were procured from local sources. The seeds were extracted from fruits and raised (4500) in ploy bags maintaining all cultural practices till further propagation
- For raising rootstock for citrus, seedlings were procured from NRCC, Nagpur and State Horticulture Farm, Longnak which were maintained and raised (3500) till further propagation
- For raising cashew rootstock, the seedlings were procured from Assam and Nagaland which were raised (8500) and maintained till further propagation

### 1.2 Propagation Activities

- Cashew varieties were propagated (5500) by grafting on 40-45 days old seedlings in ploybags
- Citrus plants were budded (1500) on pencil size thickness rootstocks and raised in polybags
- Rose plants were budded (2500) during the month of Sept – Oct and Feb-March and raised in polybags



### 1.3 Establishment of Nucleus mother block for Passionfruit

An area of 0.75 ha has been established as nucleus mother block for two passion fruit varieties viz., Kaveri (70 nos) and Purple (800 nos) at CIH farm which will be maintained as mother block and used as a source of planting materials for further multiplication. The planting materials were sourced from IIHR Bangalore and State Horticulture Farm, Wokha



❖ Established passion fruit plants

### 1.4 Establishment of rootstock block for citrus

An area of 1 ha has been developed for raising rootstock of citrus for easy accessibility of rootstock material. These rootstocks were planted along the fencing at CIH farm. The planting materials of citrus variety Cleopatra mandarin, Rangpur lime, Rough lemon were procured from NRCC, Nagpur and State Horticulture Farm, Longnak, Mokokchung.



❖ Citrus rootstock along the fencing



## 2. INFRASTRUCTURE DEVELOPMENT

Various infrastructures have been created at the institute during the period under report which has facilitated and eased farm activities and also supplemented beautification.



1. Low cost evaporative cool storage structure for fruits and vegetables



2. Sale counter for marketing display



3. Water harvesting structure embankment type



4. Water harvesting structure dug out type



5. Mini check dams



6. Well furnished bamboo structure administrative office



### 3. TECHNOLOGY DEMONSTRATION

Demonstrations on improved technologies like protected cultivation of tomato, capsicum, production technology of aloe vera, ultra high density planting in guava, evaluation of different varieties of cashew suitable for NER, organic cultivation of pineapple and high density planting and canopy management in cashew were carried out both on farm and off farm in selected farmers field in Assam, Meghalaya and Nagaland.

#### 3.1 On Farm

- For evaluation of different cashew varieties (V-4, BBSR-1, VRI-3, H2/16) for its suitability in NER, an area of 1 ha has been developed
- Ultra high density planting in guava in an area of 1 ha has been developed with different varieties like Kaveri, Allahabad Safeda, Sweta, Lalit, L-49
- For demonstration on protected cultivation, capsicum (Bomby and Orobelle) and tomato (F1 Hybrid) has been planted in an area of 1200sq. m.
- For demonstrating production technology of aloe vera (var barbedensis), an area of 0.125 ha has been planted
- For demonstration of protected cultivation of anthurium, varieties like Evita Red, Evita White, New Orange and Floriana has been planted in an area of 1000 sq. m



### 3.2 Farmers Field (Off farm)

Central Institute of Horticulture under off farm technology demonstration, has established various demonstration farms on High Density Planting and Canopy Management of Cashew var. Vengurala-4 in an area of 4 ha at three villages in Nagaland state namely, Hovukhu village, Dimapur, Zuhashe village, Dimapur and Ralan village, Wokha and an organic pineapple demonstration farm at Molvom village, Dimapur, Nagaland. CIH in collaboration with ICCOA has initiated the process of establishing organic model farms in CIH, Nagaland, Meghalaya and Assam.



Organic Pineapple var Giant Kew demonstration farm at Molvom Village



Cashew demonstration farm at Ralan, Wokha Village





## 4. TRANSFER OF TECHNOLOGY

### 4.1 Training Programmes

Central Institute of Horticulture has conducted a number of trainings for the state government officials and for farmers, beneficiaries, SHGs in coordination with the state government officials, reputed institute, organizations and NGOs with special focus on the subject need of each state in NER. Practical demonstrations, field visits and interaction were the main tools for motivation during trainings.

### Training programmes conducted in NER during 2010-2011

#### A. TRAINERS TRAINING

##### i) Topics wise Trainers' Training conducted

SL NO	TOPIC	NO OF TRAININGS	NO OF PARTICIPANTS	VENUE/STATE	DATES	IN COLLABORATION
1	High density planting & canopy management in fruit crops	2	41	N R C ( M i t h u n ) , Jharnapani, Nagaland	10th-11th June 2010	
			52	Aizwal, Mizoram	17th February 2011	
2	Post harvest management of horticulture crops	2	43	Guwahati, Assam	13th -15th September 2010	
			35	Shillong, Meghalaya	27th -29th January 2010	
3	Soil and crop health management- Sustainable & a biotech approach	1	50	Tripura, Agartala	6th – 7th October 2010	DBT, Agartala
4	Global GAP Standard	1	15	Guwahati, Assam	15-17th November 2010	
5	Supply chain & marketing of agri./ horti. crops	1	90	Gangtok, Sikkim	3-4th February 2011	State Hort. Dept. & ICCOA, Bangalore
6	Canopy management of guava, mango and aonla	1	15	CISH, Lucknow	25th February 2011	
	Total	8	341			

ii) State wise Trainers' Training conducted

SL NO	TOPIC	STATES									TOTAL
		Arunachal Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Sikkim	Tripura	Lucknow	
1	HDP & canopy management in fruit crops					1	1				2
	No of trainings										
	No of participants					52	41				93
2	Post harvest management of horticulture	1			1						2
	No of trainings										
	No of participants	43			35						78
3	Soil & crop health management - sustainable & biotech approach								1		1
	No of trainings										
	No of participants								50		50
4	Global GAP standard		1								1
	No of trainings										
	No of participants		15								15
5	Supply chain & marketing of agri /horti crops							1			1
	No of trainings										
	No of participants							90			90
6	Canopy management of guava, mango and aonla								1		1
	No of trainings									15	15
	No of participants	1	1		1	1	1	1	1	1	8
	No of trainings										
	No of participants	43	15		35	52	41	90	50	15	341
	TOTAL										

B. FARMERS TRAINING

i) Topics wise Farmers' Training conducted

SL NO	TOPIC	NO OF TRAININGS	NO OF PARTICIPANTS	VENUE/STATE	DATES	IN COLLABORATION
1	Banana Fibre Extraction	1	126	Chumukedima, Nagaland	29 <sup>th</sup> May 2010	Maple society, Chumukedima, Dimapur, Nagaland
2	Pest and Disease Management in horticulture crops	2	110	Akuluto, Zunheboto, Nagaland	29 <sup>th</sup> May 2010	
			64	Tuensang, Nagaland	4 <sup>th</sup> November 2010	

3	Post Harvest Management & Value Addition of horticulture crops	4	94	Mokokchung, Nagaland	20 <sup>th</sup> May 2010	ICCOA, Bangalore
				Molvom village, Nagaland	29 <sup>th</sup> June 2010	
				Yajang, Mokokchung, Nagaland	4 <sup>th</sup> November 2010	
				Bade village, Dimapur, Nagaland	28 <sup>th</sup> Feb' 11	
4	Tips for Efficient Marketing	2	27	SFAC, Delhi	27 <sup>th</sup> July 2010	NHB, Gurgaon and ICCOA, Bangalore
				Lalbagh, Bangalore	29 <sup>th</sup> November 2010	
5	Improved Production Technology of horticulture crops	2	48	Khekhohi village, Dimapur, Nagaland	25 <sup>th</sup> August 2010	
				Longleng, Nagaland	2 <sup>nd</sup> November 2010	
6	High Density Planting & Canopy Management in fruit crops	1	112	Longnak, Mokokchung, Nagaland	24 <sup>th</sup> September 2010	
				Jowai, Meghalaya	25 <sup>th</sup> October 2010	
7	Farmers Awareness Programme on Agriculture Marketing for Women	3	26	SHN, Dimapur, Nagaland	28 <sup>th</sup> October 2010	NIAM, Jaipur
				CIH, Medziphema, Nagaland	29 <sup>th</sup> October 2010	
8	IPNM and IPM in vegetable crops	2	80	Udaipur, South Udaipur, South Tripura	28 <sup>th</sup> January 2011	Omega Society Organization, Udaipur, South Tripura
				Panchabati West, Tripura	29 <sup>th</sup> January 2011	
9	Integrated Farming System	3	73	Borum Village, Arunachal Pradesh	8 <sup>th</sup> February 2011	AASA, Arunachal Pradesh
				Nirjuli village, Arunachal Pradesh	9 <sup>th</sup> February 2011	
				Kimin Village, Arunachal Pradesh	10 <sup>th</sup> February 2011	
				Tripura, Agartala	30 <sup>th</sup> - 31 <sup>st</sup> August 2010	
10	Organic Farming & Certification	8	86	Khukiye-Lukhiyi Village, Zunheboto, Nagaland	8 <sup>th</sup> February 2011	NMCPS, Zunheboto, Nagaland
				NRC Orchid, Sikkim	5 <sup>th</sup> February 2011	
				Bermiok, Sikkim	6 <sup>th</sup> February 2011	
				Geyzing, West Sikkim	7 <sup>th</sup> February 2011	
				Thingsulthiah Village, Mizoram	14 <sup>th</sup> February 2011	



11	Market Linkage for Organic produce	1	95	Chhingchhip Village, Mizoram	15 <sup>th</sup> February 2011	
12	Demonstration and Distribution of Solar Dehydration Tent	1	95	Chhiahtlang Village, Mizoram	16 <sup>th</sup> February 2011	
13	Organic farming in horticultural crops	1	23	IIHR, Bangalore	3-4 <sup>th</sup> March 2011	
	<b>Total</b>	<b>31</b>	<b>2074</b>			CISH, Lucknow

## ii) State wise Farmers training conducted

SL NO	TOPIC		STATES							TOTAL		
			Arunachal Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Sikkim		Tripura	
1	Banana fibre extraction	No of trainings							1		1	
		No of participants							126		126	
2	Pest & disease management in horticultural crops	No of trainings							2		2	
		No of participants							174		174	
3	Post harvest management & value addition	No of trainings							4		4	
		No of participants							332		332	
4	Improved production technology of horticulture crops	No of trainings							2		2	
		No of participants							133		133	
5	Organic farming & certification	No of trainings						3	2	3	1	9
		No of participants						310	195	117	86	708
6	HDP & canopy management	No of trainings							1		1	
		No of participants							112		112	
7	Awareness programme on agriculture marketing for women	No of trainings				1			2		3	
		No of participants				26			46		72	
8	Tips for efficient marketing	No of trainings							2		2	
		No of participants							72		72	



## GLIMPSES OF TRAINING PROGRAMME

### TRAINERS TRAINING



❖ Field visit to Sakshi Agro Beverage, Assam during “Post Harvest Management of Horticultural Crops” training at Guwahati, Assam



❖ Participants during “Awareness on Global GAP Standard” training at Guwahati, Assam



❖ Field visit to Govt. Fruit Preservation Factory, Meghalaya during “Post Harvest Management of Focus Horticultural Crops” training at Shillong, Meghalaya



❖ Resource person Dr BMC Reddy, Chief Consultant, CIH demonstrating practically (L), field visit to Saijang (R), during “High Density Planting & Canopy Management in Fruit Crops” training at Jharnapani, Dimapur, Nagaland



❖ Participants and resource person during practical demonstration (L) and participants (R) during training on “Canopy Management on Guava, Mango and Aonla” at CISH, Lucknow



❖ Field practical demonstration (T– B) during “High Density Planting & Canopy Management” training at Aizwal, Mizoram



## FARMERS TRAINING



❖ Participants along with Director, CIH during “Value Addition” training at Mokokchung, Nagaland



❖ Practical demonstration during “Banana Fibre Extraction” training at Chumukedima, Dimapur, Nagaland



❖ Farmers taking note on field during “Pest & Disease Management in Horticultural Crops” training at Akuluto, Zunheboto, Nagaland



❖ On farm demonstration by resource person (L), practical on value addition (R) during “Post Harvest Management & Value Addition in Pineapple” training at Molvom village, Dimapur, Nagaland



❖ Resource person from SAFAL conveying the participants during “Tips for Efficient Marketing” training at SFAC, New Delhi



❖ Practical demonstration for budding during “Improved Production Technology on Citrus” training at Khehoi village, Dimapur, Nagaland



❖ Director, CIH along with Minister DBT and Comm. & Secy. DBT & participants during Training on “Organic Farming & Certification” at Tripura, Agartala



❖ On farm practical demonstration during “High Density Planting & Canopy Management in Fruit Crops” training at Longnak, Mokokchung, Nagaland



❖ Participants (L-R) during training on “Awareness Programme on Agriculture Marketing for Women” at State Horticulture Nursery, Dimapur, Nagaland



❖ Resource person along with participants during training on “Improved production technology in Pineapple & Citrus” at Longleng, Nagaland



❖ Resource person delivering to the participants during training on “Organic Farming & Certification” at Thingsuthliah village, Mizoram



❖ Discussion with participants during training on “Organic Farming & Certification” at Chhingchhip village, Mizoram



❖ On farm visit to vermicompost unit during training on “Integrated Farming System” at Borum village, Arunachal Pradesh



❖ Director, CIH interacting with growers during training on “Post Harvest Management & Processing of turmeric” Bade village, Dimapur, Nagaland



❖ Experts demonstrating “Propagation” techniques in aonla during training on “propagation techniques in horticultural crops” at Trupty Orchard, Kheonjar District, Orissa





❖ Mr. Toshi, inventor of solar dehydrator tent demonstrating to beneficiaries (L), Director CIH with MD, NABARD receiving the dehydrator tent (R) during “Demonstration and distribution of solar dehydrator tent” at CIH, Medziphema, Dimapur, Nagaland



❖ Resource person practically demonstrating making of biopesticide (Top), Cow Pat Pit (L) and participants along with Resource person and Director CIH (R) during training on “Organic Farming in Horticultural Crops” at Medziphema, Dimapur, Nagaland

## 5. AGRIBUSINESS PROMOTION

CIH has taken a lot of new initiatives for the benefit of the farmers through organizing exposure trips, exhibitions, buyers sellers meet etc. to provide suitable market linkages to the horticulture crops growers of the region.

The objectives of organizing such events are to equip the farmers with the right kind of technology for improved production and knowledge on different markets so as to cater to the requirements of both national and international markets. A direct sale through exhibition gives an opportunity to the farmers to showcase their produce and earn a premium for their high quality horticulture produce. It helps the farmers gain an understanding on the markets demands and consumer behavior. Exposure trips enable the farmers to understand crop related issues and market models followed by farmers and institutions across India. Buyers and sellers meet provide a platform to the farmers to have one to one interaction with potential buyers/investors/companies for future business.

### 5.1 Market study at Sirsi, Kanataka

An exposure trip cum training to Sirsi, Karnataka was organized in the month of June, 2010, for organic pineapple growers from the region to understand the concept of pineapple business from Dr. Abdul Kauf, one of the successful entrepreneurs in pineapple marketing. Two pineapple growers, Mr. Mangpi from Molvom village and Mr. Semato from Pherima village along with Mr. Prabin Das, Marketing Specialist, CIH went for the exposure cum training at Sirsi, Karnataka. The farmers were trained on various aspects from cultivation – production – marketing of pineapple by Dr. Abdul Kauf and his son Abdul Karim.



❖ Growers along with Abdul Karim at Sirsi, Karnataka

### 5.2 Exploring market at Azadpur Mandi, Delhi

An exposure cum market survey was done at Delhi in the month of June, 2010 in coordination with ICCOA. The team comprising of Mr. Prabin Das, Marketing Specialist, CIH, Mr. Ankit Nigam (ICCOA) along with two farmers Mr. Mangpi and Mr. Laljon, Molvom village visited all the pineapple wholesalers in Azadpur Mandi along with samples to explore possible business.



### 5.3 Direct Marketing of Pineapple at Dilli Haat, New Delhi

Nagaland pineapples are known best for their unique taste and sweetness. However, it is very difficult to market it because of the high transportation cost, leading to high price of the fruit. So, in order to promote and showcase the pineapples of the region, Central Institute of Horticulture, Medziphema took the initiative of direct marketing of pineapple at Dilli Haat, New Delhi in collaboration with National Horticulture Board, Gurgaon, State Horticulture Department, Govt. of Nagaland and ICCOA, Bangalore. The formal inauguration of the stalls at Delhi Haat was done by Mr. G C Patil Addl. Secretary, Ministry of Agriculture, GoI. The inaugural function was attended by Mr. Bijay Kumar, MD, NHB along with other officials from NHB, Mr. Manoj Menon, ED, ICCOA with other staffs from ICCOA and CIH staffs. Mr. G. C. Pati, Addl. Secy. MOA, encouraged the farmers and appreciated their interest in coming to Delhi for marketing their pineapples. The customers appreciated the quality of the pineapples and expressed the need to market it on large scale, display in more



❖ Chief Guest Mr G C Pati Addl. Secy, MoA, GoI inaugurating the event (above) & Chief Guest and MD, NHB along with official staffs and Chairman, Organic Pineapple Growers Society (below)



At the stall (above) & catering to customers (below)



places so that it can be readily available and also in different forms like jam, jelly, juice and squash etc. The farmers really appreciated the initiative taken by CIH, NHB, State Govt. and ICCOA to market pineapples from Molvom village, Nagaland. The farmers quoted that their fruits fetched immense publicity and sale at 'Dilli Haat' under the banner "Nagaland Pineapple Festival" from 17th to 27th July 2010 that attracted the attention of the people of Delhi and even the foreign-tourists by tasting sweet savoury organic pineapples. They thanked all the departments for broadening their concept of market linkage.

## 5.4 Exposure trip to Zonal Agricultural Research Station, Brahmanavar, Karnataka

Central Institute of Horticulture, Medziphema in collaboration with Cashew and Cocoa Board, Kochi sponsored 50 farmers from Nagaland for the Exposure Trip cum National Level Seminar on Cashew at Zonal Agricultural Research Station, KVK, Brahmanavar from 15th – 19th October 2010. The training was inaugurated by Mr K M Udapa, Managing Trustee, Bharatiya Vikas Trust. Dr Hanumanthappa, Associate Director of Research, ZARS, Brahmanavar; Dr Dhananjaya, Programme Coordinator, KVK, Brahmanavar and Dr T J Ramesha, Programme Coordinator, KVK, Balek, Arunachal Pradesh were the guest speakers for the seminar. The training covered various aspects of cashew production technologies, harvesting, processing and marketing. Method demonstration on propagation, soil sample collection, identification and selection of healthy saplings, pit making and fertilization, pests and disease identification coupled with field visits to demonstration plots and farmers scientist interaction programme were the main focal point of the training.



❖ Chief Guest, Shri K M Udapa lighting lamp at the inaugural along with resource persons (L), and trainees during field visit (R)

## 5.5 Flower Growers at College of Agriculture, Pune, Maharashtra

An exposure trip for the flower growers of Nagaland was organized by the Central Institute of Horticulture, Medziphema, Dimapur from 27th to 30th September 2010 to Pune, Maharashtra under the assistance of Mr Arvind Singh, Technical Consultant, CIH. The growers visited the Hi - Tech floriculture Project at College of Agriculture Pune, Century International and Shrivardhan Biotech Kondigre. During the exposure trip, the growers were acquainted with the various cultivation practices of flowers especially rose, carnation and gerbera. The growers were also enlightened about the importance and scope of dry flower production and demonstrated about the making of such products.



❖ (L) Growers interacting with carnation expert (R) dry flower making unit



## 5.6 North East Horti Fest at Lal Bagh, Bangalore

With the objective to showcase the unique and high quality horticultural produce of the North East Region, the Central Institute of Horticulture and the National Horticulture Board in collaboration with the State Horticulture Department, Govt. of Karnataka and Govt. of Nagaland and ICCOA, Bangalore organized the North East Horti Fest at Lal Bagh, Bangalore. The prime focus being exhibitions cum sale so as to develop the farmer's competency in the field of horticulture produce marketing and also enable them to be economically stable, and help develop new marketing linkage which will help them generate better income. Besides marketing and sale there were parallel event like Buyer Sellers meet and training on "Tips for Efficient Marketing" to help the farmers understand the depth of marketing their produce.

The stalls were formally inaugurated on 25th November 2010 by Shri. Ravindra Nath, Hon'ble Minister of Horticulture, Government of Karnataka and presided over by Dr. Hemchandra Sagar, Hon'ble Member of Legislative Assembly. Smt. Vanditha Sharma, Secretary Horticulture, Government of Karnataka was the Chief Guest. The inaugural function was attended by Mr Bijay Kumar, MD, NHB and his team of officers from Gurgaon and Bangalore and Mr Jayram, Director, Department of Horticulture, Government of Karnataka along with other officials, Dr Akali Sema, Director, CIH and Ms Puvichonü Rhütso, PHT, CIH, Mr Manoj Kumar Menon, ED, ICCOA and his staffs and Dr. Benjong Aier, Mission Director, Horticulture along with his officers and farmers from Assam, Manipur and Nagaland.

The farmers from the North East Region were provided with seven stalls for direct selling of the fruits and spices by the National Horticulture Board. There were six items for sale viz., Pineapple, Orange, Kiwi, Ginger, Naga Mircha and Passion fruit. Among the items for sale, pineapples enticed the customers and in turn wanting for more. Naga Mircha, one of the hottest chilli in the world amazed the customers as the name was heard of but had never seen. Even though making available the fresh produce to the consumer at its best was highly appreciated, the consumers desired for processed and value added products. The customer's response boosted the farmers and the farmers understood the customer's need and preferences in the South. The farmers expressed that it was opportunity for not only understanding the marketing aspects and linkages of the other states but also an opportunity to understand the diverse culture and behaviors of the people in and around us. With the realization that North East states has one on the best produce in the world, the farmers now know that they are at par with the best producers of the world.



❖ Shri. Ravindra Nath, Hon'ble Minister of Horticulture, GoK inaugurating the event along with Dr. Hemchandra Sagar, Hon'ble MLA & Smt. Vanditha Sharma, Secy Hort. GoK



❖ Customers at the stalls



## 5.7 Farmers exposure trip to Trupty Orchard, Orissa

The Central Institute of Horticulture organized an exposure trip cum training for 20 farmers at Trupty Orchard, Keonjar, Bhubaneswar, Orissa from 26th February to 6th March 2011. The exposure trip gave an insight on the various propagation methods for fruits and flowers. Budding of rose, aonla and grafting in mango, guava, cashew, techniques of seedling raising and its maintenance were practically demonstrated to the farmers in the field. Meanwhile, visit to some important places like Central Horticulture Experiment Station, IIHR Regional Center, Coconut Development Board, Orissa University of Agriculture and Technology, Regional Center for Central Tuber Crop Research Institute, Bhubaneswar was also conducted as a part of the exposure trip. Mr Arvind Singh, Technical Consultant, CIH assisted the farmers for the trip.



❖ Farmers at the cashew demonstration farm with experts (L&M) and demonstration on guava propagation (R)



❖ Farmer's visit to different research institutes during the exposure trip

## 5.8 Farmers exposure trip to Bangalore

Exposure trip-cum-training of fruits & vegetable growers was organized by CIH from 25th February to 10th March, 2011 to renowned institutions like Indian Institute of Horticulture Research (IIHR), University of Agricultural Sciences (UAS) and International Competence Centre of Organic Agriculture (ICCOA). The objective of the trip was to promote transfer of technology to the farming community for improved production and productivity of horticulture crops.

The farmers visited Indian Institute of Horticultural Research (IIHR) on 1st March, 2011, where they were equipped with knowledge on the various improved production technology of horticulture crops like banana, mango, citrus fruits, brinjal, cabbage and tomato. Farm visit was conducted to witness the cultivation methodology and practical demonstration on pest and diseases management of horticulture at IIHR.

At the International Competence Centre for Organic Agriculture (ICCOA), Bangalore the farmers participated in a two day workshop (3rd & 4th March) on “market linkages for organic produce”. The farmers were enlightened about the basics of sorting, grading, packaging & procurement, supply to retail chains, domestic markets and opportunities for organic produce and the art of marketing. Mr Gangadhar, Spencer’s, Mr Venkatesh, Eco Agri. and Mr Sunil Kumar S, ICCOA were the resource persons. A field visit to Devanahalli project area, Spencer’s hyper market, and organic shop at ISKON was conducted where the entire chain of activities related to marketing of horticulture produce to retail outlets was highlighted.



❖ Farmers interacting with speakers during training on “market linkages for organic produce” at Bangalore

At the University of Agricultural Sciences (UAS), Bangalore on 7th March, the farmers got trained on various aspects of cultivation of horticultural crops coupled with practical demonstration on propagation methods of horticulture crops like guava, mango and citrus fruits especially tissue culture cultivation of banana. They also visited the floriculture unit, nursery unit, MAP unit etc.



❖ Farm visit at IIHR, Bangalore

## 5.9 Farmers exposure trip to Delhi and Ludhiana

With the objective to create awareness and equip farmers with the knowledge and witness the recent developments in the field of post harvest management, an exposure trip cum training was organized by the Central Institute of Horticulture at CIPHET, Ludhiana and IARI, New Delhi from 3rd to 7th March 2011. Ms. Puvichonü Rhütso, Post Harvest Technologist, CIH and Mr. Zulumeren, Senior Technical Assistant, CIH assisted 30 farmers for the said exposure trip.

On 3rd March 2011, an exposure trip to the Central Institute of Post Harvest Engineering and Technology (CIPHET) Ludhiana was conducted. At the Institute, the farmers were highlighted of the various technologies and developments on post harvest aspects by Dr R Jain. The institute showcased various equipments developed by CIPHET to the participants. They also explained various value added products developed by the Institute using modern technologies.



❖ Farmer’s interaction with resource person





❖ Farmer participants along with CIH staffs at CIPHET



❖ At the rice mill pilot project, CIPHET

At the Indian Agriculture Research Institute (IARI), Delhi, the farmers attended the Krishi Vigyan Mela held at IARI, Pusa Campus from 4th to 5th March 2011. At the mela, the farmers were taken for a field visit and exposed to production technology of different vegetables, flowers in open field, protected cultivation of tomato, capsicum and flowers and acquainted with live demonstration for handling farm equipments and machineries. Different value added products like pickles, chips, juices etc. made from raw materials which are easily available in the North East Region were also on display and sale where each farmer had their own taste, motivating them for a better opportunity. Day long training was also organized by the Central Institute of Horticulture under the expert guidance of Post Harvest Division, IARI for the participants.



❖ Farmers participants along with experts at onion seed production and floriculture demonstration farm (L & M) & Indo Israel Project site (R) at IARI, Pusa campus, Delhi

### 5.10 Exposure trip of North East State Govt Officials to CISH at Lucknow

An exposure trip cum training on High density planting and Canopy management was organized by the Central Institute of Horticulture for the North East state government officials from 24th to 26th February 2011 at the Central Institute for Subtropical Horticulture, Rehmankhura, Lucknow. State government officials from North East Region accompanied by Mr Arvind Singh, Technical Consultant, CIH participated for the said exposure trip. During the exposure trip, the official participants were exposed to various kinds of improved technology like propagation techniques and protected cultivation of tomato, capsicum etc. The participants also visited the Central Institute with Medicinal and Aromatic Plants (CIMAP) where they interacted with the experts about its various scope and prospects of its cultivation and the various value added products.





❖ Participants at CIMAP green house



❖ At the propagation site at CISH



❖ Participants taking a look of value added products at CIMAP

## 6. WORKSHOP/SEMINAR

### 6.1 “Smart Marketing Tips” at Lal Bagh, Bangalore

With the objective to create awareness to farmers about the concepts of marketing and also for future tie ups with the company, the Central Institute of Horticulture organized a daylong workshop cum training programme on “Smart Marketing Tips” in collaboration with ICCOA, Bangalore on the 26th November 2010 during the North East Horti Fest, at Lal Bagh, Bangalore. Mr Sunil Kumar Surendran, Marketing Consultant, ICCOA; Mr Gangadhar, Head of Backward Linkages, Spencers and Mr Manoj Kumar Menon, ED, ICCOA were the experts who trained the farmers on leveraging market opportunities, basic marketing tips. The workshop was taken over by Mr Manoj Kumar Menon, where the farmers of different states interacted with each other practically for marketing of produce such as orange, passion fruit etc. outside the state as an example. The workshop created awareness about the various pros and cons involved in marketing process. Altogether 35 participants attended the said training programme.



❖ Resource person lecturing to the farmers during workshop cum training programme on “Smart Marketing Tips” at Lal Bagh, Bangalore

## 6.2 “Soil and Crop Health Management – a sustainable and a biotech approach” at Agartala, Tripura

Two days workshop cum training programme on “Soil & Crop health management – a sustainable and biotech approach” was organized by Central Institute of Horticulture, Department of Agriculture and Cooperation, Ministry of Agriculture, Govt. of India, Medziphema, Nagaland in collaboration with Directorate of Biotechnology, Govt. of Tripura from 6th to 7th Oct. 2010 at Agartala, Tripura. Shri Joy Gobinda Deb Roy, Hon’ble Minister of Science, Technology and Environment, Govt. of Tripura, Agartala graced the occasion as the Chief Guest. The workshop was attended by Directors from 5 different Departments viz., Agriculture, Horticulture & Soil conservation, Animal Resource Development, Biotechnology and Science Technology & Environment, Govt. of Tripura, Director, CIH and officer of CIH, Ms Meribeni Shitiri, resource persons and farmers. Chief Guest, Shri Joy Gobinda Deb Roy remarked that one of the most important revolutions that India has gone through in the post independence era is the green revolution and that it has definitely changed the scenario of production of food grains in the country towards self sufficiency in this sector. He also said that nature has its own way of working and as long as our activities do not confront with those of the nature, there is no problem.

Mr. Rohitashwa Gakhar, Head, Organic Farming Division, AFCL; Dr N.C.Talukdar, Director Incharge, IBSD, Govt. of India, Imphal; Dr S.Sithantham, Director-Ento, Sun Agro Biotech Res. Centre, Chennai; Dr N.G.Hajra, Chief Consultant, Maple Orgtech ( India), Kolkata were the resource persons who delivered on various topics like “Basis of transformation: Chemicals ,Climate Change and organic farming”, “The Wonder World of Microorganisms & Soil microbial communities–Organic inputs”, “Bio fertilizers: Types , benefits & application of bio fertilizers” and “VAM: Field experiences & Techniques in application/use”, “Microorganisms for Pest & diseases Management in agri./horti crops”, “Related eco friendly technologies for crop management- Use of botanicals (local plants) & Use of traps system”, “EM Technology in Soil & crop health management” and “Methods of application of EM in Agriculture” followed by a series of panel discussions. The valedictory function was graced by Director, DBT, Mr B Chakraborty. Altogether 51 officials from Agriculture, Horticulture & Soil conservation, Animal Resource Development, Biotechnology and Science Technology & Environment departments attended the workshop cum training programme.



❖ Chief Guest releasing book on “organic cultivation



❖ Chief Guest, Shri Joy Gobinda Deb Roy, Hon’ble Minister of Science, Technology & Env’t, Govt. of Tripura along with Director, CIH & participants

### 6.3 North East Marketing Summit at Dimapur, Nagaland

The eight states of North-East India have huge potential in horticulture sector with congenial agriculture conditions for producing any horticulture produce. In addition, many horticultural produce of the region has an edge over the produce from other place in terms of high quality, besides it being chemical free. However, marketing has always been a major constraint in popularizing its produce and the farmers do not fetch the premium it deserves. Lack of proper knowledge on market linkages and inadequate market infrastructure results in huge post harvest losses that further results in distress selling by the producer during the season.

Keeping in view this important potential and the constraints in marketing sector of the region, a four day long North East Marketing Summit, 2010, the mega event of the region, was held from 15th – 18th December, 2010 during North East Agri Expo, 2010, held from 15th – 19th December, 2010. This summit was organized with an objective to create a common platform for important stakeholders in the field of agri/horti crops marketing viz. progressive farmers, entrepreneurs, agricultural graduates, state marketing boards, farmer groups/ societies/ SHGs/NGOs, banks and financial institutions, private companies involved in agri/horti. Crops marketing to deliberate on key issues in order to bring out strategies to improve, agri/ horti marketing sector in the region. The summit was organized by Central Institute of Horticulture (CIH), National Horticulture Board (NHB), Federation of Indian Chamber of Commerce & Industry (FICCI) in collaboration with Government of Nagaland and co-sponsored by NABARD, NERAMAC and NEC.

The theme of the summit was “Issues and Challenges in Agriculture Sector” with six sub themes viz. “restructuring the central schemes in NER”, “tapping the organic agricultural potential of North East India”, “food security vis-à-vis climate change”, “fostering agriculture entrepreneurship in North East India”, “creating impetus to food processing sector in NER” and session on “way forward”. The summit was inaugurated by Hon’ble Chief Minister, Govt. of Nagaland, Shri Neiphiu Rio and keynote address was given by Dr S N Puri, Vice Chancellor, Central Agricultural University, Imphal, Manipur. Eminent personalities from across the country having expertise & experience in the marketing sector were the resource persons of the summit. Besides, many renowned persons of the country chaired the sessions during the summit. The deliberations were very informative and enriching for the participants as well as the resource persons. The closing function was clubbed up with the N E Agri Expo closing programme, where the Chief Guest was Ms Agatha Sangma, Hon’ble Minister of State for Rural Development, Govt. of India and the recommendations of the summit was presented by Dr Akali Sema, Director, CIH & Organizing Secy., North East Marketing Summit.



❖ Director, CIH, Dr Akali Sema along with Chief Guest, Shri Neiphiu Rio, Chief Minister, GoN and dignitaries at the inaugural session



❖ Dr S N Puri, VC, CAU, Imphal, Manipur and Mr Rajan Kholi, FICCI addressing participants at the round table discussion during restructuring of Central Schemes in NER





❖ Shri. Neiphiu Rio, Hon'ble Chief Minister, Govt. of Nagaland presenting the Inaugural address (L), Dr. Elithung, DHO, Wokha interacting with participants at the farmers scientist interaction (M & L)



❖ Ms. Agatha Sangma, Hon'ble Minister of State for Rural Development, Govt. of India, delivering the valedictory address

❖ Director delivering report & recommendations of NE Marketing summit at the valedictory

The North East Marketing Summit has brought out many issues and challenges and also suitable strategies in agri/ horti crop marketing sector. The in depth deliberations on various topics has been very much beneficial for the participants as it has given them the exposure in the area of agri/ horti marketing. The summit highlighted on the various possibilities and advancement in marketing of perishable crops and the different sessions were designed with a focus on key issues in agricultural marketing and that the participants are equipped with the right kind of information and expertise required in the sector and also step forward to uplift the economy of the region through better marketing network of the quality produce of the region.

## 6.4 “Organizational Management” at CIH, Nagaland

Central Institute of Horticulture organized a two day workshop on Organizational Management for its staffs during 28th and 29th March 2011 at the conference hall, CIH, Medziphema. The main objective of the workshop was to motivate the staffs for an efficient and better working environment. Resource person, Mr Amba Jamir, Policy Analyst and Development Consultant, Guwahati, Assam mentored the CIH staffs on how to build a highly effective team for sustainable development, characteristics of a good team and organizational planning.



❖ Resource person, Mr Amba Jamir, Policy Analyst & Development Consultant, Guwahati, Assam delivering (L) and CIH staffs listening to lecture (R)



❖ Director, CIH sharing views with participants (L), CIH staffs partaking in constructive game and enjoying their creative side (M and R)

## 6.5 “Supply chain & Marketing of Agri/Horti Crops” at Gangtok, Sikkim

To address some of the key issues of horticulture sector and understanding the dynamics of the business and the gaps in the supply chain and logistics, so as to bring out certain recommendation with special focus on supply chain and logistics management, Central Institute of Horticulture (CIH) in collaboration with Govt. of Sikkim and ICCOA organized a two day workshop-cum-training on “Supply chain and marketing of agri./horti. crops” at ICAR Hall, Gangtok, Sikkim on 3rd and 4th Feb. 2011. The organic movement by the state, which is a big step forward to becoming one of the first in the country to be fully organic state, will be successful when every step from production to market linkage is properly taken care of. Keeping this in view, this workshop was held in the state so as to discuss, deliberate and take into consideration suitable remedies towards streamlining the marketing system.

The workshop was inaugurated by Shri D N Takarpa, Hon'ble Minister of FS & ADD/H & CCDD & Health, Govt. of Sikkim. In his address, he remarked that the workshop on “Supply Chain & Marketing of Agri./ Horti. Crops” is being organized at the most opportune moment. He pointed out that marketing has been a major problem for the farmer in the state of Sikkim and the farmers should realize the need calls for developing a systematic strategy to put in place a sustainable marketing and value system.

Shri Vishal Chauhan IAS, Secy (FS & ADD/H & CDD) gave the inaugural remarks. Mr Manoj Kumar Menon, ED, ICCOA, Bangalore presented the keynote address. He gave an overview of Supply Chain & marketing of Agri./Horti. crops in NE region.

Mr Manoj Kumar Menon, ED, ICCOA, Bangalore, Mr Sunil Kumar S, Marketing Consultant, ICCOA & Principal Consultant, Aum Consulting Inc. Chennai, Mr Sujit Verma, MD, Aquastar Logistics Pvt. Ltd and Mr Prabin Das, Marketing Specialist, CIH, Nagaland were the resource persons.

In order to plan, implement and monitor the entire mission and its project, a series of suggestions emerged from two days Workshop.

1. Formation of farmers' groups, which could be three tier system i.e., at Village level, District level and State level.
2. To set up marketing cell within the farmers organization / Organic Mission to link up buyers (retailers / manufacturers / exporters / marketers of organic produce) with producers.
3. Designing of Distribution network ie., Aggregation of produce at farm level, Procurement Centres at GPU (160 nos) by Primary Cooperative Society, Aggregation Centres at Block level (26 nos) by Blocks level Cooperative Societies, Consolidation at District level (4 nos) by District level Union/Society and finally at Headquarter (Gangtok), a state federation for marketing produce within the state, inter state or export.
4. Integration of Information Technology and Supply Chain in order to have better accessibility for buyers to the information on availability of produce and make offers.
5. To constitute an Advisory Committee to coordinate for setting up farmers organization and all organic projects of the state.



❖ Director, CIH along with resource persons (L) & Participants (R)



## 7. PUBLICATIONS

### 7.1. ANNUAL REPORT (2009-2010)

### 7.2. FOLDERS IN ENGLISH

- “Post Harvest Management of Anthurium”. Ext. Folder No. 8. (Rhütso, Puvichonü, Shitiri, Meribeni and Sema, Akali).
- “Value addition of wild Aonla”. Ext. Folder No. 9. (Rhütso, Puvichonü, Shitiri, Meribeni and Sema, Akali).
- “Post Harvest Management of Capsicum”. Ext. Folder No. 10. (Rhütso, Puvichonü, Shitiri, Meribeni and Sema, Akali).
- “Techniques for off-season onion production in NER”. Ext. Folder No.11. (Shitiri, Meribeni and Sema, Akali).
- “Post Harvest Management of Gerbera”. Ext. Folder No. 12. (Rhütso, Puvichonü, Shitiri, Meribeni and Sema, Akali).
- “Value Addition in Ginger”. Ext. Folder No.13. (Rhütso, Puvichonü, Shitiri, Meribeni and Sema, Akali).
- “Post Harvest Management of Tomato”. Ext. Folder No. 14. (Rhütso, Puvichonü, Shitiri, Meribeni and Sema, Akali).
- “Optimum stage of harvesting of horticultural crops of NER”. Ext. Folder No.15. (Rhütso, Puvichonü, Shitiri, Meribeni and Sema, Akali).
- “Post Harvest Management of Strawberry”. Ext. Folder No. 16. (Rhütso, Puvichonü, Shitiri, Meribeni and Sema, Akali).
- “Calendar of operations for old & decline Mandarin Orchards”. Ext. Folder No.17. (Talimeren, Shitiri, Meribeni and Sema, Akali).
- “Canopy management in Citrus & Litchi”. Ext. Folder No.18. (Talimeren, Shitiri, Meribeni and Sema, Akali).
- “Bee keeping for better pollination in horticulture crops”. Ext. Folder No.19. (Pongener, Azungla, Shitiri, Meribeni and Sema, Akali).
- “Post Harvest Management of Ginger”. Ext. Folder No.20. (Rhütso, Puvichonü, Shitiri, Meribeni and Sema, Akali).
- “Post Harvest Management of Passionfruit”. Ext. Folder No. 21. (Rhütso, Puvichonü, Shitiri, Meribeni and Sema, Akali).
- “Organic package of practices of Black Pepper”. Ext. Folder No.22. (Sentiayangla, Shitiri, Meribeni and Sema, Akali).
- “Banana Fibre Extraction”. Ext. Folder No.23. (Singh, Arvind, Shitiri, Meribeni and Sema, Akali).

### 7.3. FOLDER IN LOCAL DIALECT

- “Production technology of carnation under protected cultivation”. Ext. Folder No. 1. (Ao, Angami, Lotha, Sema, Khiamningam, Phom)
- “Post Harvest Handling and Care of Cut Roses”. Ext. Folder No.2. (Ao, Angami, Lotha, Sema, Khianuingam, Phom)
- “Production Technology of Rose under Protected Cultivation”. Ext. Folder No.3. (Ao, Angami, Lotha, Sema, Khiamningam, Phom)
- “Production Technology of Gerbera under Protected Cultivation”. Ext. Folder No. 4. (Ao, Angami, Lotha, Sema, Khiamningam, Phom)

- “Bokashi”. Ext. Folder No. 5. (Ao, Angami, Lotha, Sema, Khiamnuingam, Phom)
- “Cultivation of Tomato in Polyhouse”. Ext. Folder No. 6. (Ao, Angami, Lotha, Sema, Khiamnuingam, Phom)
- “Cultivation of Capsicum in Polyhouse”. Ext. Folder No. 7. (Ao, Angami, Lotha, Sema, Khiamnuingam, Phom)
- “Canopy management in Passionfruit”. Ext. Folder No. 8. (Ao, Lotha)
- “Canopy management in Mandarin”. Ext. Folder No. 9. (Ao, Angami, Lotha, Sema)
- “Canopy management in Sweet Orange”. Ext. Folder No. 10. (Ao, Lotha, Khiamnuingam, Phom)
- “Canopy management in Kiwifruit”. Ext. Folder No. 9. (Angami, Sema)
- “Canopy Management in Plum”. Ext. Folder No. 10. (Angami)
- “Canopy Management in Peach”. Ext. Folder No. 12. (Angami)
- “Canopy Management in Pear”. Ext. Folder No. 11. (Angami)
- “Canopy management in Cashew”. Ext. Folder No. 11. (Lotha)
- “Canopy management in Banana”. Ext. Folder No. 10. (Sema)

***Translators :***

Ao	Mrs Anenla Jamir
Angami	Dr Mechiehol Savi
Lotha	Rev. N T Murry
Sema	Dr Kashito Aye
Khiamnuingam	Rev. Pomo
Phom	Mrs Lemjan

#### **7.4. BULLETIN**

- “Dry Flower Techniques”. Ext. Bulletin No.1. (Rhütso, Puvichonü, Shitiri, Meribeni and Sema, Akali).
- “Pest & Disease Management of Flowers under Protected Cultivation”. Ext. Folder No. 2. (Singh, Arvind, Shitiri, Meribeni and Sema, Akali).

#### **7.5. MANUAL**

- “Protected Cultivation of focused ornamental crops of NER”. (Singh, Arvind, Shitiri, Meribeni and Sema, Akali).
- “Important Pest and Disease of focus horticultural crops in NER”. (Alemnla, Daiho, Banik, Shitiri, Meribeni and Sema, Akali).
- “Catalogue of focus horticultural crops in NER”. (Singh, Gorakh, Shitiri, Meribeni and Sema, Akali).
- “Citrus nursery and rejuvenation of declining citrus orchard in Nagaland”. (Talimeren, Shitiri, Meribeni and Sema, Akali).

#### **7.6. FLOWCHART**

- “Disease Management in Citrus”.
- “Organic Package of practices for Naga Mircha”.
- “Production Technology of Anthurium”.
- “Insect Pest Management in Citrus”.

## 7.7. REPORT & PROCEEDINGS

“Report and recommendations of NE Marketing Summit”. (Sema, Akali, Das, Prabin, Shitiri, Meribeni and Rhütso, Puvichonü).

“Proceedings of NE Marketing Summit”. (Sema, Akali, Das, Prabin, Shitiri, Meribeni and Rhütso, Puvichonü).

## 8. CAPACITY BUILDING & PARTICIPATION

- “7th International Pineapple Symposium” at Johor Bahru, Malaysia during 13th to 15th July 2010. Dr Akali Sema, Director, CIH, presented paper entitled “Pineapple Cultivation in the North East India”.
- Indian Institute of Horticulture Research, Hessaraghatta, Bangalore on 26th to 30th July 2010 attended by Mr Anjani Kumar Singh, Technical Consultant, CIH; Mr. Arvind Kumar Singh, Technical Consultant, CIH; Ms Ethel Ngullie, Assistant Horticulture Specialist, CIH and Mr. Tokato, Senior Farm Manager, CIH and got trained in various aspects of horticulture.
- Indian Institute of Spice Research (IISR) on 26th to 30th July 2010 attended by Ms Meribeni Shitiri, Horticulture Specialist, CIH and got trained in various aspects of spices and MAP.
- “General Management Training” at Shillong, Meghalaya on 6th to 8th September 2010 attended by Ms Meribeni Shitiri, Horticulture Specialist, CIH and Ms Imtinaro Jamir, PA to Director.
- National Seminar on “Citrus Biodiversity for Livelihood and Nutritional Security” at Nagpur, Maharashtra on 4th October 2010. Dr Akali Sema, Director, CIH, presented a paper on “INM in Citrus, Frontiers Developments”.
- “Indian International Trade Fair” at Pragati Maidan, New Delhi on 17th to 19th November 2010 participated by Mr Arvind Kumar Singh, Technical Consultant, CIH and Ms. Meribeni Shitri, Horticulture Specialist, CIH.
- “4th Indian Horticulture Congress” at New Delhi on 18th to 21st November 2010 attended by Mr Arvind Singh, Technical Consultant, CIH. He presented a poster paper on “Performance of exotic gerbera cultivars grown under protected condition in Nagaland”.
- International Seminar on “Improving Access to Global Organic Markets” at Biofach, Mumbai on 8th to 10th December 2010. Dr Akali Sema, Director, CIH presented paper on “Direct marketing of organic pineapple from Nagaland”- A case study.
- Workshop on “Results-Framework Document (RFD)” on 22nd February 2011 at Vigyan Bhawan, New Delhi organized by Performance Management Division, Cabinet Secretariat participated by Dr Akali Sema, Director, CIH.
- Workshop on “Market Linkage for Organic Produce” organized by ICCOA at Bangalore on 3rd and 4th March 2011 attended by Dr Akali Sema, Director, CIH and Mr Prabin Das, marketing Specialist, CIH.
- State Level Seminar on “Awareness, Motivation & Technology Transfer for Development of Beekeeping” on 9th and 10th March 2011 at Dimapur, Nagaland organized by National Bee Board. Dr Akali Sema, Director, CIH, presented paper on “Livelihood opportunities through Horticulture”.





❖ Dr Akali Sema, Director, CIH during oral paper presentation at “7<sup>th</sup> International Pineapple Symposium” at Johor Bahru, Malaysia



❖ Mr A K Singh, TC, Mr Tokato, Sr Farm Manager, Ms Meribeni Shitiri, AHS and Ms Ethel, AHS during training at IIHR, Bangalore



❖ Ms Meribeni Shitri, HS, CIH and Ms. Imtinaro Jamir, PA to Director, Prof Sushil, IIM, Lucknow, Director Horticulture, Govt. of Meghalaya and Director, CIH during “General Management Training” at Shillong, Meghalaya

❖ Dr Akali Sema, Director, CIH attending International Seminar at Biofach, Mumbai



❖ Ms Meribeni Shitiri, AHS, CIH (L) and Mr Arvind Singh, TC, CIH (R) interacting with the guests at the stall during “India International Trade Fair”, Pragati Maidan, New Delhi



❖ Dr Akali Sema, Director, CIH with Dr K L Chada (2nd from R) and other horticulturist and Mr Arvind Singh, Technical Consultant, CIH (R) during poster presentation at the 4th Indian Horticulture Congress, New Delhi



## MEETINGS

### Technical Advisory Committee Meeting

The 3rd Technical Advisory Committee Meeting was held on 31st January 2011 at the Conference Hall, Central Institute of Horticulture, Medziphema, Nagaland. Dr. B M C Reddy, Chairman of the Committee highlighted the various programme of the institute. Director, CIH welcomed the members and reviewed the action plan for the year 2011-2012. The committee deliberated on various agendas viz., training and capacity building, production of quality planting material, farm development, technology refinement and demonstrations, PHM/ marketing/agri-business promotion, publications, seminars and workshops, others like recruitment policy and monitoring with the state governments in its procurement of planting material for area expansion under HMNEH etc. and made suggestions and recommendations.



❖ Chief Consultant, CIH, Dr B M C Reddy (L center), Director, CIH (R) during TAC meeting at CIH

### Board of Management Meeting

The 5th Board of Management Meeting of the Central Institute of Horticulture was held at Krishi Bhawan, Room No.139 under the chairmanship of Dr. Gorakh Singh, Horticulture Commissioner, Department of Agriculture and Co-operation, Government of India, New Delhi. The Chairman welcomed the members of the Board and the representative of the States and also reiterated the thrust areas for the Institute i.e. Production and supply of seed/ planting material of improved high yielding varieties; Technology refinement/demonstration of identified technologies specific to the region; Training of officials of state Department of Horticulture with reference to PHM and Display of improved production technology at different places. At the meeting, the respective state representative addressed their issues wherein the intervention of CIH is required. The meeting discussed various agendas viz., action plan 2011-2012, progress report, vision document, tenureship of Technical Advisory Committee, salary enhancement and recruitment policy of CIH staffs, power of delegation to Director (CIH). Reviewing the action plan (2011-2012), the committee made various suggestions like promoting use of local varieties by the respective state departments, production and supply of quality seed and planting materials, identification and demonstration of low cost storage structures for various crops, popularizing intercropping for gap filling during gestation period of fruit crops etc.



### Interface meeting with MD, NHB & Growers

A meeting was held at NU, SASRD conference on 9th October 2010 with the farmers from Molvom village, State Horticulture officers, CIH and NHB officials under the chairmanship of Mr Bijay Kumar, Managing Director, NHB. Various issues related to NHB, schemes for marketing of horticulture produce, post harvest aspects like pack house and transportation as well as plantation of horticulture crops were discussed. Chairman, Small Farmer's Agri-business Consortium (SFAC) along with his officials, Mr D Bhuyan, Project Coordinator, SFAC, Mr R K Sharma, Deputy Director, NHB, Mr Surendra Singh, Asst. Director, NHB, Guwahati, Dr Akali Sema, Director, CIH and her officials and Director, Dept. of Horticulture along with his officials attended the meeting.



❖ MD, NHB, addressing the meeting with State Govt., CIH and farmers

### Interface meeting with MD, NHB, CIH & State Govt., Nagaland

A meeting was held with Mr H K Khulu (IAS), Commissioner & Principal Secretary, Government of Nagaland along with NHB, CIH and State Government Officials at NSAMB Complex, 4th mile Dimapur on 9th October 2010 to discuss about NE Marketing Summit, where NHB was to play a key role on behalf of Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India. The meeting was followed by a visit to NE Agri. Expo site to take stock of things before his meeting with officials at Delhi for the NE Agri. Expo as well as the Marketing Summit.



❖ Mr Bijay Kumar (IAS), MD, NHB along with Mr H K Khulu (IAS), APC & Principal Secretary, GoN, Dr Akali Sema, Director, CIH and other officials from NHB, CIH and State Govt. officials, Nagaland at N E expo site

## MONITORING AND EVALUATION

### HMNEH Project site visits

As part of its objectives, CIH along with Dr R K S Rathore, Chief Consultant (HMNEH), SASRD-NU and State Govt. Officials, Nagaland carried out monitoring and evaluation to review the progresses made under HMNEH, NHB, National Bamboo Mission and other centrally sponsored schemes from 28th January to 2nd February, 2011.

The Joint Inspection Team (JIT) comprised of Dr R K S Rathore, Chief Consultant (HMNEH), Dr Benjong Aier, Mission Director, Dept. of Horticulture, GoN, Dr. Elithung, Dy Director, Dept of Horticulture, GoN, Dr Pauline, Asst. Professor, SASRD-NU and Ms Meribeni Shitiri, Horti. Specialist, CIH. The JIT under the leadership of Dr R K S Rathore, Chief Consultant (HMNEH) visited Nagaland State covering the districts of Mokokchung, Zunheboto, Wokha, Kohima and Dimapur.

The JIT visited various activities such as primary processing unit of cashewnuts, area expansion under various horticultural crops, wholesale market constructed under MM-II of HMNEH and operated by the Nagaland State APMC, hi-tech nurseries, mushroom center, establishment of community orchards under area expansion, whole sale market, farm handling units and bamboo plantation, passionfruit cultivation, vegetable villages, farm handling units and Hi-tech flower cultivation, water harvesting ponds, etc were inspected.



❖ Inspecting Cashew processing unit at Ronsuyan, Wokha



❖ The Joint Inspection Team at Chandalashung Horticulture Park, Wokha



❖ The team interacting with the farmers

## NHB Project site visit

The Managing Director, NHB, Mr Bijay Kumar (IAS) along with visiting officials Mr D Bhuyan, Project Coordinator, SFAC, Mr R K Sharma, Deputy Director, NHB, Mr Surendra Singh, Asst. Director, NHB, Guwahati, State Government officials and CIH staff visited various horticulture project sites in Dimapur district on 9th and 10th October 2010. The team also visited Kuda Cold Storage at 5th Mile, Dimapur and banana plantations at Eralibill, Dimapur. The State government officials from Department of Horticulture, Mr Joseph Humtsoe, Director; Dr Benjong Aier, Mission Director (TMNE) and Mr E Natso, DHO, Dimapur coordinated with Central Institute of Horticulture, Medziphema for the said visit.



❖ MD, NHB, Mr Bijay Kumar (IAS), Mr R K Sharma, Deputy Director, NHB & Mr E Natso, DHO, Dimapur at project site in Dimapur



MD, NHB, Mr Bijay Kumar (IAS), Director, CIH, Dr Akali Sema and other State Govt. and NHB officials interacting with the pineapple growers of Molvom village



Mr R K Sharma, Deputy Director, NHB & Mr Surendra Singh, Asst. Director, NHB, Guwahati at Kuda Cold Storage, 5th mile, Dimapur



## EVENTS WATCH

### Hindi Diwas

Along with the nation, Central Institute of Horticulture celebrated Hindi Diwas on the 14th September 2010. All the staffs and labours of the institute participated in the event by speaking hindi, hindi songs and reciting poems in hindi and prizes were given away to the winners to mark the event.



❖ Director, CIH exhorting staffs and labors (L), and Director CIH facilitating the winner (R) during the event

### Annual Picnic

As a part of recreational activity, Central Institute of Horticulture organized its annual picnic on 22nd December 2010 at scenic riverside in Dimapur. Involving in games and interaction, it was a blissful day spent with all the staffs and laborers of CIH.



## Inauguration of CIH Office

Central Institute of Horticulture, Medziphema inaugurated its new office building (bamboo structure) on 31st January 2011 with Dr Chumben Murry, Hon'ble Minister of Agriculture, Govt. of Nagaland as the Chief Guest and Shri. H K Khulu (IAS), Agriculture Production Commissioner, Govt. of Nagaland as the Guest of Honour. The building was dedicated by Rev Fr Kurian, Parish Priest, Catholic Church, Medziphema.



❖ Chief Guest Dr Chumben Murry unveiling the foundation stone



❖ Director CIH delivering the welcome address



❖ Guest of Honour, Shri H K Khulu exhorting the gathering



❖ Chief Guest Dr Chumben Murry delivering speech

Taking the privilege of the inaugural programme, the Director, CIH requested Mr H K Khullu (IAS) to inaugurate the new tractor which was given by NHB to CIH to utilize it for pineapple growers of Molvom village on a trial basis for post harvest activities.



❖ Guest of Honour, Shri H K Khulu inaugurating the new tractor (L) Molvom farmers along with Chief Guest, Guest of Honour and Director, CIH (R)



## 6th Foundation Day

Central Institute of Horticulture, Medziphema, Nagaland after five fruitful years celebrated its 6th Foundation Day on 27th March, 2011 at SASRD-NU Auditorium, Medziphema with Dr K M Bujarbaruah, Hon'ble Vice Chancellor, Assam Agriculture University, Assam as the Chief Guest and Mrs Thangi Mannen, Commissioner & Secretary, Animal Husbandry & Sericulture, Govt. of Nagaland as the Guest of Honour, Senior Public leader and Ex-Minister from Medziphema Mr Rokoneicha and a host of dignitaries, officials from ICAR, SASRD- NU, State Government Officials, farmers and well wishers gathered to celebrate the auspicious day of the Institute.



❖ Dr Akali Sema, Director CIH delivering the welcome address



❖ Guest of Honour, Mrs Thangi Mannen, Commissioner & Secretary, V & AH & Sericulture, GoN



❖ Senior Public leader and Ex-Minister from Medziphema Mr Rokoneicha exhorting the gathering



❖ Host of the gathering



❖ Chief Guest, Dr K M Bujarbaruah, Hon'ble Vice Chancellor, AAU, Assam addressing the gathering



To add more meaning to the day and as a part of its objective, CIH procured Banana Fibre Extraction machine for the identified banana growers of the state and was distributed by the Chief Guest and Guest of Honour for off farm demonstration purpose to four beneficiaries namely:-

1. M/s Maple Society Channel for Socio-Economic Action, Chumukedima, Nagaland
2. M/s Thetsumi Village Banana and Citrus Cultivating Committee, Thetsumi Village, Phek, Nagaland
3. M/s Amulimki SHG, Izheto Village, Zunheboto, Nagaland
4. M/s Khrietho Cooperative Consumer Society, Medziphema, Nagaland



❖ Beneficiaries along with the Chief Guest, Guest of Honour, Director, CIH and other dignitaries during distribution of Banana Fibre Extraction



❖ Beneficiaries of Banana Fibre Extraction Unit

## LIST OF VISITORS AT CIH

SL NO	NAME	ADDRESSES	CONTACT
1.	Mr K R Dhiman	VC, UHF Nauni Solan, Himachal Pradesh	01792 – 252363
2.	Mr C Limba	Office of DHO, Tuensang, Nagaland	09436619618 (M)
3.	Dr J Longkumer	Dept of Agril Extension, SASRD NU	09436606277 (M)
4.	Mr W Moa	Highland Dawn Media DIPR/Horticulture, Govt. of Nagaland	
5.	Mr H K Khulu (IAS)	Agriculture Production Commissioner, Government of Nagaland	09436000216 (M)
6.	Dr V K Girija	Prof., College of Agriculture, KAU, Trivandrum, Kerela	09495121750 (M)
7.	Dr Amni Kurichiyel	Provincial Superior, SABS Provincial House, Chumukedima, Post Box 24, 7th Mile Dimapur	
8.	Dr Pranjal Borah	KVK, Papum Pare, Directorate of AH & Vety., Nirjuli	0360 – 2257844
9.	Dr S Edison	Former Director CTTRI, Project Coordinator Spices, IISR & FAO Consultant	0471 – 2441957 09447767656 (M)
10.	Mr Bijay Kumar (IAS)	MD, NHB, Gurgaon	0124 – 2342992
11.	Dr R K Sharma	Sr Deputy Director NHB, Gurgaon & former core expert FAO of UN	09818776262 (M)
12.	Mr D Bhuyan	Project Coordinator/HOO, SFAC, New Delhi	011 – 26966037 011 – 26966017 09811116616 (M)
13.	Mr Surendra Singh	Asst. Director, NHB, Guwahati	
14.	Mr Myansao Lotha	ASCO, Soil and Water conservation Department, Sechü, Zubza	09436010035 (M)
15.	Mr J P Sharma (IAS)	Joint Secretary, Govt. of India, Ministry of DONER	09873211444 (M)
16.	Mr Sanjeev Chopra (IAS)	Joint Secretary Agriculture, NHM, DAC, Khrishi Bhavan, Govt. of India	
17.	Dr Bikram Singh	College of Horticulture and Forestry, Phasighat, Arunachal Pradesh	09436839003 (M)
18.	Dr R K S Rathore	Chief Consultant, Horticulture Division, Dept Agriculture, Krishi Bhavan, New Delhi	09871426932 (M)
19.	Mr Ruokuovikho Chale	NYKS, OHL/10, Officers Hill Kohima	

## VISITORS PEEK



Dr V K Girija, Prof., College of agriculture, KAU, Trivandrum, Kerela  
Prof., College of Agriculture, KAU, Trivandrum, Kerela along with SASRD Faculties and CIH Staffs



MD, NHB, Mr Bijay Kumar during his first visit to CIH being welcomed



CIH welcoming Mr D Bhuyan, Project Coordinator/HOD, SFAC, New Delhi, Dr R K Sharma, Sr Deputy Director (former core expert FAO of UN), NHB, Gurgaon, Mr Surendra Singh, Asst. Director, NHB, Guwahati (L-R)



Officials and trainees of Soil and Water conservation Department, Sechü, Zubza



KVK, Papum Pare, Directorate of AH & Vety., Nirjuli



Mr Sanjeev Chopra, Joint Secretary Agriculture & Mission Director, MM and NMMI



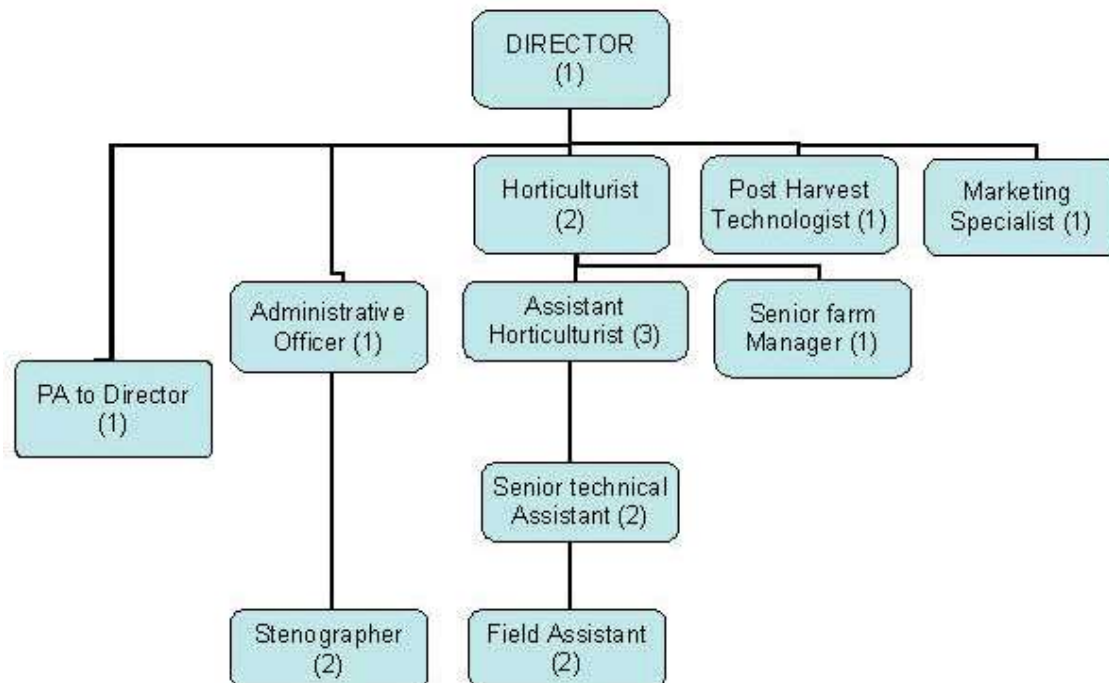
Dr R K S Rathore, Chief Consultant, Horticulture Division, DAC, Krishi Bhavan, New Delhi along with Director & Staff, CIH and Nagaland State Department Officials



## FINANCIAL STATEMENT FOR THE YEAR 2010-11

HEAD OF ACCOUNT	FUND ALLOCATION 2010-2011 (Rs)	EXPENDITURE(RS)	BALANCE (Rs)
Major Head 2552 (Plan)			
Salary	20,00,000.00	12,49,786.00	7,50,214.00
Wages	15,00,000.00	14,94,292.00	5,708.00
Medical Treatment	2,00,000.00	26,734.00	1,73,266.00
Domestic Travelling Expenses	35,00,000.00	8,25,859.00	26,74,141.00
Office Expenses	100,00,000.00	25,77,462.00	74,22,538.00
Rent, Rate & Taxes	1,00,000.00	21,500.00	78,500.00
Publication	20,00,000.00	4,54,840.00	15,45,160.00
Other Admni. Expenses	162,00,000.00	34,06,025.00	1,27,93,975.00
Advertisement & Publicity	5,00,000.00	1,33,687.00	3,66,131.00
Minor Works	20,00,000.00	17,98,322.00	2,01,678.00
Professional Services	15,00,000.00	7,71,177.00	7,28,823.00
Other Charges	100,00,000.00	59,04,109.00	40,95,891.00
Motor Vehicles	15,00,000.00	3,59,216.00	11,40,784.00
Machinery & Equipments	20,00,000.00	19,94,281.00	5,719.00
Total (248-Crop Husbandry)	<b>5,30,00,000.00</b>	<b>2,10,17,290.00</b>	<b>3,19,82,710.00</b>
Major Head 4552 (Plan)			
Major Works	<b>6,70,00,000.00</b>	<b>51,23,149.00</b>	6,18,76,851.00
<b>Grand Total</b>	<b>12,00,00,000.00</b>	<b>2,61,40,439.00</b>	<b>9,38,59,561.00</b>

## ORGANIZATIONAL STRUCTURE AND STAFF POSITION

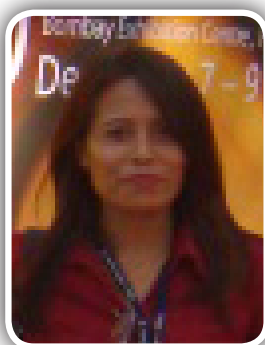


Director	Dr Akali Sema
Administrative officer	Mr J K Lahiri
P A to Director	Ms Imtinaro Jamir
Stenographer	Mrs Shrada Devi
Technical consultant	Ms Achibeni Yanthan
Horticulturist	Mr Anjani Kumar Singh
	Mr Arvind Singh
	Ms Meribeni Shitiri
	Ms Sentiyangla
Post Harvest Technologist	Ms Puvichonü Rhütso
Marketing Specialist	Mr Prabin Das
Assistant Horticulturist	Ms Azungla Pongener
	Ms Janet Chishi
Senior Farm Manager	Mr Tokato Zhimomi
Senior Technical Assistant	Mr Zulumeren
Field Asistant	Mr Eliyamo Humtsoe
	Mr Borson Timing

All development, tranings and transfer of technology activities are being carried out at the insitute under the administrative control of the Director, Central Institute of Horticulture supported by a total staff strength of 17 comprising of technical, administrative staffs and 45 outsourced labours.



Dr Gorakh Singh  
Hort. Comm.



Dr Akali Sema  
Director



Dr B M C Reddy  
Chief Consultant



Mr J K Lahiri  
A.O



Ms Imtinaro  
PA to Director



Ms Shrada Devi  
Stenographer



Ms Achibeni Yanthan  
Stenographer



Mr. A K Singh  
Tech. Consultant



Mr. Arvind Singh  
Tech. Consultant



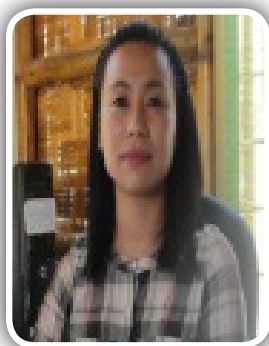
Ms. Meribeni Shitiri  
Horti Specialist



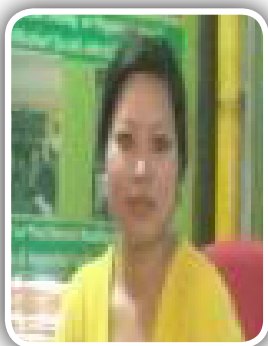
Ms Sentiyanla  
Horti Specialist



Mr. Prabin Das  
Marketing Specialist



Ms Puvichonü Rhütso  
PHT



Ms Janet Chishi  
AHS



Ms Azungla  
AHS



Mr Zulumeren  
STA



Mr Eliyamo Humtsoe  
Field Assistant



## IMPORTANT CONTACT DETAILS

### Secretaries/Commissioners and Directors of Horticulture Department in NER

#### SECRETARIES/COMMISSIONERS

Sl.No.	Name	Address/e-mail	Tel. No.	Fax/ (Telefax)	Mobile No.
1.	Mrs N A Hazarika	Secretary (Agri.) Govt. of Assam, Assam - 781022	0361- 2237028 (O)	0361- 2237028	0943501189
2.	Mr Jape Bajra	Comm. & Secretary (Hort.) Govt. of Arunachal Pradesh, Itanagar, Arunachal Pradesh 791110	0360- 2212391/ 2211771 (O)	0360- 2211396/ 2212632	09436040225
3.	Mr Moses Chalia	Secretary (Hort.& Soil Consv) Govt. of Manipur, Imphal	0385- 2450513/	0385- 2452629	09436893826
4.	Mr P Kharkongor	Comm. & Secy (Agri and horti.) Govt. of Meghalaya, Shillong, Meghalaya 793003 pochister@yahoo.com	0364- 2211081 (O)	0364- 2225978	09862041235
5.	MrT Sangkunja	Secretary (Hort.) Govt. of Mizoram, Aizwal, Mizoram 796001 secyudmiz@gmail.com	0389- 2322532 (O)	0389- 2301484	09436156425
6	Mr Sentiyanger Imchen	Secretary (Hort.) Govt. of Nagaland (Telefax) Kohima, Nagaland 797001 horti@emodop.com	0370- 2270120 (O)	0370- 2270120	09436010558
7	Mr Vishal Chauhan	Secretary (Hort.) Govt. of Sikkim, (Telefax) Gangtok, Sikkim 737102	03592-231892 (O)	03592- 231892	09434008110
8	Mr K V Satyanarayana	Comm. (Agri. & Hort.) Govt. of Tripura, Agartala, Tripura 799001	0381-2324739 (O) 2323474	0381- 2413357	09436453813

## DIRECTORS

Sl.No.	Name	Address/e-mail	Tel. No.	Fax/(Telefax)	Mobile No.
1.	Mr S N Deora	Director Hazarika Department of Horticulture Govt. of Assam Khanapara, Guwahati 781022 directorhortassam@yahoo.co.in	0361- 2332796(O)	036-1 2332796	094356368
2.	Dr Alok Tyagi	Director Department of Horticulture Govt. of Arunachal Pradesh Itanagar 791110 dirhort@yahoo.com	0360- 2203220(O) 2203396	0360- 2203223	09436041738
3.	Mr K Ngachan	Director Department of Horticulture Govt. of Manipur Sanjentiong, Imphal 795001 manipur_dm@nic.in org. com	038- 2449765(O) 2227434	0385- 2451089/	09436021887
4.	Mr C O Rangad	Director Department of Horticulture (Agri.) Govt. of Meghalaya New Agri. Complex Cleve Colony, Shillong 793003 dir_hort_meg@nic.in	0364- 2227434(O)	0364- 2222460	09436103291
5.	Mr Samuel Rosanglura	Director Department of Horticulture Govt. of Mizoram, Aizwal 796001 dropsinghre@gmail.com	0389-2314370(O)	0389- 2329725	09436140587
6.	Mr Joseph Humtsoe	Director Department of Horticulture Govt. of Nagaland, Kohima 797001 naga_horti@sancharnet.in	0370- 2221311 (O)	0370- 2221311	09615848978
7.	Dr K K Singh	Director Department of Horticulture Govt. of Sikkim, Gangtok 737102 kksingh@shift.com	03592- 232511 (O)	03592- 231960	09434043211
8.	Mr C R Bando- padhaya	Director Department of Horticulture & Soil Conservation, Govt. of Tripura Paradise Chowamuhani P.O.Agartala-799001	0381- 2324739(O)	0381- 2324739	09402168209

## MEMBERS OF BOARD OF MANAGEMENT (BOM)

Sl.No.	Name	Address/e-mail	Tel. No.	Fax/ (Telefax)	Mobile No
1.	Dr Gorakh Singh	Horticulture Commissioner, Department of Agriculture & cooperation, Govt. of India, Khrishi Bhawan -110001, New Delhi singh_gorakh@yahoo.co.in	011-23381012(O)		
2.	Mr Tape Bajra	Secretary (Horticulture), Govt. of Arunachal Pradesh, Itanagar: Arunachal Pradesh -791110	0360-2212391 (O) 2211771	0360 - 2211396	09436040225
3.	Mrs N A Hazarika	Secretary (Agriculture), Govt. of Assam, Guwahati: Assam -781022, nilufurhazarika@gmail.com	0361-22370280(O)		9435011890
4.	Mr Moses Chalia	Secretary (Horticulture), Govt. of Manipur, Imphal : Manipur -795001	0385-2450513(O)	0385-2452629	09436893826
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