

CENTRAL INSTITUTE OF HORTICULTURE
Department of Agriculture and Cooperation
Ministry of Agriculture, Government of India
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CIH/NER ()/ /2009-10/

Date: 26.03.2010.

To

The Horticulture commissioner,
Department of Agriculture & Cooperation,
Ministry of Agriculture, Govt. of India,
Krishi Bhavan, New Delhi.

Sub:- Submission of action Plan 2010-2011.

Sir,

I am hereby submitting Annual Action Plan of CIH, Medziphema, Nagaland for the year 2010-2011 for your further needful.

This is also to mention here that this Action Plan has been already approved by the Board of Management during it meeting held on 4th March 2010. All the suggestion made by the Board Members have been incorporated in the annual Action Plan. Besides this, suggestions made by your good self and also by the Chief consultant of CIH has been already incorporated.

This is placed for your kind approval and perusal please.

Thanking you Sir

Yours faithfully,

Dr. Akali Sema
Director

CENTRAL INSTITUTE OF HORTICULTURE



ACTION PLAN 2010-11

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Recognizing the potential for development of horticulture in Northeast region, and in order to provide adequate institutional support to tap this potential, Government of India has set-up the “Central Institute of Horticulture” at Medziphema, Nagaland in year 2005-06 under the Central Sector Scheme. The institute would provide technical support on different aspects of horticultural development. The main focus of the institute is on refinement/demonstration of identified technologies specific for the region; production and supply of quality seed and planting material of improved/high yielding varieties, demonstration of proven technologies and training of State department officials and field functionaries on different aspects of horticulture development including post-harvest management, processing and value addition. The institute is being developed in an area of 43.50 ha at Medziphema in the district of Dimapur, Nagaland, which is 35 km away from the capital city Kohima.

The Central Institute of Horticulture (CIH) set up at Medziphema, Nagaland under the umbrella of Department of Agriculture &Cooperation, Ministry of Agriculture, Government of India, New Delhi has completed three years in the service of the North East region.

Objectives of the Institute

- Capacity building – 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.

Mission

To provide excellent, innovative and relevant trainings to all stakeholders of horticulture sector to empower them and enable the industry to bring socio economic development in NER and to act as a center for training for upgradation of skill in modern technologies for horticulture production.

Vision

To emerge as the pioneering, innovative, farmer focused and self supporting horticulture Institute

Summary of Action Plan 2010-11 for CIH, Medziphema, Nagaland

Sl. no	Components	Physical targets	Financial implication (Rs. In lakh)
A	CAPACITY BUILDING & HRD ACTIVITIES		
	1) Training of trainers (TOT)	15 nos (500 beneficiaries) (Annexure- I)	30 lakh (@2.0 lakh per training) (Annexure-III)
	2) Training of farmers	50 nos (5000 farmers) (Annexure- II)	50 lakh (@1.0 lakh per training) (Annexure-III)
	3) Capacity building at national & International Institute	CIH staff /Officials	12.50 lakh (Annexure IV)
	Sub Total		92.5 lakh
B	PRODUCTION OF QUALITY PLANTING MATERIALs (Nursery management) – (Annexure- V)		
	a) Raising of rootstocks (seedling) for grafting /budding operation		
	Mango	3000	
	Gauva	3000	
	Citrus	10,000	
	Cashew	4000	
	Gerbera	2000	
	Carnation	3000	
	Rose	2000	2.0 lakh
	b) Establishment of mother block for Passion fruit	1 ha	1.9 lakh
	c) R.S. Block for citrus	1 ha (along the boundary)	0.4 lakh
	Sub Total		4.3 lakh
C	FARM DEVELOPMENT ACTIVITIES (Annexure – VI)		
	a) Land Development	3.37 ha	2 lakh

	<p>b) Construction of infrastructure at CIH (Minor works)</p> <p>i) Vermi bed with roof (plastic)</p> <p>ii) Family drip irrigation system</p> <p>ii) Water harvesting structures</p> <p>iv) Low Cost Evaporative Cool Storage Structures</p> <p>v) Construction of Bokashi unit</p> <p>vi) Construction of Mini Check Dams</p> <p>vii) Protective fencing</p> <p>c) Fertilizers/manures/chemicals</p> <p>d) Maintenance/repair of Poly houses</p>	<p>10 Nos.</p> <p>1 unit</p> <p>1 unit</p> <p>1 unit</p> <p>1 unit</p> <p>3 units</p> <p>1 Km</p> <p>----</p> <p>14 Nos.</p>	<p>1 lakh</p> <p>0.7 lakh</p> <p>2.5 lakh</p> <p>0.25 lakh</p> <p>0.20 lakh</p> <p>0.90 lakh</p> <p>7.5 lakh</p> <p>2.75 lakh</p> <p>2 lakh</p>
	Sub Total		19.8 lakh
D	<p>TECHNOLOGY REFINEMENT & DEMONSTRATIONS</p> <p>I) CIH farm (Annexure – VII)</p> <p>a) Evaluation of different varieties of cashew suitable for NER</p> <p>b) Ultra high density planting in guava</p> <p>c) Improved POP of vegetable</p> <p>(i) Open condition (tomato/onion)</p> <p>(ii) Protected condition (capsicum / tomato)</p> <p>d) Establishment of Aloe vera block</p> <p>e) Setting up of cashew processing unit</p>	<p>1ha</p> <p>1ha</p> <p>0.25 ha</p> <p>1200 sq.m (600 each)</p> <p>0.125 ha</p> <p>1 unit</p>	<p>0.5 lakh</p> <p>1 lakh</p> <p>0.45 lakh</p> <p>0.40 lakh</p> <p>0.90 lakh</p> <p>1.5 lakh</p>

	II. For farmers/beneficiaries (Annexure- VIII)		
	a) Fruit village	1 village	4 lakh
	b) Establishment of HDP and Canopy management in cashew	10 ha	4 lakh
	c) Organic demonstration farm	5 states of NER (2ha each)	10 lakh
	d) Bio village (Horti. based)	1 village	20 lakh
	e) Low Cost Evaporative Cool storage structures	10 units	0.5 lakh
	Sub Total		43.25 Lakh
E	PHM/ MARKETING/AGRI BUSINESS PROMOTION (Annexure IX)		
	1. Exposure trips of officials & farmers	Regional/ National/ International	9.0 lakh
	2. Participation in exhibition /trade fairs/meals (at national & international level)	At National & International	20 lakh
	3. Buyers/Sellers Meets	Regional/National level	2 lakh
	4. Setting up of Banana Fibre Extractor unit	1 unit	2 lakh
	5. Establishment of Nursery unit for horticulture crops	1 unit	3 lakh
	6. Processing unit (home scale)	1 unit	5 lakh
	Sub Total		41.0 lakh
F	PUBLICATIONS	Annexure X	
	Annual report/POP for important horticulture crops/ Training Manuals /Extension bulletins/ folders/ pamphlets		20 lakh
G	SEMINAR / WORKSHOP/ CONFERENCE/ MEETINGS, ETC.	Annexure XI	30 lakh
H	EQUIPMENTS & MACHINERIES	Annexure XII	20 lakh
I	MOTOR VEHICLES	Water tanker/ Mini Bus	15 lakh (Annexure III)

J	Intranet Website connection	Annexure XIV	10 lakh
K	Landscaping	Annexure XV	7 lakh

Total: 302.85

Lakh Budget projection of CIH for the Year 2010-11

Sl. No.	Head of Account	Estimated Budget for 2009-10(Rs. in lakh)
A.	Major Head 2552	
	1) Salaries	20
	2) Wages	15
	3) Medical	2
	4) Rents/Rates/Taxes	1
	5) Advt./Publicity	5
	6) TD/DA (DTE)	35
	7) Office Expenses (OE)	100
	8) Other Administrative Expenses (OAE)	162
	9) Motor vehicle (water tanker and delivery van)	15
	10) Machineries & Equipments	20
	11) Publications	20
	12) Minor works	20
	13) Professional services	15
	14) Other charges	100
	Sub total	Rs 530.00 lakh
B.	Major Head 4552 Works *	Rs. 670 lakh
	Grand total	Rs. 1200 lakh

Grand Total: (Rupees one thousand two hundred lakh) only

*** Administrative block of CIH**

In order to execute the action plan of 2010-11, following strategies are indicated here under

SL.NO	Components	Strategy
A	<p>CAPACITY BUILDING & HRD ACTIVITIES</p>	<p>(a) Training of trainers: Training on identified topics (Annexure -I) will be imparted to the State govt. department Officers and field extension functionaries in all the 8 States of NER. These trainees will act as Master Trainers The field level officials will carry out follow-on extension activities.</p> <p>(b) Training of farmers: Training on crops specific technology (Annexure -II) will be organized at State level by the Master Trainers. Training materials, hands out, audiovisuals, flip charts in local languages will be prepared and distributed to the State functionaries involved in training of beneficiaries.</p> <p>c) Capacity building of CIH staffs/Officers The staff of CIH and officers of state horticulture Dept. will be trained on-site for various skill development in reputed Institute at National & International level. Technical staffs will be trained in various Institutes on specific areas to develop expertise. The Head and Administrative staff will be trained in financial and administrative management matters.</p> <p>1) At National level : Capacity building is considered as an integral part of organizational development, for strong HRD base. CIH proposes for 2 Capacity building at National level at IIHR, Bangalore and IARI, New Delhi.</p> <p>2) At International level i) FIBL, Switzerland: With one of CIH mandates being promotion of organic farming, Capacity building at such premier institutes on organic farming, will help the officials concerned in the field to update their knowledge for the betterment of the region. This programme was also suggested and recommended by the Board of Management of CIH.</p> <p>ii) Israel : Isreal being one of the most advanced countries in the world in hi-tech Agri./ Horti sector ,capacity building of officials in such countries will be very beneficial for them in implementing various schemes in the region.. The training programmes are being organized by CINADCO – Center for International Agricultural Development and Cooperation. Ministry of Agriculture and Ministry of External Affairs, Isreal located at Kibutzshefayim, Isreal.</p> <p>iii) Amsterdam, Netherland: Whole sale market of Horti. complying with International standards. The flowers are exported by various countries of the world to this place. Various trainings programme are organized and it will be a very good learning experience attending such programmes by the officials concerned with the development activities.</p>

<p>B</p> <p>PRODUCTION OF QUALITY PLANTING MATERIAL</p>	<p>a) Raising of root stocks (seedlings) for grafting/ budding operation.</p> <p>For Mango, the seeds will be collected locally and will be utilized for raising rootstock while scion of varieties Dasherri, Amarpalli, Mallika will be collected from CISH Lucknow for grafting operation.</p> <p>For Citrus, the seeds of troyer citrus, rough lemon, cleopatra mandarin will be procured from NRCC, Nagpur and State Horti. Farm, Longnak, Nagaland and budding operation will be done the following year. The scion of varieties Olinda Valencia, Daisy Tangerine will be collected from CIH Farm and Khasi Mandarin from State Horti.farm Lungnak, Nagaland.</p> <p>For Guava, the seeds will be procured locally. The scion of varieties Shweta, Lalit, Allahabad Safeda, Lucknow – 49 will be collected from CISH, Lucknow.</p> <p>Cashew, the seeds will be procured from Assam and Nagaland. The scion of varieties Venugrulla – 4, BBSR – 1, VRI – 3, H2/16 will be collected from CIH Farm and Venugrulla – 4 will be collected from SHN, Dimapur.</p> <p>Scion materials will be collected for budding/grafting in appropriate time.</p> <p>For Multiplication of Rose, the rootstock Natal bear will be procured from Govt. Institution and the scion will be collected from CIH farm.</p> <p>Carnation will be propagated through cutting from the mother plant already established at CIH farm.</p> <p>Gerbera to be propagated by side suckers from mother plant which are already established at CIH farm.</p> <p>b) Establishment of mother blocks.</p> <p>Mother block for passion fruit of about 1 ha will be established for further multiplication of planting materials. Variety Kaveri will be collected from IIHR, Bangalore and variety Purple from state Horticulture farm, Wokha. The collected planting materials will be planted at a spacing of 2m x 40m, Total no. plants to be planted will be 1250 for a hectare area and a pit size will be 60cm x 60cm x 60cm and time of planting will be July to August.</p> <p>c) Rootstock block for citrus.</p> <p>Since the viability period for citrus seed is too short, it is very difficult to collect seed from distant place. Therefore, the Rootstock block for citrus (Cleopatra, mandarin, Rangpur lime, rough lemon) of about 1 ha will be planted along the fencing. The plants will be collected from NRC, Nagpur and Lungnak farm, Nagaland. The spacing of 5m will be maintained, with a pit size of 90cm x 90cm x 90cm. planting time will be July/Aug.</p>
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<p>C</p>	<p>FARM DEVELOPMENT ACTIVITIES</p>	<p>(a) Land Development Central Institute of Horticulture has total area 43.50 hectares, out this area, only 12 ha is cultivatable. The present utilized land is 8ha. And now, 4 ha. is available for plantation activities It is being proposed to set up guava under ultra high density/ meadow orchard in 1ha, Cashew HDP 1ha, Passion fruit of 1 ha , vegetable 0.25ha and MAP 0.125ha.</p> <p>b) Construction of Infrastructure at CIH (Minor works).</p> <p>(i) Vermi beds with roof: Vermi composting is well known organic manure which has been in existence since thousand years. This system is very well suited for the entire agri. cultivated crops all over the world. This system uses earthworms to degrade the organic waste, some inorganic waste matter converting them into organic manure. A vermin bed made of plastic, which is portable and cost effective will be procured.</p> <p>ii) Family Drip System: Family drip system incorporates the use of sprinklers and drippers for irrigation. The difference from other irrigation system is that only gravitational force is used instead of pressure pumps or control units. This enables less investment as compared to other system.</p> <p>(iii).Water Harvesting: Water harvesting units are small reservoirs constructed for the purpose of storing runoff water generated from the catchment areas. This serves several purposes of the farm needs such as supply of water for irrigation, fish production, etc. In broad sense, there are two types: a).<i>Embankment Type</i>: ie. Constructed across the stream or watercourse. b).<i>Dug out type</i>: Constructing by excavating soil, relatively in level area. At CIH farm, embankment type will be constructed.</p> <p>(iv). Low Cost Evaporative Cool Storage Structure. Although the production and productivity of fruits and vegetables have been increased in the last couple of years, about 10-25% of the total produce is lost because of improper post-harvest handling and non-availability of suitable storage facilities at affordable cost. Refrigerated storage is considered as the best method for storage in fresh form but it is energy intensive and also involves huge capital investment. Moreover, power availability and its cost are the two limiting factors for the refrigerated storage system. Therefore, Low-Cost Evaporative Storage Structure is an alternative for short term storage of Horticultural crops. The structure can be a semi-underground double-layered brick- cemented structure having the dimension of 1.6 m x 1.2 m x 0.68 m (LxBxH) suitable for short term storage of Horticultural crops. It works on the principle of evaporative cooling. The greatest advantage of this structure</p>
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is that it does not require any electricity or power to operate and all the materials required to make the structure are available easily and locally with low cost. Even an unskilled person can install it as it does not require any specialized skill.

(v). Construction of Bokashe Unit:

This is an age old Japanese traditional method of organic manure production. It takes locally available inputs products like soil, wheat barn, chicken litter, fermented soyabean.etc. It is very cost effective and can be prepared within seven days.

vi). Construction of Mini Check Dam:

The main purpose of mini check dam is to retard the excess rainwater flow & runoff in the channels of watershed area, which control the drain/channel generated soil erosion. It is very efficient in conserving soil and nutrients in micro and macro scale. In addition the detainment of sediment and moisture helps in establishment of vegetation.

vii) Protective fencing:

Power fencing (electric fencing) has been found as one of the best method being used all over the world. The fence comprises of several strands of GI wires drawn along the perimeter. High voltage electric pulse is transmitted giving a sharp, short, painful but safe shock. This creates a psychological barrier for animals. The voltage of 8 Kv once in every 0.9-1.2 sec., lasting 300 millionths of a second to 0.1 second has a current up to 10mA. A 12V battery is used which is changed either by solar power or general electric supply system.

c) .Fertilizers, Manures & Chemicals

Central Institute of Horticulture, has already occupied 8ha for field and poly house crops. i.e. Citrus, Cashew, Banana, Pineapple, Beal, Aonla, Peach, Guava, flowers (Rose, Carnation, Gerbera and Anthurium), vegetable & spices. For its proper growth and control against pest and diseases, fertilizers, manures and chemicals are required to be procured.

d) Poly House repair and maintenance.

The total land area of poly houses is 1.5 ha. with 1no. of shade net and 09 nos. poly houses, each with an area of 1000sq.mts. Beside, 4 nos. smaller size poly houses have been erected with an area of 100sq. mts. each. These poly houses are utilized for Rose, Carnation, Gerbera and Anthurium, colour Capsicum/ Tomato , citrus scion bank. Repair and maintenance of these poly houses will be necessary against natural calamities, replacement of foggers, dippers, PVC pipe, etc.

D.	TECHNOLOGY REFINEMENT & DEMONSTRATIONS	I. On Farm a) Evaluation of different varieties of cashew suitable for NER To analyze the actual impact of the technologies of cashew developed by research for increasing cashew area and productivity. The technology wise analysis will indicate the importance of improved agro techniques for demonstration which will then be disseminated to the farmers. NRCC, Puttur has developed number of variety of cashew, which will be assessed at CIH farm to find out the most suitable variety for NER. b) Ultra high density planting in guava Adoption of appropriate plant density (1x1m accommodating about 5000 plants), canopy management, quality planting materials, support and management system with appropriate inputs for maximization of unit area yield and availability of the fruits in the market early which will fetch better price. c) Improved POP of vegetable i) Open condition (tomato /onion) High quality Hybrids seeds of Tomato / onion will be procured from Certified agencies and raised in about 0.25 ha area. ii) Protected condition (capsicum /tomato) The polyhouses and PDFC structure will be utilized for planting High quality Hybrids of capsicum and tomato to compare the performance with open cultivation d) Establishment of Aloe vera block Important Medicinal and Aromatic plants like Aloe vera will be collected from Research stations/ centers and planted in an area of about 0.125 ha as a part of technology refinement and demonstration. e) Setting up of cashew processing unit The institute will act as a catalyst for promotion of cashew processing unit and will organize training/ motivational tours for potential entrepreneurs. For this, the institute propose to set up cashew processing unit at CIH farm. II) Off farm a) Fruit village. In order to demonstrate to the farmer new technologies to increase production so as to earn better revenue, a fruit village (in line with vegetable village) is proposed to be established in a village covering an area of 6 ha (approx). fruit crops such as citrus (mandarin and acid lime), low chilling peach and litchi will be procured form institution/center and will be planted in the village. All modern technology will be adopted following proper scientific recommendation.
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		<p>b) Establishment of high-density planting and Canopy Management in Cashew. Cashew is suitable for fairly steep slopes with shallow top soil. Due to its large canopy and surface root system, cashew acts as a protective soil conservation crop in high rainfall areas where surface run-off causes soil erosion. Apart from the normal spacing of 7.5m x 7.5m which can accommodate only 175 plants/ha, high density planting in cashew can also be adopted by maintaining a spacing of 5m x 5m accommodating 400 plants/ha. This enables higher returns during the initial times up to 10 years. In the present demonstration, the Cashew grafts will be planted at a spacing of 5m x 5m accommodating 400 plants/ha, adopting square system of planting. The Cashew grafts will be planted in pits of 60cm x 60cm size. Planting materials may be collected from HRC, Nagicherra and NRCC, Putur, Karnataka.</p> <p>c) Organic Demonstration farm: Organic agriculture is one of the fastest growing segments in India and globally. Setting up of demonstration can act as a tool for creating models of economic success for farmers to see and learn and thereby diversify cropping systems based on resource base of the farms. Therefore, C.I.H. propose to establish organic demonstration in different North-East states.</p> <p>d) Establishment of Bio village (Horti. Based) The concept of biovillage revolves around sustainable use of natural resources and promotion of non-farm livelihood options including value addition to primary products. The term biovillage covers all living organisms in the village including humans as well as natural resources such as soil, land, water and biodiversity and uses a human centered approach. Activities in the programme promote value addition of local resources and existing skills of members of the community to enhance livelihood options and income. Efforts will be made in bringing about an integration of existing resources based on demonstration of forward-backward linkages involving low cost adaptable technologies such as vermi composting, community vegetable garden.</p> <p>e) Low cost evaporation cool storage structure. It is an alternative for short term storage of Horticultural crops which involves low investment. The structure will be established in farmers' field for demonstration purpose, so that it can be replicated.</p>
<p>E.</p>	<p>PHM/ MARKETING/AGRI BUSINESS PROMOTION</p>	<p>1) Exposure trips of beneficiaries & farmers The beneficiaries/ progressive farmers will be exposed to successful entrepreneurial activities through motivational tours. This is a new activity introduced by Govt. of India under technology mission. Exposure trips help farmers/ beneficiaries to witness the practices followed in other states and would bring to light ground realities.</p>

The trips would include field visits, counseling/ guidance, etc which would further help them develop a new way of thinking and to bring into practice.

2. Participations in Exhibitions/ Trade Fair/ Meets

(At national and international level)

Exhibition / trade fairs etc are to showcase one's unique selling proposition (USP). Participations in such events would give a greater platform to our products/produce. Participants in such events will witness a variety of other products and their market potentials.

3. Buyers/ Sellers meet

Buyers/ Sellers meets create a platform for market stake holders to discuss over the issues of the market and how to channelize production. Such meets would help each party to understand and solve the complicacies of the market, so as to create an environment of transparency and better participations by producers/farmers.

4. Setting up of Banana Fiber Extraction Unit

Banana offers a food source of fiber with excellent commercial value. Fiber is extracted from the pseudo stems of the Banana after the harvest. The Banana fiber project creates a lot of employment opportunities in urban and rural areas.

The total area under banana cultivation in NER is more than 20,000 ha and the total production is more than 1,60,000 MT annually. Also, wild bananas are easily available in North-east and can be utilized efficiently. CIH will be giving the equipments/machineries to farmers, SHGs and entrepreneurs along with technical guidance for the beneficiaries to promote agri. business. It will also ensure proper management of waste.

The beneficiaries can further make eco friendly items like doormats, carpets, yarn, rope, and luggage carriers etc out of banana fiber, thus giving more opportunities to earn money.

5. Nursery unit for Horticulture crops (1 unit)

Setting up nursery is vital for Horticultural industry as quality planting production is highly essential for successful crop production. Unemployed Agricultural graduates and women farmers will be encouraged for setting up small nurseries.

6. Processing unit (Home scale)

Home scale processing unit enables farmers for personal subsistence through sale of products in local markets. It requires little investment and satisfies needs of the rural and urban population to some extent. It will help them to earn extra income and give employment opportunities. Therefore, CIH proposes to encourage this venture. The machineries /equipments will be procured from reputed agencies and given to the farmers, SHGs and entrepreneurs along with technical guidance. However, the beneficiaries will have to manage the infrastructure, labours & raw materials.

F.	PUBLICATION	The institute will publish training manuals/technical bulletin for all the trainings conducted, for the master trainers to help them utilize during the Training programme for farmers. Some publications such as folder/flip charts etc will further be translated into local dialects of respective states, which can be used as training materials for the farmers.
G.	SEMINAR / WORKSHOP/ CONFERENCE/ MEETINGS etc	In order to evolve feasible development strategies and make policy decisions, to popularize the scientific technologies available from research works among the extension workers of the state departments and progressive farming community on different aspects of horticulture, CIH propose to organize International/ National/ Regional seminar/conference/summit. Besides these, CIH will also conduct BOM & TAC meetings.
H.	EQUIPMENTS & MACHINERIES	Important farm and office equipments to be procured in order to carry out various activities of the institute.
I.	MOTOR VEHICLES	Water Tanker: water is vital for successful farming and the Institute is always constraint with water supply, therefore water tanker will be procured for the purpose.
J.	INTRANET WEBSITE CONNECTION	An intranet is a private computer network that uses Internet Protocol technology to securely share any part of any an organization's information or operational systems within an organization. The installation of such service would facilitate secure data transfers and transparency. Since CIH basic objective is holistic development of Horticulture in NER, data & information on various issues of Horticulture for all NE states is vital. Hence this service would aid the Institute in retrieving the data fast & effectively for different sector of NER. The Service will be installed at CIH premises and CIH will be the store house of data. Such service would ensure prompt data entry and transfer and also ensure better connectivity between the state Hqs.
K.	LAND SCAPING	The Institute has an area of 43.05 hectares out of which 5 ha is proposed for Infrastructure development that includes constructions of administration office, reception and sale counter, guest house, Farmer's hostel cum training Hall, Residential block and poly houses. In between all these constructions and pathway, beautification is required and so landscaping has been proposed. However, since the construction will take time, for the year 2010 -11, it is proposed that landscaping will be done only in poly house pathway, Road sides & bamboo structure (CIH office) which is approximately 2 ha area.

ANNEXURE - I

***IDENTIFIED TECHNOLOGIES FOR TOT (30-40 PERSONS/TRAININGS & 3-5 DAYS DURATION)**

Sl.no.	Topics
1.	Improved production technologies system through hi tech intervention i) Hi tech nursery and seed production ii) High density planting and canopy management in fruit crop iii) Micro irrigation network system iv) Soil and leaf based fertilization management v) Mulching for insitu conservation
2.	Marketing of horticulture crops
3.	Organic farming practices / GAP
4.	Quality planting material production of horticulture crops
5.	Post harvest management of horticulture crops
6.	Agri Business promotion in horticulture crops
7.	Precision farming in horticulture
8.	Public Private Partnership for inclusive growth
9.	Mechanization in horticulture crops
10.	Greenhouse technology
11.	Soil Microbiology

ANNEXURE - II

****TOPIC FOR TRAINING OF FARMERS/BENEFICIARIES (500-100 FARMERS/ TRAINING & 1-2 DAYS DURATION)**

Sl.no.	Topics
1.	High density planting and canopy management of important fruit crops
2.	Post Harvest management of focus horticulture crops
3.	Organic farming practices
4.	Nursery management practices
5.	Techniques for dry flowers
6.	Protected cultivation techniques
7.	ZECC in horticulture crops
8.	Micro irrigation in horticulture crops
9.	Cashew production and processing
10.	value addition in horticulture crops
11.	Banana/pineapple fibre extraction
12.	Grading/packing of horticulture crops
13.	Semi/ Minimal Processing(SALT Stock)
14.	Crop insurance schemes/Govt. Schemes
15.	Use of information technology (farmer's level)
16.	Mechanization in horticulture crop
17.	Integrated pest management

*TOT will be conducted at central place for all nominated members of NE state officials

**Farmers training to be conducted in respective NE states.

ANNEXURE – III

ESTIMATED FINANCIAL IMPLICATION FOR TRAINING PROGRAMME

A. Training of Trainers (3 days program) at actual

1. Working lunch	– Rs.200 x 50P x 3 days	Rs. 30,000.00
2. Refreshment (Hi-tea)	- 50 persons for 3 days + inaugural tea	Rs. 10,000.00
3. Training Kit	- Rs.100 x 50P	Rs. 5,000.00
4. Transportation (Bus/vehicle hiring)	- Rs 2,500 x 4 days	Rs. 10,000.00
5. Honorarium (**Resource Person)	- Rs.20, 000 / day	Rs. 60,000.00
6. TA/DA (Resource person) - (min. 4 persons)		Rs. 70,000.00
7. Reading Materials/ Stationeries -		Rs. 10,000.00
6. Miscellaneous (Conference hall hiring, banner, materials for practical etc) -		Rs 5,000.00
Total	-	Rs. 2, 00,000.00

(Rupees two lakh) only

***TA/DA of participants to be borne by the respective state govt.**

****Cost of honorarium for resource person will vary depending on the institution**

B. Farmers Training (1 day program)

1. Working lunch - @ Rs.100 for 100 persons	Rs.10, 000.00
2. Lodging & fooding - @ Rs.300/Person for 2 days	Rs.30, 000.00
3. Refreshment - @Rs.25 for 100 Persons	Rs. 2,500.00
4. Vehicle Hiring - @Rs.3,000 for 2 bus	Rs.6, 000.00
5. Training kit - @Rs.100 for 100 Persons	Rs.10,000.00
6. Honorarium - @Rs.500 for 6 lectures	Rs.3, 000.00
7. Misc. (Banner, practical materials etc.)	Rs. 3,500.00

Total

Rs. 65,000.00 +TA at actual
(Rupees sixty five thousand) only

(@ 650/day/farmers)

ANNEXURE – IV

ESTIMATED FINANCIAL IMPLICATION FOR CAPACITY BUILDING:

(A) At National level:

Sl/No.	Particulars	Financial Requirement (Rs.)
1.	TA for 10 persons @	Rs. 80,000.00
2.	Fooding @	Rs. 30,000.00
3.	Lodging @	Rs. 40,000.00
4.	Other expenses (misc.)	Rs. 50,000.00
Total		Rs. 2,00,000.00

The total financial requirement for 2 (two) Capacity building at National level is estimated to be **Rs. 4 lakh**.

(B) At International level:

Sl/No.	Particulars	Financial Requirement (Rs.)
1.	TA for 10 person@60,000x10	Rs. 6 lakh
2.	Fooding & Lodging for 10 personnels @ 20x10	Rs. 2 lakh
3.	Other expenses (Misc.)	Rs. 50,000.00
Total		Rs. 8.5 lakh

Grand total = Rs.4 lakh & Rs.8.5 lakh = Rs. 12.5 lakh

ANNEXURE -V

ESTIMATED FINANCIAL IMPLICATION FOR PRODUCTION OF QUALITY PLANTING MATERIALS:

a) Raising of Root stocks (seedling) for grafting/budding operation

(i) Raising of Rootstocks for Fruits and Flowers.

Sl.no.	Particulars	qty.	approximate cost (Rs.)
1.	Mango Seed	5000 nos seed	7500.00
2.	Guava Seeds	1 kg @ Rs. 500	500.00
3.	Citrus seeds	4 kg @ Rs. 5000	20000.00
4.	Cashew seeds	50 kg @ Rs. 100	5000.00
5.	Rose (rootstock seedling)	5000 nos. seedling @ Rs. 12	60,000.00
Total			Rs. 93,000.00

(ii). Scion Materials for budding/grafting.

Sl.no.	Particulars	qty.	approximate cost (Rs.)
1.	Mango	5000 nos.	5000.00
2.	Guava	5000 nos.	5,000.00

3.	Citrus	15000 nos.	10,000.00
5.	Rose	5000 nos.	-- to be collected from CIH farm
4.	Cashew	7000 nos.	3500.00(some from CIH farm)
6.	Gerbera	5000 nos.	-- to be collected from CIH farm
7.	Carnation	5000 nos.	-- to be collected from CIH farm
	Total	47,000 Nos.	Rs. 23,500.00

(iii). Media Preparation for propagation

a) Poly Bags-15000nos. @ Rs.2/bag (mango, guava, citrus, cashew)	= Rs.30,000.00
b) Plugs -20000nos.@Rs.1/p (rose)	= Rs.20,000.00
c) Coco peat brick - 200nos.@ Rs.100/brick (rose, carnation, gerbera)	= Rs.20,000.00
d) FYM - 2nos truck @ Rs.5000/t	= Rs.10,000.00
Total	= Rs. 80,000.00
(93000+23500)	= 116500 + 80,000 = Rs. 1,96,500/-

Grand Total = Rs. 1,96,500.00

(Rupees one lakh ninety six thousand five hundred) only. (Approx. 2 lakh)

b) Establishment of Mother blocks.

i) **Crops: Passion fruit** - **Area :- 1.0 ha**

Sl/No.	Particulars	Qty	Rate	Amount	Remarks
1.	Planting materials	1300	Rs. 30	39000	
2.	FYM	2 truck	Rs. 5000	10000	
3.	Pit digging	1250	Rs. 20	25000	
4.	Pit filling & planting	1250	Rs. 10	12500	
5.	Traillies (Iron pole & wire)	--	--	1,00,000	
Total -				Rs. 1,86,500/-	

Say, **Rs. 1,90,000/-**

c) **Establishment of Rootstock Block for citrus** - **Area :- 1.0 ha (approx.)**

Sl/No.	Particulars	Qty	Rate (Rs.)	Amount	Remarks
1.	Planting materials	450	Rs. 35	15750	
2.	FYM	2 truck	Rs. 5000	10000	
3.	Pit digging	400	Rs. 20	8000	
4.	Pit filling & planting	400	Rs. 10	4000	
Total -				Rs. 37,750/-	

Say, **Rs. 40,000/-**

ANNEXURE – VI

ESTIMATED FINANCIAL IMPLICATION FOR FARM DEVELOPMENT ACTIVITIES:

a) Land Development:

Sl. No.	Particulars	Area (Ha.)	Amounts (Rs.)	Details
1.	Guava (Ultra HDP)	1.0	54,400.00	JCB,Hiring@Rs.1700/Hr. for 4days (8 hrs /day)
2	Passion fruit (Mother block)	1.0	54,400.00	JCB,Hiring@Rs.1700/Hr. for 4 days(8 hrs /day)
3.	Vegetable (Tomato/ Onion)	0.25	13600.00	JCB,Hiring@Rs.1700/Hr. for 1day(8 hrs /day)
4.	Cashew Varietal evaluation	1.0	54,400.00	JCB,Hiring@Rs.1700/Hr. for 4days(8 hrs /day)
5.	M.A.P. (Aloe vera)	0.125	13,600.00	JCB,Hiring@Rs.1700/Hr. for 1day(8 hrs /day)
	Total.	3,375	Rs.1,90,400.00	

b) Construction of Infrastructure at CIH (Minor works)

i) Vermi Beds with roof (plastic) : Rs 1 Lakh

ii) Family Drip system : Rs 0.7 Lakh

Plant spacing for drippers:

i) 2.5 x 2.5 mts Rs.65,000/- for 1 ha
(Rupees Sixtyfive thousand) only. = **Approx. Rs.70,000/-**

iii) Water Harvesting Structure:

Embankment type:

- Cement +sand +stone chips (10m x5m=50mx5”) = approx. 60 sq.mt.@ Rs. 800/- = Rs. 49,600/-
 - Cement+brick+sand+MS Rod (10mx3.5x2x1= 70 sqm.)@ Rs.1000/- = Rs. 70,000/-
 - Skilled Labour (@ Rs. 600 x 40 days= Rs. 24000 x 3 Nos. = Rs. 72,000/-
 - Unskilled Labour (@ Rs. 250 x 40 days = Rs. 10,000 x 4 Nos. = Rs. 40,000/-
- Total = Rs. 2,31,600 /-**
- (Rupees two lakh fifty thousand) only. **Approx. Rs.2,50,000/- lakh**

iv) Detail cost for construction of low-cost evaporative storage structure (400 kg Capacity)

Sl.No	Raw materials	Quantity	Cost (Rs.)
1	Brick	1500 nos @ 5/pc	7500.00
2	Sand	250 cft @ Rs.12/cft	3000.00

3	Bamboo	16 nos @ Rs. 80	1200.00
4	Gunny cloth	12m ² @ Rs. 25	300.00
5	Plastic cloth	12m ² @ Rs. 60	720.00
6	Nail, Thread	160 nos	160.00
7	Cement	6 bag @ 450/bag	27600.00
8	G.I. Sheet	10 nos @ Rs. 300/sheet	3000.00
9	Labour charge	250/day (8days)	2000.00
10	Carrier charge	-	2000.00
		Total Cost	Rs. 22,580.00

(Rupees twenty two thousand five hundred and eighty) only. **Approx.Rs. 25,000/-**

v) BOKASHI UNIT (1000 KG cap)

- Wheat barn @ Rs. 25 x 300 kg = Rs.7,500/-
- Chicken litter @ Rs. 25 x 300 kg = Rs.7,500/-
- Soil – 300 kg @ Rs. 00 = -----
- Fermented Soyabean @ Rs. 50 X40 kg = Rs.2000.00/-
- Micro organism
- Carriage charge (Mini truck) _____ = Rs.1000/-

Rs. 18,000/- (Approx. Rs.20,000/-)

vi) Mini check dam (1 unit) :

- 2.5ftX6 ft x 2 ft. = 30 sq. ft. (@ Rs. 700/-)
- Cement + brick + sand = Rs. 21,000/-
- Skilled Labour 1 Nos. Rs. 600/- x 6 days = Rs. 3600/-
- Unskilled Labour 1 Nos. @ Rs. 250/- x 6 days = Rs.1500/-
- Carriage charge (Mini Truck) _____ = Rs.1000/-

Total - Rs. 27,100/- (Approx. 30,000/-)

ie. For 3 units = 30,000X3 = Rs. 0.90 lakh

vii) Protected Fencing:

1 Km = Rs. 7.5 lakh

c) Fertilizers /manures& chemicals

Sl.no.	Particulars	Crops	Area	Qty	Rate (Rs.)	Amount (lakh)
1.	Manure	Existing crop Proposed Poly houses	8Ha. 4ha --	25 truck loads	6000/t	1.25

2.	Fertilizer (DAP,SSP,N.P.K. & etc.)	Fruit crops Vegetable spices MAP Ploy houses crops				0.50
3	Chemical (Insecticides & Pesticides)	Fruit crops Vegetable Spices MAP & Poly houses				1.00
						2.75

d) Repair & maintenance of polyhouses:

To maintain 10 of 1000 sq.m & 4 polyhouse of 1000 sq.m an amount of Rs. 2 lakh is required.

ANNEXURE - VII

ESTIMATED FINANCIAL IMPLICATION FOR TECHNOLOGY REFINEMENT & DEMONSTRATIONS

I) At CIH farm

a) Evaluation of different varieties of cashew (1 ha)

Sl no	Particulars	Qty	Amount (Rs)
1.	FYM	2truck load	10,000.00
2.	Planting materials	300 Nos	15,000.00
3.	Pit digging	@Rs.20/ pit	6000.00
4.	Planting	@ Rs.10/ pit	3,000.00
5.	Plant protection chemicals		6000.00
6.	Transportation and handling of inputs		10,000.00
	TOTAL		50,000.00

b) Establishing of Ultra High Density Planting in Guava (1 ha)

Sl no.	Particulars	Rate	Quantity	Amount
1.	Planting materials	35	1111	44,500.00
2	Fertilizers	9/kg		4500.00
3.	FYM	6000/load	8 truck load	42,000.00
4.	Plant protection chemicals			2000.00
5.	Nutrients (micro) application			3000.00
6	Transportation and handling of inputs			4000.00
			TOTAL	1,00,000.00

c) Improved POP of vegetables
i) Open cultivation of onion (0.125 ha)

Sl.No.	Particulars	Cost (Rs.)
1	Poultry manure 15 t	20,000.00
2	Trichoderma viridi (3 kg)	240.00
3	Neem oil (100 ml)	200.00
4	Seed rate (3 kg)	5000.00
	Total	25,440.00

Approx. 25,000/-

Open cultivation of tomato(0.125ha)

Sl.No.	Particulars	Cost (Rs.)
1	FYM (4t)	5,000.00
2	Vermicompost (0.50t)	7000.00
3	Trichoderma viridi (1.25 kg)	100.00
4	Pseudomonas (1.25 Kg)	100.00
5	Neem cake (62.5 kg)	2,500.00
6	Phosphotika (1.25 kg)	35.00
7	Bacillus (1.25 kg)	100.00
8	Azotobacter (1.25 kg)	100.00
9	Seed rate (40 gm)	5000.00
	Total	19,935.00

Approx. 20,000/-

Total = Rs. 45,000/-

ii) Cultivation of capsicum in poly house (1000 Sq.m)

Sl. No	Particulars	Cost (Rs.)
1.	FYM 6.5t	12,500
2.	Trichoderma Viridie 2 Kg	200.00
3.	Pseudomonas 2 Kg	820.00
4.	Neemcake 50 Kg	2,000.00

5.	Phosphotika 2 Kg	200.00
6.	Bacillus 2 Kg	200.00
7.	Azotobacter 2 Kg	200.00
8.	Seed rate 60g	5,000.00
9.	Staking	5,000.00
	Total	26,120.00

Approx. = 27,000/-

Cultivation of tomato in poly house (200 Sq.m)

Sl. No	Particulars	Cost (Rs.)
1.	FYM	5000.00
2.	Trichoderma Viridie 1 Kg	100.00
3.	Pseudomonas 1 Kg	400.00
4.	Neemcake 25 Kg	1,000.00
5.	Phosphotika 1Kg	100.00
6.	Bacillus 1 Kg	100.00
7.	Azotobacter 1Kg	100.00
8.	Seed rate 30g	3,000.00
9.	Staking	3,000.00
	Total	12,800.00

Approx. 13,000/-

Total = 40,000/-

d) Establishment of Aloe vera block (0.125 ha)

Sl no	Particulars	Qty	Amount (Rs)
1	FYM	1 truck load	5000.00
2	Biofertilizer	5 kg	500.00
3	Neem cake	5 kg	700.00
4	Aloe Vera suckers	3700 nos@ Rs.20/ sucker (including transportation cost)	80,000.00
	TOTAL		86,200.00

Approx. 90,000/-

e) Setting up of cashew processing unit (1 unit)

Sl no	Particulars	Qty	Amount (Rs)
1	Cashew steam boiler (40 kg capacity)	2	50,000.00
2	Cashew nut kernel extractor (9.3 kg/hr)	3	6,500.00
3	Kernel dryer (14 tray capacity)	1	35,000.00

4	Cashew apple juice extractor	1	45,000.00
5			15,000.00
	TOTAL		1,36,500.00

Approx. 1,50,000/-

Annexure -VIII

ESTIMATED FINANCIAL IMPLICATION OF TECHNOLOGY REFINEMENT AND DEMONSTRATION

(II) For Farmer/ beneficiaries

a) Fruit village- 1 ha (Approx.)

Sl/No.	Particulars	Quantity	Rate (Rs.)	Amount (Rs.)
INPUT COST				
1.	Planting material	378 nos.	40	15120
2.	Organic manure (FYM)	7 truck loads	5000	35000
3.	Inorganic fertilizers	250 kg	9/kg	2250
4.	Cost of biofertilizers	-	-	1000
5.	Knapsack sprayer (16 ltrs.)	1 no.	2000	2000
6.	Micro-nutrients			2000
7.	Plant protection chemicals			2000
8.	Transportation and handling of inputs	--	--	5000
Sub Total			-	Rs. 64,370/-

Grand Total = Rs. 64,370
 Therefore, for 6 ha, the amount = Rs. 64,370 x 6 ha = Rs. 3,86,220/-
 = **Rs. 4 lakh/- (approx.)**

b) Establishment of HDP and Canopy management in Cashew (1 ha approx.)

Sl/No.	Particulars	Amount (Rs.)
1.	400 grafts @ Rs. 40 /graft	16000
2.	FYM (4 truck loads @ Rs. 5000)	20000
3.	Inorganic fertilizers	2000
4.	Plant protection chemicals	1800
Total		-
		Rs. 39,800/-

Total cost (1 Unit) = Rs. 39,800/-
 Therefore, for 10 units (10 ha) = (39,800 x 10) = **Rs. 3,98,000/- (approx.)**
 Approx. = 4 lakh

c) Organic demonstration farm

1. APPLE (Arunachal Pradesh) Area = 2 ha

- Detail cost of cultivation (as per prevailing rate)
- Planting material 400 plants @ Rs. 35 = Rs. 14000

➤ FYM 20 t/ha (5 truck load @ Rs. 5000)	= Rs. 25,000
➤ Pseudomonas 8 kg @ Rs. 80/kg	= Rs. 640
➤ Azotobacter 3 kg @ Rs. 25 per kg	= Rs. 75
➤ Phosphotika 2 kg @ Rs. 25 per kg	= Rs. 50
➤ Trichoderma 3 kg @ Rs. 80 per kg	= Rs. 240
Total cost for 1 ha	= Rs. 40,005/-
Therefore, for 2 ha	= Rs. 80,010/-

Sl/No.	Components	Year 1 Cost (Rs.)	Year 2 Cost (Rs.)	Year 3 Cost (Rs.)
1.	Recurring Expenditure			
(A)	Cultivation cost:	80,010/-	32004	32004
	Cost of FYM, Bio-agents			
	Cost of feeding & animal husbandry misc. expenses (2000/month)	12000	12000	12000
	Miscellaneous expenses (bucket, farm tools etc.)	20000	4000	4000
(B)	Consultancy Cost @ Rs. 5000/day x 2 days x 2 persons x 3 visits	60,000	60,000	60,000
	Sub-Total	1,72,010/-	108004/-	108004/-
2	Non-recurring expenditure	Year 1	Year 2	Year 3
	Particulars	Cost (Rs).	Cost (Rs)	Cost (Rs)
(a)	Setting up of Vermicompost (1 Unit)	30,000	-	-
(b)	Setting up of NADEP Compost unit (1 unit)	10,000	-	-
(c)	Preparation of concrete tank (1 nos) for botanical preparations	5000	-	-
(d)	Animal Husbandry (1 cow)	9000	-	-
	Sub-Total (B)	Rs.54,000/-	-	-
	Sub-Total (A+B)	Rs.226010	Rs. 108004	108004/-
Grand Total		= Rs. 442018/-		

2. MANDARIN (Mizoram) Area = 2 ha

Details of cost of cultivation

➤ Planting material 400 plants @ Rs. 30	= Rs. 12000
➤ FYM 20 t/ha (6 truck loads @ Rs.5000)	= Rs. 30000
➤ Pseudomonas 10 kg @ Rs. 80/kg	= Rs. 800
➤ Azotobacter 3 kg @ Rs 25/kg	= Rs. 75
➤ Phosphotika 3 kg @ Rs. 25/kg	= Rs. 75
➤ Trichoderma 3 kg @ Rs.80/kg	= Rs. 240
Total Cost for 1 ha	= Rs. 43190/- (For 2 ha = Rs. 86380/-)

First year = Rs. 2,32,380/-

Second Year = Rs. 110552

Third year = Rs. 110552/-

Grand Total = Rs. 453484/-

3. BANANA (HDP) (NAGALAND) Area = 2 ha

Details of cost of cultivation

➤ Planting material 2500 plants @ Re.25/sucker	= Rs. 62500
➤ FYM 25t/ha (7 truck loads @ Rs. 5000)	= 35000
➤	

➤ Pseudomonas 10 kg @ Rs80/kg	= Rs. 800
➤ Azotobacter 3 kg @ Rs, 25/kg	= Rs.75
➤ Phosphotika 3 kg @ Rs.25/kg	= Rs. 75
➤ Trichoderma 3 kg @ Rs 80/kg	= Rs. 240
Total Cost for 1 ha	= Rs. 98,690/- (For 2 ha = Rs. 1,97,380)

Sub-Total (A+B) = **Rs. 2,89,380** + 54,000+ 154952 + 154952
Grand Total = Rs. 6,53,284/-

4. MANDARIN (SIKKIM) Area = 2 ha

Details of cost of cultivation

Planting material 400 nos @ Rs. 40/plant	= Rs. 16,000
FYM 20t/ha (6 truck loads @ Rs. 5000)	= Rs. 30000
Pseudomonas 10 kg @ Rs80/kg	= Rs. 800
Azotobacter 3 kg @ Rs, 25/kg	= Rs. 75
Phosphotika 3 kg @ Rs.25/kg	= Rs. 75
Trichoderma 3 kg @ Rs 80/kg	= Rs. 240
Total Cost for 1 ha	= Rs.47190 /- (For 2 ha = Rs. 94,380)

First year = Rs.2,40,380/-

Second Year = Rs. 79400/-

Third year = Rs. 79400/-

Grand Total -Rs. 3,89,180

5. PASSION FRUIT (MANIPUR) Area = 2 ha

Details of cost of cultivation

FYM 12t/ha (3 truck loads @ Rs. 5000)	= Rs. 15000
Pseudomonas 10 kg @ Rs80/kg	= Rs. 800
Azotobacter 12 kg @ Rs, 25/kg	= Rs.300
Phosphotika 12 kg @ Rs.25/kg	= Rs.300
Trichoderma 3 kg @ Rs 80/kg	= Rs. 240
Total Cost for 1 ha	= Rs.15840 /- (For 2 ha = Rs.31,680)

First year = Rs. 123680/-

Second Year = Rs. 88672/-

Third year = Rs. 81070/-

Grand Total -Rs. 3,47,422/-

Total financial requirement for establishing Organic demonstration farm in North-East states:

1. Apple (Arunachal Pradesh)	= Rs. 442018/-	First year = Rs.226010
2. Mandarin (Mizoram)	= Rs. 453484/-	First year = Rs. 2,32,380/-
3. Banana (Nagaland)	= Rs. 6,53,284/-	First year= Rs. 2,89,380
4. Mandarin (Sikkim)	= Rs. 3,89,180/-	First year= Rs.2,40,380/-

GRAND TOTAL = Rs 9,88,150

Approx. 10,00,000 lakh

d) BIOVILLAGE (Horti based)

FIRST YEAR

Sl/No.	Heads	Cost Basis	Amount
1.	<u>Non-Recurring Expenses</u>		
i.	<i>Field Activities</i>		
	(a) Identification of clusters/farmer group (b) Registration of farmers (c) Documentation and database management	Rs. 500/ farmer	50,000
ii.	Infrastructure Facilities		
	(a) Computer	1 set	25000
	(b) Furniture		10000
	(c) Telephone		2000
iii.	Training of the Project Staff (12 days)		
	Two person (Project Coordinator and field assistant) including travel, Boarding and Lodging etc	Rs. 5000 per Man days (For 12 day)	120000
		<i>Sub Total (I)</i>	2,07,000
2	<u>Recurring Expenses</u>		
i.	Setting up of office at village (rent)	3000/monthx12	36000
ii.	<u>Salary for Project Staff</u>		
	a. Project Co-ordinator	10000x12	120000
	b.	6000x12	72000
	c. Field Assistant.	2000x12	24000
	d. Local Conveyance TA/DA etc		
iii.	<u>Organizing the Training programs (3 times/year for two days during sowing, mid season and harvest)</u>		
	a. Cost of the resource person (Experts)	7000/personx3x2	42000
	b. Travel cost of the resource person	12000/personx3x3	36000
	c. Boarding and lodging	2000x3x2	12000
	d. Cost of the venue, food, presentation etc	60 xRs.300x2x3	108000
iv.	<u>Regular Monitoring and Evaluation (4 times/yr for 3 months)</u>		
	a. Travel Cost	Rs.12000x4	48000
	b. Boarding and Lodging	Rs. 6000x4	24000
	c. Consultancy	Rs. 5500x3x4	66000
v.	Farmer's Field visits/exposure visits to organic farms for two days (travel and food) combined with Farmer's meeting and orientation program		35000
vi.	<u>Setting up Vermicompost Unit</u> (1 unit in 5 ha)	20 units (@Rs. 30,000/- per unit)	600000

ANNEXURE – IX

ESTIMATED FINANCIAL IMPLICATION FOR PHM/MARKETING/AGRIBUSINESS PROMOTION

1. Exposure trips for officials and farmers :

(a) National/ Regional trip:-

i) TA/DA (Rs. 600/day/person)

Max. number of farmers/ Beneficiaries (40)

= 40 x 600 = Rs. 24,000/-

ii) Total amount for 7 days for 40 nos.(Rs. 24,000 x 7)-----= Rs. 1,68,000/-

Total amount for one trip = Rs. 1,68,000/-

Total amount for 2 (two) trips = Rs. 2 x 1,68,000 = Rs. 3,36,000/- (say 6 lakh)

(b) International trips:

TA/DA for 5 persons = 5xRs. 1,00,000 = Rs. 5,00,000/-

Other expenses (Insurance, visa etc) = Rs. 50,000/-

Rs. 5,50,000/-

Rs. 336000 + Rs. 550000 = Rs. 8,86,000 (Say, 9 lakh)

2. Participations in exhibitions /trade fair/meets:

a) At National/ Regional Level (10 Lakhs) (2 Nos.)

Number of Participants = 40 Nos. (Max)

1. Stall booking & arrangement = Rs. 1,50,000/-

2. TA/DA for 40 Participants = Rs. 2,50,000/-

3. Miscellaneous expenses

(Carriage Charges, taxes, etc) = Rs. 50,000/-

4. Publications = Rs. 50,000/-

= Rs 5,00,000 x 2times= **Rs. 10,00,000**

b) At International level (5 Lakhs) (1 No.)

1. Stall booking & arrangement = Rs. 3,00,000/-

2. TA/DA for 5 Persons = Rs. 5,00,000

3. Other expenses (Registration, carriage charges, insurance etc) = Rs. 1,50,000/-

4. Publications = Rs. 50,000/-

= **Rs.10,00,000**

Total: = Rs.20,00,000/-

3. Buyer Seller meet (For 1 day):

Sl. No	Particulars	Rs.
1	Development of Meets' Materials (Keynote, presidential address, agenda, notes)	50000
2	Printed Materials: Invitation cards, badges, folders, banners, literature, kit, etc. ,	30000
3	Hall arrangements	10000
4	TA for farmers outside district Rs. 500 x 50 Nos.	25000

5	Fooding/ Lodging for participants outside Dimapur for 1 day (50 Nos. x Rs. 200)	10000
6	Refreshment: Tea, Lunch etc @Rs. 200 for 100 participants (One Day)	20000
7	Honorarium to resource personals @1000/person	5000
8	TA to resource persons	50000
9	Other Miscellaneous Expenditures	5000
	Total	2,00,000

Buyers/ Sellers Meet- 1 No. Rs. 2,00,000/-

4. Setting up Banana Fibre Extractor Unit:

Machine/Equipments	Amount (Rs.)
Cost of one machine (inclusive of freight changes)	Rs. 40,000
Cost of 5 (five) machines = 5 x 40,000	Rs. 2,00,000

5. Establishment of nursery unit:

Sl/No.	Item	Cost (Rs.)
1.	Polygreen house (259 sq. mtrs)	150000
2.	Minor Equipment	25000
3.	Furniture	10000
4.	Water Pump & Overhead tank	30000
5.	Planting Material, seeds/ mother plants etc.	40000
6.	Irrigation system	20000
7.	Tools & implements	10000
8.	Contingencies	15000

Total - Rs. 3,00,000/-
(Rupees three lakh only)

6. Processing unit (Home scale)

Sl.No	Equipments	Nos.	Rate	Amount
1.	Pineapple Stripper	1		60000
2.	Pineapple slizer cum corer 10-12 fruits machine	2	Rs. 60000/-	120000
3.	Fruit pulper 50 kg/h	2	Rs. 40000	80000
4.	Fruit mill (100 kg/h)	2	Rs. 50000	100000
5.	Juice extractor (screw type machine)	3	Rs. 30000	90000
6.	Juice filter	2	Rs. 25000	50000
	Total			500000

(Rupees five lakh only)

ANNEXURE – X

LIST OF PUBLICATIONS

A) Annual report 2009-2010

B) Training manual

1. Post harvest management of important horticultural crops of NER
2. Protected cultivation of focused ornamental crops of NER
3. Important pest and disease of focus horticultural crops in NER

C) Extension bulletin -

1. Package of practices for organic ginger, turmeric & black pepper
2. Propagation techniques in citrus
3. Propagation techniques in cashew
4. Dry flowers techniques
5. Drip irrigation system
6. Catalogue of focus horticultural crops in NER
7. Propagation techniques of important Horticultural crops
8. Pest & disease management of focus flower crops of NER under protected cultivation
9. Practical tips for successful protected cultivation.
10. Guidelines for tomato cultivation under protected cultivation.

D) Folders (in English & Local dialects) -

1. Value addition in ginger
2. Right stage of harvesting important horticultural crops of NER
3. Canopy management in fruit crops
4. Post harvest management of Passion fruit
5. Post harvest management of Capsicum
6. Post harvest management of Gerbera
7. Post harvest management of Ginger
8. Cashew Cultivation and Processing
9. Fibre Extraction of Banana & pineapple
10. Status of market & marketing channel in NER
11. Direct marketing of Horticultural produce
12. Government subsidies for Horticulture development in NER
13. Techniques for off-season onion production in NER
14. Package of practices for organic tomatoes
15. Bee keeping for better pollination in Horticulture crops
16. Enhanced Horticulture development through capacity building.

17. Value addition of wild aonla
18. Post harvest management of Strawberry
19. Post harvest management of Tomato
20. Post harvest management of Rose
21. Post harvest management of Cardamom

ANNEXURE – XI

**FINANCIAL IMPLICATION FOR CONDUCTING SEMINAR/ WORKSHOP/
CONFERENCE/ MEETINGS**

(I) International seminar/ conference/ summit

Sl/ No.	Particulars	Financial requirement (Rs.)
1.	Development of seminar/conference materials (Keynote, presidential address, agenda notes etc.)	Rs. 1,00,000.00
2.	Printing invitation cards, badges, folders, banners, literatures etc.	Rs. 1,00,000.00
3.	Hall arrangements	Rs. 50,000.00
4.	Refreshment – Tea, Lunch etc. @ Rs. 200/-for 500 participants x 2 days	Rs. 2,00,000.00
5.	Honorarium to resource personals	Rs. 1,00,000.00
6.	TA to resource personnel and farmers	Rs. 2,00,000.00
7.	POL (transportation for delegates)	Rs. 1,00,000.00
8.	Printing of Souvenir/Abstracts	Rs. 1,00,000.00
9.	Other expenditure (misc.)	Rs. 50,000.00

Total - Rs. 10,00,000.00

The total financial requirement to organize one International Seminar/ conference/ summit is estimated to be **Rs. 10.00 lakh**.

(II) National seminar/ conference/symposia as per the details shown below-

Sl/ No.	Particulars	Financial requirement (Rs.)
1.	Development of seminar/conference materials (Keynote, presidential address, agenda notes etc.)	Rs. 80,000.00
2.	Printing invitation cards, badges, folders, banners, literatures etc.	Rs. 80,000.00
3.	Hall arrangements	Rs. 30,000.00
4.	Refreshment – Tea, Lunch etc. @ Rs. 200/ for 300 participants x 2 days	Rs. 1,20,000.00
5.	Honorarium to resource personals @Rs.1,000/person	Rs. 10,000.00
6.	TA to resource personnels and farmers	Rs. 80,000.00

7	POL (transportation for delegates)	Rs. 70,000.00
8	Printing of Souvenir/Abstracts	Rs. 80,000.00
9	Other expenditure	Rs. 50,000.00
Total		Rs. 6,00,000.00

The total financial requirement to organize one national seminar/ conference/ symposia is estimated to be **Rs. 6.00 lakh.**

(III) National/ Regional workshop.

Sl/ No.	Particulars	Financial requirement (Rs.)
1.	Development of workshop materials	Rs. 50,000.00
2.	Printing invitation, badges, folders, banners etc.	Rs. 50,000.00
3.	Hall arrangement	Rs. 30,000.00
4.	Refreshment-Tea, Lunch @ Rs. 200/- for 300 participants x 2 days	Rs. 1,20,000.00
5.	Honorarium to Res. Persons	Rs. 10,000.00
6.	TA (Res. Personnels & farmers)	Rs. 75,000.00
7.	POL (transportation for delegates)	Rs. 50,000.00
8.	Other expenses	Rs. 15,000.00
Total		Rs. 4,00,000.00

The total financial requirement in this regard to organize for 2 (two) regional workshop is estimated to be **Rs. 8.00 lakh.**

(IV) State level workshop.

Sl/ No.	Particulars	Financial requirement (Rs.)
1.	Development of workshop materials	Rs.10,000.00
2.	Printing invitation, badges, folders, banners etc.	Rs.10,000.00
3.	Hall arrangement	Rs.5,000.00
4.	Refreshment-Tea, Lunch @ Rs. 200/- for 150 participants x 1 days	Rs.30,000.00
5.	Honorarium to Res. Persons	Rs.5,000.00
6.	TA (Res. Personnels & farmers)	Rs.10,000.00
7.	POL (transportation for delegates)	Rs.20,000.00
8.	Other expenses	Rs.10,000.00
Total		Rs. 1,00,000.00

The total financial requirement in this regard to organize for 1 (one) state level workshop is estimated to be **Rs. 1.00 lakh.**

(V) Meetings (BOM + TAC)

1. Fooding	-	Rs. 20,000.00
2. Lodging	-	Rs. 30,000.00
3. Hall hiring	-	Rs. 10,000.00
4. TA of Res. Persons	-	Rs. 1,00,000.00
5. Transportation	-	Rs. 30,000.00
6. Other expenses (banner, gift items etc)	-	Rs. 10,000.00
Total		Rs. 2,00,000.00

The total financial requirement to organize 1 (one) Board of Management meetings (BOM) and TAC meeting is estimated to be **Rs. 4,00,000.00 Lakh**

(VI) Interface/ Departmental meeting.

1. Fooding	-	Rs. 10,000.00
2. Lodging	-	Rs. 15,000.000
3. Hall hiring	-	Rs. 5,000.00
4. TA of Res. Persons	-	Rs. 45,000.00
5. Transportation	-	Rs. 20,000.00
6. <u>Other expenses (banner, gift items etc)</u>	-	<u>Rs. 5,000.00</u>
Total	-	Rs. 1,00,000.00

The total financial requirement to organize 1 (one) departmental meeting is estimated to be **Rs. 1,00,000.00 lakh**

ANNEXURE - XII

LIST OF EQUIPMENT AND MACHINERIES

Sl. no	Name of equipments/ Machineries	Qty
1	Vernier caliper	2
2	Leaf area meter (digital)	1
3	Top pan balance	2
4	Electronic weighing balance	2
5	Oven	1
6	Hand Magnifying glass	2
7	Megnascope	1
8	Spectrophotometer	1
9	E.C tester (0 to 1990 μ s)	1
10	Digester (for 'N')	1
11	Refrigerator	1
12	Flame photometer	1
13	Home scale processing unit Equipments	
14	Grinder/ mixer	1
15	Farm tools and Implements	List below

(Naga Dao, Hammer, Tyre tube (Hand cart), Wheel bearing (Hand Cart), Seed dibbler, Bucket (aluminium) (10lts), Harvesting bag (2x2) ft, Harvesting bag (2x1) ft, Pro trays (6-7 inches), Catapult, Dao holder with belt, umbrella, Manual Loud speaker(battery operated), Head basket (Naga style), Winnow, Sickle, Manual chaff cutter, Seed treatment drum (50/100 kg capacity), Scissor, Citrus harvester, Ruining Saw.

Total requirement = Rs. 20 lakh

ANNEXURE – XIII

COST ESTIMATE FOR PURCHASE OF MOTOR VEHICLES

- 1. Water tanker:** CIH is established in hilly terrain area and has no proper water resource in the farm. The institute development is being hampered by the scarcity of water supply for the farm. Besides, there is always a danger of fire outbreaks from the nearby fields during dry periods. Therefore, water tanker needs to be procured.
- 2. Mini Bus :** One of the key mandate of the institute is imparting trainings. This requires transportation of participants at all time, which entails a lot of expenditure. Hence, purchase of mini bus will save a lot of resources and also help in proper and efficient management of the training.

ANNEXURE – XIV

ESTIMATED FINANCIAL EQUIPMENT FOR SETTING UP INTRANET WEBSITE CONNECTION

- i) Machinery & Equipments cost -Rs. 7,00,000/-
ii) Cost of installation (Software preparation, customized services) -Rs. 3,00,000/-
Rs.10,00,000/- approx.

(Rupees ten lakh only)

ANNEXURE – XV

ESTIMATED FINANCIAL IMPLICATION FOR LAND SCAPING

Consultancy fees Rs.2 lakh /hectares.
Rs.2,00,000/- x 2 ha = Rs, 4,00,000/-

Expenditure details:

- A) Land Development.
i) Soil preparation = Rs.30,000/-
ii) Manure/Fertilizer = Rs.20,000/-
B) Planting Material –
i) Lawn grass = Rs.50,000/-
ii) Hedge/egg plant = Rs.25,000/-
iii) Ornamental plants = Rs.15,000/-
iv) Seed/annual plants = Rs.10,000/-
C) Irrigation system for Lawn = Rs.50,000/-
D) Maintenance and equipments (Misc.) = Rs.1,00,000/-
Total = Rs.2,70,000/-

Rs. 4,00,000/- + Rs.2,70,000/- = Rs. 6,70,000/-

Approx. Rs. 7,00,000/-

