

Integrated Horticulture Development (IHD)

Norms & Guidelines of Protected Cultivation (Revised) 2015-16



Department of Horticulture

Udhyan Bhawan, Sector-21,
Panchkula-134112, Haryana
Email: hortharyana@gmail.com
horticulture@hry.nic.in
Website: hortharyana.gov.in

HORTICULTURE DEPARTMENT, HARYANA
Udhyan Bhawan, Sector-21, Panchkula-134116,
e-mail:- hortharyana@gmail.com, website:- hortharyana.gov.in

Memo no. 11059-64

Panchkula, the Dated: 19/8/15

To

1. Deputy Director Horticulture, Bhiwani, Gurgaon & Rohtak .
2. District Horticulture Officer, Faridabad, Kaithal & Rewari.

Subject: Revised Norms and Guidelines for implementation of Protected Cultivation under IHD for the year 2015-16.

Reference: Horticulture Department Plan Schemes and Guidelines 2015-16 circulated in 89th staff meeting held on 13th July, 2015.

Please refer to the subject and reference cited above, find enclosed herewith a copy of revised norms and guidelines for implementation of Protected Cultivation Structures under IHD for the year 2015-16.

This is for your information and further necessary action.

DDH/MI

for Director General Horticulture,
Haryana, Panchkula.

CC:

1. PS to Director General Horticulture.
2. Joint Director Horticulture (P&N).

Revised Norms for Protected Cultivation for the year 2015-16

General Terms & Conditions:

With the operational guidelines of Construction of Protected Structures in Haryana shall be governed during the year 2015-16 as per following Norms and Guidelines.

Norms & Guidelines

1. Process of Application

- i. The farmer has to apply online/Poly Net either in office of DEPARTMENT or from its own resources for generation of application number as per check-list attached at Annexure – I. Farmers are advised to take advice from DEPARTMENT Extension Officers for suitability of erection of Protected Structure and cultivation of crops inside. Farmers shall follow the instructions of Soil & Water testing laboratory.
- ii. On submission of complete documents, the application shall be approved and the seniority shall be maintained from date of sanction. The seniority shall be maintained for 150 days. The validity of seniority up to 150 days or up to 31st March, 2016 whichever is earlier.
- iii. On completion of structure by farmer and on his request the inspection shall be carried by DEPARTMENT.
- iv. On the basis of inspection report, the assistance shall be released in account of farmer beneficiary.
- v. Approval shall not be granted if protected structure is already installed. The DHO must ensure that the structure has not been already erected by the farmer.

2. Eligibility Criteria for applicant:

- i. Minors are not eligible.
- ii. Only farmer of Haryana can be a beneficiary under the schemes. The document viz. Ration card/voter card/*Adhaar* card/Domicile/Passport etc. is required.
- iii. Farmer means a person having land ownership in one's name. For this he has to submit Land Records: Original *Jamabandi* (Latest by six months) and/or *Intekal*. All the documents submitted shall not be more than six months old. Farmer includes farmer's family, means husband, wife and their children. Ration card is required to prove family unit.
- iv. The adult son/daughter or in case of his/her death, his/her widow/widower and children shall be deemed to be living with the parents or either of them. The adult son/daughter shall only be considered as separate unit only when separated from parents. It means they live separate from parents and this can be verified by means

of separate ration card/ affidavit to this effect having in all the cases separate address to that of their parents with a certificate of this effect from *Sarpanch* of that village.

- v. Department promotes cluster and for that farmers of Haryana (having land in his/her name in Haryana state) can take land on lease. But in all such cases the projects should be bankable and lease agreement must be minimum for 12 years.
 - vi. Only those applicants are eligible to apply *who* did not availed assistance on account of Protected Cultivation in his/her name/spouse name or in name of dependent member of his/her family from any Government agency. Further those applicants or dependent family members who have been availed assistance up to maximum limit under this component at anytime, anywhere in Haryana are not eligible.
3. **Application Forms and formats:** The sample forms and formats are annexed at Annexure-II.
 4. **Assistance Limit:** the assistance shall be applicable as per norms given below based on MIDH Operational Guidelines April 2014.

Table 1: For beneficiary who have taken land on lease and beneficiary who have total land more than 5 acre - Plain Area

Sr. No.	Type of Structure	Size Range	Cost norm*Rs./ per sqm	Total Eligible Subsidy limit (50%)
A	Naturally Ventilated Polyhouse (NVPH)	Up to area 500sqm	1060.00	530.00
		>500sqm up to 1008 sqm	935.00	467.50
		>1008sqm up to 2080 sqm	890.00	445.00
		>2080sqm up to 4000 sqm	844.00	422.00
B	Net House-Tubular structure	with plastic top as addition; >4.00 m height	710.00	355.00
		Dome shape; >4.00 m height	600.00	300.00
		Flat shape-all GI; 4.0 m height	600.00	300.00
		Flat shape- Cable purlin, 4.0 m ht.	550.00	275.00
C	Walk-In-Tunnel (WIT)/ Single Span NVPH	3.0 m and above	600.00	300.00
		2.0 m and < 3.0 m height	400.00	200.00

Table 2: For beneficiaries who have taken land on lease and beneficiaries who have total land more than 5 acre - Hilly Area

Sr. No.	Type of Structure	Size Range	Cost norm*Rs./ per sqm	Total Eligible Subsidy limit (50%)
A	NVPH	Up to area 500sqm	1219.00	609.50
		>500sqm up to 1008 sqm	1075.25	537.62
		>1008sqm up to 2080 sqm	1023.50	511.75
		>2080sqm up to 4000 sqm	970.60	485.30
B	Net House- Tubular structure	with plastic top as addition; >4.00 m height	816.50	408.25
		Dome shape; >4.00 m height	690.00	345.00
		Flat shape-all GI; 4.0 m height	690.00	345.00
		Flat shape- Cable purlin, 4.0 m ht.	632.50	316.25

Table 3: For beneficiaries who have total land 5 acre or less – Plain Area

Sr. No.	Type of Structure	Size Range	Cost norm*Rs./per sqm	50% Subsidy	15% Subsidy	Total Eligible Subsidy Limit @ 65%
A	Naturally Ventilated Polyhouse (NVPH)	Up to area 500sqm	1060.00	530.00	159.00	689.00
		>500sqm up to 1008 sqm	935.00	467.50	140.25	607.75
		>1008sqm up to 2080 sqm	890.00	445.00	133.50	578.50
		>2080sqm up to 4000 sqm	844.00	422.00	126.60	548.60
B	Net House- Tubular	with plastic top as addition; >4.00 m height	710.00	355.00	106.50	461.50

	structure	Dome shape; >4.00 m height	600.00	300.00	90.00	390.00
		Flat shape-all GI; 4.0 m height	600.00	300.00	90.00	390.00
		Flat shape- Cable purlin, 4.0 m ht.	550.00	275.00	82.5	357.5
C	Walk-In-Tunnel (WIT)/ Single Span NVPH	3.0 m and above	600.00	300.00	90.00	390.00
		2.0 m and < 3.0 m height	400.00	200.00	60.00	260.00

Table 4: For beneficiaries who have total land 5 acre or less – Hilly Area

Sr. No.	Type of Structure	Size Range	Cost norm*Rs./per sqm	50% Subsidy	15% Subsidy	Total Eligible Subsidy Limit @ 65%
A	NVPH	Up to area 500sqm	1219.00	609.50	182.85	792.35
		>500sqm up to 1008 sqm	1075.25	537.62	161.28	698.90
		>1008sqm up to 2080 sqm	1023.50	511.75	153.52	665.27
		>2080sqm up to 4000 sqm	970.60	485.30	145.59	630.89
B	Net House-Tubular structure	with plastic top as addition; >4.00 m height	816.50	408.25	122.47	530.72
		Dome shape; >4.00 m height	690.00	345.00	103.50	448.50
		Flat shape-all GI; 4.0 m height	690.00	345.00	103.50	448.50
		Flat shape- Cable purlin, 4.0 m ht.	632.50	316.25	94.87	411.12

*= Cost norms means upper limit of cost for calculation of subsidy

Note: All the specifications must be followed till then no assistance shall be released.

- Area Limit:** the total area limit for assistance per beneficiary is 4000 sqm irrespective of type of structure e.g. one farmer beneficiary can take assistance on either one or in

combination of different structure types (NVPH/HTGH/WIT/Net House) up to maximum limit of 4000 sqm.

6. **Technical Specifications:** The technical specifications of NCPAH for Hi-tech Green House, Naturally Ventilated Polyhouse, National Horticulture Board (NHB) for Net Houses and Haryana Kisan Ayog for Walk-In-Tunnels (WIT) shall be followed Annexure – III.
7. **Training:** The farmers are advised to have a minimum three days training-cum-workshop regarding awareness on Protected Cultivation, issues related to Cultivation, Construction and Maintenance of Poly houses.
8. **Sanction:** The cases shall be entertained on First Come First Serve Basis. The sanction shall be issued as per norms & guidelines and availability of budget. All the structures sanctioned during current financial year should be completed during same financial year. The validity of sanction letter shall be six months or 31st March, whichever is earlier from the date of issue. In case of bankable projects, the financing banks may refer booklet on ‘Model Bankable Project on Protected Cultivation in Haryana’ published by NABARD, Haryana Regional Office, Chandigarh for issue of loan sanction letter and appraisal report. For release of assistance, the priority shall be given for the projects that are completed on time. If funds are not available, the assistance may not be released.
9. **Construction of Protected Structures:** As farmer is executing the erection and supposed to supervise his/her structure during execution of work, therefore, the farmer is responsible for quality of material and in such cases, Department is not bound to release the subsidy as per fixed norms. Farmer shall undertake installation activity after receiving sanction from DEPARTMENT and complete installation work in a maximum period of **150 calendar days**. The start of period shall be counted from the date of issue of sanction letter. The farmer shall be responsible and liable for installation of structure as per standards applicable.

If the farmer got executed installation of protected structure through the firm, in that case the firm has to provide approved structure and design to the farmer. Such structure must be approved from any authorized Govt. agency in India and abroad. However, minimum standards prescribed under point 6 above shall be followed. Copy of approved structure from any authorized Govt. agency in India and abroad shall be attached with application. Exact dimensions of structure shall be mentioned in cost estimate as well as in design by farmer beneficiary.

10. **Inspection:**
 - i. **First Inspection:** First inspection shall be conducted by Joint Inspection Team (JIT) of DEPARTMENT just after supply of material and completion of foundation work. This inspection will be conducted after call from farmer in written to DHO with assurance that the material supplied is per component list and the foundation work is complete as per departmental specifications and quantity as per design excluding cladding material. The

farmer will keep representative sample of all the components. The JIT may check any of the used material at site and farmer has to facilitate it. In case of bankable cases representative from bank shall be the member of Joint Inspection Team (JIT).

- ii. **Final Inspection:** Final inspection shall be conducted by JIT of DEPARTMENT after intimation to DHO after completion of structure in all respects. DHO & farmer will remain present at the time of physical inspection to be carried out.
- iii. The intimation of first and final inspection shall be conveyed to financing bank.

11. **Release of assistance:** the assistance shall be released to farmer after completion of structure in all respects. **The assistance** shall be calculated based on the cost and assistance limit prescribed in point 4 above. However, if farmer got construct the structure from any firm empanelled elsewhere, in that case subsidy shall be calculated on the basis of empanelled rates of that firm. In no case the assistances shall be released to the firm. Subsidy shall be released only to the farmer beneficiary or to the bank as mentioned below:

i. **Non- bankable projects:**

- a) The assistance shall be released to farmer directly in single instalment after completion of structure in all respects and submission of following documents
 - i. completion certificate,
 - ii. insurance policy receipt
 - iii. Final inspection report
- b) Release is subject to availability of funds. The penalty if any shall be deducted accordingly. Farmer shall be fully responsible for quality and quantity of material used and also for maintenance and repair thereof.

ii. **Bankable projects:** A stakeholders' meet on protected cultivation was held on dated 05-05-2014 in NABARD office. It was decided that in bankable projects only farmer share shall be financed and release of assistance in case of such bank financed project shall be as follows:

• **Release of assistance from DEPARTMENT to bank**

- First Instalment: DEPARTMENT will release 50% of total eligible subsidy to the bank just after issue of sanction letter in form of crossed cheques in subsidy reserve fund/account of financing bank.
- Second Instalment: Second instalment shall be based on satisfactory second inspection report and amount worked out on the basis of completion of structure and penalty if any. This amount is to be released to the bank after final inspection report.

• **Release of assistance from bank to beneficiary**

- The bank shall release assistance to the farmer. The assistance shall be released as one instalment on the basis of final inspection report and insurance policy.
- The bank will submit to DEPARTMENT the utilization certificate of subsidy released.
- The balance lying to the credit of the subsidy reserve funds A/c will not form the part of the Demand and Time Liabilities for the purpose of SLR/CRR. Suitable instructions in this regard by the **RBI** from time to time would be followed.

12. **Insurance of Polyhouses:** The insurance of Polyhouse is the responsibility of farmer and is mandatory. The premium for insurance shall be paid by farmer and is the part of project cost within prescribed cost limit. DEPARTMENT shall not be responsible for cropping plan, yield, crop damage, damage to structure etc. whatsoever the reason may be.

13. **Assistance on cost of cultivation:** the application for assistance on cost of cultivation shall be considered only after completion of structure and submission of copy of insurance policy.

13.1 in case of vegetables, the assistance shall be given in one instalment one month after plantation. The assistance shall be calculated on pro rata basis i.e. number of plants per sqm. The beneficiary farmer shall submit the invoice/ bill of seed or planting material, bill of mulching sheet & cost of inputs etc. for their claim of subsidy.

13.2 In case of flowers the assistance shall be given in two instalments of 50% each. The first instalment shall be given after one month of sowing. The second instalment shall be given after three months of plantation. The assistance on rose cultivation shall not be considered in net-houses. The assistance shall be calculated on pro rata basis i.e. number of plants per sqm.

13.3 The following documents are required for release of assistance for flower cultivation:

- (i) Original copy of purchase bill and proof of source of planting material (Seed/Tissue Culture/Imported)

13.4 A committee constituted shall inspect and recommend for release of assistance based on total no of plants/ seed bulbs (on production of bill) and other required material (physical availability of material at site) as per the items mentioned in table below:

13.5 Planting Material Cost Norms grown under Poly Houses and Net Houses per sqmtr.

S No.	Item	Lilliums			Rose			Carnation			Gerbera			Chrysanthemum		
		Unit	Rate	Amt	Unit	Rate	Amt	Unit	Rate	Amt	Unit	Rate	Amt	Unit	Rate	Amt
1	Soil Sterilization															
	Formalin & Plastic sheet		lump sum	25		lump sum	25		lump sum	25		lump sum	25		lump sum	25

2	Planting Material	22 nos. Per sqm.	Avg. @ 13/- per bulb	286	7 nos. Per sqm.	Avg. @ 20/- per plant	140	22 nos. Per sqm.	Avg. @ 12/- per plant	264	7 nos. Per sqm.	Avg. @ 35/- per plant	245	8 nos. Per sqm.	Avg. @ 9/- per plant	72
3	Fertilizer															
a)	Organic (FYM/Vermi-compost/bone meal/neem cake)		lump sum	39		lump sum	39		lump sum	39		lump sum	39		lump sum	39
b)	Chemical Fertilizers		lump sum	40		lump sum	60		lump sum	60		lump sum	60			
c)	Rice husk/ coco-peat/ inert material		lump sum	17		lump sum	17		lump sum	17		lump sum	17		lump sum	17
4	Preventive Sprays		lump sum	3		lump sum	5		lump sum	5		lump sum	5		lump sum	5
5	Other accessories															
	flower support system		lump sum	16		lump sum	0		lump sum	104		lump sum	0		lump sum	24
	Total amount			426			286			514			391			242
	Eligible assistance			213			143	0	0	257	0	0	196	0	0	121
	<i>Note:</i>															
	1. For Dahlia crop total estimated amount is Rs. 190/- per sqm and eligible assistance is Rs. 95/- per sqm.															

14. **After sales service:** the farmer will take care of structure and maintain for a period of ten years and will not misuse, sale the structure.
15. **Testing of Material:** The farmers/beneficiaries may get tested their material used in protected structures from Central Institute for Plasticulture Engineering and Technology, Murthal, Distt.- Sonapat, Haryana or any other Govt. recognised institutes.
16. **Refund of Assistance:** It is assumed that Govt. assistance is provided to the desired beneficiary. In case of any misleading information/facts from beneficiary or by mistake, the beneficiary has to refund assistance amount back to the Government/DEPARTMENT.
17. **Jurisdiction:** for any kind of dispute the jurisdiction shall be of concerned district headquarter only.

CHECK LIST OF DOCUMENTS

(To be submitted by farmer to DHO at the time of application)

From: Name of farmer: _____ s/o;d/o;w/o Sh _____
VPO: _____ Teh. _____
Distt. _____ PIN _____
Contact No. _____

To :

District Horticulture Officer _____

Dear Sir,

Kindly find attached the self-attested copies of following documents:

S. No.	Particulars	Document Attached (Yes or No)
1.	POLYNET Registration No.	
2.	Application form (duly filled and signed by applicant, no column shall be kept blank, cutting and over-writing not allowed and latest self-attested photograph of the applicant on specified space must be affixed)	
3.	Copy of Ration Card (self-attested)	
4.	Cost- Estimate of structure (duly attested and submitted by farmer)	
5.	Original Copy of Land Records – (not issued before six month back) With <i>Intkal/Zamabandi,sizra</i> latest with Signature of <i>Patwari/Kanungo/Tehsildar</i> (Name of the farmer in land record must be matched with name mentioned in Identity of farmer)	
6.	i) In case of Joint Land Shareholders if Any, undertaking of farmer (as per Form No 4).	
	ii) In case of Joint Land Shareholders only, Land Verification Report of Patwari as per form No. 5 (cutting and over-writing is not allowed in land verification report of Patwari, all columns must be filled up and signed by Patwari as per performa).	

The case is hereby submitted for further necessary action please.

Dated:

Signature

(Name of Farmer)

CHECK LIST OF DOCUMENTS

(To be submitted by farmer to Bank for availing bank loan for protected cultivation)

From: Name of farmer: _____ s/o;d/o;w/o Sh _____
VPO: _____ Teh. &Distt. _____
Contact No. _____
To : The Branch Manager, _____

Dear Sir,

Kindly find attached the self-attested copies of following documents:

1. Furd Jamabandi (Land Ownership Records)
2. Khasra Girdawari (Cultivation Rights)
3. Irrigation facility – Good quality Water
4. Drainage facility
5. Soil Water test report from Agril Dept./Horticulture Dept
6. Electricity Facility
7. Land well connected with market
8. Progressive farmers who are already following modern agricultural technologies and have some experience/training in Green house/Poly house (or) Farmers already growing vegetables using latest technologies
9. KYC Documents
 - Identity Proof
 - Address Proof
10. Passport Size Photographs

Margin: 10% of the project cost

Repayment: 5 to 7 years

Reference: Codified Farm Credit Circular No. 01/13 dated 15.01.2013

DEPARTMENT OF HORTICULTURE
Application Form (Form-1)
(Free of cost)

To be filled by farmer

Affix self-
attested
passport
size
photograph

1. General information

- Name of Scheme: _____
- POLYNET Registration No: _____
- Applicant Category : _____ (Big Farmer/Marginal Farmer/Small Farmer/Other Farmer).

2. General Details of Farmer

- Farmer Name: _____ S/o/D/o/W/o: _____
- Category (Social Status) _____ (GEN/ BC/SBC/SC/ST/Others)
- Gender: _____ (M/F), Date of Birth: _____
- Educational Qualification _____
- AADHAR No.: _____
- Address: House No.: _____ Gali/Street No. : _____
Village: _____ Panchyat: _____ Block: _____ Tehsil :
_____ District: _____ State : _____ Pin Code :
_____ Phone No. (with STD Code) _____ Mobile No. _____

• Land detail of farmer

- i) Land address: Village: _____ Block: _____
Tehsil: _____ District: _____
- ii) Total land: _____ (acres)
- iii) Land Status: _____ (Own/Lease)
- iv) Poly house/Net house/WIT proposed area : _____ (sqm)
- v) Name of high value vegetable/flower crop to be grown:
- vi) Khasra No. & field No. with *sizra* where structure is to be installed (Land Survey No): _____

3. Bank details (Farmer where subsidy is to be transferred):

- Name of Bank: _____
- Branch Name: _____
- IFSC code: _____
- Account No. /Subsidy reserve account No: _____

4. Whether availed subsidy benefit earlier under this component: _____(Y/N)

if yes, details:

S. No.	Type of structure	Area (m ²)	Year of installation	Subsidy amount availed (Rs.)	Name of Authority/Dept.

5. Cost of structure: Rs. _____per sqm.

6. Name of company, if any: _____

7. I/We undertake that:

- 7.1 The dimensions of the structure will fall within area as per revenue record and *sizra*.
- 7.2 The source of irrigation water is available at site.
- 7.3 The Soil & water of site are suitable for crop cultivation.
- 7.4 The proposed site for structure is free from any kind of obstacles. It has minimum distance of 6.5 m or equal to height of boundary wall/other structure whichever is higher from these structures and minimum distance of 5 m from electric pole and wires and to avoid site through which electric wires crisscross, if any.
- 7.5 My/our site is not prone to water stagnation.
- 7.6 Water table is not so high to affect foundation and subsequent cultivation at my/our site.
- 7.7 My/our site has efficient drainage facility.
- 7.8 I/and my fellow farmers agree that I/we have not availed any kind of assistance from any Govt. agency under this component.
- 7.9 That I/we have sufficient knowledge to install and run the protected structure. DEPARTMENT is nowhere responsible.
- 7.10 I/and my fellow farmers agreed to follow the minimum prescribed specifications and terms and conditions lay by Govt./DEPARTMENT.

- 7.11 I/we shall execute the work of MI component through registered companies by the Department of Horticulture, Haryana.
- 7.12 I/we shall intimate DEPARTMENT after completion of structure in all respects. I shall remain present and cooperate at the time of physical inspection to be carried out.
- 7.13 As per requirement of Government contribution entitlement, I/we will maintain structure for 10 years from the date of completion of structure. In case structure is not available on my field during 10 years from the date of completion of structure due to any of reasons, I shall not be entitled for any benefit of subsidies under Govt. scheme and DEPARTMENT is free to take any action against me. Further, I shall return the Govt. subsidy to DEPARTMENT
- 7.14 I/we agreed not to change/modify/remove/dispose/resell the structure during the 10 years period. I shall note that DEPARTMENT will not be responsible for any consequences like Government contribution entitlement variation due to amendments issued by Government, reduction in yield, crop damages etc. arising out of such change/modification/removal/disposal/sale/damage of the structure by me.
- 7.15 In case of any damage due to natural calamities either during construction or thereafter I/we shall be responsible, DEPARTMENT shall not be responsible in anyway.
- 7.16 I/we shall get insured my structure from insurance company and will submit the insurance policy to DEPARTMENT in order to avail subsidy.
- 7.17 I/we should not lodge any false complaint/claim or to create any unpleasant situation and try to settle differences and disputes if any amicably and as far as possible at local level.
- 7.18 I shall abide by the norms and guidelines.

8. I declare that whatever information I have given above is true and any misleading information from my side makes me liable to reject my case for sanction. Violation of any terms and conditions, department may take any appropriate action against me.

Date:

Yours faithfully

Signature of farmer
(Name: _____)

Encls: Documents as per checklist.

(For office use only)

Application receipt No. & Date:	
---------------------------------	--

Date of document checking	
Whether suitable for construction for Protected Structure? (Yes/No)	
Whether recommended for sanction? (Yes/No)	
<p>Document & site checked by :</p> <p>(Name & designation: _____)</p> <p>Signature : _____</p> <p>Date : _____</p>	

DEPARTMENT OF HORTICULTURE
Sanction letter (Form-2)

To

_____ (Farmer Name)
S/o/D/o/W/o : _____ House No.: _____
Gali/Street No. : _____ Village: _____
Block: _____ Tehsil: _____ District: _____

Memo. No. _____ **Dated:** _____

Subject: Sanction letter for installation of poly house/net house/walk-in-tunnel.

Ref: Memo. No. _____ **dated** _____.

With respect to above cited subject and reference the sanction is hereby accorded to Sh./Smt. _____ Vill. _____, District _____ with the following details:

Application No.	Type of structure (Poly house/net house)	Area of structure (sqm.) & dimensions of structure (l x b)	Total estimated cost (Rs.)	Estimated assistance amount (Rs.)	Estimated farmer share (Rs.)

We issue this sanction letter based on your submission of documents. The sanction is accorded subject to the following conditions-

1. The beneficiary shall follow the Norms and Guidelines of Protected Cultivation Structures as per policy.
2. The validity of the sanction shall remain for 150 days from the date of issue of this letter or up to 31st March 2016 whichever is earlier.
3. Beneficiary shall intimate to the DEPARTMENT about the completion of structure.
4. Subsidy shall be released on the satisfactory inspection report of the joint inspection team and subject to availability of funds. If structure is not completed within 150 days DEPARTMENT is not bound to be released assistance in such case.

Sign of Sanctioning Authority

CC: A copy of above is forwarded to the following for information and necessary action:

1. The Mission Director, Haryana State Horticulture Development Agency, Udhyan Bhawan, Sector 21, Panchkula, Haryana-134112
2. The Deputy Director, National Horticulture Board, Shop No. 85, Sector 40C, Chandigarh, 160036
3. Lead District Manager, _____(Bank)

Endst No. _____

Dated: _____.

To

The Branch Manager

_____(Name of Branch),

- i. Vide your appraisal of letter no. _____ dated _____ kindly find attached herewith, a cheque no. _____ dated _____ of amount Rs. _____ which is **50% amount** of the total eligible subsidy of the project. This is a subsidy which will be governed by the bank's norms & guidelines. However, the bank is advised to make liasioning with our officer while releasing assistance. The work flow of project is as given below:
 - a. The work shall be completed by the farmer within 150 days.
 - b. There shall be physical inspection of project after completion of work in all respect. You are requested to assist Joint Inspection Team (JIT), the information regarding date of visits shall be intimated to you.
 - c. The bank shall release assistance as single instalment after completion of work in all respect on the basis of final inspection report and penalty if any.
- ii. The bank will submit to DEPARTMENT the utilization certificate of subsidy released.
- iii. The balance lying to the credit of the subsidy reserve funds A/c will not form the part of the Demand and Time Liabilities for the purpose of SLR/CRR. Suitable instructions in this regard by the **RBI** from time to time would be followed.

Sign of Sanctioning Authority

(Form-3)
COMPLETION CERTIFICATE
(Form for Claim of Govt. Assistance)
(To be issued by farmer after completion of structure)

To
The District Horticulture Officer,
_____.

Subject: Completion Certificate.

The work of construction of protected structure has been completed as per specifications. I am satisfied with the construction work of structure in all respects. I have acquired sufficient knowledge to operate Protected Structures and cultivate the crop. I have taken possession of the structure. It is therefore requested to physically verify the structure. The assistance as per norms may please be released to me as per details given in the application form.

Date:

Signature
(Name of farmer)

CC: A copy of above is forwarded to the bank (if financed) for information at the address given below:

To
The Branch Manager,
_____(Name of bank with address)

(Form -4)

Undertaking/opu

e\$ ----- l q @ l q @ h @ i Ruh Jh ----- xlo -----
rgl hy ----- ft yk ----- dk jgus okyk@okyh gWvls
viusgYQ l sfuEufyf[kr C; ku djrk@djrh gW%&

- 1- ;g fd e\$ mDr irs dk LFkZfuokl h gW
- 2- ;g fd e\$ avkt rd m|ku foHx l s ikyh gml @uV gml ds fy, dkZ Hh vumku jk'ki kR ughadh gA
- 3- ;g fd gekjh tehu ----- , dm+l k-k [krs dh gA
- 4- ;g fd e\$ dy tehu ----- , dm-dk ekfyd o dk'r djrk g@djrh gW e\$ xlo ----- rgl hy ----- ft yk ----- ea [kV u0 ----- [k jk u0 ----- fdyk u0 -----
----- ij ikyh gml @uV gml yxokuk plgrk@plgrh gW mijkDr [k jk u0 o fdyk u0 ij ejk ekfyduk gd o Lo; a dk'r djrk g@djrh gW
- 5- mijkDr [k jk u0 o fdyk u0 ea ikyh gml yxkus ij ejs fdl h Hh fgLl nkj dks dkZ vki fRr ugha gA ;fn Hfo"; ea dkZ vki fRr djrk g@djrh gS rks e\$ Lo; aft Eenkj jgwk@jgwkA bl eam|ku foHx dh dkZft Eenkj h ugha gA
- 6- ikyh gml @uV gml dk fMt kbZi mijkDr [k jk u0 o fdyk u0 ds fy, nq Lr gA fMt kbZi l s l a/kr dkZ vki fRr vkrh gS rks bl ds fy, ejh Lo; adh ft Eenkj h gA
- 7- ;g fd mijkDr [k jk u0 o fdyk u0 dh feVVh o ikuh ikyh gml dh [krh ds fy, mi; Dr gSo bl dh xqlork dh ft Eenkj h ejh Lo; adh gA
- 8- e\$ m|ku foHx }kj k fu/kZj r ekin. Ma ds vuq kj ikyh gml @uV gml dk fuelZk d: ak@d: aA
- 9- e\$ m|ku foHx ds ekun. Ma o fn'k funZka dk ikyu d: ak@d: aA
- 10- e\$ ikyh gml @uV gml dks nl o"Z rd l ok : i l spyk maA
- 11- ;g fd ejs tehu l akh dkxt kr o vU, dkxt kr ejs }kj k tek fd; s x; s gA o nq Lr gA e\$ fdl h xyr l puk ds fy, ft Eenkj gW
- 12- ;fn Hfo"; ea dkZ fgLl nkj ;k vU, bl ij U, k ky; ea dl nk j djrk g@djrh gS rks ml dh Hh ft Eenkj h ejh gA

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(Form -5)

POLY HOUSE/NET HOUSE/WIT

LAND RECORD VERIFICATION FORMAT:-

Sr. No.	Name & address of farmers	Muraba No.	Killa No.	Farmers land share	
				Kanal	Marla

The above information is verified and correct as per the land revenue record.

Revenue Officer/Patwari

The poly house/net house/walk in tunnel shall be constructed in Killa No _____ M.No. _____ Village _____ block _____ which stands in the name of Sh. _____ S/o _____.

HDO Concerned Block

Suggested technical specifications of Naturally Ventilated Greenhouse

Sl. No.	Items	Description/ Specification
1.	Product	Naturally Ventilated Greenhouse
2.	Size	500 m ² / 1000 m ²
3.	Bay size	8m x 4m, width of greenhouse should be at least 35 % of the desired length.
4.	Ridge height	6.5m to 7m
5.	Ridge Vent/Top Vent	80-90 cm opening fixed with 40 mesh nylon insect Screen
6.	Gutter height	4 - 4.5m from floor area
7.	Gutter slope	2% slope need be provided in civil foundation work/ structure.
8.	Gutter Material	20 gauge or 1 mm thick with perimeter of 500 mm or more preferably of single length without joint
9.	Structural design	The structural design need to be sound enough to withstand wind speed minimum 150 km/hr and minimum load of 25 kg/m ² . There should be provision for opening one portion at either side for entry of small tractor/power tiller for intercultural practices. The firm needs highlight design features and list of greenhouse clients.
10.	Structure	Complete structure made of galvanized steel tubular pipes of equivalent section conforming Indian Standards having wall thickness 2mm, structural member should be joined with fasteners properly.
	Columns	76mm OD, 2 mm thick
	Trusses	Bottom & top cord 60 mm OD, 2 mm thick
	Trusses member	48 mm OD, 2 mm thick
	Purlin	42 mm OD, 2 mm thick
	Purlin member	33/25 mm, 2 mm thick

	& others	
	Foundations	Telescopic type. The column size to be 45 cm x 45 cm x 90 cm depth of CC 1:2:4 ratio properly compacted over 10 cm layer of 1:8:16. Two holdfast to be used in perpendicular direction at 20 cm apart in concrete starting from 20 cm from base.
	Fasteners	All nuts & bolts must be of high tensile strength and galvanized.
11.	Entrance room & Door	One entrance room of size 3m X 3m X 3m (L X W X H) need to be provided and covered with 200 micron UV stabilized transparent plastic film. Two hinge doors of size 2 m width & 2.5 m height double leaf made in plastic/FRP sheets mounted in suitable strong frame.
12.	Cladding material	UV stabilized 200 micron transparent plastic films. Conforming Indian Standards (IS 15827: 2009), multilayered, anti-drip, anti- fog, anti-sulphur, diffused, clear and having minimum 85% level of light transmittance.
13.	Fixing of cladding Materials	All ends/joints of plastic film need to be fixed with two way aluminum profiles with suitable locking arrangement along with curtain top. Wooden batons or PVC grippers need not used.
14.	Spring Insert	Zigzag high carbon steel with spring action wire of 2-3 mm diameter must be inserted to fix sheet into Aluminum Profile.
15.	Curtains and insect screen	Roll up UV stabilized 200 micron transparent plastic film as curtains need be provided up to 3.0 m height on all sides having automatic type motor operated crank mechanism. However, provision for manual opening and closing of curtains need also be provided. 40 mesh nylon Insect proof nets (UV stabilized) of equivalent size need to be fixed Inside the curtains. Anti -flapping strips is suggested to ensure smooth functioning of the curtain.
16.	Shade net	UV stabilized 50% shading net with motor/manually operated mechanism for expanding and retracting. Size of net should be equal to the floor area of greenhouse.
17.	Shade net operations	Non- motorized for all sizes. Gear wire manual operation system with rotary handle having ball bearings.
18.	Drip Irrigation System with fogging &	Drip irrigation system under greenhouse need to be selected on the basis of crop spacing (design on spacing 45 cm x 45 cm)

	misting facility	<p>along with fogging and misting facilities. The spacing considered for calculation The suggested bill of materials are Sand Filter 5 m³/hr, Screen Filter 10 m³/hr, Control Valve 63 mm, Control Valve 50mm, By-pass Assembly 1.5", Air Release Valve, 1", Non Return Valve 1.5", Throttle Valve 1.5", Flush Valve 50mm, Venturi 1.5" Assembly with manifold, PVC pipe 63 mm/6 kg cm², PVC pipe 50mm/6kg/cm², PE plane lateral 16 mm, emitting pipe lateral 16mm - @ 0.45m spacing, hanging type micro sprinkler nozzle (four-way take off assembly) for very fine water particles (foggers & mister) to be fixed in PE pipe of diameter 16mm, Water tank of capacity 5000 liter and fittings & accessories.</p> <p><u>Note: The above list of material is indicative list for 500 sqm structure area. The material may increase/decrease based on the size of structure.</u></p>
19.	Bottom apron	UV stabilized woven polythene 160 GSM and a height of 1 m above ground and 50 cm buried below ground (Total width 1.5 m)
20.	Trellising System	<ul style="list-style-type: none"> i) Base wire 8 mm or GI Pipe 60 mm OD, 2 mm thick ii) Trellising wire 3 mm steel or 2 mm gear wire iii) Supporting wire 4 mm steel or 3 mm gear wire

The farmer constructs the structure on its own, in such cases the design and specification should be as per NCPAH norms and guidelines or any other approved source. In such case the entire responsibility of quality and durability of structure revert with farmer.

The alternate specification may be accepted if it has been approved by recognized structure engineering institution. In such cases the approved copy of structure must be attached with application form further quality and durability of structure shall be responsibility of firm and farmer must agree to the firm design and specification. However, minimum standards prescribed under point 6 above shall be followed.

Suggested technical specifications of Greenhouse with Fan & Pad cooling System

Sl. No.	Items	Description/ Specification
1.	Product	Greenhouse with Fan & Pad cooling
2.	Size	500 m ² / 1000 m ²
3.	Bay size	8m x 4m, width of greenhouse should be at least 35 % of the desired length.
4.	Ridge height	6.5m to 7m
5.	Ridge Vent	80-90 cm opening fixed with 40 mesh nylon insect Screen
6.	Gutter height	4 - 4.5 m from floor area
7.	Gutter slope	2% slope need be provided in civil foundation work/ structure.
8.	Gutter Material	20 gauge or 1 mm thick with perimeter of 500 mm or more preferably of single length without joint
9.	Structural design	The structural design need to be sound enough to withstand wind speed minimum 150 km/hr and minimum load of 25 kg/m ² . There should be provision for opening one portion at either side for entry of small tractor/power tiller for intercultural practices.
10.	Structure	Complete structure made of galvanized steel tubular pipes of equivalent section conforming Indian Standards having wall thickness 2mm, structural member should be joined with fasteners properly.
	Columns	76mm OD, 2 mm thick
	Trusses	Bottom & top cord 60 mm OD, 2 mm thick
	Trusses member	48 mm OD, 2 mm thick
	Purlin	42 mm OD, 2 mm thick
	Purlin member	33/25 mm, 2 mm thick

	& others	
	Foundations	Insert GI pipes of minimum 60 mm OD or more to have the foundation depth of 75 cm or more depending upon the soil type and prevailing wind conditions, grouted with cement concrete mixture of 1:2:4 using telescopic insertion of column.
	fasteners	All nuts & bolts must be of high tensile strength and galvanized.
11.	Entrance room & Door	One entrance room of size 3m X 3m X 3m (L X W X H) need to be provided and covered with 200 micron UV stabilized transparent plastic film. Two hinge doors of size 2 m width & 2.5 m height double leaf made in plastic/FRP sheets mounted in suitable strong frame.
12.	Cladding material	UV stabilized 200 micron transparent plastic films. Conforming Indian Standards (IS 15827: 2009), multilayered, anti-drip, anti- fog, anti-sulphur, diffused, clear and having minimum 85% level of light transmittance.
13.	Fixing of cladding materials	All ends/joints of plastic film need to be fixed with two way aluminum profiles with suitable locking arrangement along with curtain top. Wooden batons or PVC grippers need not used.
14.	Spring Insert	Zigzag high carbon steel with spring action wire of 2-3 mm diameter must be inserted to fix shade net into Aluminum Profile.
15.	Co-axial fan	Co-axial fan (ISI mark) of minimum 1200 mm diameter containing 6 numbers of GI sheet blades, frame is of GI sheet materials followed by aluminum louver.
16.	Cellulose pad for cooling	Cellulose pad of thickness 4" - 6" thick, height: 5', width as desired equipped with anodized aluminum frame. Cooling pad complete with all necessary framing material (Aluminum) as required for distribution and return, gutter, down spout cap and drip pan, plumbing kit, pump 220 Volt single phase, suspension hardware, metal flashing required to seal pad for vent opening over flow 20 mm PVC & 40 mm standard sink drain.
17.	Circular pump with	Circular pump with required capacity & accessories to be

	accessories for cooling pad	provided for wetting & circulating the pad area.
18.	Digital controller with sensory devices	The necessary digital controller with sensory device & accessories of standard quality (at least two units for 500 sqm area) should be provided to operate the fan & pad system to control temperature & humidity inside the Greenhouse.
19.	Electric wiring inside greenhouse	Use copper wire to withstand desired load of required electrical gadgets/appliances with ISI mark.
20.	Shade net	UV stabilized 50% shading net with motor/manually operated mechanism for expanding and retracting. Size of net should be equal to the floor area of greenhouse.
21.	Drip Irrigation System with fogging & misting facility	Drip irrigation system under greenhouse need to be selected on the basis of crop spacing (design on spacing 45 cm x 45 cm) along with fogging and misting facilities. The spacing considered for calculation The suggested bill of materials are Sand Filter 5 m ³ /hr, Screen Filter 10 m ³ /hr, Control Valve 63 mm, Control Valve 50mm, By-pass Assembly 1.5", Air Release Valve, 1", Non Return Valve 1.5", Throttle Valve 1.5", Flush Valve 50mm, Venturi 1.5" Assembly with manifold, PVC pipe 63 mm/6 kg cm ² , PVC pipe 50mm/6kg/cm ² , PE plane lateral 16 mm, emitting pipe lateral 16mm - @ 0.45m spacing, hanging type micro sprinkler nozzle (four-way take off assembly) for very fine water particles (foggers & mister) to be fixed in PE pipe of diameter 16mm, Water tank of capacity 5000 liter and fittings & accessories.
22.	Footpath	1m wide and 10 cm thick footpaths should be provided in the centre (length x width) & made of cement concrete ratio of 1:2:4.
23.	Curtain wall/Apron	22 cm brick wall of 1m height (24 cm below and 80 cm above ground level on all the four sides. The wall needs to be plastered and water proofing cement with 1:6 ratio.
	Note: Optional items – provision to be made for opening & closing of ventilation system in case of power failure	
24.	Curtain and insect screen	Roll up UV stabilised 200 micron transparent plastic film

		as curtain need to be provided upto height 3.0 meter on all side having automatic type motor operated crank mechanism system. However provision for manual opening and closing of curtains need also be provided.40 mesh insect proof net (UV stabilised) of equitant size need to be fixed inside the curtain. Anti- flapping strip is suggested to insure smooth functioning of curtain.
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Suggested technical specifications of Shade / Insect Net House

Sr. No.	Item	Specification
01	Structure	
	Size	According to requirement
	Shape	As per design
	Withstand to wind velocity	Structure may be design to withstand wind velocity upto 104 Km/hr
		120 km/ hour per hrs in high wind velocity zone.
	Foundation	2mm thickness GI Pipes compatible with columns, length 1.2m
	Main Column	Size 60 OD, Thickness 2 mm, Wt. per length 2.85 kg, length – 4m
	Purlins	Purlin GI pipes – size 42/43 OD/thickness 2 mm, Wt. per length 2.00/2.10 kg length – 4 m .Purlin members – 33/32 mm OD/2mm thickness, Wt. per length 1.60 kg.
	Corner	Size 48 OD, Thickness 2 mm, Wt. per length 0.15 kg, length-0.15 m
	Four Way Pipe Couplers	Size 48 OD, Thickness 2 mm, Wt. per length 0.15 kg, length-0.15 m
	Five Way Pipe Couplers	Size 48 OD, Wt. per length 2.30 kg, Thickness 2 mm, length-0.15 m
	Nut Bolts	Size 3/8"
	Grid Size	4x4, 8x4, 4x6 (m)
	Gable length	4.0 m
	Centre Height	Flat Structure – 4m
		Hut/dome type structure – centre height – 4m, side height – 2.5m
2.	Aluminium Profile	C type Aluminium profile to fix shade net to the structure by means of self-tapping screws. Weight of alumnum profile is 200-220 gm/meter. Self-Drilling Screw be fixed on

		profile every 40 cm along the full length of the profile
3.	Spring Insert	<p>A coated spring is preferable compared to cold galvanized spring as a coated spring transfer less heat to the plastic and thus enhances the life of the plastic</p> <p>If we are using GI spring it is better to use a two inch strip of new poly film to be placed over the main plastic in the profile and then lock it with GI profile. This will help in longer life of the plastic as the rusted spring will not directly come in contact with the main plastic. Wire material should be high carbon spring steel with spring action</p>
4	Shade Net	UV stabilized, ranging from 30 to maximum 75 GSM shade depending upon the crop, made up of ISI/applicable national standard, white /green/black/ suitable colour.
5	Door	Polycarbonate/polythene sheet door with 1 m widths and 2 m height and another door of 1m x 2m Box section frame is embedded inside for the strength.
6	Anti- Room	Anti-room of size 4mx 3m attached to net house
7	civil work/foundation	Cement concrete 1:2:4 block of size 40 cm x 40cm, 90 cm for embedding vertical poll/pipe of shade net, subject to revision as per requirement of site.
8	Overall slop	1 to 1.5%
9	APRON	Use of APRON in shade net
10	Drip irrigation and fogging system	Drip irrigation and fogging system as per area of the structure.
10	Trellising System	<p>iv) Base wire 8 mm or GI Pipe 60 mm OD, 2 mm thick</p> <p>v) Trellising wire 3 mm steel or 2 mm gear wire</p> <p>vi) Supporting wire 4 mm steel or 3 mm gear wire</p>

Suggested Technical Specification for Walk-In Tunnel

a. Low cost WIT: (Structure @ Rs. 400/- per sqm)

Sr. No.	Particulars	Description
1	Area proposed	100 sqm to 120 sqm
2	Length of Tunnel	25 m to 30 m
3	Width of Tunnel	4 m
4	Canter height	2 m
5	Pipes	Made of GI
6	Cladding material	Transparent plastic of 180-200 micron thickness.
7	Drip irrigation and fogging system	Drip irrigation and fogging system as per area of the structure.

b. High Tunnels with Top Ventilation: (Structure @ Rs. 600/- per sqm)

Sr. No.	Particulars	Description
1	Canter Height	4.7-5.0 m
2	Side vent	2.2-2.50 m
3	Top ventilation	1.0 m
4	Pipes and profiles	Made of GI
5	Drip irrigation and fogging system	Drip irrigation and fogging system as per area of the structure.

1) Norms for plastic mulching

- The subsidy on plastic mulching shall be released on the basis of inspection and on seniority basis. Farmer can purchase the material from any source of his/her choice and produce bill/invoice for claim of assistance.