Implementation Guidelines 2024-25

बागवानी मिशन
Horticulture Mission

Mission for Integrated Development of Horticulture (MIDH)

Horticulture Department, Telangana

Website: shm.tg.nic.in
Email: midh-horti@telangana.gov.in

INDEX

MISSION FOR INTEGRATED DEVELOPMENT OF HORTICULTURE (MIDH) IMPLEMENTATION GUIDELINES, 2024-25

Norms & General implementation procedure:

A. Norms & Pattern of Assistance and Popularization of Scheme:

1. Norms would be as per the norms of Mission for Integrated Development of Horticulture – Operational Guidelines, April-2014, GOI. The guidelines are described in subsequent pages of this booklet.
2. **The cost norms indicating now are valid until the further correspondence from GoI**.
3. The Director of Horticulture and Mission Director shall make necessary tie-ups arrangements every year and empanel reputed firms/suppliers for supply/sale of planting material/ machinery and inputs / materials under above schemes strictly as per the guidelines issued by Govt. of India /State Government from time to time.
4. Component is to be implemented as per the rates circulated, firms empanelled and instructions issued by Director of Horticulture and Mission Director, MIDH from time to time.
5. The District-level targets communicated by the O/o. Director of Horticulture shall further be divided HO wise & Mandal wise by the DHSOs and taking into view the potential.
6. Schemes shall be popularized mainly through existing extension network of the department and other resources available to them. Extensive publicity shall be given for awareness of the programmes

B. Eligibility Criteria for availing assistance

1. Only those Farmers or entrepreneurs having land ownership in Telangana State shall be eligible for availing assistance under the Schemes. In case of non - ownership of land the eligibility be guided as below:
   i. For non-project-based activities and seasonal/annual crops: registered lease agreement between the parties for **Ten years** for orchards.
   ii. For project-based activities: registered lease agreement between the parties for **fifteen years**.
2. Assistance shall be available only for Horticultural crops as per the GOI norms and guidelines
3. Farmers could procure material from any Govt. Farms / Research Stations / accredited nurseries of their choice.
4. Subsidy will be admissible both in loan and non-loanee cases.
5. Subsidy in loan cases would be released to the beneficiary account or loan account as the case may be.
6. Subsidy on plantation/cultivation would be admissible only to the

beneficiary having an assured source of irrigation (tube-well/water tank supported with engine).

C. Procedure for availing assistance

1. The farmer-applicant will submit application to the DHSO in the prescribed format.
   i. **Form-1 in case of non-project-based activities**
   Beneficiary can register details through online in Hortnet or submit the application to DHSO office through **HO's** along with required documents (Land documents, Identity documents, Bank Details etc.).
   ii. **Form-2 in case of project-based activities**
   Applications/ Project proposals are to be sent to Head office with the approval of DMC, **the same shall be placed in SLEC to get approvals as per delegation of powers communicated by GoI**.

2. **Checklist & Documents** to be enclosed for Project Based Proposals annexed at the respective component guidelines.

D. Record of Applications and dispersals.

1. The details of beneficiary shall be entered in HORTNET and where no online system is in operation, the application so received from the farmer-applicant shall be immediately entered by the concerned officer. Further, **he/she** shall also issue a receipt to the applicant indicating the Serial Number / Hortnet ID and date of receipt of the application.
2. The HOs will verify the application form submitted by the farmer/applicant and forward it to the DHSO of the concerned district along with **his/her** recommendation within 3 days of the receipt thereof. HO will ensure that proper checklists and documents are enclosed as prescribed under the guidelines.
3. In case of more applicants "**FIRST COME FIRST SERVE**" policy will be adopted. HO, DHSO will keep proper record of applications.
4. The DHSO will get the applications registered online, as well maintain hard copies of the same, only after proper scrutiny that-
   i. The farmer-applicant belongs to the concerned district/holding land in concerned district.
   ii. The farmer-applicant is not being given the benefit for the second time for the same component.
   iii. Any farmer/applicant who has been benefitted under any scheme since 2012-13 shall not be eligible for the same component again subject to the maximum limit prescribed under the guidelines.
5. DHSO shall make a seniority list for his/ her jurisdiction (if there are more number of applications than allotted target). After authentication by the HOs, the seniority list shall be maintained in the record and shall be duly published on the Notice Board. The register or computerized seniority would contain the details as Sr No., Name of farmer, father's name, village, block, date of submission of application, total area to be

covered under scheme and signature of farmers etc.

6. DHSO will accord the approval of case within 7-14 days of receipt from office.
7. Roster register will be maintained by concerned DHSO officer. He/ She will issue the slip to the farmer mentioning his/her seniority number after obtaining signature of the concerned farmer in roster/ seniority register.

E. Implementation including Physical Verification

1. In case of components *viz.,* Area Expansion, Poly houses/ Shade net Houses, post-harvest management units and other physical structures, proper verification shall be done by the HO, DHSO in the prescribed format. The physical verification shall be done as per the guidelines prescribed and specifications issued by the SHM Cell, Head office. The physical verification and the report thereof should be submitted to the office as per the timeline indicated against the respective component.
2. In case of purchase of plant material/inputs the following guidelines should be followed:

i. DHSO/DHM should make advance arrangement for procurement of planting material from accredited nurseries/certified planting material/certified seeds for ensuing season. DHSO/DHM should have a mechanism in place for the proper certification and distribution of planting material/seeds. Sourcing of planting material/seeds from ICAR institutes, SAUs, KVKs and Government Department/ CoEs is to be given priority over other sources. Area Expansion shall be restricted to availability of planting material from accredited nurseries/certified Planting Material. In case of Truthfully Labelled (TL) seeds, it should be procured only from public sector agencies. Merely procurement of the planting material/seed through the public sector agencies like Seed Corporation, Agro Corporation and other agencies do not ensure the quality of planting material/seed as they do not produce the same. DHSO/DHM should ensure that these public sector agencies procure certified material and in case certified material is not available, seedlings/ TL seeds are to be procured only from ICAR institutes, SAUs, KVKs and Government Departments.

ii. Farmers are free to purchase planting material and inputs from any of the empanelled / registered firms or accredited nurseries by paying the full amount directly to the firm and take a bill for that purchase.

iii. Farmers are free to choose the farm equipment's from empanelled firms under MIDH as per conditions prescribed under the specifications.

iv. The farmer-applicant will resubmit the **original bill** back to the DHSO as a proof of the purchase of the component/input. The DHSO will thereafter issue a **receipt** for the original bill to the farmer-applicant.

v. The physical verification of the material/input purchased will be

carried by the HO/DHSO in the prescribed format.

vi. The physical verification report should reach the office of DHSO within 5 days of purchase/ Grounding.

vii. Display board depicting details of the Scheme (as per applicability) in Telugu should be fixed at the Site of PHM & PC components.

Sample Display Board:

సమీకృత ఉద్యాన అభివృద్ధి మిషన్

తెలంగాణ రాష్ట్ర ప్రభుత్వం

ఉద్యాన శాఖ

పథకం వివరాలు

యజమాని పేరు : గ్రామము :

మండలము : జిల్లా:

సెల్ నెం : విస్తీర్ణం / నెం.:

అనుమతి పొందిన సంవత్సరం :

మొత్తము ప్రాజెక్టు విలువ: లక్షలలో } (in case of PHM & PC)

ఋణ సౌకర్యం పొందిన బ్యాంకు మరియు శాఖ వివరములు : }

ఉద్యాన శాఖ ద్వారా రాయితీ పొందిన వివరములు (లక్షలలో): * **Mandatory**

F. Release of Assistance

1. **<u>Criteria for release</u>:** Physical inspection as described below must be done within 15 days of work completion:
2. In case of non-project-based activities: 100% verification by the **HO** in all the cases in his jurisdiction and 20% to 50% verification by DHSO concerned in his/her jurisdictions is mandatory.
3. In case of farm ponds: the work executed shall be duly verified by the committee so constituted.
4. In case of project-based activities: Work done shall be duly verified and inspection report submitted by the team comprising of DHSO, HO concerned, Sr. Officer from Head Office, technical expert in the field of component from SKLTSHU/PJTSAU (TSG Member), representative from 3rd party and representative from concerned bank as suggested in the check lists/or as communicated by Head office from time to time.
5. Stage wise digital photos to be taken before work, at the time of work and after completion of work.

i. **<u>Release</u>:**

a. Subsidy is to be released as per norms fixed and guidelines prescribed
b. Subsidy proposal to be submitted within a month of physical inspection report duly obtaining DMC approval.
c. Subsidy is to be released per Ha or per unit basis as the case may be. In cases where assistance is being sought on lesser or more area than that of one Ha or one unit then subsidy be released on pro-rata basis

subject to maximum limit prescribed in guidelines under MIDH as per the net area sown / planted.

d. Determination of per Ha or unit can be ascertained as prescribed against individual component in the guidelines.
e. Subsidy be released directly to the beneficiary as direct assistance or as inputs as per the instructions issued from Mission Director time to time for individual component.

a) For direct release of assistance to the beneficiary, payment will be released through online to the beneficiary only.
b) No payment will be released as cash/ cheque /D.D by taking signature or thumb impression in register.
c) All the assistance released must be entered in proper register and in cash book.

G. Reporting:

1. DHSO shall send the physical and financial progress of his/her district monthly in prescribed format on or before 3rd of every month.
2. The **DHSO will be the controlling officer** for successful implementation of the Scheme (s) and co-ordination of all the schemes under which various components are being implemented as per the scheme guidelines. He / She will also ensure that, the scheme is duly publicized in the district immediately after the targets are allotted.

i. Wide publicity should be given for the target allotted to the districts on all components.
ii. Tours to be conducted for creating more awareness in the districts.
iii. The selected farmers under all components will be given prior training at districts.
iv. Only the farmers willing to take-up training on particular schemes should be selected for subsidy programmes.

NON-NEGOTIABLES FOR IMPLEMENTATION OF MIDH SCHEMES 2024-25

1. Identification of beneficiaries should be done as per guidelines given under each scheme.
2. Identification of beneficiaries as per targets allotted to be completed as per season only.
3. It should be ensured that **15.44 % and 9.34 % funds are to be targeted for SC and ST farmers respectively** and **33% of budget allocation** should be earmarked exclusively **for women** beneficiaries/ farmers.
4. Cluster approach will preferably be adopted with a minimum area of 10 Ha / target allotted in AAP in each cluster for one crop for easy monitoring.
5. After identification of beneficiaries under each scheme training to be organized at field level.
6. Approval of District Mission Committee (DMC) is mandatory for implementing each scheme, issue of administrative sanctions and release for all the SHM schemes under MIDH. DHSO is the district head who is responsible for obtaining DMC approval.
7. Filing of applications in Hortnet is mandatory for all components towards release of funds. The DHSO should see that Mobile number should compulsorily be entered.
8. The plantation preferably be taken up in cluster mode only, assured irrigation source & integration with Micro Irrigation is non-negotiable.
9. Plant material for Area expansion programme has to be procured on priority from the accredited Govt. nurseries/ Horticulture / ICAR institutes.
10. Awareness programmes should be organized under all components, specifically, Post-Harvest Management, Special Interventions.
11. The Projects proposed under Post Harvest Management, Special Interventions should be linked up with farmers, corporate retail outlets, processing units and exporters so that the losses / wastage of the horticulture produce are minimized and all the details shall be incorporated in the project proposals.
12. Proposal for project-based components should be sent after approval of DMC and the proposals should be sent to Head office as per timeline indicated.
13. All the identified beneficiaries should have a valid **Bank account**. Otherwise, they have to open a bank account. The bank account number, IFSC code etc., have to be verified by the DHSO/HO concerned personally.
14. DHSOs should ensure the bills produced by the beneficiaries are from the registered firms/companies, before forwarding release proposal to head office.
15. **The assistance will be given taking family as a unit.**
16. It is the responsibility of DHSO to update the progress reports on 3rd of every month. It is compulsory.

17. Bounded hard copies of all the schemes implemented in the districts along with the photographs have to be kept in office.
18. It is mandatory to submit the success stories / case studies of each year along with photographs.
19. Monthly district monitoring committee meeting to be convened under the chairman ship of District Collector with all the members.

GUIDELINES FOR SELECTION OF BENEFICIARIES FOR DIFFERENT SCHEMES BEING IMPLEMENTED UNDER MIDH

GENERAL: (Common to all components and activities)

1. Potential Villages are to be identified (species & crop wise) in cluster mode with convergence of allied Departments.
2. Wide publicity to be given in the identified locations / areas on benefits / facilities being provided by the department through local newspapers, electronic media, pamphlets, display on the notice board of Z.P.Ps / M.P.Ps / Village Panchayats.
3. Approved schemes, assistance provided and locations identified are to be clearly explained in the meeting of DRC / Z.P.P's / M.P.P's and other coordination meetings with allied departments.
4. Success stories to be sent to DPRO for publicity.
5. The selected farmers shall be explained the package of practices to be adopted for the species selected under all schemes with literature.
6. Due preference shall be given to SF / MF, SCs, STs and Women as per the norms in selection process.
7. During selection care should be taken to ensure that amounts indicated in the AAP under SCSP & TSP are to be allotted to SC/ST farmers only and 33% of the budget allocation should be earmarked exclusively for women beneficiaries. No deviation is permitted.
8. **The crops identified under One District One Focused Produce (ODOFP) in respective district by Ministry of Agriculture & Farmers Welfare (MoA&FW), GoI should be given priority in appropriate component**.
9. **Special efforts should be made for Area expansion under Exotic and Niche crops and crop specific FPOs for Exotic and Niche crops**.
10. The HOs / DHSOs shall hold village wise meetings involving progressive farmers, Gram Sarpanch and Village Secretary and finalize the list based on the norms prescribed for different schemes implemented in the districts.
11. After selection and verification of the required documents the list of beneficiaries shall be placed before DMC for approval. After approval by the DMC, administrative sanction to the beneficiary shall be issued through the District Collector only. (In case non-Project based proposals)

12. DMC meeting should be organized as frequently as possible (GO Ms No.1, dt: 07.06.2014 of the Agri & Co-op Dept, Govt. of Telangana) and minutes to be sent to SHM for record purpose, release of funds etc.,

13. **Inputs (manures, fertilizers & PP chemicals)**:

    a) It is permitted to consider self- declaration from the farmers for procuring and utilization of recommended inputs (manures, fertilizers & PP chemicals) under various components like Area Expansion, Rejuvenation, etc., under MIDH for release of assistance. But it must be ensured that the eligibility criteria and sub-component wise cost norms for inputs under various components are to be strictly adhered to.

    b) The self-declaration from the farmers is to be mandatorily counter signed by the concerned Horticulture Officers and same shall be ensured by the DHSOs concerned. Further, 100% field verification by the HOs and random inspections by the DHSOs is to be scrupulously followed.

    c) The self-declaration from the farmers is only considered for inputs like manures, fertilizers & PP chemicals only but not for implements and machinery.

Other Important Points for Implementation:

1. More focus is to be given on enhancing productivity of horticulture crops for the holistic development supported with infrastructure for Pre- and Post- Harvest Management and Marketing.

2. To improve the productivity of existing old and senile orchards, there is need to identify gaps and revise the existing strategy for achieving the desired results. A proper mechanism needs to be devised to disseminate technology and train farmers on rejuvenation technology. Exposure visit of farmers should be organized to those institutes/places where rejuvenation technology has been developed and also adopted by the farmers.

3. The programme for protected cultivation and lining of Community tanks/ponds should be taken up in close coordination with the CRIDA/ Precision Farming Development Centre (PFDC) in the State.

4. Protected Cultivation of vegetables should be promoted under MIDH/NHM in clusters around major cities/metros. These clusters may be provided with other infrastructural facilities like pre-cooling units, cold storages, reefer vans, vending carts etc. and marketing arrangements may be tied up by linking with cooperatives/private retail chains like SAFAL, farmer markets.

5. Organic farming should be linked to certification. No separate funds will be provided for adoption of organic farming alone. Arrangements should also be made by the SHM or concerned agency for the marketing of organic produce. Selection of Service Provider Agencies is to be done by adoption of competitive bidding.

6. IPM measures should be need based and are to be taken after clearly identifying the problem of pests/disease in the clusters. INM measures are to be adopted in the clusters to correct soil deficiency and reduce excessive dependence on chemical fertilizers.

7. The creation of water harvesting structure should be implemented in conjunction with Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGA) wherever feasible and should be compulsorily linked with the new area expansion and micro-irrigation programmes.

8. For implementation of horticulture mechanization, PHM, marketing and mobile/primary processing activities, DHSO should make efforts to organize self- help groups, farmers' interest groups, growers' association at local level and also involve Panchayats, Cooperatives, Producers Company etc.

9. Efforts should also be made for the buyback arrangements of the horticulture produce.

10. DHSO should involve research stations / KVKs/ DAATC centers of State Agricultural University / State Horticultural University and ICAR Institutes in the Districts for the extension activities.

11. While implementing the MIDH programme, convergence and synergy should be ensured with the other schemes like Micro Irrigation, RKVY, PKVY, MNREGS, National Mission on Medicinal Plants, AEZs of APEDA, Tribal Sub Plan, Watershed Development Programmes, BRGF and Schemes of the State Government.

12. The success stories of various components to be documented and submitted to state office.

13. The Ministry of Agriculture and Farmers Welfare, GoI in consultation with the Ministry of Food Processing Industries, has prepared a list of agricultural and allied sector products for the programme of "One District One Focus Produce". It was informed that the identified products need to be promoted in a cluster approach through convergence of the Government of India schemes, to increase the value of the products and with the ultimate aim of increasing the income of the farmers. The following horticulture crops are identified under ODOFP in Telangana State:

S.No	Focus produce	District
1	Chilli	Bhadradri-Kothagudem, Mulugu, Mahabubabad, Jayashankar-Bhupalapally, Khammam
2	Mango	Jagityal, Mancherial, Nagarkurnool
3	Nalgonda	Sweet orange
4	Nizamabad	Turmeric
5	Vegetables	Rangareddy, Vikarabad, Siddipet
6	Bamboo Chili	Warangal Rural

14. Hence, due importance may be given to the above focus produce/ crops under the relevant components under AAP of MIDH.

15. The GoI has informed that, for all the PHM components included in the AAP, the State must facilitate the prospective beneficiaries for availing the financing facility under Agri-Infrastructure Fund scheme. Hence, the DHSOs shall popularize the facility of AIF among the farmers/ entrepreneurs who are availing credit facilities for the activities/ projects. Details on Agri Infrastructure Fund are available in www.agriinfra.dac.gov.in portal.

I. PLANTATION INFRASTACTURE DEVELOPMENT

1. HI- TECH NURSERY – PUBLIC SECTOR

S. No	Item	Max permissible Cost	Pattern of Assistance
i	Hi -Tech Nursery (Up to 4 Ha)	Rs.25.00 Lakhs per Ha.	100% to public sector limited to Rs.100 lakh/unit and in case of private sector, credit linked back-ended subsidy @ 40% of cost, subject to a maximum of Rs. 40 lakh/unit, for a maximum of 4 ha. as project-based activity on prorata basis. Each nursery will produce a minimum of 50,000 numbers per hectare of mandated perennial fruit crops/ tree spices/ aromatic trees/plantation crops per year, duly certified for its quality.

Hi-tech nurseries will have an area between 1 to 4 ha with a capacity to produce 50,000 plants per ha of mandated perennial fruit crops / tree spices / aromatic trees / plantation crops per year. The plants produced will be duly certified for their quality. The proposal of Hi-tech Nursery should include the following:

1	Proper fencing.
2	Scion / Mother block of improved varieties.
3	Root stock block (Rhizome bank in case of bamboo).
4	Net house
5	Irrigation facilities
6	Hi-tech greenhouse having insect proof netting on sides and fogging and misting systems.
7	Hardening/maintenance in insect proof net house with light screening properties and sprinkler irrigation system.
8	Pump house to provide sufficient irrigation to the plants and water storage tank to meet at least 2 days requirement.
9	Soil solarization - steam sterilization system with boilers

Terms & Conditions:

1. The beneficiary/Institution shall enclose the water & soil analysis report from the approved lab.
2. The proposals along with DPR (including all necessary components), all relevant documents and the DMC approval shall be sent to the head office in order to place before SLEC and after obtaining approval the administrative sanction orders shall be issued.

3. The standard quality plant material is to be produced i.e., Minimum of 50,000 nos per Ha of mandated perennial fruit crops/tree spices /aromatic trees/plantation crops per year duly certified for its quality.
4. The Hi-Tech Nursery should be completed within a period of one year from receipt of the administrative sanction orders otherwise sanction orders will be deemed to be cancelled and concerned District officers shall be held personally responsible.
5. The beneficiary/Institution should follow the rules and regulations of nursery act 2017, Telangana State.
6. The concerned DHSO shall send release proposals along with DMC approval, Photographs, Bills/ Vouchers/ Receipts for the work done in the nursery for release of funds from Head office.
7. The assistance will be released in **two installments** after physical verification of the progress work by concerned District officers and technical experts of the district.
8. In case of Public Sector Projects: The financial assistance would be released in 2 installments (50% each) - 1st installment after administrative sanction of project. The 2nd installment shall be released after receipt of Utilization Certificate for the 1st installment funds, inspection by the Joint Inspection Team (JIT) and the progress (along with photographs) of project.
9. A joint inspection by a team consisting of DHSO, HO concerned, Sr. Officer from Head Office & a Scientist form SAU/SHU is mandatory for release of 2nd installment.
10. Accreditation of the nursery is mandatory. The 2nd installment subsidy will be released only after submission of proposal for NHB for accreditation.
11. The concerned District officers are requested to furnish monthly progress on implementation of the unit as per terms and conditions.
12. The DHSO should report any misuse /discrepancy immediately.

2. SMALL NURSERY – 1 Ha – Pvt Sector :

S.No	Item	Max permissible Cost	Pattern of Assistance
1	Small Nursery (1 Ha.)	Rs. 15.00 lakhs per unit of 1 ha.	100% Unit cost amount to public sector and in case of private sector, credit linked back-ended subsidy of cost, subject to a maximum of Rs. 7.50 lakh/unit, as project based activity. Each nursery will produce a minimum of 25,000 numbers of mandated perennial vegetatively propagated fruit plants/tree spices/plantation crops per year, aromatic plants, duly certified for its quality by concerned agency.

List of Infrastructure to be Developed in Small Nursery

S.No	Name of the component	Estimated Cost (Rs. in lakhs)	Subsidy allowed 100% under public sector (Rs. in lakhs)	Subsidy allowed 50% under private sector (Rs. in lakhs)
1	Establishment of scion block (1.50 acre) required crop wise, variety wise plant material will be procured from Research Station only.	2.00	2.00	1.00
2	Installation of drip irrigation for new scion blocks / existing scion block or orchards	0.60	0.60	0.30
3	Digging of bore well (Depth in meters) & Purchase of submersible pump	2.00	2.00	1.00
4	Erection of shade net 500 sq.mt @ Rs. 710 per sq. mt.	3.55	3.55	1.78
5	Vermicompost unit	0.60	0.60	0.30
6	Electrification of farm to the extent required	2.00	2.00	1.00
7	Land preparation if required	2.00	2.00	1.00
8	Construction of store room	2.25	2.25	1.13
	Total:	**15.00**	**15.00**	**7.50**

1) The beneficiary has to establish the proposed infrastructure within the total cost of the operational guidelines of MIDH.
2) The beneficiary has to produce the standard quality plant material. i.e., a minimum of 25,000 numbers of mandated perennial vegetatively propagated fruit plants/tree spices/plantation crops per year, aromatic plants, duly certified for its quality by concerned agency.
3) The beneficiaries shall apply to DHSOs in the prescribed format along with the Pattadar Passbook or Lease Agreement document executed for 10 years along with the certificate issued by Tahsildar / Panchayat Secretary for proof of land with bank consent letter.

4) The beneficiary shall also enclose the water & soil analysis report from the approved lab.
5) DHSO & HO should verify the site physically.
6) The beneficiary should enclose the bank term loan sanction letter for release of loan amount for establishment of nursery under credit linked back-ended subsidy.
7) After the inspection of the site by the concerned HO and DHSOs, the proposal with the recommendations will be placed before the District Mission Committee for sanction of the proposals for Establishment of Nurseries.
8) After consideration by the District Mission Committee or District Collector the same will be forwarded to O/o State Horticulture Mission
9) The same proposal will be placed before the State Level Executive Committee for sanction of the proposals for Establishment of Nurseries. Then only sanction proceedings will be issued.
10) The assistance will be released in **two installments** after physical verification of the progress work by concerned District officers and technical experts of the district.
11) Mother plants have to be procured from ICAR Institutions/ Research Stations only.
12) The subsidy amount will be released in two equal installments i.e., 1st installment will be released after completion of 50% of the works and 2nd installment will be released after establishment of nursery and after physical verification of the nursery by the DLHSCOs/DHSOs& Technical Team and submission of proposal to NHB for accreditation under copy marked to Mission Director. Then only 2nd installment release will be considered.
13) All the components which are proposed for development of nurseries are mandatory for release of subsidy.

List of documents to be submitted by the applicant for Establishment of Nurseries under Private Sector:

i. Application form with full details with latest photograph of the applicant.
ii. Land records (Pattadar pass book / pahani given by MRO)
iii. Sanction letter issued by the bank for credit linked back-ended subsidy.
iv. The proposed infrastructure for obtaining the subsidy along with the estimates as per the guidelines (Project proposal).
v. Progeny / scion block is mandatory.
vi. Estimates of civil structures – Prepared by any State Government Engineering Depts.
vii. The photographs of the farm should be produced to the department by the beneficiary before and after the establishment of nursery.
viii. Annual plan for the production of plant material species-wise has to be submitted to Mission Director / DMC. Monthly progress report to be submitted by the farmer to DMC / SHM.

3.ESTABLISHMENT OF SEED INFRASTRUCTURE/SEED PROCESSING UNIT:

Objective:

To handle, process, packing, storage etc., of seeds meant for use as seed material for cultivation of horticulture crops. The assistance will be provided for creating infrastructure like drying platforms, storage bins, packaging unit and related equipment's.

S. No	Item	Max permissible Cost	Pattern of Assistance
1	Seed Infrastructure in private sector	Rs.200.00 lakhs/project	100% Unit cost amount to public sector and in case of private sector, credit linked back ended subsidy @ 50% of cost project.

- 100% of cost to public sector and in case of private sector, credit linked back subsidy @ 50% of cost of project i.e., Rs. 100.00 lakhs.
- All proposed Seed Infrastructure Units should have latest machinery i.e., semi-automatic machines/automatic machinery to minimize manual handling.
- Machinery space & storage space may be kept in view in Seed Infrastructure projects.
- The Capacity of the unit should be 4 MTs per hour.

List of Documents to be submitted by the applicants for Establishment of Seed Processing Unit.

1	**Application form of the applicant/promoters**
2	Basic data sheet with complete technical specifications.
3	Detailed project report as per MIDH guidelines.
4	Partnership deed
5	Firm Registration certificate/certificate of Incorporation
6	Bank sanction letter along with appraisal report.
7	Approval from Gram Panchayat/Municipality /corporation.
8	Approval from Pollution Control Board - Acknowledgement
9	SSI Registration certificate
10	Fire Department approval with drawings
11	Pan card on company name (Xerox copy).
12	Electricity approval
13	KYC documents of all the partners
14	GST Registration Certificate.
15	Land conversion certificate
16	DHM approval (District Collector)
17	Affidavit
18	Land documents (sale deed / Lease deed Agreement) for 15 years along with certificate issued by Tahsildar / Panchayat Secretary for proof of land
19	Land records (Pattadar pass book / Pahani given by MRO).
20	Estimates of civil structures certified by the Engineer
21	Crops and varieties proposed to be processed under Seed Infrastructure Unit & whether the seeds are Open Pollinated/Hybrid/ Breeder/F1/F2 & Sources of Seed/line & Name of Certification Agency
22	Charted Account certificate (certifying the beneficiary contribution & component wise expenditure)
23	Insurance copy of the unit
24	NOC from NABARD/NHB/APEDA/DIC/SFC for non-availing subsidy.

- The beneficiary has to establish the proposed infrastructure with total cost of Rs.200.00 lakhs as per the Government of India Operational guidelines of MIDH.
- The beneficiary has to process only vegetable crops.
- The beneficiaries shall apply to DHSOs in the prescribed format along with the Pattadar Passbook or Lease Agreement document executed for 15 years along with the certificate issued by Tahsildar / Panchayat Secretary for proof of land.

- ❖ The beneficiary should enclose the **bank consent** for release of loan amount for establishment of Seed infrastructure Unit under credit linked back-ended subsidy.
- ❖ After inspection of the site by the concerned H.O. and DHSO, the proposals with the recommendations should be placed before the District Mission Committee (DMC) for sanction of the proposals for Establishment of Seed infrastructure Unit.
- ❖ After consideration by the DMC approval, the same should be forwarded to O/o State Horticulture Mission along with bank consent letter.
- ❖ The district officer has to forward 2 sets of DPR (Detailed project report) to the Head office consisting of the information regarding land particulars, electricity connection, civil structure estimations, bank consent & sanction letter etc., & enclosing the documents as per the checklist and preliminary inspection reports and DMC approval.
- ❖ The same proposal will be placed before the State Level Executive Committee for sanction of the proposals.
- ❖ After approval by the SLEC meeting administrative sanction orders will be communicated to the beneficiary / District Officer concerned and to the lending Bank.
- ❖ **The payment of back-ended subsidy will be made in 2 installments. First installment will be released after receiving satisfactory Joint Inspection Report (JIT) report of completion of civil works and installation of machinery/equipment as per technical standards. The second installment will be released by SHM after receiving satisfactory JIT report for project completion and commencement of commercial production.** The Joint Inspection Team will comprise of members from DHSO, HO Concerned, lending bank, technical expert (TSG member), Sr. Officer from Head office and representative from 3rd party.
- ❖ The promoter / DHSO/ Banker should scrupulously follow the terms & conditions communicated in the administrative sanction proceedings & release proceedings.

Terms & Conditions:

1. The project should have clear cut backward linkages.
2. The promoter should ensure that, Seed Processing Unit/ project should be as per technical standards stipulated by the Department.
3. The project should be implemented within a period of one year from the date of administrative sanction.

4. The farmer/entrepreneur should inform the completion of the project to the concerned DHSO in writing along with photographs.
5. The committee as nominated by Mission Director & Director of Horticulture and as per norms of MIDH will inspect the project in the presence of Promoter and submit the joint inspection report in the prescribed format along with the enclosures therein.
6. The subsidy is purely credit linked and back-ended.
7. The payment of back-ended subsidy will be made in 2 installments. First installment will be released after receiving satisfactory Joint Inspection Team (JIT) report of completion of civil works and installation of machinery/equipment as per technical standards. The second installment will be released by SHMs after receiving satisfactory JIT report for project completion and commencement of commercial production. The Joint Inspection Team will comprise of members from lending bank, technical expert, SHM and District Administration.
8. The project has to be successfully completed according to the terms and conditions of the loan / as per the approved feasibility-cum-project report, as per technical standards prescribed by the MIDH. The release of subsidy is subject to the strength of the joint inspection report, norms, term loan etc. and as per the availability of funds.
9. The promoter shall not claim subsidy from any other Government agency for the same unit. The Department will initiate recovery proceedings under RR Act, if there is any deviation to this condition.
10. Tending Bank would submit to State Horticulture Mission the utilization certificate of the subsidy released by State Horticulture Mission after utilization of subsidy released.
11. The subsidy assistance released by State Horticulture Mission to Bank shall be kept under separate head “subsidy reserve account with a tenure not less than 3 years”. The adjustment of subsidy will be on the pattern of back ended subsidy wherein the full project cost including the subsidy amount but excluding the margin money contribution from beneficiary would be disbursed as loan by the banks. The repayment schedule will be drawn on the loan amount in such a way that the subsidy amount is adjusted after the bank term loan portion (excluding subsidy) is liquidated.

12. The subsidy admissible to the borrower under the scheme will be kept in the subsidy reserve fund A/c – borrower – wise in the books of the concerned financing bank. No interest will be applied on subsidy portion by the bank. The balance lying to the credit of the subsidy reserve fund A/c will not form part of demand and time liabilities for the purpose of SLR/CRR. Instructions issued by the RBI from time to time should be followed.
13. The concerned banker should send the Bank Statement of the firm at every six months to the DHSO concerned and if the unit is cancelled for any reasons thereof within the stipulated time, (minimum 10 years) after receipt of total subsidy amount from the Department the banker should return the amount to State Horticulture Mission.
14. The release of subsidy is subject to CA certificate, valuation report, actual expenditure, receipts & inspection etc.,
15. In case if the Bank declares the term loan account as NP due to non-payment of loan by the borrower or the project turning non- performing assets during term loan re-payment period would make the firm/promoter in-eligible for getting back ended subsidy and the same is liable to be refunded by the concerned bank to SHM account.
16. If the promoter intends to dispose the project with in a period of 10 years, he has to repay the subsidy back to MIDH.
17. Change of Management / Proprietary ship of the project shall not be allowed without prior consent or permission of the MIDH.
18. The unit should be utilized for the same activity for which assistance is released for the economic period of 10 years. In case, if the unit is misused for carrying on any activity other than the Horticulture activities under the scheme, the promoter /Director is liable for any action deemed fit including recovery of the assistance amount.
19. The promoter shall adhere to the advices given in the Techno Economic Viability report for release of subsidy.
20. Mission Director & Director of Horticulture, Telangana Hyderabad reserves the right to modify, add or delete any term/condition without assigning any reason thereof.
21. The promoter has to submit Affidavit to that effect i.e., the unit is utilized for the purpose for which it is meant and in case any kind of misuse or irregularities are observed in due course of period, the Director of Horticulture has right to

recover the subsidy released. It came to notice (during 5th SLEC) that R.B.I objectioned that the loan amount has taken by the firm on the name of the farmer, but actually the loan amount was not taken by the farmer. The firm owner drawn loan amount with mis-interpretation of facts. If such cases are noticed by the Govt. authorities, criminal cases will be filed against the culprit and the entire subsidy will be recovered back from the Bank.

22. In case of any discrepancy/ dispute, the decision of the Mission Director & Director of Horticulture is final.

23. A board of 25 x10 feet with the logo of the MIDH should be kept on the compound/ walls of the unit. The Logo of Mission for Integrated Development of Horticulture and the matter mentioned below should be depicted on the board.

(25 feet)

(10 feet)

తెలంగాణ రాష్ట్ర ప్రభుత్వం

ఉద్యాన శాఖ రాయితీతో

విత్తన కారాగారం

యజమాని పేరు

:గ్రామము :

మండలము : జిల్లా :

సెల్ నెం : సామర్థ్యం) మె. ట:

ఉత్పత్తి చేయు విత్తనముల వివరములు : అనుమతి పొందిన సంవత్సరం :

అనుమతి ఇచ్చిన ఉత్తర్వు నెం :మొత్తము సామర్థ్యం ()

ఋణ సౌకర్యం పొందిన బ్యాంకు మరియు శాఖ వివరములు :

ఉద్యాన శాఖ ద్వారా రాయితీ పొందిన వివరములు : (లక్షలలో)

SYNOPSIS

1) Name of the Component: PLANTATION INFRASTRUCTURE

a) Sub-Component Applied for : Seed Infrastructure Unit

2) Title with Firm Details :

3) Purpose :

4) Name of the Proprietor/ Promoter/:
Partnership/ Pvt. Ltd. Company/Society

5) Details of Project Cost:

a) Bank Term Loan	:	Rs.	Lakhs
b) Other Loan	:	Rs.	Lakhs
c) Capital	:	Rs.	Lakhs
Total Project Cost		**:Rs.**	**Lakhs**

6) Status of the Project:

a) Completed/ Under Construction **:**

b) If Under Construction Stage

Date of Commencement **:**

Probable date/ month of completion**:**

7) Breakup of the Project Cost:

a) Civil Works	:	Rs.	Lakhs
b) Plant & Machinery & Other	:	Rs.	Lakhs
Total	:	**Rs.**	**Lakhs**

8) Joint Inspection Photos :

9) Details of Estimated Cost & Subsidy as Per MIDH Norms:

a) Estimated cost **:** Rs. Lakhs /Unit

b) Subsidy **:** Credit linked back ended subsidy @ 50% of the capital cost i.e., Rs.100.00 Lakhs/Unit.

Signature of the Promoter **Signature of the Banker**

Signature of the HO **Signature of the DHSO**

Format – I

Preliminary Inspection Report

(To be submitted along with project proposal to State MIDH Cell)

Date of Inspection:

A	Component	:	
B	**Details of Project** (i) Name of the project (ii) Address for communication with telephone No.	: : : :	
C	**Project Location with Address** (i). Survey No (ii). Village (iii). Mandal	: : : :	
D	Constitution	:	Individual/Partnership Firm/ Company.
E	Proposed Activity	:	
F	Name of the Promoter	:	
G	**Present physical status of the project:** I. Construction started or not (i) Land development status/boundary/road (ii) Connecting road to the plot (iii) Stage of Seed infrastructure Unit building civil/pre-engineered as on inspection date (iv) Type of seeds to be Processed	: : : : :	

Certificates:

This is to certify that the promoter has submitted project proposal along with DPR and all relevant documents for Establishment of Seed processing unit. The project proposal is as per the norms of MIDH and recommended for placing in SLEC for approval.

Signature of the Promoter **Signature of the Banker**

Signature of the HO **Signature of the DHSO**

Format – II

COMPONENT WISE RELEASES MADE BY THE BANKER FOR SEED INFRASTRUCTURE UNIT FOR RELEASE OF 1ST INSTALLMENT

Name of the Firm **:**

District **:**

Village & Mandal **:**

Bank & Branch :

Subsidy Account No & IFSC Code**:**

Sl. No.	Particulars	Project Cost		Actual investment		Remarks
		As per project report	As appraised by Banker	Loan amount released by Banker	Promoters Margin money	
1	**2**	**3**	**4**	**5**	**6**	**7**
1.	Cost on Land					
2.	Civil Works					
3.	Cost on Building					
4.	Cost on Plant & Machinery					
	Total:					

Bank Manager /
Representative
(Field Officer)
With Seal

Format –III

FORMAT FOR JOINT INSPECTION FOR RELEASE OF 1ST INSTALLMENT SUBSIDY UNDER MIDH, TELANGANA.

Name of the Unit:
Village & Mandal:
District:
Capacity of the unit:
Name of the Vegetable seeds to be processed:

Sl. No.	Particulars	Project Cost		Actual investment		Re marks
		As per project report	As appraised by Banker	Loan amount released by Banker	Promoters Margin money	
1	2	3	4	5	6	7
I.	**Means of Finance**					
1.	Capital					
2.	Term Loan from Bank					
3.	Subsidy / Margin Money / Un-Secured Loans					
	Total:					
II.	**Assessment**					
1.	Cost on Land					
2.	Cost on Building					
3.	Cost on Plant & Machinery					
	Total:					

Certificates:

1. This is to certify that the promoter has established Seed Infrastructure Unit as per the norms of the MIDH. The promoter has followed all the terms & conditions mentioned in the administrative sanction.
2. This is to certify that the promoter has fulfilled all the observations made in the Techno Economic Viability Report (TEVR). The civil works and installation of machinery/equipment as per technical standards were completed.
3. This is to certify that the project is eligible to avail subsidy of Rs. ----------.
4. An amount of Rs._____ is recommended to release towards 1st installment to the subsidy reserve fund account bearing No: ----------, IFSC Code:……., Bank:----------, Branch:----------.

Promoter HO DHSO Sr. Officer from Head Office

Member from NABCONS Banker TSG/Scientist from DATT Centre

Format –IV

FORMAT FOR SUBSIDY CALCULATION SHEET
(To be submitted for release of 1st instalment subsidy)

Name of the Seed Processing Unit:
Capacity of the Unit :

Unit-I

Particulars	**Length in FT**	**Width in FT**	**Total Area in S.Ft**	**Cost**
Land Cost				
A. Ground Floor				
Less- Machine Room				
Net Volume				
B. First Floor				
Less Machine Room				
New Volume				
C. Total Area (A+B)				
D. Plant & Machinery				
i. Seed Germination, GOT & Pathology Testing				
ii. Seed Extraction & Processing				
iii. Seeds Storage				
iv. Seeds Treating /Coating				
v. Seeds Weighing, Packing & Printing				
Vi. Office Furniture, Computers & Miscellaneous				
E. R & D Farm as other fixed assets				
F. Licensing works like agriculture dept, Pollution CFE & CFO, Fire dept NOC, DSIR Reconginsation, etc., as Pre-Operative expenditure				
G. Working capital				
Total Cost of the project	Lakh			
Total Eligible subsidy	50 % of the Project cost			
(50% of cost)				

Certificates:

1. This is to certify that the promoter has established Seed Infrastructure Unit as per the norms of the MIDH. The promoter has followed all the terms & conditions mentioned in the administrative sanction.

2. This is to certify that the promoter has fulfilled all the observations made in the Techno Economic Viability Report (TEVR). The civil works and installation of machinery/equipment as per technical standards were completed.

3. This is to certify that the project is eligible to avail subsidy of Rs._____

4. An amount of Rs._____ is recommended to release towards 1st installment to the subsidy reserve fund account bearing No._____ IFSC Code:_____, Bank_____, Branch:_____.

Promoter **HO** **DHSO** **Sr. Officer from Head Office**

Member from NABCONS **Banker** **TSG/Scientist from DATT Centre**

Check list for submission of release proposals towards 1st instalment

1. Missing documents as per check list (if any) (Refer page no.12 & 13)
2. Joint inspection report in format-II, III & IV
3. Term loan account statement from lending bank.
4. Insurance certificate
5. Letter from lending bank regarding reserve fund account details.
6. CA certificate (certifying the component wise expenditure)
7. DMC Approval copy.

Format –V

FORMAT FOR JOINT INSPECTION FOR RELEASE OF 2nd INSTALMENT SUBSIDY

(Project completion and commencement of commercial production of unit)

1. Name of the unit with full address :

2. Date of Administrative sanction :

3. Name of the CEO/Managing Director :

4. Present status of unit/project :

5. Components of project :

Name of the Component	**Size as per DPR**	**Actual Size**

6. Date of 2nd inspection of JIT members :

7. Name of the Designation of JIT member :
   a.
   b.
   c.
   d.
   e.
   f.

8. Means of Finance : (Rs. in lakhs)

Means of Finance	**As per DPR**	**Actual investment**
Promoter contribution		
Term loan		
Others		
Total		

9. Date of start of project :
10. Date of completion of civil works and machinery installation:
11. Date of Joint inspection for 1st installment of subsidy :
12. Date of commencement of commercial production of the project :
13. Week wise/Month wise seed processing details :
14. Status of Term loan :
15. Remarks of JIT members :

Certificate:

1. This is to certify that the promoter has established Seed processing unit as per the Norms and MIDH guidelines.
2. This is to certify that the promoter has fulfilled all the terms and conditions laid down in administrative sanction order issued by Horticulture Department.
3. This is to certify that the project has commenced commercial production and running as per projections in DPR/TEVR.
4. The project eligible for total subsidy of Rs._____ Lakhs and Rs. _____ Lakhs is recommended as 2nd installment.

Promoter **Banker** **HO** **DHSO**

TSG (Member) **Sr. Officer from Head office** **Member from NABCONS**

Check list for submission of release proposals towards 2nd instalment

1. Missing documents as per check list (if any)
2. Joint inspection report in format-V
3. Term loan account statement from lending bank.
4. DMC Approval copy.
5. Month wise seed processing details from commercial start of project.

2. ESTABLISHMENT OF NEW GARDENS

I. AREA EXPANSION FOR FRUITS:

Objective:

- ✓ To bring additional areas under identified Fruit crops with improved varieties / hybrids under suitable High or Ultra high-density planting methods.

Pattern of Assistance:

- ➢ The assistance is 40%/50% of admissible unit cost as per MIDH norms and shall be provided for 3 years at 60:20:20 ratio for 1st, 2nd & 3rd years respectively in case of perennials and 2 years at 75:25 biennial fruit crops like Banana and Papaya.
- ➢ A beneficiary can avail maximum assistance up to 4 Ha.

Non-negotiable under the component of Area Expansion :

1. District Horticulture Mission ensure that Area Expansion programme to be implemented preferably on cluster approach in a contiguous area, instead of doing it in scattered & unplanned manner.

2. Minimum area per each block should be above 10 Ha / as per allotted target in AAP for better monitoring.

3. New clusters & new beneficiaries shall be selected under these programmes as per area specific and climate specific crops.

4. The assistance under these components shall not be extended to the beneficiaries already covered during previous years subject to maximum limitation under the component. The DHSOs & HOs should be cautious while selecting the beneficiaries.

5. Horticulture Officers of the concerned area should obtain applications from identified beneficiaries along with photograph in the existing format prescribed.

6. The farmers who are having assured source of irrigation and power supply are only to be selected & Micro irrigation should be integrated for better survival of plantations.

7. The farmers can apply in person or register online directly through Hortnet.

8. Land holding of the farmers should be certified by Horticulture Officers on the basis of the original Pattadar pass book or Adangal signed by MRO or computer pahani obtained from Mee Seva.

9. The HO concerned should maintain Register for recording the details of identified beneficiaries i.e., land details/crop/variety/source of plant material/ date of planting /inputs supplied/non subsidy particulars/Bank Account No. and IFSC code etc.

10. DHSO shall organize training programmes to the beneficiaries identified under Establishment of New Gardens, on all aspects of scientific Package of practices followed for concerned crops.

11. HO should inspect 100% fields identified under his jurisdiction before sanction of the scheme and he himself should satisfy on soil suitability and availability of water and authorized power connection before recommending. Whereas, DHSO should inspect a minimum of 20% of the identified or sanctioned fields.

12. Integration of Area expansion with micro irrigation is mandatory.

13. Selection, documentation and Hortnet registration process should be completed in a time bound manner.

14. Before permitting the beneficiaries to start land preparation, pitting etc., the DHSO should ensure to take approval of DMC for the selected beneficiaries.

15. DHSO should ensure proper documentation and registration in Hortnet of various stages of implementation (viz., land preparation / pitting, planting & installation of micro irrigation system etc. along with necessary photographs) by the HOs concerned.

16. Intercropping shall be encouraged in all perennial orchards with region specific intercrop as they contribute to soil fertility and income during gestation period.

17. After the completion of plantation, H.E.O/HO concerned should inspect the fields and collect all the required bills / invoices / vouchers from the concerned farmers and upload in the Hortnet after proper scrutiny.

18. All such uploaded bills should be forwarded to the DHSO login. In turn the DHSO will compile all the bills in his login and obtain financial approval of DMC. After approval of DMC the same may be forwarded to ED login for release of payment.

19. The district officers shall send the beneficiary list along with DMC approval to the Head office for release of Subsidy.

20. The assistance will be provided to the beneficiaries / agency / firm after filing of all mandatory details in HORTNET.

A. Supply of Plant Material:

1. DHSO/DHM should make advance arrangement for procurement of planting material from accredited nurseries/certified planting material/certified seeds for ensuing season. DHSO/DHM should have a mechanism in place for the proper certification and distribution of planting material/seeds. Sourcing of planting material/seeds from ICAR institutes, SAUs, KVKs and Government Department/ CoEs is to be given priority over other sources. Area Expansion shall be restricted to availability of planting material from accredited nurseries/certified Planting Material.

2. Priority should be given for supply of plant material from tied-up Horticultural farms / Research stations of PJTS Agril. University / SKLTS Horti. University.

3. However, farmers shall be permitted to purchase plant material from private nurseries under following circumstances.

- ✓ Where ever farmer's choice variety is not available in tied-up Horticultural farms / Research stations.
- ✓ In cases where short fall of plant material is identified in tied-up nurseries
- ✓ In case of crops for which tied-up arrangement is not made.

4. In cases when plant material is supplied from Department Horticultural farms, the assistance amount towards plant material shall be directly released to the Horticultural farms by the DHSO s duly obtaining necessary bills/invoices from the farm in-charge.

5. **In case of TC Banana, the list of accredited labs with DBT, GoI under NCS -TSP shall be given to the farmers for procuring the plant material. The beneficiary shall procure the plant material by incurring full cost from T.C labs out of his own choice from the approved list and assistance (cash) will be transferred through HORTNET to the beneficiary's account**. The DHSOs should take an affidavit from the beneficiary that, he/she has procured the planting material after perceiving about the details and credentials of the firm and is personally responsible for further consequences (if any).
6. **In cases when plant material is purchased by the farmers from Research stations or from Pvt. Nurseries, the assistance pertaining to the plant material shall be released to the farmers through DBT after submission of Bills/ invoices and uploading in HORTNET.**

B. Inputs like Vermi compost, FYM, Irrigation, Inter crop, Labour Charges & Implements like Gardens tools etc.,

a) Assistance pertaining to inputs like Vermi compost, FYM, inter crop, fertilizers (organic and inorganic) and other inputs like bio fertilizer, bio-pesticides, PP chemicals, Micro nutrients etc., shall be released to the farmers through online transfer into farmers Accounts after certifying by the concerned HOs, only filing and DMC approval.

b) It is permitted to consider self- declaration from the farmers for procuring and utilization of recommended inputs (manures, fertilizers & PP chemicals) under various components like Area Expansion, Rejuvenation, etc., under MIDH for release of assistance. But it must be ensured that the eligibility criteria and sub-component wise cost norms for inputs under various components are to be strictly adhered to.

c) The self-declaration from the farmers is to be mandatorily counter signed by the concerned Horticulture Officers and same shall be ensured by the DHSOs concerned. Further, 100% field verification by the HOs and random inspections by the DHSOs is to be scrupulously followed.

d) The self-declaration from the farmers is only considered for inputs like manures, fertilizers & PP chemicals only but not for implements and machinery.

e) With regard to implements like Gardens tools etc., the farmers shall procure the garden tools and invoices/ bills/ vouchers are to be submitted and the subsidy shall be given to the farmers in the form of cash through online transfer into farmers Account.

C. Crop wise Pattern of Assistance:

S.No	Crop	Spacing (m xm)	No of Plants per Ha.	Unit cost (Rs.) per Ha.	% of assis tance	Subsidy in Rs.			
						1st year	2nd year	3rd Year	Total
1	Banana	1.8x1.8	3086	102462	**40**	30739	10246	0	40985
2	Papaya	1.8x1.8	3086	60000	**50**	22500	7500	0	30000
3	Mango	5x5	400	41000	**40**	9840	3280	3280	16400
4	Citrus	6x6	278	40008	**40**	9602	3200	3200	16001
5	Acid Lime	6x6	278	40008	**40**	9602	3200	3200	16001
6	Guava	3x3	1111	73330	**40**	17600	5866	5866	29332
7	Pomegranate	5x3	667	66680	**40**	16004	5334	5334	26672
8	Custard Apple	2.5x2.5	1600	106000	**40**	25440	8480	8480	42800

Pattern of Assistance

1. T. C. BANANA (1.8 M X 1.8 M): No. of Plants per Ha. 3086

A. PATTERN OF ASSISTANCE FOR T. C. BANANA (1.8 M X 1.8 M) FOR 1 HA					
Sl. No.	**Name of sub-component**	**Total Cost (in Rs.)**	**Year wise Assistance per Ha.**		**Eligible Subsidy (in Rs.) per Ha.**
			1st year (2023-24)	**2nd Year (2024-25)**	
1	**Plant Material (@ Rs.14/- per plant)**	43204	17282	0	**17282**
2	**Inputs**				
i	FYM	13000	4800	0	**4800**
ii	Neem Cake/ Vermicompost	12320	3467	2200	**5667**
iii	Inorganic fertilizers, Water Soluble fertilizers, Bio fertilizers and Micro Nutrients	25171	3500	6230	**9730**
iv	PP Chemicals/ Bio pesticides	8767	1690	1816	**3506**
	Sub-Total	**59258**	**13457**	**10246**	**23703**
	Total	**102462**	**30739**	**10246**	**40985**

B. INPUT PACKAGE FOR T. C. BANANA (1.8 M X 1.8 M) PER ACRE					
Spacing: 1.8 M X 1.8 M			**No. of plants per Acre:1234**		
S No	**Inputs**	**Unit**	**Pkg. size**	**1st year**	**2nd year**
I	**Organic Manures**				
	Farm Yard Manure	Tones		7.2	7.2
	Vermicompost / Neem Cake	Kgs	40 Kg	720	720
II	**Water Soluble Fertilizers**				
	0 : 52 : 34	Kgs	50 Kg	59	50
	13 : 00 : 45	Kgs	50 Kg	458	400
	Urea	Kgs	50 Kg	337	300
III	**Bio Fertilizers**				
	P.S.B.	Kgs	Kgs	25	25
IV	**Micronutrients**				
	Zn, Mg, Boron & others	Kgs	Kg	4	4
V	**Plant Protection Chemicals**				
	Chlorothalonil 78.12%	Kgs	500 Gms	0.5	0.5
	Propiconazol 25%	Lts	500 Ml.	0.5	0.5
	Carbofuran 3G	Kgs	Kg	15	0
	Sticking Agent	Lit	500 Ml	1	1

2. PAPAYA (1.8 M X 1.8 M): **No. of Plants per Ha. 3086**

A. PATTERN OF ASSISTANCE FOR PAPAYA (1.8X1.8M) FOR 1 HA					
No. of plants 3086 / ha.					**Amount in Rs.**
Sl. No.	**Name of sub-component**	**Total Cost (in Rs.)**	**Year wise Assistance per Ha.**		**Eligible Subsidy (in Rs.) per Ha.**
			1st year (2023-24)	**2nd Year (2024-25)**	
1	**Plant Material (@ Rs.10/- per plant)**	30860	15430		**15430**
2	**Inputs**				
i	FYM	14000	2380	3793	**6173**
ii	Neem Cake/ Vermicompost	6000	1500	1500	**3000**
iii	Inorganic fertilizers, Water Soluble fertilizers, Bio fertilizers and Micro Nutrients	4095	1190	857	**2047**
iv	PP Chemicals / Bio pesticides	6700	2000	1350	**3350**
	Sub-Total	**30795**	**7070**	**7500**	**14570**
	Total	**61655**	**22500**	**7500**	**30000**

Remarks: The Total cost (Plant Material + Inputs) is restricted to 60,000/- as per the norms of NHM and the subsidy is 50 % of the restricted amount.

B. INPUT PACKAGE FOR PAPAYA (1.8 M X 1.8 M) PER ACRE					
Spacing: 1.8 M X 1.8 M		**No. of plants per Acre: 1234**			
Sl. No.	**Inputs**	**Unit**	**Pkg. size**	**1st year**	**2nd year**
I	**Organic manures**				
	FYM	Tons		6	6
	Vermicompost / Neem Cake	Kgs	40 Kgs	1845	1845
II	**Soluble fertilizers**				
	0:52:34	Kgs	50 Kgs	100	100
	13:0:45	Kgs	50 Kgs	250	250
	Urea	Kgs	50 Kgs	550	550
III	**Bio fertilizers**				
	PSB	Kgs	Kgs	25	25
IV	**Micro nutrients**				
	Zn, Mg, Boron & others based on soil testing report	Kgs	Kgs	6	6
V	**Bio pesticides**				
	Verticellium lecannii WP/ others	Kgs	Kgs	1	1
VI	**PP chemicals**				
	Imidachloprid 17.8% EC	Lts	250 Ml	0.5	0.5
	Metalaxyl 8% + Mancozeb 64% WP	Kgs	500 gm	0.5	0.5
	Dichlorovas 76% EC	Lts	500 Ml	0.5	0.5
	Chlorpyriphos 20% EC	Lts	500 Ml	1	1
	Sticking Agent	Lts	500 Ml	0.5	0.5

3. MANGO (5M x 5M), Himayat, Dasheri, Kesar & other improved varieties **No. of Plants per Ha. 400**

Sl. No	Name of Sub-component	Total Cost (in Rs.)	Year wise Assistance per Ha.			Eligible Subsidy (in Rs.) per Ha.
			1st year (2023-24)	2nd year (2024-25)	3rd year (2025-26)	
1	**Plant Material (@Rs30/- per plant)**	**16200**	**4800**	**1200**	**480**	**6480**
2	**Inputs**					
i	FYM	10000	800	500	500	1800
ii	Neem Cake / Vermicompost	9000	400	400	500	1300
iii	Inorganic fertilizers and Micro Nutrients	32931	2140	900	1240	4280
iv	PP Chemicals/ Bio pesticides	12450	1700	280	560	2540
v	Implements (Secateurs, Spade, Pick axe)	1000	0	0	0	0
Total of Inputs		**65381**	**5040**	**2080**	**2800**	**9920**
Total (Plant Material + Inputs)		**81581**	**9840**	**3280**	**3280**	**16400**

Remarks : The Total cost (Plant Material + Inputs) is restricted to 41,000/- as per the norms of NHM and the subsidy is 40% of the restricted amount.

INPUT PACKAGE FOR MANGO (5M x 5M) PER ACRE.

Spacing: 5m X 5m			**No. of plants per Acre: 160**			
Sl. No	**Inputs**	**Unit**	**Pkg. size**	**1st year**	**2nd year**	**3rd year**
I	**Organic Manures**					
	Farm Yard Manure	Tones		3.2	1.6	3.2
	Vermicompost / Neem Cake	Kgs	40 Kg	160	240	320
II	**Inorganic Fertilizers**					
	S.S.P.	Kgs	50 Kg	320	200	300
	Urea	Kgs	50 Kg	35	70	105
	M.O.P.	Kgs	50 Kg	27	54	80
III	**Bio-Fertilisers**					
	PSB	Kg	500 grms	4	4	4
IV	**Micronutrients**					
	Zn, Mg, Boron & others as per soil testing report	Kgs	Kg	1.2	1.6	2
V	**Plant Protection Chemicals**					
	Chloropyriphos 20% EC	Ltrs	500 ml	1	1.5	2
	Dimethoate	Ltrs	500 ml	1	1.5	2
	C.O.C. 50% WP	Kgs	500 gr	1	1	1

4. CITRUS/SWEET ORANGE

Spacing: 6M X 6M **No. of Plants per Ha. 278**

Sl. No	Name of Sub-component	Total Cost (in Rs.)	Year wise Assistance per Ha.			Eligible Subsidy (in Rs.) per Ha.
			1st year (2023-24)	2nd year (2024-25)	3rd year (2025-26)	
1	**Plant Material (@Rs25/- per plant)**	**13125**	**3892**	**966**	**392**	**5250**
2	**Inputs**					
i	FYM	10000	1000	500	500	2000
ii	Neem Cake / Vermicompost	6225	700	400	500	1600
iii	Inorganic fertilizers and Micro Nutrients	23584	2500	800	1100	4400
iv	PP Chemicals/ Bio pesticides	18961	1509	534	708	2751
v	Implements (Secateurs, Spade, Pick axe)	1000	0	0	0	0
	Total of Inputs	**59770**	**5709**	**2234**	**2808**	**10751**
	Total (Plant Material + Inputs)	**72895**	**9601**	**3200**	**3200**	**16001**

Remarks : The Total cost (Plant Material + Inputs) is restricted to 40,008/- as per the norms of NHM and the subsidy is 40% of the restricted amount.

INPUT PACKAGE FOR SWEET ORANGE (6m x 6m) PER ACRE.						
Spacing: 5m X 5m			**No. of plants per Acre: 111**			
Sl. No	**Inputs**	**Unit**	**Pkg. size**	**1st year**	**2nd year**	**3rd year**
I	**Organic Manures**					
	Farm Yard Manure	Tones		3.2	1.6	3.2
	Vermicompost / Neem Cake	Kgs	40 Kg	111	165	222
II	**Inorganic Fertilizers**					
	S.S.P.	Kgs	50 Kg	220	87	104
	Urea	Kgs	50 Kg	48	72	96
	M.O.P.	Kgs	50 Kg	22	31	40
III	**Bio-Fertilisers**					
	PSB	Kg	500 grms	2	2	2
IV	**Micronutrients**					
	Zn, Mg, Boron & others as per soil testing report	Kgs	Kg	2	3	3
V	**Plant Protection Chemicals**					
	Chloropyriphos 20% EC	Ltrs	500 ml	1	1.5	1.5
	Profenophos	Ltrs	500 ml	1	1.5	1.5
	C.O.C. 50% WP	Kgs	500 gr	1	1.5	2
	Streptocyclin	grms	6gr	36	54	72

5. ACID LIME

Spacing: 6M X 6M **No. of Plants per Ha. 278**

Sl. No	Name of Sub-component	Total Cost (in Rs.)	Year wise Assistance per Ha.			Eligible Subsidy (in Rs.) per Ha.
			1st year (2021-22)	2nd Year (2022-23)	3rd year (2023-24)	
1	**Plant Material (@Rs25/- per plant)**	**13125**	**3892**	**966**	**392**	**5250**
2	**Inputs**					
i	FYM	10000	1000	500	500	2000
ii	Neem Cake / Vermicompost	6225	700	400	500	1600
iii	Inorganic fertilizers and Micro Nutrients	23584	2500	800	1100	4400
iv	PP Chemicals/ Bio pesticides	18961	1509	534	708	2751
v	Implements (Secateurs, Spade, Pick axe)	1000	0	0	0	0
	Total of Inputs	**59770**	**5709**	**2234**	**2808**	**10751**
	Total (Plant Material + Inputs)	**72895**	**9601**	**3200**	**3200**	**16001**

Remarks : The Total cost (Plant Material + Inputs) is restricted to 40008/- as per the norms of NHM and the subsidy is 40% of the restricted amount.

INPUT PACKAGE FOR ACIDLIME (6m x 6m) PER ACRE.						
Spacing: 5m X 5m			**No. of plants per Acre: 111**			
Sl. No	**Inputs**	**Unit**	**Pkg. size**	**1st year**	**2nd year**	**3rd year**
I	**Organic Manures**					
	Farm Yard Manure	Tones		3.2	1.6	3.2
	Vermicompost / Neem Cake	Kgs	40 Kg	111	165	222
II	**Inorganic Fertilizers**					
	S.S.P.	Kgs	50 Kg	220	87	104
	Urea	Kgs	50 Kg	48	72	96
	M.O.P.	Kgs	50 Kg	22	31	40
III	**Bio-Fertilisers**					
	PSB	Kg	500 grms	2	2	2
IV	**Micronutrients**					
	Zn, Mg, Boron & others as per soil testing report	Kgs	Kg	2	3	3
V	**Plant Protection Chemicals**					
	Chloropyriphos 20% EC	Ltrs	500 ml	1	1.5	1.5
	Profenophos	Ltrs	500 ml	1	1.5	1.5
	C.O.C. 50% WP	Kgs	500 gr	1	1.5	2
	Streptocyclin	grms	6gr	36	54	72

6. GUAVA (3M X 3M) **No. of Plants per Ha. 1111**

Sl. No	Name of Sub-component	Total Cost (in Rs.)	Year wise Assistance per Ha.			Eligible Subsidy (in Rs.) per Ha.
			1st year (2023-24)	2nd year (2024-25)	3rd year (2025-26)	
1	**Plant Material (@Rs30/- per plant)**	**45000**	**13332**	**3336**	**1332**	**18000**
2	**Inputs**					
i	FYM	10000	800	500	800	2100
ii	Neem Cake / Vermicompost	12375	800	800	1200	2800
iii	Inorganic fertilizers and Micro Nutrients	47310	1918	730	1534	4182
iv	PP Chemicals/ Bio pesticides	20175	750	500	1000	2250
v	Implements (Secateurs, Spade, Pick axe)	1000	0	0	0	0
	Total of Inputs	**90860**	**4268**	**2530**	**4534**	**11332**
	Total (Plant Material + Inputs)	**135860**	**17600**	**5866**	**5866**	**29332**

Remarks : The Total cost (Plant Material + Inputs) is restricted to 73327/- as per the norms of NHM and the subsidy is 40% of the restricted amount.

INPUT PACKAGE FOR GUAVA (3m x 3m) PER ACRE.						
Spacing: 5m X 5m			**No. of plants per Acre: 444**			
Sl. No	**Inputs**	**Unit**	**Pkg. size**	**1st year**	**2nd year**	**3rd year**
I	**Organic Manures**					
	Farm Yard Manure	Tones		3.2	1.6	3.2
	Vermicompost / Neem Cake	Kgs	40 Kg	220	330	440
II	**Inorganic Fertilizers**					
	S.S.P.	Kgs	50 Kg	222	222	333
	Urea	Kgs	50 Kg	96.5	193	289.5
	M.O.P.	Kgs	50 Kg	75	150	225
III	**Bio-Fertilisers**					
	PSB	Kg	500 grms	4	4	4
IV	**Micronutrients**					
	Zn, Mg, Boron & others as per soil testing report	Kgs	Kg	1.2	1.6	2
V	**Plant Protection Chemicals**					
	Chloropyriphos 20% EC	Ltrs	500 ml	1	1.5	2
	Dichlorvas 76%EC	Ltrs	500 ml	1	1.5	2
	C.O.C. 50% WP	Kgs	500 gr	1	2	3

7. POMEGRANATE (5 M X 3 M): No. of Plants per Ha. 667

Sl. No	Name of Sub-component	Total Cost (in Rs.)	Year wise Assistance per Ha.			Eligible Subsidy
			1st year (2023-24)	2nd year (2024-25)	3rd year (2025-26)	(in Rs.) per Ha.
1	**Plant Material (@Rs25/- per plant)**	**22525**	**6670**	**1670**	**670**	**9010**
2	**Inputs**					
i	FYM	10000	1200	900	900	3000
ii	Neem Cake / Vermicompost	13000	1200	1000	1000	3200
iii	Inorganic fertilizers and Micro Nutrients	40784	4500	1000	1500	7000
iv	PP Chemicals/ Bio pesticides	37100	2434	764	1264	4462
v	Implements (Secateurs, Spade, Pick axe)	1000	0	0	0	0
Total of Inputs		**101884**	**9334**	**3664**	**4664**	**17662**
Total (Plant Material + Inputs)		**124409**	**16004**	**5334**	**5334**	**26672**

Remarks : The Total cost (Plant Material + Inputs) is restricted to 66,680/- as per the norms of NHM and the subsidy is 40% of the restricted amount i.e., Rs. 66,680/-.

INPUT PACKAGE FOR POMEGRANATE (5m x 3m) PER ACRE.						
Spacing: 5m X 5m			**No. of plants per Acre: 267**			
Sl. No	**Inputs**	**Unit**	**Pkg. size**	**1st year**	**2nd year**	**3rd year**
I	**Organic Manures**					
	Farm Yard Manure	Tones		3.2	1.6	3.2
	Vermicompost / Neem Cake	Kgs	40 Kg	260	390	390
II	**Inorganic Fertilizers**					
	S.S.P.	Kgs	50 Kg	167	417	417
	Urea	Kgs	50 Kg	55	160	160
	M.O.P.	Kgs	50 Kg	67	67	67
III	**Bio-Fertilisers**					
	PSB	Kg	500 grms	2	2	2
IV	**Micronutrients**					
	Zn, Mg, Boron & others as per soil testing report	Kgs	Kg	2	3	3
V	**Plant Protection Chemicals**					
	Chloropyriphos 20% EC	Ltrs	500 ml	1	1.5	1.5
	Dichlorvas 76%EC	Ltrs	500 ml	1	1.5	1.5
	C.O.C. 50% WP	Kgs	500 gr	2	3	3
	Streptocyclin	grms	6gr	200	400	400

8. CUSTARD APPLE

Spacing: 2.5 M X 2.5 M **No. of Plants per Ha. 1600**

Sl. No	Name of Sub-component	Total Cost (in Rs.)	Year wise Assistance per Ha.			Eligible Subsidy
			1st year (2023-24)	2nd year (2024-25)	3rd year (2025-26)	(in Rs.) per Ha.
1	**Plant Material (@Rs25/- per plant)**	**62000**	**16000**	**4000**	**1600**	**21600**
2	**Inputs**					
i	FYM	22500	1200	1000	1000	3200
ii	Neem Cake / Vermicompost	24000	1300	1000	1000	3300
iii	Inorganic fertilizers and Micro Nutrients	69637	4500	1500	3500	9500
iv	PP Chemicals/ Bio pesticides	22100	2440	980	1380	4800
v	Implements (Secateurs, Spade, Pick axe)	1000	0	0	0	0
	Total of Inputs	**139237**	**9440**	**4480**	**6880**	**20800**
	Total (Plant Material + Inputs)	**201237**	**25440**	**8480**	**8480**	**42400**

Remarks : The Total cost (Plant Material + Inputs) is restricted to 106000/- as per the norms of NHM and the subsidy is 40% of the restricted amount.

INPUT PACKAGE FOR CUSTARD APPLE (2.5m x 2.5m) PER ACRE.						
Spacing: 2.5m x 2.5m			**No. of plants per Acre: 640**			
S.no	**Inputs**	**Unit**	**Pkg. size**	**1st year**	**2nd year**	**3rd year**
I	**Organic Manures**					
	Farm Yard Manure	Tones		6	6	6
	Vermicompost / Neem Cake	Kgs	40 Kg	640	640	640
II	**Inorganic Fertilizers**					
	S.S.P.	Kgs	50 Kg	500	500	500
	Urea	Kgs	50 Kg	350	350	350
	M.O.P.	Kgs	50 Kg	160	160	160
III	**Bio-Fertilisers**					
	PSB	Kg	500 grms	2	2	2
IV	**Micronutrients**					
	Zn, Mg, Boron & others as per soil testing report	Kgs	Kg	2	3	3
V	**Plant Protection Chemicals**					
	Chloropyriphos 20% EC	Ltrs	500 ml	1	1.5	1.5
	Dichlorvas 76%EC	Ltrs	500 ml	1	1.5	1.5
	C.O.C. 50% WP	Kgs	500 gr	2	3	3

All District officers should send information in the Annexure prescribed below for release of subsidy along with DMC approval.

RELEASE - ANNEXURE -1

S.No	COMPONENTS (Crops	Unit	Assistance (in Lakhs)	Target Allotted		No. of beneficiaries entered in ED login of HORTNET for which release is now requested				Area achieved and entered in ED login of HORTNET for which release is now requested (Ha.)				Amount To be Released as per entry in ED login of HORTNET and DMC approval (Rs.)			
				PHY (Ha)	FIN (Rs.in Lakhs)	Gen	SCP	TSP	Total	Gen	SCP	TSP	Total	Gen	SCP	TSP	Total
1																	
2																	

B) Area Expansion - Exotic & Niche Fruit Crops:

MIDH - Telangana - 2023 -24 - Tentative Cost Norms and Pattern of Assistance for Exotic and Niche Fruits Crops

S. No	Crop	No. of plants per Ha	Admissible unit cost/ Ha (Rs. In Lakhs)	Percentage of assistance	Assistance/ Ha (Rs. In Lakhs)			
					1st Yr	2nd Yr	3rd Yr	TOTAL
I	**Exotic Crops Niche Fruits crops**							
1	Kamalam (Dragon fruit) with integration of drip irrigation and trellies	3000	4.00	40%	0.9600	0.3200	0.3200	1.600
2	Fig (2.5m x 2.5m) (without integration of drip irrigation)	1600	0.83	40%	0.1992	0.0664	0.0664	0.332
3	Avocado (5mx5m) (without integration of drip irrigation)	400	0.60	50%	0.1800	0.0600	0.0600	0.300
4	Anola	500	0.50	50%	0.15	0.05	0.05	0.25
5	Jackfruit	100	0.60	50%	0.18	0.06	0.06	0.30
6	Jamun	100	0.60	50%	0.18	0.06	0.06	0.30

1. The non-negotiables & guidelines of Area Expansion – Fruits shall be applicable for Area Expansion – Exotic & Niche Fruit crops.
2. Bund/ Boundary plantations can also be allowed in Exotic / Niche Fruit crops. In case of Bund/ Boundary plantations, the eligible area for subsidy shall be worked out on the basis of number of plants planted.
   Eg: If a farmer has planted (20) Tamarind/ Jack fruit plants on Bunds/ boundaries, then the area for the purpose of subsidy would be 0.20 Ha. as the normal density of Tamarind/ Jack fruit has been taken as 100 plants/ Ha.

Tentative indicative cost norms and pattern of assistance for Area Expansion - Exotic fruit crops

PATTERN OF ASSISTANCE FOR KAMALAM (DRAGON FRUIT)
FOR 1 HA with INTEGRATION OF DRIP IRRIGATION & TRELLIS

No of Plants per Ha. :3000 (2-4 plants per pole)

Sno	Name of Sub-component	Total Cost (in Rs.)	Year wise Assistance per Ha.			Total Eligible Subsidy (Rs.)
			1st year	2nd Year	3rd year	
1	Plant Material (@Rs 20/- per plant)	60000	24000	0	0	24000
2	Trellis (Cement pole with rings (or) Y-trellising)	388850	52900	0	0	52900
3	Drip irrigation	47751	19100	0	0	19100
4	Inputs (Manures, Fertilizers, PP chemicals & implements)	128000	0	32000	32000	64000
	Total	**624601**	**96000**	**32000**	**32000**	**160000**

Note: unit cost restricted to Rs. 4,00,000/- as per MIDH norms.

PATTERN OF ASSISTANCE FOR FIG (2.5m x 2.5m) FOR 1 HA						
Spacing : 2.5m x 2.5m			**No of Plants per Ha. : 1600**			
Sl. No	**Name of Sub-component**	**Total Cost (in Rs.)**	**Year wise Assistance per Ha.**			**Eligible Subsidy**
			1st year (2018-19)	**2nd Year (2019-20)**	**3rd year (2020-21)**	**(in Rs.) per Ha.**
1	**Plant Material (@Rs22/- per plant)**	**47520**	**14080**	**3520**	**1480**	**19080**
2	**Inputs**					
i	FYM	22500	1000	700	1000	2700
ii	Neem Cake / Vermicompost	24000	1000	700	1000	2700
iii	Inorganic fertilizers and Micro Nutrients	46314	2400	1000	2320	5720
iv	PP Chemicals/ Bio pesticides	22100	1440	720	840	3000
v	Implements (Secateurs, Spade, Pick axe)	1000	0	0	0	0
Total of Inputs		**115914**	**5840**	**3120**	**5160**	**14120**
Total (Plant Material + Inputs)		**163434**	**19920**	**6640**	**6640**	**33200**

Remarks : The Total cost (Plant Material + Inputs) is restricted to 83000/- as per the norms of NHM

INPUT PACKAGE FOR FIG (2.5m x 2.5m)						
Spacing: 2.5m x 2.5m			**No. of plants per Acre: 640**			
Sl. No.	**Inputs**	**Unit**	**Pkg. size**	**1st year**	**2nd year**	**3rd year**
I	**Organic Manures**					
	Farm Yard Manure	Tones		6	6	6
	Vermicompost / Neem Cake	Kgs	40 Kg	640	640	640
II	**Inorganic Fertilizers**					
	S.S.P.	Kgs	50 Kg	320	256	384
	Urea	Kgs	50 Kg	64	128	192
	M.O.P.	Kgs	50 Kg	64	128	192
III	**Bio-Fertilisers**					
	PSB	Kg	500 grms	2	2	2
IV	**Micronutrients**					
	Zn, Mg, Boron & others as per soil testing report	Kgs	Kg	2	3	3
V	**Plant Protection Chemicals**					

	Chloropyriphos 20% EC	Ltrs	500 ml	1	1.5	1.5
	Dichlorvas 76%EC	Ltrs	500 ml	1	1.5	1.5
	C.O.C. 50% WP	Kgs	500 gr	2	3	3

PATTERN OF ASSISTANCE FOR AVOCADO FOR 1 HA @ 50% assistance						
Spacing : 5m x 5m			**No of Plants per Ha. : 400**			
S.no	**Name of Sub-component**	**Total Cost (in Rs.)**	**Year wise Assistance per Ha.**			**Total Eligible Subsidy (Rs.)**
			1st year	**2nd Year**	**3rd year**	
1	Plant Material (@ Rs 60/- per Graft)-n (incl 35% excess plants for gap filling for 2nd & 3rd year)	32400	12000	3000	1200	16200
2	Inputs for INM & IPM (Manures, Fertilizers, PP chemicals & implements)	27600	6000	3000	4800	13800
	Total	**60000**	**18000**	**6000**	**6000**	**30000**

PATTERN OF ASSISTANCE FOR AONLA (4m x 5m) FOR 1 HA						
Spacing : 4m x 5m			**No of Plants per Ha. : 500**			
Sno	**Name of Sub-component**	**Total Cost (in Rs.)**	**Year wise Assistance per Ha.**			**Eligible Subsidy (in Rs.) per Ha.**
			1st year	**2nd Year**	**3rd year**	
1	**Plant Material** (@Rs30/- per plant)	**20250**	**7500**	**1875**	**750**	**10125**
2	**Inputs**					
i	FYM	12500	2500	1000	1000	4500
iii	Inorganic fertilizers	20845	3500	1625	2500	7625
iv	PP Chemicals/ Bio pesticides	10160	1000	500	750	2250
v	Implements (Secateurs, Spade, Pick axe)	1000	500	0	0	500
	Total of Inputs	**44505**	**7500**	**3125**	**4250**	**14875**
	Total (Plant Material + Inputs)	**64755**	**15000**	**5000**	**5000**	**25000**

Remarks : The Total cost (Plant Material + Inputs) is restricted to 50000/- as per the norms of NHM

INPUT PACKAGE FOR AONLA (4m x 5m)		
Spacing: 4m x 5m		**No. of plants per Ha: 500**

Sl. No	Inputs	Unit	Pkg. size	1st year	2nd year	3rd year
I	**Organic Manures**					
	Farm Yard Manure	Tones		7.5	2.5	2.5
II	**Inorganic Fertilizers**					
	S.S.P.	Kgs	50 Kg	500	156	312
	Urea	Kgs	50 Kg	108	216	324
	M.O.P.	Kgs	50 Kg	80	160	240
III	**Plant Protection Chemicals**					
	Profenophos	Ltrs	500 ml	1	1.5	1.5
	Dichlorvas 76%EC	Ltrs	500 ml	1	1.5	1.5
	C.O.C 50% WP	Kgs	500 gr	2	3	3

PATTERN OF ASSISTANCE FOR JAMUN (8m x 8m) FOR 1 HA						
Spacing : 8m x 8m			**No of Plants per Ha. : 156**			
Sno	**Name of Sub-component**	**Total Cost (in Rs.)**	**Year wise Assistance per Ha.**			**Total Eligible Subsidy (Rs.)**
			1st year	**2nd Year**	**3rd year**	
1	**Plant Material** (@Rs50/- per plant)	10550	3900	975	400	5275
2	**Inputs** (Manures, Fertilizers, PP chemicals & implements)	49450	14100	5025	5600	24725
	Total	**60000**	**18000**	**6000**	**6000**	**30000**

PATTERN OF ASSISTANCE FOR JACK FRUIT (10m x 10m) FOR 1 HA						
Spacing : 10m x 10m			**No of Plants per Ha. :100**			
Sno	**Name of Sub-component**	**Total Cost (in Rs.)**	**Year wise Assistance per Ha.**			**Total Eligible Subsidy (Rs.)**
			1st year	**2nd Year**	**3rd year**	
1	**Plant Material** (@ Rs 100/- per plant)	13500	5000	1250	500	6750
2	Inputs (Manures, Fertilizers, PP chemicals & implements)	46500	13000	4750	5500	23250
	Total	**60000**	**18000**	**6000**	**6000**	**30000**

C. Area Expansion – Vegetables (Hybrid)

Objective:

- ✓ To ensure timely supply of vegetables all-round the year.
- ✓ To supply quality vegetables.
- ✓ To replace traditional varieties of vegetables with hybrid varieties.
- ✓ To take up Hybrid Vegetables only in identified crop colonies.

Sl.No	Item	Max. permissible cost	Pattern of Assistance
1	**Vegetables**		
	i) Hybrid	Rs.50,000/ ha	40% of the cost, maximum Rs. 20,000 per Ha.

The pattern of assistance & guidelines for Area Expansion- Vegetables (hybrid) (Tomato, Brinjal, Chillies) are as mentioned below:

1.Crop: TOMATO, BRINJAL

S. No	Component	Total permissible cost per Acre (Rs.)	Subsidy per Acre @ 40% (Rs.)	Farmer contribution (Rs.)	Remarks
1	Seedlings @ Rs. 1.00 per Seedling (8000 seedlings per one acre) inclusive of packing	**8000**	**8000**	**0**	1.Seedlings shall be supplied to farmers on free of cost. 2.Subsidy amount of Rs.8000/- shall be released from head office to the SHN Section (towards COE, Jeedimetla / COE, Mulugu) for supplying of Seedlings upon submission of release proposals by DHSOs. 3.Entire expenditure as per cost norms towards transportation, labour and inputs has to be borne by the farmers. 4.The subsidy is 40% of the total admissible cost subject to a maximum of Rs. 8,000 per acre. Certain components (inputs & labour charges) are considered as farmer share. The farmer has to incur expenditure as per admissible unit costs in order to avail assistance. For such components HOs/ DHSOs has to obtain bills/ invoices/ certification. 5.The DHSOs has to obtain farmer wise indents from HOs and inform to ADH of CoE concerned for supply of seedlings. 6. Concerned HOs are responsible for mobilization of seedlings from CoEs to farmer fields.
2	Transportation charges	500	0	500	
3	Labour charges	5000	0	5000	
4	Inputs (Fertilizers & Pesticides)	6500	0	6500	
	TOTAL	**20000**	**8000**	**12000**	

2. Crop: CHILLIES

S. No	Component	Total permissible cost per Acre (in Rs.)	Subsidy per Acre @ 40 %	Farmer contribution	Remarks
1	Seedlings @ Rs 1.25/ Seedling (Rs. 1.25 x 6400 = Rs. 8000) inclusive of packing	8000	8000	0	1. Seedlings shall be supplied to farmers on free of cost. 2. Subsidy amount of Rs.8000/- shall be released from head office to the SHN Section (towards COE, Jeedimetla / COE, Mulugu) for supplying of Seedlings upon submission of release proposals by DHSOs. 3. Entire expenditure as per cost norms towards transportation, labour and inputs has to be borne by the farmers. 4. The subsidy is 40% of the total admissible cost subject to a maximum of Rs. 8,000 per acre. Certain components (inputs & labour charges) are considered as farmer share. The farmer has to incur expenditure as per admissible unit costs in order to avail assistance. For such components HOs/ DHSOs has to obtain bills/ invoices/ certification. 5. The DHSOs has to obtain farmer wise indents from HOs and inform to ADH of CoE concerned for supply of seedlings. 6. Concerned HOs are responsible for mobilization of seedlings from CoEs to farmer fields.
2	Transportation charges	500	0	500	
3	Labour charges	5500	0	5500	
4	Inputs (Fertilizers & Pesticides)	6000	0	6000	
	TOTAL	**20000**	**8000**	**12000**	

i. Subsidy will be given to maximum 1 ha per beneficiary

ii. The DHSOs should identify the farmers nearby surrounding the District Head Quarters or municipalities or urban local bodies.

iii. This activity preferably be taken up in cluster approach. Each cluster should be not less than 10 ha. keeping in view of market potentiality.

iv. In case of below 1 Ha farmers the subsidy will be admissible on prorata basis.

v. The subsidy is 40% of the total admissible cost subject to a maximum of Rs. 20,000 per Ha and cost norms as indicated in the above tables. Though the subsidy amount is nil for certain components, the farmer has to incur expenditure as per indicted admissible unit costs in order to avail assistance. If other components are not covered, the COEs will not get subsidy portion to full extent towards supply of seedlings.

vi. The DHSOs shall obtain farmer wise indents from HOs and place indent to ADH of CoE concerned for supply of seedlings.s

vii. The farmer shall submit the necessary bills/vouchers/ self certification towards Inputs for arranging of subsidy to the farmers accounts through DBT.

viii. The subsidy portion for seedlings component will be released to ADH-COE, Jeedimetla / ADH-COE, Mulugu upon receipt of release proposals along with DMC approval from concerned district.

ix. The farmers are to be trained in advance on the latest technologies in cultivation aspects INM / IPM /growing of vegetables under shade nets etc. for getting higher yields / higher productivity.

x. The DHSOs are not permitted to inter change the budget allocation among the sub components and should claim the subsidy as per the indicators given for each component.

xi. The cost involved in components like preparation of land, planting, staking, labour cost and intercultural operations should be borne by the beneficiary.

xii. The HO concerned is responsible for proper inspection, certification of invoice, and obtaining digital photograph of farmers.

xiii. Priority should be given to woman farmers and SHG groups.

xiv. The HO concerned should record the data on production / productivity after adoption of latest technology in cluster by farmers.

xv. Micro irrigation is to be tied up with TSMIP wherever feasible for getting better yields.

xvi. The District officers shall send the beneficiary list along with DMC approval to the Head office, after planting for release of Subsidy after uploading the beneficiary information in Hortnet.

D. Area Expansion of Loose Flowers:

S.No	Component	Max. permissible cost (Rs.)	Pattern of Assistance
Establishment of new gardens (Area Expansion)			
1	**Flowers (For a maximum of 1 ha per beneficiary)**		
	i.Loose Flowers	Rs. 40,000/ha	40 % of the cost for SF &MF farmers

Crops: Jasmine, Chrysanthemum, Crossandra, Marigold etc.

Cost Norms:

S.No.	Component	Total permissible Cost per Ha. (Rs.)	40% subsidy for small and marginal farmers (Rs.)
1	Plant Material	18000	7200
2	Inputs	12000	4800
3	Labour Component	10000	4000
	Total	**40000**	**16000**

i. The non-negotiables & guidelines of Area Expansion – Fruits shall be applicable for Area Expansion – Flowers (loose).
ii. Maximum eligibility per farmer is one hectare.
iii. Only Small and Marginal farmers are eligible for assistance under this component.

All District officers should send information in the Annexure prescribed below for release of subsidy along with DMC approval.

RELEASE - ANNEXURE -1																	
S.No	COMPONENTS \Crops	Unit	Assistance (in Lakh)	Target Allotted		No. of beneficiaries entered in ED login of HORTNET for which release is now requested				Area achieved and entered in ED login of HORTNET for which release is now requested (Ha.)				Amount To be Released as per entry in ED login of HORTNET and DMC approval (Rs.)			
				PHY (Ha)	FIN (Rs.in Lakhs)	Gen	SCP	TSP	Total	Gen	SCP	TSP	Total	Gen	SCP	TSP	Total
1																	
2																	

ANNEXURE-2							
Sl. No	No of farmers	Extent in Ha	Name of the Agency	Subsidy amount in Rs.			
				Agency share	Farmer share	Transportation charges	Total

Checklist for Inspection under Area Expansion:

S.No.	Criteria	Remarks
	<u>Area Expansion:</u>	
1	Application of the farmer along with photos	
2	No. of plants per Ac or Ha	
3	Source of plant material	
4	Spacing followed	
5	Photographs of orchards along with farmers before and after plantation with date & time	
6	Drip irrigation system installed in the field	Yes / No
7	Recommended input package was followed	Yes / No
8	Bills and vouchers submitted for inputs	
9	Register maintained by the HO recording the details of identified beneficiaries i.e., land details/crop/variety/source of plant material/ date of planting/ inputs applied/ non subsidy particulars/ bank account no. and IFSC code	
10	Date of approval of District Mission Committee	
11	The details of beneficiary were uploaded in the HORTNET with field photos of 3 stages. The 3 stages photos should be clubbed and uploaded to HORTNET as field photo (Pit digging, during Plantation and after Plantation along with beneficiaries)	
12	Current Status of implementation of Scheme.	

HO **DHSO**

III. 2nd year & 3rd year maintenance

A. 2nd Year maintenance for Plantations Established during 2023-24

- **75%** of survival is mandatory for availing assistance under 2nd year maintenance.
- The beneficiaries have to take up gap filling on their own to maintain **75%** of the survival garden under 2nd year maintenance.

PATTERN OF ASSISTANCE Per Ha. TO BE FOLLOWED FOR 2nd YEAR MAINTENANCE PROGRAMME (GARDENS ESTABLISHED DURING 2022-23)

Sl. No	Name of the Crop	Assistance (in Rs. per Ha.)		
		Plant Material	Inputs	Total Assistance
i	**Fruits Crops**			
1	T.C Banana (1.8mx1.8m)	0	10246	10246
2	Papaya (1.8mx1.8m)	0	7500	7500
3	Mango (5mx5m)	1200	2080	3280
4	Guava (3m x 3m)	3336	2530	5866
5	Pomegranate (5m x 3m)	1670	3664	5334
6	Citrus (6m x 6m)	966	2234	3200
7	Acid lime	966	2234	3200
8	Custard apple (2.5m x 2.5m)	4000	4480	8480
ii	**Exotic & Niche Crops**			
1	Dragon Fruit (Kamalam)	0	32000	32000
2	Fig (2.5m x 2.5m)	3520	3120	6640
3	Avocado	3000	3000	6000
4	Jamun	975	5025	6000
5	Jackfruit	1250	4750	6000

V. 3rd Year maintenance for Plantations Established during 2022-23

- **90%** of survival is mandatory for availing assistance under 3rd year maintenance.
- The beneficiaries have to take up gap filling on their own to maintain **90%** of the survival garden under 3rd year maintenance.

PATTERN OF ASSISTANCE Per Ha. TO BE FOLLOWED FOR 3rd YEAR MAINTENANCE PROGRAMME (GARDENS ESTABLISHED DURING 2021-22)

Sl. No	Name of the Crop	Assistance (in Rs. per Ha.)		
		Plant Material	Inputs	Total Assistance
i	**Fruits Crops**			
1	Mango (5mx5m)	480	2800	3280
2	Guava (3m x 3m)	1332	4534	5866
3	Pomegranate (5m x 3m)	670	4664	5334

4	Citrus (6m x 6m)	392	2808	3200
5	Acid lime	392	2808	3200
6	Custard apple (2.5m x 2.5m)	1600	6880	8440
ii	**Exotic & Niche Crops**			
1	Dragon Fruit (Kamalam)	0	32000	32000
2	Fig (2.5m x 2.5m)	3520	3120	6640
3	Aonla	1875	3125	5000
4	Jamun	975	5025	6000
5	Jackfruit	1250	4750	6000
6	Tamarind	625	5375	6000

- ✓ While calculating the total cost as per the package, the subsidy amount indicated for each sub-component under IPM / INM should be strictly followed and no diversification of funds from one input to another is allowed.
- ✓ Before extending input assistance to the beneficiaries under 2nd and 3rd year maintenance, DMC should take necessary proactive steps so that beneficiary shall be motivated to take up gap filling on his/her own to maintain 75% and 90% survival under 2nd& 3rd year respectively.
- ✓ The district officers shall send the beneficiary list along with DMC approval to the Head office for release of Subsidy after uploading the beneficiary information in Hortnet.
- ✓ The Head office will release the Subsidy to the farmers account directly through online.
- ✓ 100% inspections by HO is mandatory. Whereas, DHSOs should inspect a minimum of 50% of beneficiary's fields.

All District officers should send information in the annexure prescribed below for release of subsidy along with DMC approval.

RELEASE – ANNEXURE																	
S.No	**COMPONENTS / CROPS**	**Unit**	**Assistance (in Lakh)**	**Target Allotted**		**No. of beneficiaries entered in ED login of HORTNET for which release is now requested**				**Area achieved and entered in ED login of HORTNET for which release is now requested (Ha.)**				**Amount To be Released as per entry in ED login of HORTNET and DMC approval (Rs.)**			
				PHY (Ha)	**FIN (Rs. in Lakhs)**	**Gen**	**SCP**	**TSP**	**Total**	**Gen**	**SCP**	**TSP**	**Total**	**Gen**	**SCP**	**TSP**	**Total**
1																	
2																	

IV. REJUVENATION / REPLACEMENT OF SENILE PLANTATION

A. REJUVENATION OF OLD & SENILE ORCHARDS

Objective:

- ✓ To increase the production and productivity of orchards of more than 15 years old rejuvenating the old and senile orchards with appropriate and integrated combination of inputs, pruning / grafting techniques.
- ✓ To regulate the shape and growth of tree.
- ✓ To Maximize the productivity with quality fruit production
- ✓ To reduce the pest and disease incidence which will reduce the cost of cultivation of fruits crops and reduction in usage of chemical pesticides and fungicides.

Pattern of Assistance:

Sl. No.	Component	Max. permissible cost	Pattern of Assistance
1	Rejuvenation of Old / senile Gardens	Rs. 40,000/ha	50% of the total cost subject to a maximum of Rs. 20,000/ha limited to one ha per beneficiary.

Non-Negotiables and Implementation Procedure for Rejuvenation:

- The beneficiary selection needs to be done in most transparent manner and the list should invariably be approved by District Mission Committee.
- Horticulture Officers of the concerned area should obtain applications from beneficiaries along with photograph in the existing format prescribed.
- Land holding of the farmers should be certified by Horticulture Officers on the basis of the original Pattadar pass book.
- Photographs of orchards along with farmers before and after Rejuvenation also be maintained by the HO concerned. The same copies to be made available in the DHSO office.
- DHSOs should ensure to maintain the photographs (soft copies) of the beneficiary's fields before and after Rejuvenation.
- DHSOs shall organize training programmes to the beneficiaries identified under Rejuvenation on technical aspects.
- The inputs and implements have to be purchased by the farmer on his own for the implementation. The subsidy amount shall be released to the farmer on submission of bills. The subsidy amount shall be restricted to the expenditure incurred by the farmer under different sub components.
- Purchase of implements is mandatory for rejuvenation programme without which assistance shall not be considered. However, Battery / fuel operated pruning saw is optional.
- In case of implements, the farmers have to purchase BIS/ISI certified implements from the dealers/ distributors/ manufacturing firm but not from the local hardware shops. The necessary original invoices indicating

the GST details have to be submitted to the Horticulture Officer concerned for release of subsidy.

- The HO and DHSO should thoroughly verify and attest the bills and invoices and keep the photographs pertaining to the scheme in the office for record purpose.
- Pre-sanction inspection of the fields proposed for Rejuvenation by the Horticulture Officer concerned is mandatory and 25% of the area to be inspected by concerned DHSO.
- 100% verification of the field by the DHSO is mandatory for release of subsidy.
- Selection and documentation process should be completed in a time bound manner and seasonality must be adhered to, for plantation, distribution & utilization of inputs at any cost.
- The assistance will be provided to the beneficiaries through online transfer from the State Headquarters.
- Horticulture Officer should maintain a register for rejuvenation in which details of assistance provided under MIDH, item-wise, to be recorded.
- Rejuvenation is an integrated component and DHSOs shall strive to implement the program in totality and in holistic manner and not in bits & pieces.
- The HOs should also collect the yield data and the impact of the rejuvenation programmes from the farmers and submit to SHM Cell through DHSO along with photographs at following stages:
    - Before taking up the rejuvenation
    - During rejuvenation (different stages)
    - Orchards in bearing conditions after rejuvenation.
- The DHSOs should record the success stories of the rejuvenation programme in their district.

CRITERIA FOR SELECTION OF GARDENS FOR REJUVENATION PROGRAMME

- Mango and Sweet Orange Orchards are eligible for this programme.
- Unproductive gardens.
- Senile and Non-Maintained Gardens.
- Pests & disease affected Gardens.
- Age of gardens for implementation of Rejuvenation programmes is as follows.

S No	Crop	Age of the Garden
1	Mango	>15 years
2	Citrus	>10 years

CROP-WISE PARAMETERS TO BE FOLLOWED FOR REJUVENATION:

MANGO:

1. Gap filling with suitable varieties.
2. Pruning (can be done in 3 types) :-

- Bushy trees are to be provided with proper aeration and ventilation by removal of dead, diseased, drooping & crisscross branches in case of the gardens where there is poor light penetration.
- Lanky trees with more wood have to be de-headed by way of pollarding.
- Unproductive with local varieties trees have to be top worked.

3. Application of Bordeaux paste / copper-based fungicides to the cut-ends.
4. Preparation of basins.
5. Timely application of manures (FYM/Neem-Cake/ Vermi-compost) & fertilizers as per the recommendation.
6. Thinning of the new flush keeping 4 to 5 branches covering all sides to attain dome shape to the tree.
7. Cultivation of inter-crop like Sun-hemp, Diancha etc. to improve soil fertility and to arrest weeds.
8. Plant Protection measures to be taken up as and when necessary.

CITRUS:

1. Removal of diseased, dead and dried branches.
2. Pruning of branches for better light penetration and air circulation.
3. Spraying of Bordeaux mixture or any copper fungicide.
4. Preparation of basins and timely application of manures (FYM/Neem-Cake / Vermicompost) and fertilizers as per recommendation.
5. Combined micro-nutrients sprays at 15 days interval on newly emerging leaves to correct the deficiencies of different elements.
6. Plant Protection measures to be taken up as and when necessary.

Time frame for taking up rejuvenation.

1.	Mango	-	June - August
2.	Citrus	-	July -September

Sub-component wise pattern of assistance for different crops under rejuvenation is given below and the same should be followed scrupulously.

Pattern of assistance for one hectare of Mango crop Rejuvenation

Sl. No.	Particulars	Admissible cost (Rs)	Assistance (Rs)
1	Tractor ploughing, Basin preparation, Hoeing & weeding	3600	1800
2	Farm Yard Manure	4000	2000
3	Organic Manures		
i	Vermicompost / City compost	5000	2500
ii	De-oiled Neem Cake	2100	1050
4	Inorganic Fertilizers	5850	2925
5	Micronutrient	5150	2575
6	Plant protection chemicals	3800	1900
7	Supply of implements (1 No. Battery/ fuel operated pruning saw, 1 No. Looping shear, 2 No. Secateurs and 2 No. Folding Hand Saw compulsory)	10500	5250
	TOTAL	**40000**	**20000**

Pattern of assistance for one hectare of Citrus crop Rejuvenation

Sl. No.	Particulars	Admissible cost (Rs)	Assistance (Rs)
1	Basin preparation & weeding etc.	3000	1500
2	Farm Yard Manure	4000	2000
3	Organic Manures		
i	Vermicompost / City compost	5000	2500
ii	De-oiled Neem Cake	2100	1050
4	Inorganic Fertilizers	6600	3300
5	Micronutrient	3400	1700
6	Plant protection chemicals	5400	2700
7	Supply of implements (1 No. Battery/ fuel operated pruning saw, 1 No. Looping shear, 2 No. Secateurs and 2 No. Folding Hand Saw compulsory)	10500	5250
	TOTAL	**40000**	**20000**

Implements for Rejuvenation:

S.no	Sub Component	Particulars	Admissible unit cost (Rs.)	Assistance (Rs.)	Remarks
1	Implements	Battery/fuel operated pruning saw- 1 no	6600	3300	Optional
2		Looping Shear - 1 no	1500	750	Mandatory
3		Secateurs - 2 nos	1000	500	
4		Folding hand saw- 2no	1400	700	
	Total		**10500**	**5250**	

Crop wise Tentative Input Packages for Rejuvenation:

Name of the Crop: Mango

Sl.no	Recommended Inputs	Unit	Packing size	Recommended Quantity per Ha.
I	**Organic Manures**			
	Farm Yard Manure @ 50 Kgs per plant	Tones		5
	Vermicompost / City Compost @ 10 Kgs per plant	Kgs	40 Kg	1000
	De-Oiled Neem Cake @ 1.5 Kgs per Plant	Kgs	40 Kg	150
II	**Inorganic Fertilizers**			
	S.S.P.	Kgs	50 Kg	300
	Urea	Kgs	50 Kg	250
	M.O.P.	Kgs	50 Kg	150
III	**Micronutrients**			
	Formula – 4	Kgs	Kg	20
	Formula – 7	Kgs	10 Kg	50
	13:00:45	Kgs	500 gr	5
IV	**Plant Protection Chemicals**			
	Chlorpyriphos 20% EC	Ltrs	500 ml	2
	Dichlorovas 76% EC	Ltrs	500 ml	1
	Carbendazim 50% EC	Kgs	500 gr	1.5
	C.O.C. 50% WP	Kgs	500 gr	1.5

Name of the Crop: Citrus

S.No	Recommended Inputs	Unit	Packing size	Recommended Quantity per Ha.
I	**Organic Manure**			
	Farm Yard Manure @ 40 Kgs per plant	Tones		5
	Vermicompost / City Compost @ 4 Kgs per plant	Kgs	40 Kg	1000
	De-oiled Neem Cake @ 1/2 Kg per plant	Kgs	50 Kg	150
II	**Inorganic Fertilizers**			
	S.S.P.	Kgs	50 Kg	625
	Urea	Kgs	50 Kg	375
	M.O.P.	Kgs	50 Kg	250
III	**Micronutrients**			
	Formula – 4	Kgs	Kg	20
IV	**Plant Protection Chemicals**			
	Profenophos 50% EC / Trizophos 40% EC	Ltrs	500 ml	1
	Propergite 57% EC	Ltrs	500 ml	1
	Metalaxyl 8% + Mancozeb 64% WP	Kgs	500 gr	1
	C.O.C. 50% WP	Kgs	500 gr	1.5
	Streptocyclin 10%	grms	6 gr	54
	Sticking Agent	Ltrs	500 ml	2

V. CREATION OF WATER RESOURCES (FARM PONDS)

Objective: Farm ponds are the man-made tanks constructed for storage of water in the farmers' field during rainy season from canals, bore wells etc., and to provide lifesaving irrigation to the crops or orchards during peak / critical stages of summer to save the plants from drying up.

These are constructed by excavating the soil and depositing the earth on the banks to form bund. The HDPE geo-membrane sheet is laid in the excavated pond to arrest seepage and infiltration losses.

Pattern of Assistance:

Sl. No	Item	Cost Norms	Pattern of Assistance
1	Water harvesting system for individuals- for storage of water in 20mx20mx3m ponds @ Rs.125/-cum,	Rs. 1.50 lakh/unit for 20mx20mx3m	50% of cost including 300/500 micron plastic/RCC lining. For smaller size of the ponds/dug wells, cost will be admissible on pro rata basis depending upon the command area. Maintenance will be ensured by the beneficiary

- **Individual Farm Ponds:** Assistance would be provided for creating water source through construction of farm ponds for individuals. For smaller size of the ponds, cost will be admissible on pro rata basis depending upon the command area. This will also be in conjunction with MGNREGS. However, for non MGNREGS beneficiaries, assistance @ 50% of cost will be provided including the cost of plastic / RCC lining. Lining material should conform to BIS standards. Maintenance of the asset will be the responsibility of beneficiary.
- The cost norms & subsidy pattern for community & Individual farm ponds based on volume is as follows:

Sl. No	Type of Farm pond	% of subsidy	Unit cost per cubic meter volume in Rs.	Subsidy per cubic meter volume in Rs.
1	Individual	50	125	62.5

- The ponds should be provided 1.5 :1 slope.
- The DHSO/ Ho should ensure that the command area is proportionate to the size/ volume of community farm pond proposed.
- The DHSO/HO should ensure that, the farmer has to provide required bund area for his/her farm pond.

- The volume of the farm ponds may be worked out by the following formulae:

$$\frac{\text{Bottom Area + Top Area}}{2} \text{ X Total Depth of the pond}$$

- The quantity of required Geo-membrane sheet may be worked out by the following formulae:

Bottom width + 2 X Side slope length + 2 X side anchoring

- The storage capacity of farm pond may be worked out by

(Volume of the farm pond ($m^{3)}$ X 1000) liters

A) Preparation of pit:

- Mark out the outer corner of the selected field using pegs
- Measure the bottom dimension of the pond by calculating depth and slope ratio. It appears in center of the outer corner of the selected site and marked it excavation process.
- Excavate inner marked area first up to desired depth.
- After that, excavate rest area in inclined manner from one edge of bottom to top of the outer edge of same side and repeat the same for next three sides.
- Spread the excavated soil in the depressions for leveling and also on edges to make bunds of desired height from ground level.
- Level the excavated pond in order to suppress the angular projection.
- Cut soil must be sealed or compacted unless the site is dug into a tight, clay formation so that film could be saved from puncture caused by these projections.
- After compaction, the whole area of pond should be treated with 4% atrazine (Weedicide solution) so that the plastic film could be saved from puncture caused by root infestation.
- After that all surface of pond should be smoothened properly.
- Excavate a trench of one cubic feet size on top of the bund at distance of 0.75-1.0 m from the inner edge of the pond for anchoring the HDPE film.

B) HDPE (high density poly-ethylene, with carbon Black)

This lining material shall be UV light resistant and one of the best available to last many years. It is used in lining under gasoline storage tanks, public dumps, toxic settling ponds, aquaculture ponds, etc. It can be heat-welded together. A minimum of 0.3 to 0.5 mm (500 micron) film is best suited for regular ponds.

C) Laying of Geo Membrane sheet:

For laying of HDPE films minimum of 0.5mm (500 micron) film are best suited for lasting of film and the following procedure are taken into consideration:

- Choose the film as per BIS /ISI mark (IS: 15351 / IS: 10889 /IS:2508, other any other latest BIS/ISI no.)
- Use minimum of 300/500 micron black HDPE film
- Calculate the film requirement for dugout pond and cut it accordingly
- Measure and cut the film as per calculation.
- HDPE films manufactured into panels of standard widths. Therefore, convert the film into a single sheet as desired either mechanically by heat- sealing machine-like Hot Air fusion welding machine or manually (by overlapping 15 cm of the edge of two sheet and scrubbed lightly using emery paper or sand paper (120 grade) using bitumen/Synthetic Rubber adhesive No -998 made by fevicol so that it fit exactly to fit into the pond.
- Monitor the film in sunlight for searching/puncture hole if any, sealed the hole with bitumen/adhesive or by heat-sealing procedure.
- The ends of the film at the surface have to be firmly buried in a trench at the bank of the pond to avoid sagging in of the film.
- Care should be taken to avoid the wrinkles and film must be pleated at the corner.

D) Pointing over the film

To protect the film from damage pointing over the laid film is required. Generally, locally available material / easily available material to be used

- Over laying works can be done in many ways but most suitable and economic ways are one of them is overlaying brick alone completely on all four sides, bunds and bottom of the lined tank. Secondly construct a brick work frame of size 2' x 2' and place mortar of cement and soil (1:8) inside the frame.
- Install water inlet and outlet pipes duly fixing them in brick masonry post over laid plastic film and to measure the discharge of water from the tanks, a 'V'- notch weir can be constructed.
- Drainage channel all along the border of the field is formed according

to the gradient/slope.

- Live grass/ Turf is established on the bunds of the pond to prevent soil erosion.

Procedure to be followed for executing of Farm Ponds:

1. Farmers are to be sensitized and motivated by HOs/DHSOs to understand the concept of farm ponds to provide lifesaving irrigation to the orchards/ crops during peak periods of summer to save the gardens.
2. Preference shall be given to small and marginal farmers. SC and ST ratios shall be followed scrupulously.
3. A silt trap should be provided at the entrance of the pond**.**
4. The sheet should not be folded while laying.
5. The Geo Membrance sheet with 500 microns is more effiective rather than 300 microns.
6. District Officer should obtain DMC approval for the list of feasible beneficiaries identified for farm ponds.
7. After obtaining DMC approval, the DHSO shall issue administrative sanction farmer.
8. **The farmers are given choice to choose firms either from empanelled/non empanelled to procure/purchase of Geo-membrane sheet but, the sheet should be as per specifications i.e., BIS-10889:2004/BIS-15351:2015 etc., for 300 Microns/500 Microns and the same specification of the sheet laid in farm pond should be depicted & clearly visible in the photographs which is uploaded in HORTNET.**
9. The subsidy will only be released after fixing the fencing and name board at Farm Pond.
10. MI Engineer will take the MB record and Check measurement will be done by Horticulture Officer.
11. The format for joint inspection is annexed.
12. **Super check by DHSOs – 100% verification by DHSO is mandatory.**
13. After completion of execution of farm pond MI Engineer and concerned Horticulture office will issue the completion certificate along with photograph for record purpose at district level to the DHSO
14. DHSO will inspect the farm pond along with concerned HO and inspection report along with the DMC approval will be sent to the SHM Office by recommending for release of subsidy to the beneficiary.

15. The DHSO shall submit release proposals along with a copy of DMC approval to the Head Office for release of subsidy to the beneficiary.
16. Propper documentation to be made at HO and District level. Necessary land, identity & bank documents of the beneficiary (Photocopies), MB measurements, Joint inspection report, bills/vouchers and at least **03 photographs** for each farm pond (**Fencing, display board and BIS/ISI mark should be depicted in photographs)** to be maintained in the office.
17. The creation of water harvesting structure should be implemented in conjunction with Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGA) wherever feasible and should be compulsorily linked with the new area expansion and micro-irrigation programmes
18. All the farm ponds should be integrated with Micro irrigation. Under such conditions installation of sand filter is mandatory.
19. **Fencing & Erection of display board are mandatory.**
20. The fencing should be done by the farmer with his own cost.
21. A Display board (Iron) of size 2'x2' ft containing the following information in Telugu should be placed near the farm pond.

Department of Horticulture

Mission for Integrated development of Horticulture (MIDH)

Name of farmer:

Extent of land & crop:

Type of Farm Pond: Individual / Community

Size of pond :

Capacity of pond (litres):

Total expenditure: Rs.

Subsidy amount: Rs.

Non subsidy amount: Rs.

Year of sanction:

ANNEXURE

Format for JOINT INSPECTION REPORT FOR INDIVIDUAL FARM PONDS

Name of the Beneficiary, Village & Mandal & Survey No	Dimensions of the farm pond (m)		Volume of the Pond	Actual command area (Ha)	Total Expen diture (in Rs.)	Recommended subsidy as per MIDH Norms @ Rs.62.5 per cubic meter (in Rs.)
	Top (length X width)					
	Bottom (length X width)					
	At Ground level (length X width)					
	Depth					

Certificate:

This is to certify that,

1. The farmer has constructed individual farm pond of mentioned dimensions & volume.
2. The farmer has used BIS/ISI standard lining sheet for lining of the farm ponds.
3. All the original purchase bills of the items for Expenditure incurred have been verified and found correct.
4. The farmer has arranged fencing around the pond and also erected display board.
5. Recommended for release of subsidy of Rs. ----------/- towards construction of individual farm pond as per MIDH norms.

MIE **HO** **DHSO**

VI. PROTECTED CULTIVATION (PRECISION FARMING)

Pattern of Assistance:

S. No	Item	Max permissible Cost	Pattern of Assistance
1	Naturally Ventilated Poly house (Tubular)	Rs.840 per sqm	50% of the unit cost i.e., Rs.420.00 per sqm. Maximum eligibility is 4000 sqm per beneficiary
2	Construction of Shade Net Houses	Rs.710 per Sqm	50% of the unit cost i.e., Rs.355.00 per sqm. Maximum eligibility is 4000 sqm per beneficiary
2	Plastic Mulching	Rs. 32,000/ha	50% of the total cost limited to 2 ha per beneficiary.

A. POLY HOUSES

Objectives:

- Enhancing productivity.
- Promotion of high value Horticulture crops under poly houses
- Year-round production of floricultural crops and off-season production of vegetables crops.

Points to be considered while constructing Poly house:

East and South for the sun is excellent for the green house, which can remain open on both these sides, but it should be shaded on the north and the west to protect from winds.

- The site should be free from shadow.
- The site should be at a higher level than the surrounding land with adequate drainage facility.
- Availability of good quality irrigation water and electricity.
- pH of irrigation water should be in the range of 5.5 to 7.0 and EC between 0.1 to 0.3mS/cm.
- pH of soil should be in the range of 5.5 to 6.5 and EC between 0.5 to 0.7mS/cm.
- Structure should withstand to minimum wind velocity of 80.6 miles per/hr or 130 Km/hr or 36 Meter per second.

I. General Guidelines & Procedure to apply for assistance

1. The cases shall be entertained on First Come First Serve Basis.
2. The applicant shall be responsible for the completion of all required documents. Incomplete documents do not entitle applicant to avail assistance. The application shall be considered only after submission of all the documents.
3. Farmer will apply to concerned DHSO office through HO of concerned block with complete required documents as per check-list.
4. DHSO will scrutinize the applications and shall submit to Head office along with DMC approval for placing before SLEC.
5. Head office will issue administrative sanction letter after approval from SLEC.
6. In case of finance by Bank, the DHSO will verify the documents. If found as per check-list, will send second copy to the bank with pre-sanction letter to bank for sanctioning the loan of the project.
7. Bank after sanctioning the loan amount of project will send a copy of sanction letter and appraisal report to DHSO for the sanction of project. The date of receiving of appraisal report in DHSO office shall be treated as first day of application and will be considered based on available targets.
8. All the cases must be entered through online on HORTNET in case assistance is to be availed under MIDH scheme.
9. The programme for protected cultivation should be taken up in close coordination with the Precision Farming Development Centre (PFDC), PJTSAU, Hyd.

II. Eligibility Criteria for applicant:

1. Minors are not eligible.
2. Educated rural youth should be given priority.
3. Farmer means a person having land ownership in one's name. For this he has to submit Pattadar Pass book
4. Farmer includes farmer's family, means husband, wife and their minor children. Ration card is required to prove family unit.
5. 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 Aadhaar card and/or Voter ID Card or Driving License or separate ration card having in all the cases separate address to that of their parents.
6. Department promotes cluster and for that farmer of Telangana State can take land on lease. But in all such cases the cluster projects should be bankable. The combined amount of assistance to such cluster

projects should not increase 20% of the total financial targets of that district.

7. Only those applicants are eligible to apply who did not avail 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 under this component at anytime, anywhere in Telangana State are not eligible.

III. Training: Minimum three days training-cum-workshop at CoE, Jeedimetla regarding awareness on Protected Cultivation, issues related to Cultivation, Construction and Maintenance of Poly houses is required. The beneficiary may also get trained at any other National/ State Institutions. It is mandatory to enclose the training certificate for applying for availing assistance under the component.

IV. Construction of Protected Structures: The work of construction of protected structures shall preferably be completed within a period of **60-90 days**. Further, an extension of maximum 30 calendar days may be considered in advance in writing.

V. Terms & Conditions:

- The estimated project details designed by the technical consultant as per technical standards of MIDH should be attached to the application.
- Soil and water analysis reports from reputed labs are also to be enclosed to the proposal.
- Training certificate should be enclosed along with the application.
- Protected Cultivation of vegetables only should be promoted under MIDH in clusters around major cities/metros. These clusters may be provided with other infrastructural facilities like pre-cooling units, cold storages, refer vans, vending carts etc. and marketing arrangements may be tied up by linking with cooperatives / private retail chain.
- Farmer/ Beneficiary is responsible for the erection of the Poly House.
- The farmers / beneficiaries are given choice to select the companies / firms for erection of poly houses, but the erection of the poly house should be as per technical specifications of MIDH. The Company/ firm must be a registered firm and should use BIS/ ISI standard material for erection.
- The farmer/ beneficiary is responsible for any damages to the structure in future.
- A display board depicting "Department of Horticulture", Telangana State (Assisted Green House with logo of MIDH).

- **The payment of subsidy will be made in 2 installments to the beneficiary through DBT. First installment will be released after receiving satisfactory Joint Inspection Team (JIT) report of completion of erection of poly house in all aspects as per technical standards. The second installment will be released by SHM after receiving satisfactory JIT report for project completion and commencement of commercial production.**
- **The Joint Inspection Team will comprise of DHSO, HO Concerned, representative from lending bank (if bank assisted), Scientist from PFDC, PJTSAU, Hyd, Sr. Officer from Head office and representative from 3rd party.**
- Assistance should not be availed from any Government Department. An affidavit duly notarized Rs. 100 stamp paper (format enclosed) to be collected from the farmer along with the proposal.
- Under Poly Houses, Flowers, Vegetables, Medicinal and Aromatic plants, Spices etc. should be considered for cultivation.
- The proposals for construction of Poly House may also be implemented in project mode with credit link back ended subsidy.
- Documentation with photo graphs to be done at various stages of erection of Poly House and submit to State MIDH cell along with joint inspection report duly indicating the Name of the beneficiary, Extent, Village and Mandal.
- The photograph should clearly depict the board, unit, farmer and also committee members of joint inspection team.
- The beneficiary should utilize the structure for a period of 10 years for the purpose it was sanctioned.

VI. DMC approval has to be obtained and list of beneficiaries should be submitted to the State MIDH cell for approval of State Level Executive Committee (SLEC).

VII. Administrative sanction proceedings will be issued by the State MIDH Cell after SLEC approval duly informing the conditions along with the design, specifications, date of completion etc.

VIII. Inspection: There shall be Two inspections.

a. First Inspection: First Inspection shall be conducted by Joint Inspection Team (JIT) consisting of DHSO, HO Concerned,

representative from lending bank (if bank assisted), Scientist from PFDC, PJTSAU, Hyd, Sr. Officer from Head office and representative from 3rd party after completion of erection of poly house in all aspects as per technical specifications of MIDH. This inspection will be conducted after call from farmer/firm in written to DHSO of the District with assurance that the erection of poly house has been completed as per technical specifications of MIDH. In case of bankable cases joint Inspection team along with Banker shall carry out the inspection.

b. 2nd & Final inspection: 2nd & final inspection shall be conducted by JIT after project completion and commencement of commercial production in the structure.

c. The DHSO/ HO should inspect the site at least on monthly basis and should guide the farmer in all aspects like maintenance of poly house, production practices, marketing status etc.,

IX. Insurance of Poly house: The insurance of Poly house is mandatory and is the responsibility of farmer. Submission of insurance certificate is mandatory for release of 1st installment subsidy.

X. Marketing: The Marketing of produce of Polyhouse is the responsibility of farmer.

Financial Assistance by MIDH/Department of Horticulture

TELANGANA STATE

Name	:	S/o	:
Village	:	Mandal	:
District	:	Component	:
Area In Sqmt	:	Assistance	:
		Year of Sanction	:

Technical specifications for naturally ventilated Poly House.

**** Products with BIS standards only are accepted.**

<table>
<tr><th>Items</th><th>Description / specifications</th></tr>
<tr><td>Product</td><td>Naturally ventilated green house/ Poly house</td></tr>
<tr><td>Size</td><td>4000 sq.mts</td></tr>
<tr><td>Orientation</td><td>Preferably North South gutter direction</td></tr>
<tr><td>Width of each bay</td><td>8 meters</td></tr>
<tr><td>Distance between consecutive column pipes</td><td>4.0 m</td></tr>
<tr><td>Ridge (Central) height</td><td><table><tr><th>Area (m^2)</th><th>Plane land (m)</th><th>Hilly area (m)</th></tr><tr><td>4000</td><td>6.5-7.5</td><td>7 to 7.5</td></tr></table></td></tr>
<tr><td>Ridge vent</td><td>1.0-1.2 m vertical height and 1.3 to 1.5m slanting height; roof ventilator should be provided in slanting position.</td></tr>
<tr><td>Gutter height</td><td>4.0 - 4.5mt from 1000sq.mt onwards from the ground level (based on area of green house and climatic conditions)</td></tr>
<tr><td>Gutter slope</td><td>1.25-2%</td></tr>
<tr><td>Longitudinal slope</td><td>0-2%</td></tr>
<tr><td>Gutter material</td><td>2 mm thick and 450 mm width GI Sheet with perimeter of 450 mm and with industrial press, 100% leakage proof of galvanized sheet minimum of 275 GSM (grams per sq.mt.) Zinc coating.</td></tr>
<tr><td>Structural design</td><td>Gothic shape with roof and side ventilation. The structure is designed to be enough to with stand wind speed minimum 120 km / hour. It is to provide provision for opening one port at either side for entry of small tractor / power tiller for inter cultural practices.</td></tr>
<tr><td>Structure</td><td>Complete structure made of hot dip galvanized steel tubular pipes with a minimum of 360 GSM (with Zinc coated on continuous procedure to meet the quality requirements or equivalent section confirming). BIS standards having wall thickness 2mm; structural member should be joined with fasteners (HOT Dip Galvanized nuts and bolts) Properly.</td></tr>
<tr><td>Columns</td><td>76mm OD, 2mm thick. Hot Dip 360GSM GI.</td></tr>
<tr><td>Trusses of 8 m long preferably without joints for better load bearing.</td><td>Bottom cord 60mm OD, 2mm thick, 8 mt. long, Hot Dip 360 GSM GI.</td></tr>
<tr><td>Trusses member/ Arch’s</td><td>50mm OD with 2mm thickness. Bracing 33mm OD with 2.0mm thickness G.I. Pipe Structural members to be fitted in plated nuts, bolts and washers without welding. (33 mm bracing to</td></tr>
</table>

Items	Description / specifications
	increase the strength and to with stand vertical and horizontal pressures.)
Stay/ Hockey pipes	60mm OD with 2mm thickness, fixed in the ground without any joints and welding at a distance of 2.5 m.
Purline	48 mm OD with 2.0mm thickness at ridge gutter arch and 42/43 OD with 2.0 mm thickness for 2nd purline.
Purline member and other	43 mm,2mm thickness
Horizontal bracings	42mm OD with 2mm thickness horizontal bracing 2 No's must provide each bay in both sides.
Cross Bracing	Every 3rd column top to 2nd column bottomof both sides must be connected 42mm OD with 2mm thickness GI pipe to ground the wind load. (In vegetable Poly houses to take the weight of the crop and transfer the wind pressure cross bracings are essential).
Bottom to pillar Bracing	33mm OD with 2mm thickness 1.2m long bracing to be fixed from pillar to bottom.
Foundations	Insert GI Pipes of minimum 76mm OD 3mm thickness with 1mm tapered top 1ft. or more to have foundation depth of not less than100cm or more depth depending upon soil type and prevailing wind condition, grouted with cement concrete mixture of 1:2:3 using telescopic insertion of column. (or) GI Pipes of minimum 60 mm OD & 3mm thickness (@4.20 kg/m)
Fasteners	All nuts and bolts must be of high tensile strength and HOT dip galvanized.
Entrance room Indoor (not required upto 560 sq.mt. from 1000sq. mts it is required.)	One entrance room of size 3x3x2.5 mts. (LxWxH) need to be provided and covered with Poly carbonate UV stabilized transparent with sliding arrangement. Outer hinge door of size 1.5m width and 2.5m height and sliding type.
Cladding material (Poly film)	UV stabilized 200 micron 5 layers co-extruded anti drip/mist, anti dust, diffused/ IR blocking (sulphur resistant for Rose) having minimum 85% level of light transmittance.
Fixing of cladding materials	All ends/ joints of plastic film need to be fixed with two way aluminium (220grams/RM) / GI with 0.6 mm thickness profiles with suitable locking arrangements along with curtain top. Fixing of cladding material shall be done between 11.00 AM to 3.00 PM
Spring insert	Zig zag spring high carbon steel with spring action wire, galvanized of 2-3 mm diameter must be inserted to fix shade net/ Polyfilm/ insect proof net into aluminium / GI profile.

Items	Description / specifications
Curtains and insect screens (mono x mono is nylon fibre, inter locked, woven mesh, more life)	i)UV stabilized 200 micron 5 layers co-extruded transparent plastic film should be provided as curtains on all sides having manual operated crank mechanism. ii) 40 mesh (115 to 120gsm) nylon /shade insect proof nets (UV stabilized), of 4.5 mts height above all four sides upto gutter height (crop specific). iii)50% Mono x Mono shade net of 125 GSM, should be fixed at side ventilators below the curtains. Rollup side GI pipes with uniform thickness throughout the side length of GH are suggested to ensure smooth functioning of the curtain.
Shadenet	UV stabilized mono x mono 50 % (115 to 120gsm) shading net has to be provided horizontally at gutter height, below the UV sheet – inside the greenhouse with manually operated mechanism for expanding and retracting. The area covered by shade net should be equal to the net cultivable area of green house without sagging.
Side apron	UV stabilized HDPE woven fabric, not less than 200 GSM thick for a height of 60cm and 40 cm buried below ground vertically and 20cm horizontally. (HDPE woven fabric of 200 GSM will have more stability and with stand the pressure of upward as well as horizontal wind better than the polythene film)
Erection of Trellies	For cultivation of Capsicum, Tomato and Cucumber, GI wire of 80 GSM of 4 mm (8guage) along the gable & 2.5 mm (12 guage) along the gutter with 16 lines per gable to be fixed over the beds in horizontal/ vertical direction.
Rain water harvesting	Provision of PVC pipe of min 5" diameter with the lateral and ground support pipe with bend should be made, from gutter to ground for collecting rain water from the roof top. Drainage gutter and end caps to be provided.

* Hard surface path of 1 mt. wide is to be provided to facilitate the movement in the poly house

MI Component

Indicative Quantity of Material of Drip/Fogging System in Polyhouse/ Net House (as per the crop requirements)

**** Products with BIS standards only are accepted.**

Sl.No	Description of Items	Unit
A	Drip System	
1	Main and Sub-main Line PVC 63 mm x 4 kg/cm2	Meter

2	Main Line PVC 75 mm x 4 kg/cm2	Meter
3	16mm LLDPE Lateral line CL-2	Meter
4	Inline 16mm PCND, 1.3 to 2.4LPH @ 20-40 cm CL2	Meter
5	Ball Valve 63 mm (Moulded Seal, Plain)	Nos.
6	Ball Valve 75 mm (Moulded Seal, Plain)	Nos.
7	Sub-main Flush Valve 40mm	Nos.
8	Sub-main Line for Flushing 40 mm X 6 kg	Meter
B	Fogging Machine	
1	Main and Sub-main Line PVC 50 mm x 6 kg/cm2	Meter
2	Main and Sub-main Line PVC 63 mm x 6 kg/cm2	Meter
3	16mm LLDPE Lateral line	Meter
4	4 way Fogger Assembly with HP LPD	Nos.
5	Ball Valve 50mm (Teflon Seal, Plain)	Nos.
6	Ball Valve 63mm (Teflon Seal, Plain)	Nos.
7	Sub-main Flush Valve 40mm	Nos.
8	GI Wire 2mm thick	Meter
9	Sub-main Line for Flushing 40 mm X 6 kg	Meter
C	Filtration Unit	Nos.
1	Disc filter 25 m3/hr	Nos.
2	Disc filter 40 m3/hr	Nos.
3	Sand filter 10 m3/hr	Nos.
4	Sand filter 25m3/hr	Nos.
5	Sand filter 40 m3/hr	Nos.
6	Manifold GI + GMV	Nos.
7	Ventury Assembly Complete	Nos.
8	Air Release Valve Assembly 1"	Nos.

Note:

The list above under MI component is tentative. However, the actual material to be used at site may vary as per structural design requirement and this will be binding to the firm.

General Conditions of Erection

1. 22 tons of material (steel) should be used for 1 Acre area.
2. No pipes should be found welded. The bottom horizontal of 8 m length should be prepared by placing one feet section of lesser size. (in side & clamping it properly).
3. The apron plastic must be buried in the ground at least 50 cm from ground level.

4. The curtain pipe should be cut near the door in case door is placed at the centre of the side wall. The wall of poly house having more length, at centre of the wall a complete plastic without side curtain, insect net etc. should be fixed with separate profile and springs so that it can be removed as and when tractor operation is required in the poly-house.
5. Supplier should ensure checking of poly-house construction materials for specifications by department representatives after supply of materials at site.
6. If fixtures found rusted the structure will be considered incomplete.
7. In case of top poly-film fitted to the arches, if the length of top is more than 30 m, then the top plastic to be fitted to arch at every 24 m length by using profile and zig zag spring to avoid flapping of top plastic during winds.
8. Fixing of top poly-sheet should be fixed with profile and spring in the center of gutter length.
9. Self-drilling screw in profile should not be more than 30 cm apart
10. While installing the multilayer film, first insure that respective layers are facing the right direction as shown on film (e.g. inside out)
11. Provide a sample of one sqm size of poly-film, thermal net etc. having manufacturer's identification mark along with batch no.
12. Film should be tensioned tightly enough so that there should not be flapping during windy days.
13. The structural design should be sound enough to withstand wind velocity as per Telangana State conditions.
14. The companies shall get structural design verified from the structural engineer.
15. Regarding material used under MI component the firm will use BIS mark material. The system should run smoothly and there shall be no leakage.
16. Department will arrange the water source, electricity and booster pump to operate the MI system.
17. The overall structure should perform satisfactory in all respects.

FORMAT – I

Recent Passport Size

Application for Availing Assistance / Subsidy Under MIDH Through State Horticulture Mission

Name of the Scheme: **Protected Cultivation**

Component: POLY HOUSE

1	Name of the Farmer	:	
2	Father / Husband Name	:	
3	Caste (SC/ST/BC/OC)	:	
4	Address	:	
	Phone / Cell No.	:	
5	Land records with Extent in Acres / Ha. (Copy of Pass Book / Computer pahani)	:	
6	Area Proposed in Sq.mtrs./Ha.	:	
7	Account No & Name of the Bank & Address	:	
8	Proposed crop	:	
9	Source of procurement of planting material		
10	Source of Irrigation (Open well / Bore well)	:	
11	Soil & Water Analysis Soil PH & EC, Irrigation water PH & EC Soil & Water Analysis reports to be enclosed. (Not needed for Mulching)	:	
12	Estimated cost of the project Details of the project by the technical consultant to be enclosed.		
13	Whether any Govt. Subsidy availed previously	:	
14	Any other relevant information	:	

Declaration

I,_____ declare that the particulars furnished above are true to the best of my knowledge and I promise that the benefit obtained from State Horticulture Mission will be used for the purpose for which it is given and in case of misuse I am liable for any action deemed to be fit by Govt. of Telangana State., including recovery of the subsidy amount with 12% interest to the Government.

Signature of the Farmer / Entrepreneur.

Recommendations of the Horticulture Officers _____

DHSO

Check list:

1. Pattadar Pass Book
2. Detailed Project Estimate
3. Soil & Water Analysis
4. Affidavit

WORK FLOW & CHECK LIST FOR DOCUMENTS TO BE SUBMITTED TO POLY HOUSE

Sl. No.	Description	Documents to be submitted by / Action to be taken
1	Application Form –Format-I	Farmer
2	Soil & Water Analysis Water Report	
3	Affidavit – Format – II	
4	Pattadar Pass Book Copy	
5	Project Estimate as per MIDH norms	
6	Organization of training programme / Field Visit	DISTRICT OFFICER
7	Application filling in Hortnet	Farmer / HO
8	District Mission Committee Approval	DHSO
9	SLEC Approval	State MIDH cell
10	Issue of Administrative Sanction	State MIDH cell
11	Erection of Poly House	Farmer
12	Completion & Under Taking – Format – III	Farmer
13	1st Joint Inspection after completion of erection Format - IV	Committee Members
14	Submission of bills & invoices	Farmer / HO
15	Sending of joint inspection report by obtaining DHM approval for sanction and release of assistance along with photo graphs to state MIDH cell for release- 1st installment	DHSO
16	Uploading the bills and field photos in Hortnet	DHSO
17	Release of subsidy to the beneficiary through online transfer (Hortnet)	State MIDH cell
18	2nd Joint inspection after commencement of commercial production – Format -V	Committee Members
19	Submission of release proposals along with DMC approval and Hortnet filing	DHSO
20	Release of funds – 2nd installment	State MIDH cell

FORMAT – II

AFFIDAVIT (Rs. 100/- Stamp Paper)

I / We _____ (Name of the Promoter / Director) son of _____ Father's Name) resident of _____ (residence address) do hereby solemnly affirm and declare here under.

1) That I am the director of _____, (name of the beneficiary) having its registered office at _____, (office address of beneficiary) and am fully aware of the facts relating to the setting up the Green House at _____ (location of the Green House) for _____ (activities to be undertaken by Green House) and the application made to MIDH for availing assistance under Developmental Schemes _____

2) That the terms and conditions of the scheme of MIDH under which an application has been made by the applicant have been properly read and understood by me and I affirm that the Green House / proposal / scheme comply with the terms and condition of MIDH and the application has been made in the correct applicable scheme.

3) That the proposed activities to be undertaken by the Green House / proposal / scheme are covered under the above scheme of MIDH and no part of the scheme / infrastructure of the Green House is designed or assigned to be used for any activity other than the activities specified in the application at present or in the near future.

4) That the information provided in the application for availing assistance under developmental schemes – _____ is true and correct to the best of my knowledge and belief. The estimates of the cost of Green House / proposal / scheme, financial viability and operating results have been worked out / computed as per the rule and generally accepted principles and norms in this regard.

5) No Subsidy / grant – in – aid has been availed by the promoters / directors / partners / proprietors for this new project and component thereof from central Govt. or any its agencies.

6) I / We also solemnly affirm that the proposed activity in the application for availing assistance under development Schemes _____ is a completely new activity and not a pre – existing activity or any Component thereof and further I assure that the unit will be utilized for the same activity for which the assistance is sought from the MIDH through State Horticulture Mission of Telangana for the economic period of 10 years. In case, if the unit is misused, I am liable for any action deemed to be fit by the Govt. of Telangana including recovery of the assistance amount extended. The information furnished in the application dated _____ is true to the best of my knowledge and belief and nothing material has been concealed.

7) In case of concealment of any facts in this regard, the MIDH would have right to cancel my application out right at any stage.

8) I will display a sign board depicting "Department of Horticulture", Telangana State (MIDH, Assisted Poly House) with logo of MIDH.

9) The release of subsidy is subject to actual expenditure, receipts, inspection, MIDH norms etc., In case of any discrepancy / dispute the decision of the Mission Director & Director of Horticulture is final.

10) I agree and resolve that the department reserves the right to modify, add or delete any term/ condition without assigning any reason thereof and shall also have right to pre and post inspect / monitor the Poly House and verify the related records at any time during the economic life of the Poly House by the concerned officers.

DEPONENT VERIFICATION

Verified on solemn affirmation at _____ that the content of the above affidavit are true to the best of my knowledge and belief and nothing material has been concealed.

DEPONENT / COMPETENT AUTHORITY

(To be signed by Notary with seal)

Format - III

Dt: 2021

To
DHSO
..... District

COMPLETION & UNDERTAKING

This is to certify that as per the guidelines and technical standards of MIDH the construction of Poly House was completed. The following materials were supplied for construction of Poly House in an area of ..... sq.mtrs in..... survey no..... . of Sri....., S/o....., ...(V), ...(M), ... District

S.No	Name of the Item	Quantity	Rate	Total Amount
1				
2				
3				
4				
5				
	Total			

Signature of Farmer:

Signature :

Name:

Seal :

Cell No. :

Format – IV

FORMAT TO CONDUCT 1st JOINT INSPECTION OF POLY HOUSE BY THE COMMITTEE UNDER PROTECTED CULTIVATION COMPONENT OF MIDH THROUGH STATE HORTICULTURE MISSION OF TELANGANA STATE

Name of the Component: POLY HOUSE

Sl. No.	Name of the Farmer & Address	Cate gory	Village	Mandal	Survey No.	Area in Sq.mtrs.	Crop	Expenditure incurred by the farmer (Rs.)	Subsidy recommended by the committee (Rs.)	Re marks
1	2	3	4	5	6	7	8	9	10	11

Certificates:

1) This is to certify that the above farmer has erected/ installed Poly House as per the Technical standards of MIDH.

2) This is to certify that all the original purchase bills of the items for Expenditure incurred have been verified and found correct.

3) This is to certify that the above farmer is eligible to avail subsidy of Rs. _____/-.

4) The subsidy amount of Rs. _____/- is recommended to release to the said beneficiary towards 1st installment.

Farmer **HO** **DHSO** **Banker (if)**

Scientist from PFDC **Sr. Officer from Head Office** **3rd party member**

Format – V

FORMAT TO CONDUCT 2nd & FINAL JOINT INSPECTION OF POLY HOUSE BY THE COMMITTEE UNDER PROTECTED CULTIVATION COMPONENT OF MIDH THROUGH STATE HORTICULTURE MISSION OF TELANGANA STATE **Name of the Component: POLY HOUSE**										
Sl. No.	**Name of the Farmer & Address**	**Cate gory**	**Village**	**Mandal**	**Survey No.**	**Area in Sq.mtrs.**	**Crop**	**Expenditure incurred by the farmer (Rs.)**	**Subsidy recommended by the committee (Rs.)**	**Re marks**
1	2	3	4	5	6	7	8	9	10	11

Certificates:

1) This is to certify that the above farmer has erected/ installed Poly House as per the technical standards of MIDH. The commercial production of poly house has been started.

2) This is to certify that all the original purchase bills of the items for Expenditure incurred have been verified and found correct.

3) This is to certify that the above farmer is eligible to avail subsidy of Rs. _____/-.

4) The subsidy amount of Rs. _____/- is recommended to release to the said beneficiary towards 2nd installment.

Farmer **HO** **DHSO** **Banker (if)**

Scientist from PFDC **Sr. Officer from Head Office** **3rd party member**

B. SHADENET HOUSES

Objectives:

- ❖ Enhancing productivity.
- ❖ Promotion of high value Horticulture crops under Shade Net Houses.
- ❖ Propagation of planting material to improve germination percentage and better hardening.
- ❖ Year-round production of floricultural crops and off-season production of vegetables crops.

i. Pattern of Assistance:

S.No	Item	Max permissible Cost	Pattern of Assistance
1	Shadenet House (Tubular structure)	Rs.710/Sqm	50% of cost limited to 4000 Sq.m.per beneficiary.

ii. General guidelines, eligibility criteria, trainings, Construction, Terms & Conditions, Inspections, Formats for Application, Affidavit, Formats for Joint Inspection etc., and Check list applicable to Polyhouses shall holds applicable for Sahdenet Houses also.

iii. Indicative Specifications for Shadenet house under Protected Cultivation

Shade net House (Dome shaped/Top Flat)

Sl. No.	Particulars	Description
1	Area in sqm	1000 to 4000 sqm
2	Length of structure	As per design
3	Width of the structure	As per design
4	Grid	4 m x 6 m
5	Straight Corridors	Maximum 2 m all sides for area calculation

Structural parts (GI Pipes) <u>Shade net House :</u>

GRID Size:6mx4m			Shade Net Height from GL -4m		
S. no	**Particulars**	**PIPE SIZE ODin mm**	**NOMINAL DIA**	**Unit wt(kg/m)**	**LENGTH (m)**
1	Foundations for Balcony pipes	48mm/3mm thickness	1.5''	3.5	1.2
2	Foundations for Outer Columns	48mm/3mm thickness	1.5''	3.5	1
3	Foundations for Inner Columns	48mm/3mm thickness	1.5''	3.5	0.75
4	Main(All) Columns	60mm/2mm thickness	2''	2.9	4
5	Truss Pipe (Along the gable)	48mm/3mm thickness	1.5''	2.3	6
6	Purlin Pipe (Across the gable)	48mm/3mm thickness	1.5''	2.3	4
7	Corridor/Balcony Pipe	60mm/2mm thickness	2''	2.9	4.8
8	Horizontal Member in Corridor	33mm/2mm/thickness	1.5''	1.6	1.2
9	Knee bracing at all columns	33mm/2mm/thickness	1.5''	1.6	1.2
2.5 m wide corridors for 4m height shall be provided on all four sides					

- Lengths upto 200mm may vary from fabricator to fabricator based on their clamping/joint mechanism/design.

Other parts of the structure Shade net House:

Sl. no	**Particulars**	**Specifications**
1	Clamps	Should be made from minimum 2.5mm thickness MS sheets and hot dip galvanized. The clamps shall resist 400 hours of salt spray test.
2	Bolts, Nuts and Washers	High tensile bolts, nuts and washers with a minimum size of 3/8'' or M10 and Zinc Plated to White or Yellow color. This hardware shall resist 150 hours of salt spray test.
3	Galvalume profiles	These profiles made of GI sheet strip of minimum 0.6mm thickness and coated with Aluminum alloy and should have the provision to run two springs.
4	Zig - Zag Springs	The springs shall be made of high tensile steel wire with a minimum diameter of 2.5 mm and coated with Zinc /PP/HDPE materials.
5	Insect Proof Net	UV stabilized insect proof net (preferable in white color) made of HDPE monofilament fabric to the size of 40 mesh/50 mesh having a minimum weight of 105 GSM.
6	Shade Net - Tape Type	UV Stabilized shade net made of tape type yarn from HDPE virgin raw materials. Preferably white color shade net with 50% shade shall be used for cultivation purpose and Green /Black color shall be used for Nursery applications. The 50% shade net should be of minimum 90 GSM
7	Shade Net - Monofilament type	UV stabilized shade net made of monofilament yarn from HDPE virgin raw material. Preferably white Color Shade net with 50% shade shall be used for cultivation purposes and Green/ Black color shall be used for Nursery applications. The shadenet with minimum 115 to 125 GSM should be used in shadenet structural applications.

Sl. no	Particulars	Specifications
8	Human Entry	The Human entry should be free from the main structural members and foundations. The human entry should be fixed within the balcony area with independent foundations. The human entry shall have a double door entry system with a minimum cubicle size of 4m(L)x 3m(W) x 2m(H). The cubicle shall be made of independent structural members with two doors and covered with insect proof net/ Apron materials. The doors shall not have any gaps or vents, and preferably fitted with air sealing materials.
9	Tractor entry	The tractor entry should be free from the main structural members and foundations. The tractor entry should have a minimum size of 2.7 width and 2.7 heigh with independent structural members. The entry shall have a collapsible door system covered with insect proof net. Air sealing materials shall be used in door system.

Entry Room (2 door of 2m x 2m Aluminum and poly carbonate mix)

Sl. No	Description	Specification
1	Entry room size	4 m x 4 m, 4 m x 3 m, 3 m x 3 m
2	No of doors	02 (inner door may be of frame stitched with 40 mesh insect net of minimum 50 cm overlapping)
3	Door size	1.2 m x 2 m; Door of GI square pipe
4	Frame of door (ISA four sides to cover the gap below the door)	Galvanized
5	Half part of door (Downside)	Aluminum sheet
6	Upper half part of door	Poly carbonate sheet **5 mm** thick
7	Flooring	Bricks flooring with plaster 15 mm thick

MI Component

Indicative Quantity of Material of Drip/Fogging System in Poly house/Net House

Sl.No	Description of Items	Unit	Size of Poly House(sqm)			
			500	1008	2080	4000
A	**Drip System**					
1	Main and Submain Line PVC 63 mm x 4 kg/cm2	Meter	36	48	70	110
2	Main Line PVC 75 mm x 4 kg/cm2	Meter	0	0	0	60
3	16mm LLDPE Lateral line CL-2	Meter	60	70	130	200
4	Inline 16mm, 1.3 to 2.4LPH @ 20-40 cm CL2	Meter	260	500	2000	4000
5	Ball Valve 63 mm (Moulded Seal, Plain)	Nos.	2	2	2	2
6	Ball Valve 75 mm (Moulded Seal, Plain)	Nos.	0	0	0	1
7	Submain Flush Valve 40mm	Nos.	2	2	2	2
8	Submain Line for Flusing 40 mm X 6 kg	Meter	30	40	60	110
B	**Fogging Machine**					
1	Main and Sub-main Line PVC 50 mm x 6 kg/cm2	Meter	36	42	70	110
2	Main and Sub-main Line PVC 63 mm x 6 kg/cm2	Meter	0	0	210	60
3	16mm LLDPE Lateral line	Meter	250	450	900	1900
4	4 way Fogger Assembly with HP LPD	Nos.	82	125	280	585
5	Ball Valve 50mm (Teflon Seal, Plain)	Nos.	2	1	1	0
6	Ball Valve 63mm (Teflon Seal, Plain)	Nos.	0	0	0	1
7	Submain Flush Valve 40mm	Nos.	2	2	2	2
8	GI Wire 2mm thick	Meter	200	350	800	1400
9	Submain Line for Flusing 40 mm X 6 kg	Meter	36	42	60	110

C	**Filteration Unit**	Nos.	1	1	1	0
1	Disc filter 25 m3/hr	Nos.	0	0	0	1
2	Disc filter 40 m3/hr	Nos.	1	1	0	0
3	Sand filter 10 m3/hr	Nos.	1	1	0	0
4	Sand filter 25m3/hr	Nos.	0	0	1	0
5	Sand filter 40 m3/hr	Nos.	0	0	0	1
6	Manifold GI + GMV	Nos.	1	1	1	1
7	Ventury Assembly Complete	Nos.	1	1	1	1
8	Air Release Valve Assembly 1"	Nos.	1	1	1	1

Note:

1. The list above under MI component is tentative. However, the actual material to be used at site may vary as per structural design requirement and this will be binding to the firm.
2. The width of insect nets rolls available is 3.6 meter or more. The stitching below 3.0 meter is not permitted. Above 3.0 m, if needed, the double stitching shall be done with machine using UV stabilized thread.

A model bill of materials for Shadenet houses is as below:

BOM OF DOME SHAPED STANDARD SHADE NET HOUSE WITH ALUMINET

DOME SHAPED TOP NET HEIGHT ABOVE GROUND LEVEL -- 6 m			GRID SIZE: 6m X 4m		TOTAL AREA :	4081	sq.m
S.No	Description	Qty Unit	Description	Qty Unit	DOME SHAPED STANDARD SHADE NET HOUSE WITH ALUMINET		
1	GABLE LENGTH	6 m	NET GABLE LENGTH	48 m			
2	SHADE SPAN WIDTH	4 m	NET SHADE SPAN WIDTH	72 m			
3	No.OF GABLES	8 No	NET CULTIVABLE AREA	3456 sq.m			
4	No.OF SHADE SPANS	18 No	GROSS GABLE LENGTH	53 m			
5	BALCONY ON FOUR SIDES	2.5 m	GROSS SHADE SPAN LENGTH	77 m			
6	Height of NET HOUSE	5 m	GROSS SHADE AREA	4081 sq.m			

S.No	Description	Specification	Nos	Qty	Unit	Rate	Amount
A	**STRUCTURAL MATERIALS**						
1	Foundations for Balcony pipes	**OD: 48mm/3mm/1.2m**	56	235.2	kg	65.00	15288.00
2	Foundations for Outer Columns	**OD: 48mm/3mm/1m**	52	182.0	kg	65.00	11830.00
3	Foundations for Inner Columns	**OD: 48mm/3mm/0.75m**	119	312.4	kg	65.00	20304.38
4	Main (All) Columns	**OD: 60mm/2mm/4m**	171	2052.0	kg	65.00	133380.00
5	Truss Pipe (Along the gable)	**OD: 48mm/2mm/6m**	152	2143.2	kg	65.00	139308.00
6	Arch Pipe	**OD: 48mm/2mm/6.4m**	152	2280.00	kg	65.00	148200.00
7	Center support pipe	**OD: 33mm/2mm/1.0m**	152	243.20	kg	65.00	15808.00
8	Purlin Pipe (Across the gable)	**OD: 48mm/2mm/4m**	306	2876.40	kg	65.00	186966.00
9	Corridor/Balcony Pipe	**OD: 60mm/2mm/4.8m**	56	806.4	kg	65.00	52416.00
10	Horizontal Member in Corridor	**OD: 33mm/2mm/1.2m**	56	107.5	kg	65.00	6988.80
11	Knee bracing at all columns	**OD: 33mm/2mm/1.2m**	342	656.6	kg	65.00	42681.60
12	HUMAN ENTRY	Double Door System	1	1	set	20000.00	20000.00
13	TRACTOR ENTRY	AS PER SPECIFICATIONS	1	1	set	14000.00	14000.00
14	CLAMPS, COUPLERS AND ALL HARDWARE ITEMS	2.5mm thick/300 GSM	LS	4081	sq.m	20.00	81620.00
				SUB-TOTAL-A			888790.78
				EXCISE DUTY + 12.5%			111098.85
				TOTAL-A			**999889.62**
B	**CLADDING MATERIALS**						
1	OPTINET OR EQUIVALENT ON TOP	OPTINET: 40MESH 120 GSM/ WHITE C	4286.5	4287	sq.m	70.00	300056.40
2	OPTINET OR EQUIVALENT ON SIDES	OPTINET: 40MESH 120 GSM/ WHITE C	1713.6	1714	sq.m	70.00	119952.00
3	ALUMINET OR EQUIVALENT AS SECOND LAYER	ALUMINET- 50% SHADE : 80GSM	3969	3969	sq.m	80.00	317520.00
				TOTAL-B			**737528.40**
C	**OTHER MATERIALS**						
1	GALVALUME PROFILE	0.6mm thick/100-120GSM	1228	1228	m	45.00	55260.00
2	Zig-zag Spring Insert	2.5mm OD GI/PP COATED		2456	m	10.00	24560.00
3	GI WIRE FOR SHADE NET	2.5mm OD/ 50-70 GSM		156.3	kg	52.00	8126.98
4	GI WIRE FOR TRELLISING	2.5mm OD/ 50-70 GSM		312.6	kg	52.00	16255.20
5	GI Wire Rope For Trellising	4.0mm OD/ 1 X 19 or 7 x 19		2090	m	18.00	37620.00
6	Semi-automatic Shade net retraction system	AS PER SPECIFICATIONS		4081.0	sq.m	60.00	244860.00
7	Drip Irrigation System including Foggers	AS PER SPECIFICATIONS		4081	sq.m	71.00	289751.00
				TOTAL-C			676433.18
	TOTAL STRUCTURAL MATERIAL COST			TOTAL- (A+B+C)			2413851.20
				SALES TAX(CST/VAT) + 5%			120692.56
				TOTAL-(ABC)			**2534543.76**
D	**FOUNDATION MATERIALS**						
1	Foundations for corridors	B300 GRADE CC: 15" X 6'	56	11.4	cu meter	5500.00	62843.46
2	Foundations for Outer columns	B300 GRADE CC: 15" X 5'	52	8.8	cu meter	5500.00	48628.87
3	Foundations for Inner columns	B300 GRADE CC: 12" X 1m	119	7.6	cu meter	5500.00	41616.38
4	Flooring inside Double Door Entry	Brick work + CC - 3m x 4m x 0.1m	12	1.2	cu meter	12000.00	14400.00
				TOTAL-D			**167488.71**
E	**LABOUR COST**						
1	Foundation	6'/5'/3' depth x 15" & 12"		227	Nos	150.00	34050.00
4	FABRICATION CHARGES	As per design requirement		4081	sq.m	40.00	163240.00
5	INSTALLATION CHARGES	As per design requirement		4081	sq.m	40.00	163240.00
6	TRANSPORTATION CHARGES						30000.00
				SUB-TOTAL-E			**390530.00**
				SERVICE TAX + 15%			**58579.50**
				TOTAL-E			**449109.50**
F	**INSURANCE**	Standard fire and special perils policy		0.25% of Unit Cost			**7877.85**
				GRAND TOTAL			**3159019.82**
				COST PER SQ.M			**774.08**
				Unit Cost Limited to Rs.			**710.00**

C. PLASTIC MULCHING

Mulching is a practice followed for conservation of soil moisture, to check weed growth and to improve the quality and yield of Horticulture crops. Some of the tips for plastic mulching are

- The farmers are suggested to use different colours of mulching sheet i.e., Black & White (summer season), Black & Silver (Kharif and Rabi Season).
- Transparent mulch is recommended compared to black mulch as it creates congenial microclimate for crop root zone.
- Soil temperature profile varies under transparent and black mulches and hence for deep rooted crops black mulch is recommended.
- To remove the mulch sheet the farmers should wet the Soil before ploughing the mulching sheet after completion of the cropping.
- Burning of mulching sheet should be avoided and it should be disposed for recycling.

Thickness of Film:

In plastic mulching, the thickness of mulch film should be in accordance with type & age of crops. Economics suggest that the film thickness should be the minimum possible commensurate with desired life & strength. The recommended thickness of mulch films for different crops is as under:

Thickness (microns)	Crops Recommended
20-25	Annual - Short duration crops
40-50	Biennial - Medium duration crops
50-100	Perennial - long duration crops & crops taken up in Pandals

Extent of Surface to be Covered under Film:

% Coverage	Crops Recommended
20-25	All creeper crops
40-50	Initial stage of orchard crops
40-60	Fruit crops & cucurbitaceous
70-80	Vegetables, Papaya, Pine apple etc.,
90-100	Soil Solarization

Mulching area should preferably be equivalent to the canopy of the plant (larger the canopy, larger the area of mulching and vice versa).

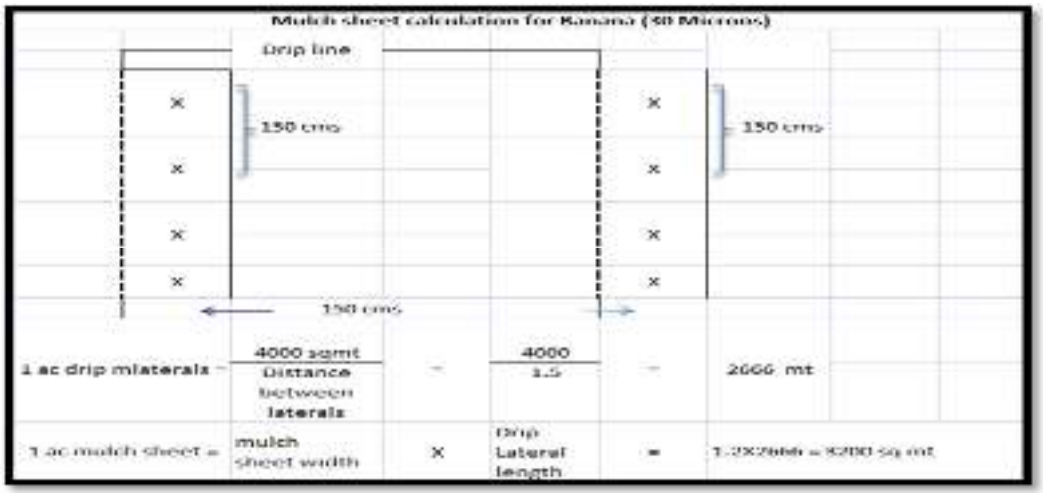
Calculation of Mulch Film Requirement (Approximately):

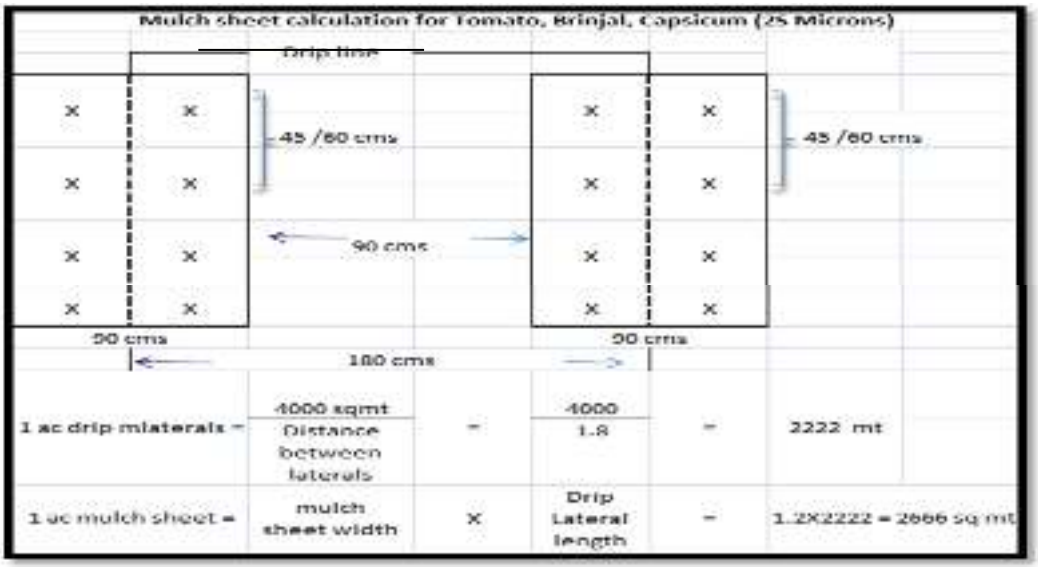
Thickness			Area coverage (m2/kg)	Weight (Gram/m2)
Micron	Gauge	mm		
7	28	0.007	144	6.9
20	80	0.02	54	18.4
25	100	0.25	42	23
40	160	0.04	26	38
50	200	0.05	21	46
100	400	0.10	11	93

Indicative Cost of Plastic Mulching:

On the basis of 80% coverage of area under the film, indicative cost of mulching for Horticulture crops would be Rs. 32,000/- per ha.

Examples for calculation of requirement of Mulch Sheet:





Terms & Conditions:

1. Farmers will be given choice to procure the mulching sheet from the firms of their own choice by incurring full cost mulching material. The mulching sheet should be of BIS: ISI certified.
2. After verification of the invoices / bills and Physical verification in the field, the assistance will be online transferred to the farmers account as per the eligibility and cost norms.
3. Farmers once availed subsidy under this component is not eligible for the 2nd time, subject to the maximum eligibility of 2 Ha.
4. The subsidy is 50% of the permissible unit cost (limited to Rs. 16,000 / ha) with maximum limit of 2 Ha / Beneficiary.
5. The subsidy should be calculated on the basis of extent of surface covered under plastic mulch. On the basis of 80% coverage of area under the film, indicative cost of mulching for Horticulture crops would be Rs. 32,000/- per ha.
6. The selected beneficiaries should be given training programme on concept of Mulching, benefits of mulching, selection of mulch sheet, quantity required and gauge of mulch sheet.
7. Only Horticulture crops are eligible for assistance.
8. DMC approval to be obtained for identified beneficiaries and for final release of assistance.
9. The scheme shall be implemented for promoting intensive cultivation of vegetables in a cluster mode.
10. Documentation with photographs should be done after laying out of mulch sheet.
11. Application registration in Hortnet should be done by the concerned HO.
12. Uploading the bills and field photos in Hortnet should be done by the concerned HO/DHSO for release of subsidy to the beneficiaries through online transfer.

CHECK LIST FOR INSPECTION FOR RELEASE OF FUNDS UNDER COMPONENT MULCHING

Sl.No.	Description	Remarks (YES/NO)
1	Application of the farmers along with photos and relevant documents	
2	Existing crop and spacing	
3	Drip Irrigation system installed in the field	
4	Bills & Vouchers submitted	
5	Details of Beneficiaries were uploaded in the HORTNET	
6	DMC approval for sanction & release of funds	
7	Feedback of the farmers	
8	Inspection report of Concerned Horticulture Officer	

VII. Component: Pollination Support through Bee Keeping

Pattern of assistance:

S. No	Sub-Component	Unit Cost	Pattern of Assistance
1	Honey bee colony	Rs.2000/colony of 8 frames	40% of cost limited to 50 colonies / beneficiary.
2	Bee Hives	Rs 2000/ per hive.	40% of cost limited to 50 hives / beneficiary
3	Equipment including honey extractor (4 frame), food grade container (30 kg), net, including complete set of Bee keeping equipment.	Rs. 20,000/set	40% of the cost limited to one set per beneficiary.

- The main objective of this component is support pollination in orchards through bee keeping.
- Beneficiaries are free to purchase colonies & Hives from any public sector institutions /registered bee keepers with NBB/ member Organizations /Societies of NBB (National Bee Board) or Beekeeping and honey societies registered under cooperative act.
- It should be ensured that all the equipment are BIS standards and made of stainless steel/ Food Grade Plastic / Quality wood.
- Beekeepers provided with financial assistance may be directed to get their bee colonies from bee keepers /breeders registered with NBB on individual / group basis on priority.
- The beneficiary should take up this activity where abundant flora is available preferably farmers having Horticulture activity.
- The procurement of the required beekeeping equipment shall be from the list of approved firms of National Bee Board or KVIC of GoI.
- All the non-negotiables for implementation of MIDH scheme should be followed.

VIII. INTEGRATED POST HARVEST MANAGEMENT

Under post-harvest management, activities like handling, grading, pre-conditioning, packaging, transient storage, transportation, distribution, curing and ripening and where possible long-term storage can be taken up. Existing schemes of the Directorate of Marketing and Inspection (DMI) and National Cooperative Development Corporation (NCDC) will be leveraged to the extent possible. MIDH would include projects relating to establishment of pre-cooling units, 'on-farm' pack houses, staging cold rooms, cold storage units with and without controlled atmosphere capability, integrated cold chain system, supply of refrigerated vans, refrigerated containers, primary/mobile processing units, ripening chambers, evaporative/low energy cool chambers, preservation units, onion storage units and zero energy cool chambers. These projects will be entrepreneur driven and provided credit linked back-ended subsidy. PSUs/ Government agencies/ Cooperatives/ growers' association recognized/ registered by the DMCs, having at least 25 members, will also be entitled to avail assistance for such activities. They may avail back ended subsidy without credit link, subject to condition that they are able to meet their share of the project cost.

PHM Projects- Telangana State-Steps to be followed in General:

1) At the time of receiving the proposal from promoter at the DHSO office

1) Application along with synopsis should be in prescribed format duly signed by the promoter.
2) The documents to be submitted for that particular component are to be verified as per the check list.
3) All the project proposals should be numbered in print / ink with index showing the contents as mentioned in check list.
4) Issue of acknowledgement to the promoter.

2) Verification in DHSO office.

1) Application should be verified that all the columns are properly filled with the signature of the promoter.
2) The documents are to be verified as per the check list and the check list should be duly signed by the DHSO for onward submission to State cell.
3) If any documents are missing the promoter should be asked to submit the pending documents within one week.
4) The approvals from concerned departments like fire department, pollution control board, electricity department, municipality etc., has to be thoroughly verified.
5) After receipt of all documents DHM approval has to be obtained.

6) The DHSO should forward the project proposals in 3 sets (Cold Storages / Ripening Chambers / Integrated Pack Houses, etc.,) along with the check list duly signed by the DHSO, preliminary inspection report and DMC approval. If any documents are not submitted proper justification has to be given for not submitting the documents.
7) As the bank consent letter, bank appraisal report and affidavit are most essential documents, the DHSO should verify these documents with originals and DHSO should attest the duplicate copies before submitting the project proposals to this office.

3) Issue of Administrative Sanction:

The proposals submitted by the DHSOs shall be referred to the 3rd party for Techno – Economic Viability study. The technically feasible and viable projects are placed before State Level Executive Committee (SLEC). The Projects approved by SLEC shall be accorded administrative sanction by DoH, TS, Hyd.

4) After Issue of Administrative Sanction and Execution of The Project

1) DHSOs have to inform the suggestions / remarks given by the technical consultant in techno economic viability report to the promoter and confirm the compliance of the same to head office.
2) Periodical inspection at different stages of execution.
3) DHSOs to recommend for constitution of JIT after completion of civil works & installation of machinery for release of 1st instalment & after commercial commencement of project for release of 2nd instalment.
4) DHSO to inform the promoters for taking up of energy audit after the unit is completed. Energy audit should be taken up by the certified energy auditors by Bureau of energy efficiency Ministry of Power (GOI).
5) DHSO has to forward the energy audit report to State cell along with 2nd instalment subsidy release proposals.

5) Joint Inspection

1) It is the responsibility of the DHSO to coordinate with all the members as constituted in the team for conducting joint inspection.
2) The relevant proformas should be properly filled and subsidy has to be recommended for release.

6) MONITORING

1) The DHSO should periodically visit and inspect the unit to see that whether the unit is being utilized for the purpose for which it is sanctioned.

7) Time Frame for Implementation of PHM Projects

Sl.No.	Component	No. of days
1.	Verification of project proposal with check list	10 days from the date of receipt of proposal
2.	Intimation to the promoter if all documents are not submitted	

Sl.No.	Component	No. of days
3.	Inspection by HO / DHSO	
4.	Obtaining required documents from if any promoter as per check list	Within 7 days after verification of the application
5	Application form filing in Hortnet (if)	Within 7 days after getting application form with full details
6.	Obtaining DMC approval	
7.	Forwarding to State cell	Within 2 days after obtaining DMC approval
8.	Techno Economic Viability Study by the Technical consultant	Within 15 days
	After obtaining Techno Economic Viability Report – Project to be placed in SLEC.	
9.	**After the project is approved in SLEC of State, the administrative sanction order shall be issued.**	
	Periodical inspection by DHSO	Monthly intervals
10.	**After completion of the project (After the promoter has taken up all suggestions given by technical consultants in Techno Economic Viability Report and after the energy audit is completed)**	
11.	DHSO to recommend for constitution of joint inspection	Within a week after completion of civil works & machinery installation.
12.	After joint inspection team is constituted DHSO to coordinate with all the members and arrange for joint inspection	Within 7 days after constitution of joint inspection.
13	Submission of release proposals along with joint inspection report & DMC approval for 1st instalment subsidy	Within a week after completion of joint inspection
	After commercial commencement of the project	
14.	DHSO to recommend for constitution of joint inspection	Within a week after commercial commencement of the project
15.	After joint inspection team is constituted DHSO to coordinate with all the members and arrange for joint inspection	Within 7 days after constitution of joint inspection.
16.	Submission of release proposals along with joint inspection report & DMC approval for 2nd instalment subsidy	Within a week after completion of joint inspection

PATTERN OF ASSISTANCE

Sl. No	Component	Unit cost	Pattern of Assistance
1	Pack House	Rs.4.00 lakhs	50% of the total cost i.e., maximum Rs. 2.00 Lakhs
2	Cold storage units Type 1 - basic mezzanine structure with large chamber (of >250 MT) type with single temperature zone	Rs. 8,000/MT, (max 5,000 MT capacity)	Credit linked back-ended subsidy @ 35% of the cost of project in general areas for individual entrepreneurs.
3	Cold Rooms (staging)	Rs. 15.00 lakhs per unit (30 MTs)	35% of the total cost i.e., maximum Rs.5.25 lakh/unit
4	Ripening chamber	Rs. 1.00 lakh/MT. (max 300 MTs per beneficiary)	Credit linked back-ended subsidy @ 35% of the capital cost of project in general areas for a maximum of 300 MT per beneficiary.
5	Low-Cost Onion Storage Structure (25MT)	Rs. 1.75 lakh per Unit	50% of the total cost i.e., maximum Rs 0.875 Lakh per unit
6	Technology induction in Cold chain, Add on for CA & Modernization - Alternate technology - Solar PV panels/ Solar thermal sys	100% of cost as per invoice, maximum Rs. 35 lakhs per project	Credit linked back-ended subsidy @ 35% of the cost.

STEPS TO BE FOLLOWED (PROJECT WISE):

Cold storages / Ripening chambers

- The project proposals should be in accordance with technical standards of MIDH www.nhm.nic.in/ www.midh.gov.in -> revised guidelines -> technical standards for cold storages.
- As per the directions of the MIDH the projects shall be recommended as per the following component wise cost.

Sl.No	Item	% of the project cost (range)
1	**Civil construction**	**50-55**
2	**Thermal insulation**	**10-15**
3	**Refrigeration system**	**20-25**
4	**Electrical system**	**10-15**

- The DHSO shall obtain the coefficient of performance sheet in respect of electricity / refrigeration load from promoter and submit the same to State cell for conducting energy audit by the technical consultant and also DHSO shall see that data logger / PLCs are installed by the promoter as mentioned in technical standards
- As the following documents are mandatory the DHSO shall obtain the same for seeking techno viability advice before placing the project in SLEC:
    1. Heat load calculation sheet during loading period, pull down period, holding period in accordance to technical standards and guidelines duly certified by the engineer.
    2. Detailed coefficient performance sheet during peak load, holding period and lean period duly certified by the engineer.
    3. Layout of the proposed cold storage unit in accordance to the statutory building by laws and building codes and standards duly approved by a registered architect and structural engineer.
    4. Technical data sheets of each equipment namely compressors, condensers, cooling towers, Air cooling units giving general layout, dimensions, material of construction, rated capacity, operating parameters and COP duly certified by respective equipment manufactures with respect to relevant codes and standards.

- The DHSO shall also see that additional compressors and humidifiers are installed in multi chambered Cold Storage to have at least 10% of space for storage of Fruits & Vegetables, as most of the cold storages are proposed for storing chillies, tamarind and agriculture produce. The non-providing of space in cold storage for storage of fruits &vegetables is being pointed out in almost all Techno Economical Viability Study reports.
- The project proposal received in State cell from the DHSO with all the above required documents shall be forwarded to the technical consultants for Techno economic Viability study.
- The project proposals that are technically and economically viable shall be placed before the SLEC for approval.
- In principal sanctions / administrative sanctions shall be issued to the projects that are sanctioned by the SLEC.
- The DHSOs after receiving the In principal sanctions, shall inspect the site periodically and to inform the suggestions / remarks given by the technical consultant in techno economic viability report to the promoter and confirm the compliance of the same to head office.
- The payment of back-ended subsidy will be made in 2 installments. First installment will be released after receiving satisfactory Joint Inspection Report (JIT) report of completion of civil works and installation of machinery/equipment as per technical standards. The second installment will be released by SHMs after receiving satisfactory JIT report for project completion and commencement of commercial production.
- The Joint Inspection Team will comprise of DHSO, HO Concerned, representative from lending bank, technical expert (TSG member), Sr. Officer from Head office and representative from 3rd party.

- The promoter / DHSO/ Banker should scrupulously the follow the terms & conditions communicated along with administrative sanction proceedings & release proceedings.
- After completion of the project, the DHSO shall recommend through a letter for joint inspection of the project along with bank disbursement statement / completion letter from Banker.
- The DHSO shall submit the proposals for constitution of joint inspection team for 1st installment subsidy after completion civil works and machinery installation.
- The DHSO to coordinate the JIT and submit release proposals along with joint inspection report in format -V (A) (CS), V (B) (CS), V (C) (CS), V (D) (CS) & V (E) (CS) and DMC approval.
- Basing on the release proposals of the DHSO concerned the State cell shall release 1st installment subsidy to the subsidy reserve fund account of concerned bank of the promoter.
- **DHSO should ensure that promoters shall allow 20% of horticulture produce of the concerned district farmers.**
- The DHSO shall submit the proposals for constitution of joint inspection team for 2nd installment subsidy after commercial commencement of the unit and energy audit.
- The DHSO to coordinate the JIT and submit release proposals along with joint inspection report in format -V (F) (CS) along with energy audit report, and DMC approval.
- Basing on the release proposals of the DHSO concerned the State cell shall release 2nd installment subsidy to the subsidy reserve fund account of concerned bank of the promoter.

Terms & Conditions:

1. The project should have clear cut backward linkages to provide assured market to the producers.
2. The promoter should ensure that project Cold Storage/ Ripening Chamber should be as per technical standards stipulated by the Department.
3. The Banker's letter should have details of term loan sanctioned and disbursed, statement of term loan account and that no other subsidy was availed for the same project.
4. The DHSO should forward the letter of the Banker after verification of the project and satisfying himself in all respects regarding establishment of the project.
5. The subsidy is purely credit linked and back – ended.
6. The payment of back-ended subsidy will be made in 2 installments. First installment will be released after receiving satisfactory Joint Inspection Report (JIT) report of completion of civil works and installation of machinery/equipment as per technical standards. The second installment will

be released by SHMs after receiving satisfactory JIT report for project completion and commencement of commercial production. The Joint Inspection Team will comprise of members from lending bank, technical expert, SHM and District Administration.

7. The project must be successfully completed according to the terms and conditions of the loan / as per the approved project report and technical standards prescribed by the MIDH. The release is subject to the strength of the joint inspection report, norms & term loan etc., as the case may be and as per the availability of funds.
8. The promoter shall not claim subsidy from any other State / Central Government dept./agency/authority/other for the same unit. The Department will initiate recovery proceedings under RR Act. If there is any deviation to this condition.
9. Tending Bank should submit the utilization certificate to the State Horticulture Mission after utilization of subsidy released.
10. The subsidy assistance released by State Horticulture Mission to Bank shall be kept under separate head "subsidy reserve account with a tenure not less than 3 years". The adjustment of subsidy will be on the pattern of back ended subsidy wherein the full project cost including the subsidy amount but excluding the margin money contribution from beneficiary would be disbursed as loan by the banks. The repayment schedule will be drawn on the loan amount in such a way that the subsidy amount is adjusted after the bank term loan portion (excluding subsidy) is liquidated.
11. The subsidy admissible to the borrower under the scheme will be kept in the subsidy reserve fund A/c – borrower – wise in the books of the concerned financing bank. No interest will be applied on subsidy portion by the bank. The balance lying to the credit of the subsidy reserve fund A/c will not form part of demand and time liabilities for the purpose of SLR/CRR. Instructions issued by the RBI from time to time should be followed.
12. The concerned banker should send the Bank Statement of the firm at every six months and If the unit is cancelled for any reasons thereof within the stipulated time, (minimum 10 years) after receipt of total subsidy amount from the Department the banker should return the amount to State Horticulture Mission.
13. The release of subsidy is subject to CA certificate, valuation report, actual expenditure, receipts & inspection etc.,

14. In case if the Bank declares the term loan account as NPA due to nonpayment of loan by the borrower or the project turning nonperforming assets during term loan re-payment period would make the firm/promoter in-eligible for getting back ended subsidy and the same is liable to be refunded by the concerned bank to SHM account.
15. If the promoter intends to dispose the project with in a period of 10 years, he has to repay the subsidy back to MIDH.
16. Change of Management / Proprietary ship of the project shall not be allowed without prior consent or permission of the MIDH.
17. The unit should be utilized for the same activity for which assistance is released for the economic period of 10 years. In case, if the unit is misused for carrying on any activity other than the horticulture activities under the scheme, the promoter /Director is liable for any action deemed fit including recovery of the assistance amount.
18. The promoter shall adhere to the advices given in the Techno Economic Viability report for release of subsidy.
19. Mission Director & Director of Horticulture, Telangana Hyderabad reserves the right to modify, add or delete any term/condition without assigning any reason thereof.
20. The promoter has to submit Affidavit to that effect i.e., the unit is utilized for the purpose for which it is meant and in case any kind of misuse or irregularities are observed in due course of period, the Commissioner of Horticulture has right to recover the subsidy released.
21. In case of any discrepancy/ dispute, the decision of the Mission Director & Director of Horticulture is final.

1. PACK HOUSES

Pattern of Assistance:

Sl. No.	Component	Unit cost	Pattern of Assistance
1	Pack Houses	Rs.4.00 lakhs	50 % subsidy up to Rs. 2.00 Lakhs per unit. Maximum one unit per beneficiary

Specifications and Cost norms for Packhouse:

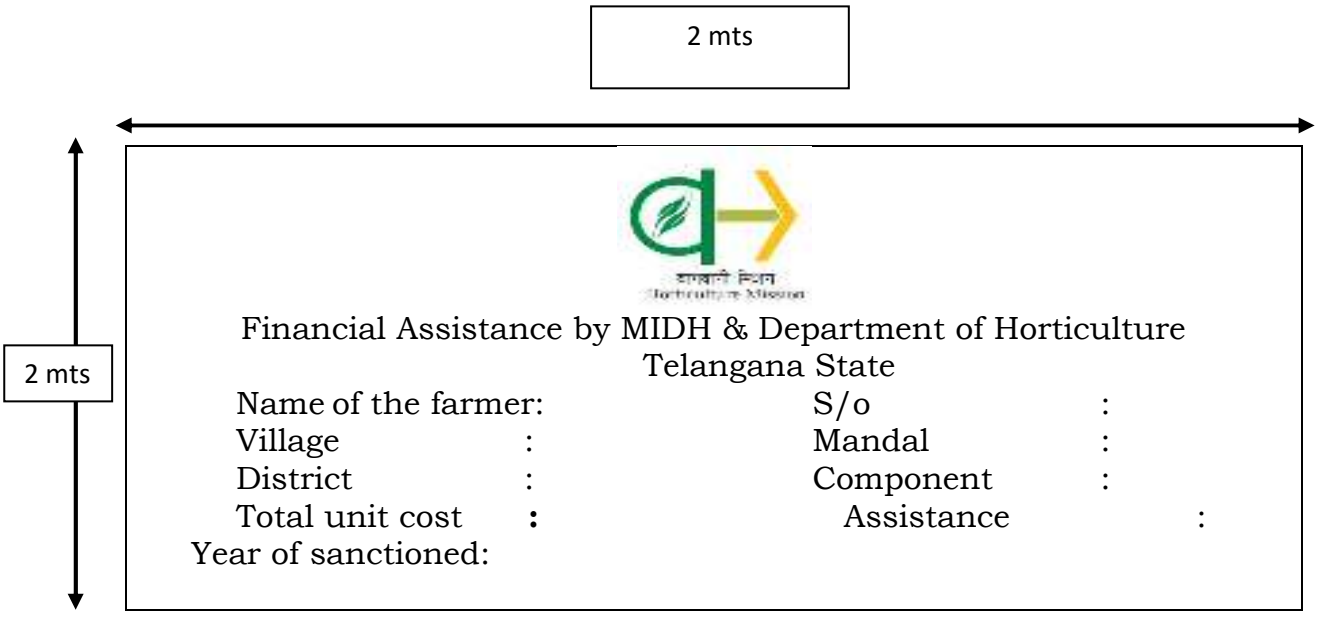
Sl. No	Detail of structure	Specifications/Details	Qty	Units	Unit rate (Rs)	Total Cost(Rs)
A	Land	Near road with electric facility	500	yds		Farmer's Own
B	**Expenditure Item**					
1	**Civil Structure**					
1.1	Site levelling etc	Levelling land and to make it motorable inside the premises	500	yds	18	9000
1.2	30X20' Packing Hall	30X20 ft with GI/Asbestos roof, Hard cement flooring, Windows doors of country wood.	600	sft	425	275000
2	**Mechanical**					0
2.1	Packing /grading Table	4'X8' of GI or SS material, with 100mm side protection to stop roll off and with provision to drain water	1	Nos	18000	18000
2.2	Washing sheets (HDPE)	Of plastic of not less than 5' length and 2.6' ft width	2	Nos	3750	7500
2.3	Weighing Machine	To weigh upto 300 kgs with an accuracy of + or - 0.1 Kg with atleast 400X 600mm plat form	1	Nos	8000	8000
2.4	Chemical Treatment Washing Tubs (Cement/ Plastic)		3	Nos.	LS	4000
2.5	Desaping Units (for Mango growers only)	1.2 – 1.5mtr.(L)x0.8 – 1.0mtr.(W) x20cm (H);GI rods covered with ½”PVC Pipes	6	Nos.	1500	9000
3	**Electrical**					
3.1	Meter with connection	Single Phase or three phase connection including deposit	1	No	8500	8500
3.2	Electrical Wiring with fuses, switches,	5 Tube lights, 3 Fans with 2 Hrs. back up	1	Set	10000	10000

	holders, bulbs, fans etc.					
4	**Water System**					
4.1	Water tank with support	Plastic "Sintex" or equivalent or cement based located at height either outside or with separate support of at least 2000 ltr capacity	1	Nos	12500	12500
4.2	Watering pipe	Running parallel to packing hall with at least three taps and flexible water pipe with shower arrangement of 50' length minimum.	100	Rft	25	2500
5	Other assets Small office table, three chairs, almairah, Wooden showels		1	LS	8000	8000
6	Plastic Crates	40 Ltrs. Capacity (25 kgs.)	100	Nos.	300	30,000
7	Inverter			1	8000	8000
					TOTAL	4,10,100

LIMITED TO Rs.4,00,000/- (Rupees Four Lakhs only)

TERMS AND CONDITIONS:

1. The applications along with project report, relevant documents and DMC approval shall be submitted to the head office for administrative sanction.
2. The farmers cultivating horticulture crops are eligible for availing assistance under the said component. Nevertheless, priority may be given to the farmers cultivating the crop identified under One District One Focus Produce programme in their respective district'.
3. The farmer should display the board and place in front of the Pack House, Banners/Flexes are not to be permitted. The Logo of Mission for Integrated Development of Horticulture and the matter mentioned below:



4. The project should be implemented within a period of six (06) months from the date of in-principle sanction and if the project is not completed within the above stipulated period the project is deemed to have been cancelled.
5. The farmers should inform the completion of the Pack house to the concerned DHSO in writing along with photograph.
6. After establishment of Pack house, the committee consisting of DHSO, MIE, the concerned HO, will inspect the pack house in presence of farmer and submit the joint inspection report in the prescribed format along with the enclosures therein.
7. **The subsidy shall be released to the beneficiaries accounts only subject to the actual expenditure, receipts i.e., Total unit cost and joint inspection reports.**
8. The payment will be made after the project has been successfully installed basing on the strength of the joint inspection report and as per the availability of funds.
9. Undertaking from the farmer that the Pack house will be utilized for the purpose for which it is sanctioned / as per the project i.e. for horticulture produce only.
10. The promoter shall not claim subsidy from any other Government agency for the same unit. The Department will initiate recovery proceedings under RR Act. If there is any deviation to this condition.
11. In case of any discrepancy /dispute the decision of the Mission Director & Director of Horticulture is final.

APPLICATION FOR AVAILING ASSISTANCE / SUBSIDY UNDER MIDH (COMPONENT: PACK HOUSE)

Name of the Scheme: Post Harvest Management

1	Name of the Farmer	:
2	Father / Husband Name	:
3	Caste (SC/ST/BC/OC)	:
4	Address:	:
	Phone / Cell No.:	:
5	Land records with Extent in Acres / Ha. (Copy of Pass Book / Adangal)	:
6	Source of Irrigation (Open well / Bore well / Canal)	:
7	Name of the Financing Bank, Loan Amount Proposed	:
8	Whether any Govt. Subsidy availed previously	:
9	Any other relevant information	:

Declaration

I, declare that the particulars furnished above are true to the best of my knowledge and I promise that the benefit obtained from State MIDH Cell will be used for the purpose for which it is given and in case of misuse I am liable for any action deemed to be fit by Govt. of TS including recovery of the subsidy amount with 12% interest to the Government.

Enclosures:

a) Affidavit
b) Pattadar Pass Book
c) Detailed Project Estimate by Civil Engineer (Regd. No. along with Seal)

Signature of the Farmer / Entrepreneur.

Recommendations of the Horticulture Officer :

Horticulture Engineer (MIE) Horticulture Officer DHSO

FORMAT TO CONDUCT FINAL AND JOINT INSPECTION OF PACK HOUSE BY THE COMMITTEE UNDER POST HARVEST MANAGEMENT COMPONENT OF MIDH, TS.

Name of the Unit: ..... Place: .....
District: .....

As per project report				As per the inspection and actual investment			
Details	*Specifications /Details*	*Qty*	*Total Cost (Rs)*	*Item*	*Specifications*	*Qty*	*Expenditure (Rs.)*
Civil Structure							
Site levelling etc	Levelling land and to make it motorable inside the premises	500	9000				
30X20' Packing hall	30X20 ft with GI/Asbestos roof, Hard cement flooring, Windows doors of country wood. 6 windows, 2 double doors	600 sft	275000				
Mechanical							
Packing /Grading Table	4'X8' of GI or SS material, with 100mm side protection to stop roll off and with provision to drain water	1	18000				
Washing sheets (HDPE)	Of plastic of not less than 5' length and 2.6' ft width	2	7500				
Weighing Machine	To weigh up to 300 kgs with an accuracy of + or - 0.1 Kg with at least 400X 600mm plat form	1	8000				
Chemical Treatment Washing Tubs		3	4000				
Desaping Units (for Mango)	1.2 – 1.5mtr.(L)x0.8 – 1.0mtr.(W) x20cm(H);GI rods covered with ½"PVC Pipes	6	9000				

As per project report				As per the inspection and actual investment			
Details	***Specifications /Details***	***Qty***	***Total Cost (Rs)***	***Item***	***Specifications***	***Qty***	***Expenditure (Rs.)***
Electrical							
Meter with connection	Single Phase or three phase connection including deposit	1	8500				
Electrical Wiring with fuses, switches, holders, bulbs, fans etc.	5 Tube lights, 3 fans, with 2 hrs backup		10000				
Water System							
Water tank with support	Plastic "Sintex" or equivalent or cement based located at height either outside or with separate support of at least 2000 litres capacity	1	12500				
Watering Pipe	Running parallel to packing hall with at least three taps and flexible water pipe with shower arrangement of 50' length minimum.	100	2500				
Other assets Small office table, three chairs, almairah, Wooden showels			8000				
Plastic Crates	40 Ltrs. Capacity (25 kgs.)	100	30000				
Inverter			8000				
	Total		**4,10,000**				

Certificate:

1) This is to certify that Sri./ Smt. _____ has established Pack House as per project report and norms of MIDH.

2) This is to certify that all the original purchase bills of the items mentioned above have been verified and found correct.

3) This is to certify that Sri./ Smt. _____ is eligible to avail subsidy of Rs. _____/-

4) The subsidy amount of Rs. _____/- may be released.

Promoter **Horti. Engineer (MIE)** **HO** **DHSO**

2. COLD ROOMS (STAGING)

Pattern of Assistance:

S. No	Item	Max permissible Cost	Pattern of Assistance
1	Cold Rooms (Staging)	Rs. 15.00 lakhs per unit of 30 MTs	Credit linked back ended subsidy @ 35% of the total cost i.e., Rs. 5.25 lakh/unit

Component Definition:

This component is an insulated and refrigerated chamber which is a necessary combination for Pre-Cooling Unit and serves as a transient storage, while allowing the pre-cooler to be utilized for next batch load of incoming produce.

Component Description

A maximum admissible cost norm of Rs.15 lakh/unit for a storage capacity of 30 MT is applicable for each beneficiary. A pro-rata cost shall be considered in proportion to other capacities or design options.

The component "Cold room (staging)" includes:

1. An insulated room of 100m^3 volume - capacity to store 30MT
2. Associated refrigeration equipment.
3. Staging area - adjoining enclosed area to load vehicle for dispatch.

The component has been kept separate but must be appraised only when attached to a pre- cooling unit. The beneficiary must be advised that the cold room (staging) necessitates the following:

1. Other preconditioning facility (integrated pack-house).
2. An appended Pre-cooler unit.
3. An ante-room for staging.

The design specifications of such cold rooms are similar to a cold store, with the refrigeration design to suit humidity and temperature ranges for horticulture produce. Where pre-coolers are built appended to an existing cold store, the cold store itself serves this purpose.

3.COLD STORAGE UNITS

Pattern of Assistance:

Sl. No.	Component	Unit cost	Pattern of Assistance
1	Cold storage units Type 1 - basic mezzanine structure with large chamber (of >250 MT) type with single temperature zone	Rs. 8,000/MT, (max 5,000 MT capacity)	Credit linked back-ended subsidy @ 35% of the cost of project in general areas and 50% of cost in case Hilly & Scheduled areas for individual entrepreneurs.

Under MIDH norms a beneficiary may apply for construction and expansion of cold storages up- to 10000 MT storage capacity. State Horticulture Missions shall accept projects of capacity 5000MT and below and National Horticulture Board shall accept projects of capacity larger than 5000MT. The cost norms vary depending on scale of storage capacity.

For the purpose of these guidelines, 3.4m^3 (cubic meter) or 120 cubic feet of temperature-controlled storage space created shall be equivalent to 1 MT (metric ton) of storage capacity, irrespective of the product stored.

Cold storage type 1: Are cold stores with large chambers (>250MT each), each designed for single product storage. These types of stores are designed for bulk long-term storage (potato, spices, pulses, etc.). This storage has handling system for unpackaged or soft packaged produce, or produce stored in bags or bins (non-retail packaging). Produce on exiting such stores have to undergo bulk shipping to processing plants or subsequent packaging process for making consumer retail packages. These are seen to be primarily brick & mortar structures with multi- layered fixed or mezzanine floors. They incorporate small handling area or open sheds designed for one-time seasonal loading (during harvest season), and for smaller volume off-loading to serve specific buyer demand. They must incorporate air monitoring and ventilation mechanism for controlled air replenishment, enabling them to counter produce induced modified atmospheric parameters inside the storage chambers.

he extant guidelines, standards and data sheets, as published by NHB on behalf of Department of Agriculture and Cooperation, for cold storage projects have been incorporated.

INDEX for Checklist & Formats for Cold Storages

Sl.No	Item	Annexure/ Format Number
1	Check List For Projects For Cold Storage & Ripening Chamber	Annexure-I
2	APPLICATION FORMAT for Cold Storage / Ripening Chamber	Format - I
3	SYNOPSIS	Format – I (b) (CS/RC)
4	AFFIDAVIT (Rs. 100/- Stamp Paper)	Format – II (CS/RC)
5	Declaration by Engineer	Format – III (CS/RC)
6	Preliminary (Inspection Report) while submitting project to State MIDH Cell.	Format – IV
7	Joint inspection (Release of First Installment)	Format – V (A) (CS)
8	Component wise releases made by the Banker for cold storage	Format – V (B) (CS)
9	joint inspection by the committee for cold storage under Post Harvest Management component of MIDH, Telangana	Format – V (C) (CS)
10	Subsidy Calculation Sheet	Format – V (D) (CS)
11	Detailed Report on Cold Storage at the time of final and Joint Inspection	Format- V – (E) (CS)
12	Joint inspection report 2nd installment	Format- V – (F) (CS)
13	Basic Data Sheet	Format – VI

Annexure-I

CHECK LIST FOR PROJECTS FOR COLD STORAGE & RIPENING CHAMBER

Sl. No.	DESCRIPTION	REMARKS
1	Application Form (Format – I) along with Synopsis in format – I (b) CS/RC	
2	Basic Data Sheet with Complete Technical Specifications (Format – VI)	
3	Detailed Project Report as Per MIDH Guidelines	
4	Partnership Deed	
5	Firm Registration Certificate	
6	Bank Sanction Letter	
7	Bank Appraisal Letter	
8	Approval from Gram Panchayat	
9	Approval from Pollution Control Board	
10	SSI registration certificate	
11	Fire Department approval with Drawings	
12	Pan Card Copy of firm	
13	Electricity approval	
14	KYC documents of all the partners	
15	GST REGISTRATIONS	
16	Land Conversion	
17	DMC Approval (District Mission Committee)	
18	Affidavit (Format –II)	
19	Land Documents (Sale Deed / Lease Deed)/ Pattadar pass book copy	
20	Declaration by Engineer (Format –III)	
21	NOC from NABARD / NHB/ APEDA/ DIC / SFC and MFPI	
22	CA Certificate	
23	Insurance copy of the firm	
24	Preliminary inspection report	

Format - I

APPLICATION FORMAT

Cold Storage / Ripening Chamber

FORMAT FOR SUBMISSION OF PROJECT BASED PROPOSALS POST HARVEST MANAGEMENT BY PRIVATE SECTOR UNDER MIDH

1. Name of Project :
2. Type of Activity :
3. Objectives :
4. Purpose (Details of crops stored in cold Storages / Ripening Chamber are also to be given) :
5. Location of the project with address :
a) Address for correspondence :
b) General area :
c) Hilly/Tribal area :
6. Constitution :

(Date of incorporation and relevant law along with a copy of articles and memorandum of association, bylaws, partnership deed and registration certificate whichever is applicable. Documentary proof regarding authorized / paid up capital and promoters contribution.)

(a) Public Ltd. Company :
(b) Private Ltd. Company :
(c) Registered Society :
(d) Association :
(e) Federation :
(f) Producer Company :
(g) Proprietorship firm :
(h) Partnership concern :

7. Management :

8. Brief background of promoters :
a) Category / Caste :
b) Bank name & branch and date of sanction:
9. Cost of Project (Rs in lakhs) :
(a) Land- (if purchased new along with documentary proof)
(b) Building :
(c) Plant & Machinery :
(d) Contingencies :
(e) Miscellaneous fixed assets :
(f) Working Capital margin :
(g) Pre operative exp. ----------
Total :

---

10. Means of Finance

(a) Promoter Share	:	
(b) Bank Term loan	:	
(c) Subsidy	:	
(d) Quasi equity	:	
(e) Unsecured loan	:	

Total	:	
		---

11. Details of Cost of Plant & Machinery/equipment supported by quotations.

12. Details of the Building construction and the cost duly certified.

13. Area of Operation with special reference to MIDH Districts to be covered.

14. Availability of raw material, name of the cluster and District along with the major crops.

15. Backward linkages with farmers with reference to either providing services or purchase of raw material.

16. Forward linkages -Analysis of domestic and export markets, tie up made for sale of Produce and branding aspect.

17. No. of farmers/ orchardist to be benefited.

18. SWOT Analysis.

19. Financial Analysis – IRR, NPW, Cost benefit Ratio, Breakeven point, DER, DSER, Projected balance sheet etc.

20. Insurance of the fixed assets

21. Certificate from Pollution Control Department.

22. Name of the sponsoring bank along with the details of Techno-economical appraisal reports, copy of sanction letter and Detailed Project Report (DPR) as submitted to bank.

23. Affidavit of Rs. 100/- regarding Non-availing of subsidy from any other Central/State Govt. Departments.

24. Social benefits with special reference to employment generation.
    (a) Direct employment
    (b) Indirect employment
    (c) Women/S.T./S.C. employment

25. Details of the sustainability of the project with special reference to its Capacity to generate income since only one time grant is admissible.

26. Implementation schedule.

27. Amount of subsidy sought.

28. Production cluster should be identified near the existing infrastructure for pre harvest and post harvest, market and processing, Agri Export Zones (AEZ).

29. Linkages with infrastructure created by the private/ corporate sector in And around the clusters. A write up on the initiatives of the linkages between MIDH clusters and private sector initiative to be brought out.

30. Marketing arrangements for surplus produce inside and outside State/Country to be indicated.

31. List of machinery and equipment.

Signature of the promoter

Recommendations of the District Horticulture & Sericulture Officer_____.

DHSO

Note: Synopsis to be enclosed in format no. I(b)

Format – I (b) (CS/RC)

PROPOSALS FOR ESTABLISHMENT OF COLD STORAGES

AT _____ DISTRICT _____

SYNOPSIS

1) Name of the Component & :

a) Sub-Component Applied for :

2) Title with Firm Details :

3) Purpose :

4) Name of the Proprietor/ Promoter/ Partnership/ Pvt. Ltd. Company/ Society :

5) Details of Project Cost:

a) Bank Term Loan **:** Rs. Lakhs

b) Other Loan **:** Rs. Lakhs

c) Capital **:** Rs. Lakhs

Total Project Cost : Rs. Lakhs

---

6) Status of the Project:

a) Completed/ Under Construction**:**

b) If Under Construction Stage

Date of Commencement **:**

Probable date/ month of completion**:**

7) Breakup of the Project Cost:

a) Civil Works	:	Rs.	Lakhs
b) Plant & Machinery & Other	:	Rs.	Lakhs
Total	:	**Rs.**	**Lakhs**

8) List of Documents:

a) Approval of the DHM (Dist.Collector) :

b) Detailed project report (5copies) :

c) Bank Approval Memorandum :

d) Affidavit :

e) Quotations for Supply of Plant & Machinery :

f) Details of Civil & Technical Works Certified by Chartered Engineer :

g) Photos of unit :

9) Details of Estimated Cost & Subsidy as Per MIDH Norms:

a) Estimated cost : Rs. Lakhs /Unit

b) Subsidy : Credit linked back ended subsidy @ 35% of the capital cost i.e., Rs. Lakhs/Unit.

Signature of the Promoter

Format – II (CS/RC)

AFFIDAVIT (Rs. 100/- Stamp Paper)

I / We _____ (Name of the Promoter / Director) son of _____ (Father's Name) resident of _____ (residence address) do hereby solemnly affirm and declare here under.

1) That I am the director of _____,(name of the beneficiary) having its registered office at _____, (office address of beneficiary) and am fully aware of the facts relating to the setting up the project at _____ (location of the project) for _____ (activities to be undertaken by project) and the application made to MIDH for availing assistance under Developmental Schemes - _____

2) That the terms and conditions of the scheme of MIDH under which an application has been made by the applicant have been properly read and understood by me and I affirm that the project / proposal / scheme comply with the terms and condition of MIDH and the application has been made in the correct applicable scheme.

3) That the proposed activities to be undertaken by the project / proposal / scheme are covered under the above scheme of MIDH and no part of the scheme / infrastructure of the project is designed or assigned to be used for any activity other than the activities specified in the application at present or in the near future.

4) That the information provided in the application for availing assistance under developmental schemes - _____ is true and correct to the best of my knowledge and belief. The estimates of the cost of project / proposal / scheme, financial viability and operating results have been worked out / computed as per the rule and generally accepted principles and norms in this regard.

5) No Subsidy / grant – in – aid has been availed by the promoters / directors / partners / proprietors for this new project and component thereof from central Govt. or any its agencies.

6) I / We also solemnly affirm that the proposed activity in the application for availing assistance under development schemes - _____ is a

completely new activity and not a pre – existing activity or any component thereof and further I assure that the unit will be utilized for the same activity for which the assistance is sought from the MIDH through State MIDH Cell of Telangana Govt. for the economic period of 15 years. In case, if the unit is misused I am liable for any action deemed to be fit by the Govt. of Telangana including recovery of the assistance amount extended. The information furnished in the application dated _____ is true to the best of my knowledge and belief and nothing material has been concealed.

7) In case of concealment of any facts in this regard, the MIDH would have right to cancel my application out right at any stage.

8) I will display a sign board depicting "Department of Horticulture" (MIDH, Assisted Project).

9) The release of subsidy is subject to actual expenditure, receipts, inspection, MIDH norms etc., In case of any discrepancy / dispute the decision of the Mission Director & Director of Horticulture is final.

10) I agree and resolve that the department reserves the right to modify, add or delete any term/ condition without assigning any reason thereof and shall also have right to pre and post inspect / monitor the project and verify the related records at any time during the economic life of the project by the concerned officers.

DEPONENT VERIFICATION

Verified on solemn affirmation at _____ that the content of the above affidavit are true to the best of my knowledge and belief and nothing material has been concealed.

DEPONENT / COMPETENT AUTHORITY

(to be Signed by Notary with seal)

Format – III (CS/RC)

DECLARATION BY ENGINEER

I _____, R/o. _____- certify that:

1. That I am a graduate engineer and have adequate experience / expertise in designing, Constructing and commissioning cold stores, insulation & cooling system and cold chain infrastructure equipment.
2. That a copy of my graduation / post graduation certificate of B.E. / B. Tech / M. Tech is enclosed and shall form part of my certification and declaration.
3. That I am the project / Technical Consultant and have been hired by the project promoter of M/s. _____ to design, conceptualize and prepare the project DPR bearing Ref. No.___.
4. That I am fully conversant with relevant codes and standards applicable to the cold chain infrastructure and affirm invariable compliance of the project to the above mentioned prescribed Technical Standards.
5. That I have thoroughly examined notification F. No. 45-64/2010-Hort dated 25.02.2010 for prescribed technical standards w.e.f. 01.04.2010.
6. That I certify that the components of insulation and refrigeration systems in the prescribed format of the technical data sheet conform the ratings and performance of selected equipments and proposed design as per the prescribed Technical Standards w.e.f. 01/04/2010 vide notifications F. No. 45-64/2010-Hort dated 25.02.2010.
7. That I undertake to DHSO to the requirements of confidentiality and non-compete with respect to proprietary information entrusted to me by the promoter/manufacturer of equipment / the Board.
8. That I will assist the Government inspection and regulatory agency during stage inspection of the project and provide any/or all technical clarifications as and when required.
9. That I will furnish a certificate of satisfactory commissioning of the cooling system in conformance to the performance indicators as per the prescribed standards.
10. That in case of any concealment of facts by me in the DPR with respect to invariable compliance to Technical Standards or on any instance of

false declaration / certification by me or any part of my declaration is found to be incorrect, the Board may, in its discretion, take any actions (including legal action) against me as deemed fit and proper.

IN WITNESS WHEREOF, the consultant has signed this declaration and certification on this ___ Day of _____ 2018 in the presence of the following witnesses;

WITNESSES:

1.

(Sign of the Consultant)

With civil stamp

Format – IV

Preliminary (Inspection Report) while submitting project to State MIDH Cell.

Date of Inspection:

A	Component	:	
B	**Details of Project** (iii) Name of the project (iv) Address for communication with telephone No.	: : : :	
C	**Project Location with Address** (i). Survey No (ii). Village (iii). Mandal	: : : :	
D	Constitution	: : :	Individual/Partnership Firm/ Company.
E	(i). Proposed Activity (ii). Type (iii). Proposed type of cooling system	: : :	Cold Storage
F	Name of the Promoter	:	
G	**Present physical status of the project :** I. Construction started or not (v) Land development status/boundary/road (vi) Connecting road to the plot (vii) Stage of cold store building civil/pre engineered as on inspection date (viii) Type of produce to be stored	: : : : :	

Certificates:

This is to certify that the promoter has submitted project proposal along with DPR and all relevant documents for Establishment of Cold storage unit. The project proposal is as per the norms of MIDH and recommended for placing in SLEC for approval.

Signature of the Promoter **Signature of the Banker**

Signature of the HO **Signature of the DHSO**

Format – V (A) (CS)

JOINT INSPECTION REPORT
(Release of First Installment)

A	Component	:	
B	**Details of Project** (i) Name of the project (ii) Address for communication with telephone No.	: : : :	
C	**Project Location with Address** (i). Survey No (ii). Village (iii). Mandal	: : : :	
D	Constitution	: : :	Individual/Partnership Firm/ Company.
E	(i). Proposed Activity (ii). Type (iii). Proposed type of cooling system	: : :	Cold Storage
F	Name of the Promoter	:	
G	Present physical status of the project :		
H	**<u>Bank Details :</u>** 1. Bank Name 2. Branch 3. Bank Sanction Date 4. Loan Account No 5. Bank disbursement statement with A/c. No. 6. Letter from Banker (Subsidy Account no. given by bank)	: : : : : : :	

It is recommended to release 1st installment Rs. _____ (Rupees._____ only) as credit linked back ended subsidy in to the subsidy reserve fund account bearing no:---------, IFSC Code:------ Bank:----------, Branch:---------- as the unit has constructed.

Promotor **Banker** **HO** **DHSO(Concerned)**

Format – V (B) (CS)

COMPONENT WISE RELEASES MADE BY THE BANKER FOR COLD STORAGE

Name of the Firm **:**

District **:**

Place **:**

Subsidy Account No & IFSC Code**:**

(Rs. In Lakhs)

Sl. No.	Particulars	Project Cost		Actual investment		Remarks
		As per project report	As appraised by Banker	Loan amount released by Banker	Promoters Margin money	
1	2	3	4	5	6	7
1.	Cost on Land					
2.	Civil Works					
3.	Cost on Building					
4.	Cost on Plant & Machinery					
5.	Ethylene Gas Generation System					
6.	Plastic Crates					
	Total:					

Bank Manager /
Representative
(Field Officer)
With Seal

Format – V (C) (CS)

JOINT INSPECTION REPORT FOR COLD STORAGE UNDER POST HARVEST MANAGEMENT COMPONENT OF MIDH, TELANGANA.

Name of the Firm:

District:

Place:

Sl. No.	Particulars	Project Cost		Actual investment		Re marks
		As per project report	As appraised by Banker	Loan amount released by Banker	Promoters Margin money	
1	2	3	4	5	6	7
I.	**Means of Finance**					
1.	Capital					
2.	Term Loan from Bank					
3.	Subsidy / Margin Money / Un-Secured Loans					
	Total:					
II.	**Assessment**					
1.	Cost on Land					
2.	Cost on Building					
3.	Cost on Plant & Machinery					
	Total:					

Certificates:

1. This is to certify that the promoter has established Cold Storage Unit as per the norms of the MIDH. The promoter has followed all the terms & conditions mentioned in the administrative sanction.
2. This is to certify that the promoter has fulfilled all the observations made in the Techno Economic Viability Report (TEVR). The civil works and installation of machinery/equipment as per technical standards were completed.
3. This is to certify that the project is eligible to avail subsidy of Rs. ----------.
4. An amount of Rs._____ is recommended to release towards 1st installment to the subsidy reserve fund account bearing No: ----------, IFSC Code:……., Bank:----------, Branch:----------.

Promoter HO DHSO Sr. Officer from Head Office

Member from NABCONS Banker TSG/Scientist from DATT Centre

Format – V (D) (CS)

SUBSIDY CALCULATION SHEET

Name of the **Cold Storage**:

Total No. of Chambers:

Number of Floors:

Sl.No	Chamber No	Floor	Length (M)	Depth (M)	Height (M)	Internal Volume (CBM)	Conversion (CMB per MT)	MT Capacity of Chamber
1	Chamber - 1	First						
		Second						
		Third						
		Fourth						
	Reduce	Internal Stair case						
		Lift						
	Total Internal Volume of Chamber-1							
2	Chamber - 2	Ground						
		First						
		Second						
		Third						
		Fourth						
	Reduce	Internal Stair case						
		Lift						
	Total Internal Volume of Chamber-2							
	Cold Storage Type		**CS 1**	**Total Volume (CBM)**			**Total Capacity (MT)**	
	Limit to MIDH of 5000 MT CS							
	Cost per MT Limited to as per MIDH Guideline				8000 / MT			
	Subsidy limited to 35%				**35%**			

Certificates:

1. This is to certify that the promoter has established cold storage unit as per the norms of the MIDH. The promoter has followed all the terms & conditions mentioned in the administrative sanction.
2. This is to certify that the promoter has fulfilled all the observations made in the Techno Economic Viability Report (TEVR). The civil works and installation of machinery/equipment as per technical standards were completed.

3. This is to certify that the project is eligible to avail subsidy of Rs. _____
4. An amount of Rs._____ (Rupees) is recommended to release towards 1st installment to the subsidy reserve fund account bearing No:_____, IFSC Code:_____, Bank:_____, Branch:_____.

Promoter HO DHSO Sr. Officer from Head Office

Member from NABCONS Banker TSG/Scientist from DATT Centre

FORMAT- V - (E) (CS)

Detailed Report on Cold Storage at the time of final and Joint Inspection

Date of Inspection:

S.No		Information at the time of Inspection	Remarks
1.	(i) Name of the project (ii)Address for communication with telephone No. (iii) Project location with address (iv) Constitution (Individual/ Joint Individual/Partnership Firm/ Company.		
2.	Proposed Activity Type Proposed type of cooling system	Cold Store	
3.	Name of the Promoter		
4.	<u>Present physical status of the project</u> 4A. Date of start (i) Land development status/boundary/road (ii) Connecting road to the plot (iii) Stage of cold store building civil/pre engineered as on inspection date (iv) Installation of power transformer/electricity supply equipment (v) Installation of Refrigeration cooling system (vi) Type of produce (vii) Whether cold storage is functioning. (viii) Size of the Cold Storage (ix) No. of Chambers (x) Size of each Chamber (xi) Chamber-1 in ft (xii) Chamber-2 (xiii) Chamberr-3 (xiv) Chamber-4 (xv) Size of Machinery Room	**Remarks (in detail)** ➢ ➢ ➢ ➢ ➢	
5	Technical Details		
	Type of Compressor		
	Make /Model No./ Make Serial No.		
	Motor Type Capacity of the Motor in H.P Make		
	Refrigeration Capacity in Kw/TR		
	Total No. of Compressors Installed		

	Total No. of Motors Installed		
	Total Capacity of Motors in HP		
	Type of Evaporative Coils		
	Total No. of AHU's Installed		
	No. of Fans per Unit		
	Capacity of AHU in Kw/TR		
	Total Capacity of AHU's In TR		
	Type of Condenser		
	Capacity of Condenser in TR		
6	1.Humidifiers : Present / Not present 2. Make / Model No. 3. Type of Humidifiers	: : :	
7	Type of Doors		
A	Thickness of Insulation		
B	Insulation Material Used for the Door With Density		
8	Generator Make Model No. Capacity in KV		
9	Material Handling Lift Capacity		
10	Thickness of the Walls		
11	Type of Insulation used for walls Wall insulation Thickness/ Density Vapor Barrier used –Details		
12	Floor Insulation Type Thickness		
13	Ceiling Insulation Material used Thickness Recommendation of Pre Inspecting Officer		
14	Capacity of Transformer		
15	Fire Safety Devices installed or not		
16	Type of Commodities Stored		
17	Brief info on the Market Potential		
18	Any other Information		

Certificates:

1. This is to certify that the promoter has established Seed Infrastructure Unit as per the norms of the MIDH. The promoter has followed all the terms & conditions mentioned in the administrative sanction.
2. This is to certify that the promoter has fulfilled all the observations made in the Techno Economic Viability Report (TEVR). The civil works and installation of machinery/equipment as per technical standards were completed.

3. This is to certify that the project is eligible to avail subsidy of Rs. _____
4. An amount of Rs._____ (Rupees) is recommended to release towards 1st installment to the subsidy reserve fund account bearing No:_____, IFSC Code:_____, Bank:_____, Branch:_____.

Promoter **HO** **DHSO** **Sr. Officer from Head Office**

Member from NABCONS **Banker** **TSG/Scientist from DATT Centre**

Check list for submission of release proposals towards 1st instalment

1. Missing documents as per check list (if any)
2. Joint inspection report in format- V (A) CS, V (B) CS, V (C) CS, V (D) CS & V (E) CS.
3. Term loan account statement from lending bank.
4. Letter from lending bank regarding reserve fund account details.
5. Insurance certificate
6. CA certificate (certifying the component wise expenditure)
7. DMC Approval copy.

FORMAT- V -(F) (CS)

JOINT INSPECTION REPORT FOR 2ND INSTALLMENT SUBSIDY

(Project completion and commencement of commercial production of unit)

1. Name of the unit with full address :
2. Date of Administrative sanction :
3. Name of the CEO/Managing Director :
4. Present status of unit/project :
5. Components of project :

Name of the Component	**Size as per DPR**	**Actual Size**

6. Date of 2nd inspection of JIT members :
7. Name & Designation of JIT member :

   a.

   b.

   c.

   d.

   e.

   f.

8. Means of Finance : (Rs. in lakhs)

Means of Finance	**As per DPR**	**Actual investment**
Promoter contribution		
Term loan		
Others		
Total		

9. Date of start of project :
10. Date of completion of civil works and machinery installation:
11. Date of Joint inspection for 1st installment of subsidy :
12. Date of commencement of commercial production of the project :

13. Week wise/Month wise seed processing details :
14. Status of Term loan :
15. Remarks of JIT members :

Certificate:

1. This is to certify that the promoter has established Cold Storage unit as per the Norms and MIDH guidelines.
2. This is to certify that the promoter has fulfilled all the terms and conditions laid down in administrative sanction order issued by Horticulture Department.
3. This is to certify that the project has commenced commercial production and running as per projections in DPR/TEVR.
4. The project eligible for total subsidy of Rs._____ Lakhs and Rs. _____ Lakhs is recommended as 2nd installment.

Promoter Banker HO DHSO

TSG (Member) Sr. Officer from Head office Member from NABCONS

Check list for submission of release proposals towards 2nd instalment

1. Missing documents as per check list (if any)
2. Joint inspection report in format-V
3. Term loan account statement from lending bank.
4. Energy audit report.
5. DMC Approval copy.
6. Month wise seed processing details from commercial start of project.

BASIC DATA SHEET FOR COLD STORAGES

Format – VI

A. Identification

<table>
<tr><td>Name of Cold Storage</td><td colspan="3"></td></tr>
<tr><td rowspan="2">Location of Cold Storage</td><td>Area / Village</td><td colspan="2">Town</td></tr>
<tr><td>District</td><td colspan="2">State</td></tr>
<tr><td>Name of Promoter Company / Owner</td><td colspan="3"></td></tr>
<tr><td>Type of company (Proprietorship / Partnership / Pvt. Ltd / Ltd)</td><td colspan="3"></td></tr>
<tr><td rowspan="2">Postal address of Promoter</td><td colspan="3"></td></tr>
<tr><td>Tel / Fax</td><td>Mob. No</td><td>E-mail</td></tr>
<tr><td>Present activity in brief</td><td colspan="3"></td></tr>
<tr><td>Name of CEO / MD</td><td colspan="3"></td></tr>
<tr><td>Name of Manager / Contact Person</td><td colspan="2"></td><td>Phone / Mobile No</td></tr>
</table>

B. Basic Cold Store Design Considerations

i) Commodity Storage Requirements

Type of Commodities/Produce		
Ideal / Recommended Storage Conditions – Temperature (DB in ^{O}C) – Humidity RH (%) Range – Air Circulation (CMH/MT of Produce) – Ventilation (Air Changes/Day) – CO_2 Range (PPM) Produce Cooling Rate (^{O}C/day) Freezing Point ^{O}C – Others		
Cold Chamber Dry bulb (DB in ^{O}C)		
Cold Chamber RH (%)		
Max Storage period (months)		
Max product temp (^{O}C) – at the time of loading		
Daily loading rate (MT/day) – in each cold chamber		
Loading Period (months)		
Pull down rate (^{O}C / day)		
Unloading Period (months)		
Daily unloading rate (MT/day) – from each cold chamber		
Ante Room Conditions (T ^{O}C & RH %)		
Sorting & Grading Area (T ^{O}C & RH %)		
Special Provisions CIPC treatment for Process Potatoes		
Special Provisions – MA / Ethylene Control / Fumigation/ Fresh Air etc		

ii) Fresh Air / Ventilation System

Brief Description of CO_2 Extraction / Ventilation System	
CO_2 Concentration Control Range (PPM)	
Monitoring & Control Instrument – Type – Accuracy	
Ventilation Capacity (Max Air Changes/Day)	
Design Considerations for Energy Recovery and Preventing Wetting of Produce	

iii) Cold Store Chamber Sizing and Capacity

No. of chambers:

Type : Mezzanine/ Palletized

Max Height of Building

Details	CSC 1	CSC 2	CSC 3	CSC 4
Total Capacity of Each Cold Store Chamber (MT)				
Internal Chamber Dimensions L x B x H (m)				
No. of mezzanine floors X Height (m) per floor				
Size &Weight of Bags or Boxes being stored				
Total number of Bags/Boxes stored in each Cold Store Chamber				

iv) Ante Room & Process Areas

Details	Length (m)	Width (m)	Height (m)
Ante Room			
Sorting & Grading Area			
Loading / Unloading dock			

v) Machine Room & Utility Areas

Details	Length (m)	Width (m)	Height (m)
Machine Room			
Office Area			
Toilets & Changing rooms			
Any other			

vi) Building & Construction Details

Type of construction: Civil/ Pre-engineered Building

Type of External walls of cold chambers	
Type of Internal / Partition walls	
Type of Roof / Ceiling	
Type of Internal structure / Racks	
Type of mezzanine grating	
Types of Lighting fixtures in cold Chambers	
Types of Lighting fixtures in Process & Other Areas	

ii) Insulation and Vapor Barrier

Type of Insulation: Insulating Sheets / Metal Skin Composite panels

Type of Insulation	Wall		Ceiling / Roof	Floor
	External	Internal		
Type of material EPS / Metal Skin PUF Composite Panels / XPS/ PUR, Others				
Relevant IS Code				
Density (kg/m^3)				
Thermal Conductivity at +10°C k value (W/m.K)				
Thermal diffusivity m2/h				

Water vapour transmission rate, ng/Pa.sm, Max.				
Water absorption after 24h immersion, percentage by mass.				
Relevant IS Code of Practice for Thermal Insulation of Cold Store				
Total Insulation Thickness (mm)				
No. of layers & Thickness / layer (mm)				
Type of vapor barrier & thickness (microns)				
Type of Bituminous/Sticking Compound				
Type of Cladding / Covering/External Finish				
Locking/Fixing & Sealing System in case of Metal Skin Composite Panels				
Any other info				

viii) Cold Store Doors & Air Curtains

Type of Insulation	Details
No. of Insulated doors	
Type hinged / sliding	
Insulation Material EPS / PUF / Others	
Thickness of Insulation (mm)	
Type of cladding	
Size of door opening	
Provision of Strip curtains – nos. & overlap %	
Air curtains, if any	
Others	

ix) Material Handling

Proposed Practice: Manual / Semi Automated /Automated

Procedure	Brief Description
Material Handling Procedures & Equipments	
Cap of Electric Elevator Rating of motor (kW)	
Any other device	

x) Grading, Sorting Washing & Packing Line (optional)

Proposed Practice: Manual / Semi Automated /Automated

Procedure	Brief Description
Process Line	
Total Connected Load (kW)	

Please attach a Plan & Layout of the proposed Cold Store unit in accordance to the Statutory Building By-Laws and BIS Building Codes & Standards duly approved by a Registered Architect and Structural Engineer. The drawings should detail out insulation type, thickness and fixing methodology in sectional details.

C. Heat Load Calculation of Cooling System – Summary

Ambient Conditions	Summer	Monsoon	Winter
Dry Bulb Temperature (°C)			
Wet Bulb Temperature (°C)			

Refrigeration Load		During Loading (kW)	During Pull Down (kW)	During Holding (kW)
Transmission Load				
Product Load				
Internal Load	Lighting load			
	Occupancy load			

Infiltration Load			
Ventilation/ Fresh Air Load			
Equipment Load - Fan motors etc.			
Total Load (kW/24 hrs)			

Compressor Operation Hours/Day	Loading Period		
	Pull Down Period		
	Holding period		
Multipliers	Safety Factor		
	Defrost Period		
Total Refrigeration Load	Peak Period	Holding Period	Lean Period
Total Load (KW)			

Please attach detailed heat load calculation sheets of the proposed cold store unit in accordance to the prescribed Technical Standards and Guidelines duly approved by a Qualified Engineer.

Cooling System Design & Equipment Selection

Cooling System Configuration

Type of Refrigerant	Ammonia /Freon /Others
Type of System	Direct Exp / Gravity Feed / Overfeed
Type of compressor	Reciprocating / Screw / Scroll / Others
Type of capacity control	Automatic In steps / Step less
Type of condenser	Atmospheric / Evaporative / Shell & Tube / Plate Heat Exchanger / Other
Cooling Towers (if applicable)	FRP Induced Draft / Others
Type of cooling coil	Ceiling suspended / Floor Mounted / Others
Type of defrosting	Air / Water / Electric / Hot gas
Humidification System & Control (Brief Description)	

Compressor Detail

Compressor Make & Model	Nos.	Comp. RPM	Operating Parameters Evap. SST. / Cond. Temp (^{O}C)	Refrigeration Capacity (KW)	Motor Rating. (KW)	Total Electric Power. (BkW)	Remarks Working /Standby

Condenser Details

Condenser Make & Model	Nos.	Operating Parameters Cond.Temp.(SDT) / in/out water temp(^{O}C) &flow (lps)	Condenser Capacity (kW)	Electric Fan /Pump Motor Rating (kW)	Total Electric Power (BkW)	Remarks Working /Standby

Cooling Tower Details (if applicable)

Cooling Tower Make & Model	Nos.	Operating Parameters DB & WB Temp, in/out water temp(^{O}C)	Cooling Tower Capacity(KW)	Fan & Pump Capacity (CMH/LPS) & Motor (kW)	Total Electric Power (BkW)	Remarks Working /Standby

Air Cooling Units (ACU)

ACU Make & Model	Nos.	Operating Parameters Evap. (SST) & TD* (^{O}C)	Cooling Capacity (kW)	Air Flow (CMH) & Face Velocity (M/S)	Material of Coil Tubes & Fins	Fin pitch (mm)	Total Fan Electric Power (BKW)

(*) TD – Temperature difference between Evap. (SST) ^{O}C & Return Air (at coil inlet).

Please attach Detailed Technical Data Sheets of each equipment namely Compressors, Condensers, Cooling Towers, Air Cooling Units giving General Layout, Dimensions, Material of Construction, Rated Capacity, Operating Parameters and COP (please note that the Air Cooling Unit data sheet should include heat transfer area, fin spacing, no. of rows, air flow, face velocity, fan static, air throw, Fan Motor BKW/KW, fin spacing, etc) duly Certified by the respective equipment manufacturers with reference to the Relevant Codes & Standards.

Electrical Instillation

Total Connected load (kW)	
Estimated power requirement at Peak Load Period (BkW)	
Estimated power requirement at Holding Load Period (BkW)	
Estimated power requirement at Lean Load Period (BkW)	
Capacity of Transformer (KVA) (proposed)	
Size of Capacitor for power factor correction & their operation	
Make & Capacity of standby D.G.Set (KVA)	

Safety Provisions

Details of Fire Fighting equipment	Dry	
	Water based	
Handling Refrigerants & Leaks	Leak Detection	
	Handling measures	
Safety devices – LP/HP cutouts, safety valves, shut off valves etc.		
Details of Emergency alarm system & push button system in cold chambers		
Emergency lighting in Cold chambers & other areas		
Lightening arrestors		
Any other safety provisions		

Codes & Standards Followed

Building Design & Structure	
Construction Materials	
Thermal Insulation & Application	
Refrigeration Equipment & Systems	
Electrical & Mechanical Systems	
Food Safety	
Others	

Energy Saving Equipment & Measures

Details of Energy Saving devices	**Brief Description and Savings**
Light Fixtures CFL/LED	
Natural Lighting for general areas	
VFD for fans / compressors	
Refrigerant Controls and Automation	
Air Purger	
Power Factor Controller	
Energy recovery heat-exchanger for Ventilation System	
Renewable/ Solar Energy e.g. PV lighting	
PLC Control, & Data Acquisition	
Any other features e.g. water recycling, rain water harvesting	

Operation & Maintenance

Description	**Nos. / Details**
Proposed staff for Operation & Maintenance	
Proposed Annual Maintenance Contracts (if any)	
Training & Preventive Maintenance procedures	
Sanitation & Hygiene practice	
Pollution Control	

Estimated Performance Parameters of Proposed Cold Store

Parameters	Peak Period	Holding Period	Lean Period
Coefficient Of Performance (COP) Of the Cold Store Unit			
Power Consumption (KWH/Day)			
Total Electricity Cost (Rs/Day)			
Electricity Cost towards Storage (Rs/ MT /Day)			

Other Information

Place **Signature and**

Date **Name of Applicant with seal**

4. RIPENING CHAMBERS/ UNITS

Pattern of Assistance:

Sl. No.	Component	Unit cost	Pattern of Assistance
1	Ripening chamber	Rs. 1.00 lakh/MT. (max 300 MTs per beneficiary)	Credit linked back-ended subsidy @ 35% of the capital cost of project in general areas and 50% in case of Hilly & Scheduled areas for a maximum of 300 MT per beneficiary.

Background Facts

It is also noticed that ripening chambers which are being set up under various schemes of horticulture development, do not posses appropriate technical standards. Main shortcomings noticed are as follows-

- Inadequate building design;
- Use of inadequate / unreliable insulation material with insufficient value
- Use of obsolete and energy inefficient refrigeration units
- Lack of uniform air flow circulation system
- Lack of controlled conditions and technology for ethylene, temperature and relative humidity
- Lack of proper ventilation systems and exhaust fans for Co_2 emission
- Lack of monitoring and control system and display devices;
- Use of unsafe electrical devices

It is therefore, necessary to prescribe appropriate technical standards in respect of modern, pressurised fruit ripening units which are given in following chapter.

I. Technical Parameters for Pressurized Ripening Chamber

- Unless specifically otherwise mentioned, all the applicable latest codes and standards published by the Bureau of Indian Standards and all other standards, shall govern in all respects of design, workmanship, quality, properties of materials, method of testing and method of measurements.
- Generally relevant 'IS specification' and 'Code of Practices' shall be used for all electrical, mechanical and civil works/installation, however, wherever IS code is not available, relevant standard codes of AS ME /ASHRAE / IIAR or other International Codes are to be followed.

- Latest revisions will be followed in all cases. Even for Ripening of Fruitsand Vegetables' the process as recommended by IS Standards (e.g. IS11977 of 1987 for ripening of green banana) or as per International, Standards should be followed.
- The guidelines and technical specifications of NCCD (National Centre for Cold Chain Development) should be followed

Storage capacity of ripening chamber may depend on fruits to be rip ened & stacking and air-flow system. In this context, banana may be take n as reference crop for calculation of storage capacity for a given volume of storage space. ***11 cubic meter of chamber volume shall be equivalent to 1 metric tonne storage capacity of Ripening chamber****.*

INDEX for Checklist & Formats for Ripening Chambers

Sl. No	Item	Annexure/ Format Number
1	Check List For Projects For Cold Storage & Ripening Chamber	Annexure-I
2	APPLICATION FORMAT for Cold Storage / Ripening Chamber	Format - I
3	SYNOPSIS	Format – I (b) (CS/RC)
4	AFFIDAVIT (Rs. 100/- Stamp Paper)	Format – II (CS/RC)
5	Declaration by Engineer	Format – III (CS/RC)
6	Preliminary (Inspection Report) while submitting project to State MIDH Cell.	Format – IV
7	Joint Inspection report for Release of First Installment	Format – V (A) (RC)
8	Format to conduct final and joint inspection by the committee for Ripening Chamber under Post Harvest Management component of MIDH, Telangana	Format – V (B) (RC)
9	Ripening Chamber	Format – V (C) (RC)
10	Subsidy Calculation Sheet for Ripening Chamber	Format – V (D) (RC)
11	Detailed Report on Ripening Chamber at the time of 1st Joint Inspection	Format- V - (E) (RC)
12	Format for 2nd joint inspection	Format- V - (F) (RC)
13	Basic Data Sheet	Format – VI

Annexure-I

CHECK LIST FOR PROJECTS FOR COLD STORAGE & RIPENING CHAMBER

Sl. No.	DESCRIPTION	REMARKS
1	Application Form (Format – I) along with Synopsis in format – I (b) CS/RC	
2	Basic Data Sheet with Complete Technical Specifications (Format – VI)	
3	Detailed Project Report as Per MIDH Guidelines	
4	Partnership Deed	
5	Firm Registration Certificate	
6	Bank Sanction Letter	
7	Bank Appraisal Letter	
8	Approval from Gram Panchayat	
9	Approval from Pollution Control Board	
10	SSI registration certificate	
11	Fire Department approval with Drawings	
12	Pan Card Xerox Copy	
13	Electricity approval	
14	KYC documents of all the partners	
15	GST REGISTRATIONS	
16	Land Conversion	
17	DMC Approval (District Mission Committee)	
18	Affidavit (Format – VII)	
19	Land Documents (Sale Deed / Lease Deed)/ Pattadar pass book copy	
20	Declaration by Engineer (Format – VIII)	
21	NOC from NABARD / NHB/ APEDA/ DIC / SFC and MFPI	
22	CA Certificate	
23	Original Insurance copy of the Firm	

Format - I

APPLICATION FORMAT

Ripening Chamber

FORMAT FOR SUBMISSION OF PROJECT BASED PROPOSALS POST HARVEST MANAGEMENT BY PRIVATE SECTOR UNDER MIDH

1. Name of Project :
2. Type of Activity :
3. Objectives :
4. Purpose (Details of crops stored in cold Storages / Ripening Chamber are also to be given) :
5. Location of the project with address :
a) Address for correspondence :
b) General area :
c) Hilly/Tribal area :
6. Constitution :

(Date of incorporation and relevant law along with a copy of articles and memorandum of association, bylaws, partnership deed and registration certificate whichever is applicable. Documentary proof regarding authorized / paid up capital and promoters contribution.)

(a) Public Ltd. Company :
(b) Private Ltd. Company :
(c) Registered Society :
(d) Association :
(e) Federation :
(f) Producer Company :
(g) Proprietorship firm :
(h) Partnership concern :

7. Management :

8. Brief background of promoters :
a) Category / Caste :
b) Bank name & branch and date of sanction:
9. Cost of Project (Rs in lakhs) :
(a) Land- (if purchased new along with documentary proof)
(b) Building :
(c) Plant & Machinery :
(d) Contingencies :
(e) Miscellaneous fixed assets :
(f) Working Capital margin :
(g) Pre operative exp. ----------
Total :
----

10. Means of Finance

(a) Promoter Share	:	
(b) Bank Term loan	:	
(c) Subsidy	:	
(d) Quasi equity	:	
(e) Unsecured loan	:	

Total	:	
		---

11. Details of Cost of Plant & Machinery/equipment supported by quotations.

12. Details of the Building construction and the cost duly certified.

13. Area of Operation with special reference to MIDH Districts to be covered.

14. Availability of raw material, name of the cluster and District along with the major crops.

15. Backward linkages with farmers with reference to either providing services or purchase of raw material.

16. Forward linkages -Analysis of domestic and export markets, tie up made for sale of Produce and branding aspect.

17. No. of farmers/ orchardist to be benefited.

18. SWOT Analysis.

19. Financial Analysis – IRR, NPW, Cost benefit Ratio, Breakeven point, DER, DSER, Projected balance sheet etc.

20. Insurance of the fixed assets

21. Certificate from Pollution Control Department.

22. Name of the sponsoring bank along with the details of Techno-economical appraisal reports, copy of sanction letter and Detailed Project Report (DPR) as submitted to bank.

23. Affidavit of Rs. 100/- regarding Non-availing of subsidy from any other Central/State Govt.Departments.

24. Social benefits with special reference to employment generation.
    (a) Direct employment
    (b) Indirect employment
    (c) Women/S.T./S.C. employment

25. Details of the sustainability of the project with special reference to its Capacity to generate income since only one-time grant is admissible.

26. Implementation schedule.

27. Amount of subsidy sought.

28. Production cluster should be identified near the existing infrastructure for pre harvest and post harvest, market and processing, Agri Export Zones (AEZ).

29. Linkages with infrastructure created by the private/ corporate sector in And around the clusters. A write up on the initiatives of the linkages between MIDH clusters and private sector initiative to be brought out.

30. Marketing arrangements for surplus produce inside and outside State/Country to be indicated.

31. List of machinery and equipment.

Signature of the promoter

Recommendations of the Director of Horticulture & Sericulture Officer _____.

DHSO

Note: Synopsis to be enclosed in format no. I(b)

Format – I (b) (RC)

PROPOSALS FOR ESTABLISHMENT OF _____

AT _____ DISTRICT _____

SYNOPSIS

1) Name of the Component & :

a) Sub-Component Applied for :

2) Title with Firm Details :

3) Purpose :

4) Name of the Proprietor/ Promoter/ :
Partnership/ Pvt. Ltd. Company/
Society

5) Details of Project Cost:

a) Bank Term Loan	:	Rs.	Lakhs
b) Other Loan	:	Rs.	Lakhs
c) Capital	:	Rs.	Lakhs

Total Project Cost	:	**Rs.**	**Lakhs**
		---	

6) Status of the Project:

a) Completed/ Under Construction :

b) If Under Construction Stage

Date of Commencement :

Probable date/ month of completion :

7) Breakup of the Project Cost:

a) Civil Works	:	Rs.	Lakhs
b) Plant & Machinery & Other	:	Rs.	Lakhs

Total	:	**Rs.**	**Lakhs**
		---	

8) List of Documents:

a) Approval of the DHM (Dist.Collector) :

b) Detailed project report (5copies) :

c) Bank Approval Memorandum :

d) Affidavit :

e) Quotations for Supply of Plant & Machinery :

f) Details of Civil & Technical Works Certified by Chartered Engineer :

g) Photos of unit :

9) Details of Estimated Cost & Subsidy as Per MIDH Norms:

a) Estimated cost :Rs. Lakhs /Unit

b) Subsidy :Credit linked back ended subsidy @ 35% of capital cost i.e., Rs. Lakhs/Unit.

Signature of the Promoter

Format –II (RC)

AFFIDAVIT (Rs. 100/- Stamp Paper)

I / We _____ (Name of the Promoter / Director) son of _____ (Father's Name) resident of _____ (residence address) do hereby solemnly affirm and declare here under.

1) That I am the director of _____,(name of the beneficiary) having its registered office at _____, (office address of beneficiary) and am fully aware of the facts relating to the setting up the project at _____ (location of the project) for _____ (activities to be undertaken by project) and the application made to MIDH for availing assistance under Developmental Schemes - _____

2) That the terms and conditions of the scheme of MIDH under which an application has been made by the applicant have been properly read and understood by me and I affirm that the project / proposal / scheme comply with the terms and condition of MIDH and the application has been made in the correct applicable scheme.

3) That the proposed activities to be undertaken by the project / proposal / scheme are covered under the above scheme of MIDH and no part of the scheme / infrastructure of the project is designed or assigned to be used for any activity other than the activities specified in the application at present or in the near future.

4) That the information provided in the application for availing assistance under developmental schemes - _____ is true and correct to the best of my knowledge and belief. The estimates of the cost of project / proposal / scheme, financial viability and operating results have been worked out / computed as per the rule and generally accepted principles and norms in this regard.

5) No Subsidy / grant – in – aid has been availed by the promoters / directors / partners / proprietors for this new project and component thereof from central Govt. or any its agencies.

6) I / We also solemnly affirm that the proposed activity in the application for availing assistance under development schemes - _____ is a

completely new activity and not a pre – existing activity or any component thereof and further I assure that the unit will be utilized for the same activity for which the assistance is sought from the MIDH through State MIDH Cell of Telangana Govt for the economic period of 15 years. In case, if the unit is misused I am liable for any action deemed to be fit by the Govt. of Telangana including recovery of the assistance amount extended. The information furnished in the application dated _____ is true to the best of my knowledge and belief and nothing material has been concealed.

7) In case of concealment of any facts in this regard, the MIDH would have right to cancel my application out right at any stage.

8) I will display a sign board depicting "Department of Horticulture" (MIDH, Assisted Project).

9) The release of subsidy is subject to actual expenditure, receipts, inspection, MIDH norms etc., In case of any discrepancy / dispute the decision of the Mission Director & Director of Horticulture is final.

10) I agree and resolve that the department reserves the right to modify, add or delete any term/ condition without assigning any reason thereof and shall also have right to pre and post inspect / monitor the project and verify the related records at any time during the economic life of the project by the concerned officers.

DEPONENT VERIFICATION

Verified on solemn affirmation at _____ that the content of the above affidavit are true to the best of my knowledge and belief and nothing material has been concealed.

DEPONENT / COMPETENT AUTHORITY

(to be Signed by Notary with seal)

Format – III(RC)

DECLARATION BY ENGINNER

I _____, R/o. _____- certify that:

1. That I am a graduate engineer and have adequate experience / expertise in designing, Constructing and commissioning cold stores, insulation & cooling system and cold chain infrastructure equipment.
2. That a copy of my graduation / post graduation certificate of B.E. / B. Tech / M. Tech is enclosed and shall form part of my certification and declaration.
3. That I am the project / Technical Consultant and have been hired by the project promoter of M/s. _____ to design, conceptualize and prepare the project DPR bearing Ref. No.___.
4. That I am fully conversant with relevant codes and standards applicable to the cold chain infrastructure and affirm invariable compliance of the project to the above mentioned prescribed Technical Standards.
5. That I have thoroughly examined notification F. No. 45-64/2010-Hort dated 25.02.2010 for prescribed technical standards w.e.f. 01.04.2010.

6. That I certify that the components of insulation and refrigeration systems in the prescribed format of the technical data sheet conform the ratings and performance of selected equipments and proposed design as per the prescribed Technical Standards w.e.f. 01/04/2010 vide notifications F. No. 45-64/2010-Hort dated 25.02.2010.
7. That I undertake to DHSO to the requirements of confidentiality and non-compete with respect to proprietary information entrusted to me by the promoter/manufacturer of equipment / the Board.
8. That I will assist the Government inspection and regulatory agency during stage inspection of the project and provide any/or all technical clarifications as and when required.
9. That I will furnish a certificate of satisfactory commissioning of the cooling system in conformance to the performance indicators as per the prescribed standards.

10. That in case of any concealment of facts by me in the DPR with respect to invariable compliance to Technical Standards or on any instance of false declaration / certification by me or any part of my declaration is found to be incorrect, the Board may, in its discretion, take any actions (including legal action) against me as deemed fit and proper.

IN WITNESS WHEREOF, the consultant has signed this declaration and certification on this ___ Day of _____ 2018 in the presence of the following witnesses;

WITNESSES:

1.

(Sign of the Consultant)

With Seal

Format –IV (A) (RC)

RIPENING CHAMBERS

Preliminary Inspection Report
(At the time of submission of project to State MIDH Cell)

Date of Inspection:

A	Component	:	
B	**Details of Project** (i) Name of the project (ii) Address for communication with telephone No.	: : : :	
C	**Project Location with Address** (i). Survey No (ii). Village (iii). Mandal	: : : :	
D	Constitution	:	Individual/Partnership Firm/Company
E	(i). Proposed Activity (ii). No of Chambers	: :	Ripening Chamber
F	Name of the Promoter	:	
G	**Present physical status of the project :** I. Construction started or not (i) Land development status/boundary/road (ii) Connecting road to the plot (iii) Stage of Ripening Chamber building civil/pre engineered as on inspection date (iv) Type of produce to be Ripened	: : : :	

Certificates:

This is to certify that the promoter has submitted project proposal along with DPR and all relevant documents for Establishment of Cold storage unit. The project proposal is as per the norms of MIDH and recommended for placing in SLEC for approval.

Promoter **HO** **DHSO**

Format – IV (B) (RC)

Joint Inspection Report - Release of First Installment

A	Component	:	
B	**Details of Project** (i) Name of the project (ii) Address for communication with telephone No.	: : : :	
C	**Project Location with Address** (i). Survey No (ii). Village (iii). Mandal	: : : :	
D	Constitution	: : :	Individual/Partnership Firm/ Company
E	(i). Proposed Activity (ii). Type (iii). Proposed type of cooling System	: : :	Ripening Chamber
F	Name of the Promoter	:	
G	Present physical status of the project :		
H	**<u>Bank Details :</u>** 1. Bank Name 2. Branch 3. Bank Sanction Date 4. Loan Account No 5. Bank disbursement statement with A/c. No. 6. Letter from Banker (Subsidy Account no. given by bank)	: : : : : : :	

It is recommended to release 1st installment Rs. _____ (Rupees._____ only) as credit linked back ended subsidy as the construction of the unit was started.

Promoter **Banker** **HO** **DHSO**

FORMAT TO CONDUCT FINAL AND JOINT INSPECTION BY THE COMMITTEE UNDER POST HARVEST MANAGEMENT COMPONENT OF MIDH, TELANGANA

RIPENING CHAMBER **Format – V (B) RC**

Name of the Firm: District:

Place:

Sl. No.	Particulars	Project Cost		Actual investment		Remarks
		As per project report	As appraised by Banker	Loan amount released by Banker	Promoters Margin money	
1	**2**	**3**	**4**	**5**	**6**	**7**
I.	Means of Finance					
1.	Capital					
2.	Term Loan from Bank					
3.	Subsidy / Margin Money / Un-Secured Loans					
	Total:					
II.	Assessment					
1.	Cost on Land					
2.	Cost on Building					
3.	Cost on Plant & Machinery					
	Total:					

Recommended for release of subsidy of Rs. _____ Lakhs (Rupees in words)

Certificates:

1. This is to certify that the promoter has established Seed Infrastructure Unit as per the norms of the MIDH. The promoter has followed all the terms & conditions mentioned in the administrative sanction.
2. This is to certify that the promoter has fulfilled all the observations made in the Techno Economic Viability Report (TEVR). The civil works and installation of machinery/equipment as per technical standards were completed.
3. This is to certify that the project is eligible to avail subsidy of Rs. ----------
4. An amount of Rs._____ is recommended to release towards 1st installment to the subsidy reserve fund account bearing No: ---------- , IFSC Code:……., Bank:----------, Branch:----------.

Promoter **HO** **DHSO** **Sr. Officer from Head Office**

Member from NABCONS **Banker** **TSG/Scientist from DAATTC**

RIPENING CHAMBERS **Format – V (C) - RC**

Name of the Firm:

Sl. No.	Component of cost	Quantum	Unit
1.	Land		Sft
2.	Building		Sft
3. A	No of Chambers		
3. B	Chamber Size		
	a. Length		Ft
	b. Width		Ft
	c. Height		Ft
	d. Crates that can be accommodated of size 1.77'x1.28x1.08' (540x390x340 mm) at 10 crates longitudinally, 3 rows on either side of isle and 8 columns i.e. (10x3x8)*2 No's		No
4.	Fruit storage		
	a. Per Crate		Kgs
	b. Total for chamber		Kgs
5.	Insulation		
	a. PUF panels side and top and polysterene for floor		Sft
	b. Polysterene panels		Sft
	c. Thermocole/ Glass wool etc.		Sft
6.	Door		
	a. Hinged Doors		
	b. Sliding Doors		
	c. Electric operated top sliding door		
7.	Refrigeration		
	a. Direct cooling – Freon systems – 5 HP		Nos
	b. Direct cooling – Ammonia systems		Nos

Sl. No.	Component of cost	Quantum	Unit
	c. Water spray – Air Cooled systems		Nos
8.	Humidification		
	a. Humidifier		Nos
	b. Air cooled systems		
9.	Controls		
	a. Temperature and humidity		Nos
	b. Control panel for refrigeration system		Nos
10.	Ethylene Gassing System		
	a. Ethylene liquid dipping		Nos
	b. Ethylene gas generator		Nos
	c. Ethylene gas injection system		Nos
11.	Crates		Nos
12.	Pallets		Nos
13.	Trolley		Nos
14.	Deposits for Electricity etc.		Set
15.	Pre-Operative Expenses		Set
16.	Working Capital		Set

Promoter HO DHSO Sr. Officer from Head Office

Member from NABCONS Banker TSG/Scientist from DAATTC

SUBSIDY CALCULATION SHEET FOR RIPENING CHAMBER **Format – V (D) - RC**

Name of the Ripening Chamber :
Total No. of Chambers:

Chamber – I						**Chamber - II**					
Particulars	Length	Width	Height	Volume in Cubic feet		Particulars	Length	Width	Height	Volume in Cubic feet	
A) Ground Floor						**B) Ground Floor**					
Chamber – III						**Chamber - IV**					
C) Ground Floor						**D) Ground Floor**					
E) Less :											
a) Machine Space :											
b) Office Space :											
Total Net Volume (A+B+C+D)-E											
F. Total Volume											
Chamber - I											
Chamber - II											
Chamber - III											
Chamber - IV											
Total Cost of the Project in Rs. :											
Eligibility Subsidy in Rs. :											

Promoter **HO** **DHSO** **Sr. Officer from Head Office**

Member from NABCONS **Banker** **TSG/Scientist from DAATTC**

Format –V (E) -RC

Detailed Report on Ripening Chamber at the time of final and Joint Inspection

- Name of the firm :
  Proprietor / Partnership :
  Name & Address :

  Phone Nos. :
- Land (own/lease) purchased / inherited:
  If purchased for this purpose, sale deed: } If only the land cost included in the

  Title deed : project cost

  Area (sq.mt) :

  Cost of land :

- Shed (own/lease) :
  Dimensions of the structure : } If any the shed cost is included

  If shed constructed: Plan, Valuation by Engineer : in the project cost.

  Leased period, Lease deed (registered or not) :

- Refrigeration unit :
  Company :

  Code :

  Capacity :

- Commodity used :
  No of chambers :

  Internal dimension of the chambers (l,b,h,in ft.) :

Thickness of Puf panel :

No. of Puf panels :

Size of each panel :

Density of Puf :

- Floor insulation details (dimensions):
- Compressor : _____ HP
- Condenser motor : _____ HP, _____ RPM, _____ Nos
- Evaporator fan motor : _____ W, _____ RPM, _____ Nos

Power supply : _____ V, _____ PH, _____ HZ

Total power consumption : _____ Kw.

Power consumption / batch

(4 or 5 days) : _____ Kwh

Power costs / kwh. :

No of batches / year :

Wt of bananas per batch :

Cost of procurement of banana per ton :

Sale price of banana per ton :

- Humidifier cost & Make (Indian or Foreign) & nos.:
- Ethylene generator : cost , Nos:
- Bills (certified)

Refrigeration unit :

Puf Panels :

Control devices (temp, RH etc.) **:**

Humidifier **:**

Ethylene generator **:**

- No. of crates / chamber **:**

  Dimensions of the crates (ft) **:**

  Weight of bananas per crate **:**

- Any other (pl. specify) **:**

a) Copies of bills / vouchers / invoices / receipts – counter signed by banker.
b) Bank sanction letter with appraisal report.
c) Loan disbursement details./ Statement of account ,(Acct.No)

Promoter HO DHSO Sr. Officer from Head Office

Member from NABCONS Banker TSG/Scientist from DAATTC

BASIC DATA SHEET

Format – VI

A. Identification

<table>
<tr><td>Name of Cold Storage</td><td colspan="3"></td></tr>
<tr><td rowspan="2">Location of Cold Storage</td><td>Area / Village</td><td colspan="2">Town</td></tr>
<tr><td>District</td><td colspan="2">State</td></tr>
<tr><td>Name of Promoter Company / Owner</td><td colspan="3"></td></tr>
<tr><td>Type of company (Proprietorship / Partnership / Pvt. Ltd / Ltd)</td><td colspan="3"></td></tr>
<tr><td rowspan="2">Postal address of Promoter</td><td colspan="3"></td></tr>
<tr><td>Tel / Fax</td><td>Mob. No</td><td>E-mail</td></tr>
<tr><td>Present activity in brief</td><td colspan="3"></td></tr>
<tr><td>Name of CEO / MD</td><td colspan="3"></td></tr>
<tr><td>Name of Manager / Contact Person</td><td colspan="2"></td><td>Phone / Mobile No</td></tr>
</table>

B. Basic Cold Store Design Considerations

i) Commodity Storage Requirements

Type of Commodities/Produce		
Ideal / Recommended Storage Conditions – Temperature (DB in ^{O}C) – Humidity RH (%) Range – Air Circulation (CMH/MT of Produce) – Ventilation (Air Changes/Day) – CO_2 Range (PPM) Produce Cooling Rate (^{O}C/day) Freezing Point ^{O}C – Others		
Cold Chamber Dry bulb (DB in ^{O}C)		
Cold Chamber RH (%)		
Max Storage period (months)		
Max product temp (^{O}C) – at the time of loading		
Daily loading rate (MT/day) – in each cold chamber		
Loading Period (months)		
Pull down rate (^{O}C / day)		
Unloading Period (months)		
Daily unloading rate (MT/day) – from each cold chamber		
Ante Room Conditions (T ^{O}C & RH %)		
Sorting & Grading Area (T ^{O}C & RH %)		
Special Provisions CIPC treatment for Process Potatoes		
Special Provisions – MA / Ethylene Control / Fumigation/ Fresh Air etc		

ii) Fresh Air / Ventilation System

Brief Description of CO_2 Extraction / Ventilation System	
CO_2 Concentration Control Range (PPM)	
Monitoring & Control Instrument – Type – Accuracy	
Ventilation Capacity (Max Air Changes/Day)	
Design Considerations for Energy Recovery and Preventing Wetting of Produce	

iii) Cold Store Chamber Sizing and Capacity

No. of chambers:

Type : Mezzanine/ Palletized

Max Height of Building

Details	CSC 1	CSC 2	CSC 3	CSC 4
Total Capacity of Each Cold Store Chamber (MT)				
Internal Chamber Dimensions L x B x H (m)				
No. of mezzanine floors X Height (m) per floor				
Size &Weight of Bags or Boxes being stored				
Total number of Bags/Boxes stored in each Cold Store Chamber				

iv) Ante Room & Process Areas

Details	Length (m)	Width (m)	Height (m)
Ante Room			
Sorting & Grading Area			
Loading / Unloading dock			

v) Machine Room & Utility Areas

Details	Length (m)	Width (m)	Height (m)
Machine Room			
Office Area			
Toilets & Changing rooms			
Any other			

vi) Building & Construction Details

Type of construction: Civil/ Pre-engineered Building

Type of External walls of cold chambers	
Type of Internal / Partition walls	
Type of Roof / Ceiling	
Type of Internal structure / Racks	
Type of mezzanine grating	
Types of Lighting fixtures in cold Chambers	
Types of Lighting fixtures in Process & Other Areas	

ii) Insulation and Vapor Barrier

Type of Insulation: Insulating Sheets / Metal Skin Composite panels

Type of Insulation	Wall		Ceiling / Roof	Floor
	External	Internal		
Type of material EPS / Metal Skin PUF Composite Panels / XPS/ PUR, Others				
Relevant IS Code				
Density (kg/m^3)				
Thermal Conductivity at +10°C k value (W/m.K)				
Thermal diffusivity m2/h				
Water vapour transmission rate, ng/Pa.sm, Max.				
Water absorption after 24h immersion, percentage by mass.				

Relevant IS Code of Practice for Thermal Insulation of Cold Store				
Total Insulation Thickness (mm)				
No. of layers & Thickness / layer (mm)				
Type of vapor barrier & thickness (microns)				
Type of Bituminous/Sticking Compound				
Type of Cladding / Covering/External Finish				
Locking/Fixing & Sealing System in case of Metal Skin Composite Panels				
Any other info				

viii) Cold Store Doors & Air Curtains

Type of Insulation	Details
No. of Insulated doors	
Type hinged / sliding	
Insulation Material EPS / PUF / Others	
Thickness of Insulation (mm)	
Type of cladding	
Size of door opening	
Provision of Strip curtains – nos. & overlap %	
Air curtains, if any	
Others	

ix) Material Handling

Proposed Practice: Manual / Semi Automated /Automated

Procedure	Brief Description
Material Handling Procedures & Equipments	
Cap of Electric Elevator Rating of motor (kW)	
Any other device	

x) Grading, Sorting Washing & Packing Line (optional)

Proposed Practice: Manual / Semi Automated /Automated

Procedure	Brief Description
Process Line	
Total Connected Load (kW)	

Please attach a Plan & Layout of the proposed Cold Store unit in accordance to the Statutory Building By-Laws and BIS Building Codes & Standards duly approved by a Registered Architect and Structural Engineer. The drawings should detail out insulation type, thickness and fixing methodology in sectional details.

C. Heat Load Calculation of Cooling System – Summary

Ambient Conditions	Summer	Monsoon	Winter
Dry Bulb Temperature (°C)			
Wet Bulb Temperature (°C)			

Refrigeration Load		During Loading (kW)	During Pull Down (kW)	During Holding (kW)
Transmission Load				
Product Load				
Internal Load	Lighting load			
	Occupancy load			
Infiltration Load				
Ventilation/ Fresh Air Load				
Equipment Load - Fan motors etc.				
Total Load (kW/24 hrs)				

Compressor Operation	Loading Period	

Hours/Day	Pull Down Period		
	Holding period		
Multipliers	Safety Factor		
	Defrost Period		
Total Refrigeration Load	Peak Period	Holding Period	Lean Period
Total Load (KW)			

Please attach detailed heat load calculation sheets of the proposed cold store unit in accordance to the prescribed Technical Standards and Guidelines duly approved by a Qualified Engineer.

Cooling System Design & Equipment Selection

Cooling System Configuration

Type of Refrigerant	Ammonia /Freon /Others
Type of System	Direct Exp / Gravity Feed / Overfeed
Type of compressor	Reciprocating / Screw / Scroll / Others
Type of capacity control	Automatic In steps / Step less
Type of condenser	Atmospheric / Evaporative / Shell & Tube / Plate Heat Exchanger / Other
Cooling Towers (if applicable)	FRP Induced Draft / Others
Type of cooling coil	Ceiling suspended / Floor Mounted / Others
Type of defrosting	Air / Water / Electric / Hot gas
Humidification System & Control (Brief Description)	

Compressor Detail

Compressor Make & Model	Nos.	Comp. RPM	Operating Parameters Evap. SST. / Cond. Temp (^{O}C)	Refrigeration Capacity (KW)	Motor Rating. (KW)	Total Electric Power. (BkW)	Remarks Working /Standby

Condenser Details

Condenser Make & Model	Nos.	Operating Parameters Cond.Temp.(SDT) / in/out water temp(^{O}C) &flow (lps)	Condenser Capacity (kW)	Electric Fan /Pump Motor Rating (kW)	Total Electric Power (BkW)	Remarks Working /Standby

Cooling Tower Details (if applicable)

Cooling Tower Make & Model	Nos.	Operating Parameters DB & WB Temp, in/out water temp(^{O}C)	Cooling Tower Capacity(KW)	Fan & Pump Capacity (CMH/LPS) & Motor (kW)	Total Electric Power (BkW)	Remarks Working /Standby

Air Cooling Units (ACU)

ACU Make & Model	Nos.	Operating Parameters Evap. (SST) & TD* (^{O}C)	Cooling Capacity (kW)	Air Flow (CMH) & Face Velocity (M/S)	Material of Coil Tubes & Fins	Fin pitch (mm)	Total Fan Electric Power (BKW)

(*) TD – Temperature difference between Evap. (SST) ^{O}C & Return Air (at coil inlet).

Please attach Detailed Technical Data Sheets of each equipment namely Compressors, Condensers, Cooling Towers, Air Cooling Units giving General Layout, Dimensions, Material of Construction, Rated Capacity, Operating Parameters and COP (please note that the Air Cooling Unit data sheet should include heat transfer area, fin spacing, no. of rows, air flow, face velocity, fan static, air throw, Fan Motor BKW/KW, fin spacing, etc) duly Certified by the

respective equipment manufacturers with reference to the Relevant Codes & Standards.

Electrical Instillation

Total Connected load (kW)	
Estimated power requirement at Peak Load Period (BkW)	
Estimated power requirement at Holding Load Period (BkW)	
Estimated power requirement at Lean Load Period (BkW)	
Capacity of Transformer (KVA) (proposed)	
Size of Capacitor for power factor correction & their operation	
Make & Capacity of standby D.G.Set (KVA)	

Safety Provisions

Details of Fire Fighting equipment	Dry	
	Water based	
Handling Refrigerants & Leaks	Leak Detection	
	Handling measures	
Safety devices – LP/HP cutouts, safety valves, shut off valves etc.		
Details of Emergency alarm system & push button system in cold chambers		
Emergency lighting in Cold chambers & other areas		
Lightening arrestors		
Any other safety provisions		

Codes & Standards Followed

Building Design & Structure	
Construction Materials	
Thermal Insulation & Application	
Refrigeration Equipment & Systems	
Electrical & Mechanical Systems	
Food Safety	
Others	

Energy Saving Equipment & Measures

Details of Energy Saving devices	Brief Description and Savings
Light Fixtures CFL/LED	
Natural Lighting for general areas	
VFD for fans / compressors	
Refrigerant Controls and Automation	
Air Purger	
Power Factor Controller	
Energy recovery heat-exchanger for Ventilation System	
Renewable/ Solar Energy e.g. PV lighting	
PLC Control, & Data Acquisition	
Any other features e.g. water recycling, rain water harvesting	

Operation & Maintenance

Description	Nos. / Details
Proposed staff for Operation & Maintenance	
Proposed Annual Maintenance Contracts (if any)	
Training & Preventive Maintenance procedures	
Sanitation & Hygiene practice	
Pollution Control	

Estimated Performance Parameters of Proposed Cold Store

Parameters	Peak Period	Holding Period	Lean Period
Coefficient of Performance (COP) Of the Cold Store Unit			
Power Consumption (KWH/Day)			
Total Electricity Cost (Rs/Day)			
Electricity Cost towards Storage (Rs/ MT /Day)			

Other Information

Place **Signature and**

Date **Name of Applicant with seal**

5. LOW-COST ONION STORAGE STRUCTURES

REQUIREMENTS

For effective long storage of onion, the parameters essential to be looked after are the bulb size, choice of cultivars, cultivation practices, time of harvest, field curing, removal of tops, drying, grading, packing, storage conditions (optimum storage range of relative humidity 65% to 70% with the temperature ranging between 25°C to 30°C).

Salient Features of Improved Storage Structures are:

1. Construction of structure on a raised platform to prevent moisture and dampness due to direct contact of bulbs with the soil.
2. Use of Mangalore tile type roof or other suitable materials to prevent built up of high inside temperature.
3. Increased centre height and more slope for better air circulation and preventing humid micro climate inside godown.
4. Providing bottom and side ventilations for free and faster air circulation and to avoid formation of hot and humid pockets between the onion layers.
5. Avoid direct sunlight or rain water falling on onion bulbs to reduce sun scald, fading of colour and quality deterioration.
6. Maintenance of stacking height to avoid pressure bruising.
7. Periodical disinfection of structures and premises to check rottage.
8. Cost effectiveness of structures is based on utilization of locally available material for the construction.

PATTERN OF ASSISTANCE :

- **Unit cost for 25 MT capacity of Low-Cost Onion Storage Structure: Rs.1.75 lakh per unit (Unit cost Rs. 7000/- per MT & Subsidy is Rs. 3500/- per MT)**
- **Subsidy @ 50% of the admissible total cost.**
- **Prorata basis can be adopted for smaller sizes than 25MT.**

TECHNO-FINANCIAL PARAMETERS AFDOPTED FOR WORKINGOUT THE ECONOMICS OF A 25MT ONION STORAGESTRUCTURE

1	Land requirement	6.5 m X 7.0 m
2	Storage space requirement	4.5 m X 6.0 m
3	Technology preferred	Naturalorforcedventilationmaintainingatemperaturebetween25and30oCwithrelativehumidityrangeof65to70%.
4	Clearance of storage platform from the ground	60 cm
5	Heightofthestorageplatform	90to 150 cm

ESTIMATE FOR ONION STORAGE CAPACITY OF 25 MT.

Sl. No.	Description	Unit	Total	Rate	Amount (Rs.)
1	Excavation for foundation	Cum	3.888	132	513.26
2	P.C.C. 1:4:8 in foundation	Cum	0.729	3000	2187.00
3	R.C.C. 1:2:4 for columns	Cum	2.339	3840	8981.76
4	Nominal Reinforcement to columns	Kg	320	62.40	19968.00
5	Structural Steel Works	Kg	1200	72	86400.00
6	A/C Sheet Roofing	Sq.mtr.	83.2	240	19968.00
7	A/C Sheet Ridge	Rmt	13	144	1872.00
8	2” dia 4/2 bamboo strips @ 3” c/c	Rmt.	1454.4	30	43632.00
		TOTAL			**183522.02**
				Rounded to Rs.	**1,75,000.00**


Side Elevation
Section At -AA
1.20 M WIDE PASSAGE
Plan
Plan For Proposed Onion Storage Shed Of 25 M.T.
(Double Row Plan)
Dhanajay M. Shinde
Pramod Kulkarni
N.H..R.D.F.. Nashik.

Capacity wise Dimensions of onion storage structures :

S.No	Dimensions	**5MT**	**10MT**	**15MT**	**20MT**	**25MT**
1	Length (Mt)	4.5	7.5	7.25	9.6	12
2	Width (Mt)	1.5	1.5	1.2	1.2	1.2
3	Side height (Mt)	2.1	2.1	2.1	2.1	2.1
4	Central height (Mt)	3.3	3.3	3.4	3.4	3.4
5	Height of roof (Mt)	3.6	3.6	6	6	6
6	Height from land (Mt)	0.6	0.6	0.6	0.6	0.6
7	Direction of construction	S-N	S-N	E-W	E-W	E-W

The following parameters shall be followed for construction of onion storage Structures for reducing the storage losses.

- Suitability of site with proper elevation, drainage and linkages by road.
- Adequate bottom and side natural ventilation facilities should be provided.
- No tall structures should be located nearer to the onion sheds.
- For natural ventilation, storage width should be restricted to 610 cm. In the areas having high humidity, the storage width may be reduced/ necessary mechanical ventilation provision.
- Onion storage structures should be oriented to face wind ward direction.
- Leeward side wall opening below the platform should be closed.
- During storm/ heavy rains, provision should be made to close the windward side and wherever necessary to open the leeward side.
- Adequate overhang should be provided to prevent splashing of rain water or sunlight falling on the onion.
- The roof of material should prevent heat built – up at the top of the sheets structure.

Different sizes of Onion storage structures:

S.No.	Capacity (MT)	Unit Cost (Rs)	Remarks	Coverage
1	5	35,000	Single tier structure having 3.75 mt length and 1.5 mt width 2 cubicals of 1.88 X 1.5X1.5 mt size	For small and marginal famers cultivating onion **less than 1-acre area**.
2	10	70,000	Single tier structure having 7.5 mt length and 1.5 mt width 4 cubicals of 1.88 X 1.5X1.5 mt size.	Famers cultivating onion **about 1-acre area.**
3	15	105,000	Single row structure having 11.25 mt length and 1.5 mt width,with 6 cubicals of 1.88 X 1.5X1.5 mt	Famers cultivating onion on **about 2 acres area**
4	25	175,000	Two row structures, cubilcals arranged in 2 rows with 1.2 mt wide passage between 2 rows	Famers cultivating onion on **about 1 ha area**

General Guidelines:

i. The DHSO/HOs shall identify suitable beneficiary as per the available target and collect application with necessary documents, affidavit etc.
ii. The administrate sanction shall be accorded to the beneficiary with the approval of the DMC.
iii. The DHSO/HO shall guide the farmers with regard to the prescribed dimensions & specifications for the Onion storage structures for commencement of construction by the farmer.
iv. The HO shall take completion certificate from the beneficiary and inform the same to O/o DHSO of concerned district.
v. A joint inspection team with HO concerned, MI- Engineer & DHSO shall be constituted and inspect the Onion storage structure in the presence of promoter/ beneficiary.
vi. The Join inspection team shall verify the structure physically, bills/ invoices and recommend for sanction of eligible subsidy in the prescribed JIT report format.
vii. HORTNET filing of beneficiary details is mandatory.
viii. The DHSO shall submit release proposals along with the joint inspection reports, photographs and DMC approval to the Director of Horticulture. The same proposals shall also be forwarded to ED login of HORTNET portal
ix. Subsidy shall be released to the beneficiary from head office subject to availability of funds.

FORMAT TO CONDUCT FINAL AND JOINT INSPECTION OF **ONION STORAGE STRUCTURE** BY THE COMMITTEE UNDER POST HARVEST MANAGEMENT COMPONENT OF MIDH, TS.

Name: ..... **Place:..... District:.....**

As per project report				**As per the inspection and actual investment**				
Item	Specifications /Details	Qty	Total Cost (Rs)	Item	Specifications /Details	Qty	Total Cost (Rs)	Remarks

Certificates:

1) This is to certify that Sri. /Smt. _____ has established Onion Storage structure as per project report and norms of MIDH.

2) This is to certify that all the original purchase bills of the items mentioned above have been verified and found correct.

3) This is to certify that Sri./Smt. _____ is eligible to avail subsidy of Rs. _____ and the same may be released.

Promoter MIE Horticulture Officer DHSO

6. Technology induction in Cold chain, Add on for CA & Modernization - Alternate technology - Solar PV panels/ Solar thermal sys

Pattern of assistance:

Sub component	Item	Admissible cost	Pattern of assistance
Technology induction and modernization of cold-chain	Alternate technologies, Solar PV panels or Solar Thermal sys	100% of cost as per invoice, maximum Rs. 35.00 lakhs per project	Credit linked back-ended subsidy @ 35% of the cost, per beneficiary

List of documents to be submitted:

1. Application with Detailed Project Report
2. Affidavit (Format – II (CS/RC))
3. Cold storage unit Firm registration certificate.
4. Electricity connection approvals
5. Proforma Invoice / estimate in the name of cold storage (max eligible admissible cost Rs 35 lakhs per project)
6. Indian Standard codes of the equipment proposed (Engineer certificate).
7. Energy audit report of cold storage unit for a period of last one year.
8. Bank term loan sanction letter and appraisal report.
9. Stock details of Cold storage unit for last one year, duly certified by the Charted Accountant.

The implementation procedure, all terms and conditions and general guidelines for the sub-component cold storage units under PHM shall be applicable for this component also.

IX. HUMAN RESOURCE DEVELOPMENT

1. Training of Farmers - Within the State

Pattern of Assistance:

Sl. No.	Particulars	Unit	Unit cost	Pattern of Assistance
1	Training of Farmers - Within the State	No	Rs.1000/- day per farmer including transport	100% of the cost

All capacity building programs should be as per Qualification Pack (QP) of ASCI and only needs to be run in ASCI accredited training Institutes. Required entry of achievement needs to be done on Skill India portal.

1. Training programme should be of one day duration and should focus on crop management during flowering, fruiting stage and pest & disease management.
2. The Training programme should be held within the state. If feasible / possible a field visit of the farmers should be organized to the neighboring districts to educate the farmers on latest technologies adopted. The expenditure per training should not exceed Rs.25,000/- per batch of 25 farmers (component wise indicative cost given below).
3. Programme to be documented in coordination with divisional / mandal PRO and photographs of local newspaper/ video clippings to be sent to SHM at the end of the month along with progress report including banner.
4. Suitable resource persons should be identified for imparting training based on the Subject. The resource person must be either Scientists from DAATT Centre or from nearby Agriculture /Horticulture research stations of Prof. Jaya shankar Agril. University or SKLTS Horticulture University.

S.No	Component	Assistance @ Rs.25,000/- per training a batch of 25 farmers
1	Study material (Reading and writing material, CDs)	2000/-
2	Honorarium to faculty members / resource persons.	3000/-
3	Expenditure on food	5000/-
4	Travelling expenses	6000/-
5	Miscellaneous, contingent exp.	9000/-
	Total	**25,000/-**

Non-Negotiables for Conducting Training Programme to the Farmers

1. The districts have to identify the training needs of the horticulture farmers in the district keeping in view, the horticulture profile, productivity pattern, incidence of pest, post-harvest practices and other such relevant issues.
2. The farmers / beneficiaries identified under MIDH especially, for Area expansion, Protected Cultivation, Front line Demonstrations should invariably be covered under HRD program.
3. The DHSO shall identify resource persons including retired personnel of Horticulture dept., KVK's, progressive farmers and their services can be used by paying honorarium.
4. Providing written literature in Telugu on the training subject to the trainees is a must. **If training is conducted without giving the written literature, it will not be considered as training for getting assistance.**
5. Feedback of the farmers on the usefulness of the training shall be obtained in specially designed feedback forms or in a register along with the signatures of the participants.
6. Documentation like photograph shall be taken for each training program. Press publicity should be given on these training programs.
7. The DHSO should every training programme as this will give an opportunity to interact with farmers and get feedback on horticultural issues.
8. Attendance register of the farmers should be maintained by each officer.

Recent Passport Size Photograph

DEPARTMENT OF HORTICULUTURE-
GOVERNMENT OF TELANGANA

Mission for Integrated Development of Horticulture 2023-24
Reference Application Format for Availing Subsidy

1	Application No.	:	
2	Online ID No	:	
3	Name of the Scheme/ Component	:	
4	Name of the Crop	:	
5	Name of the farmer	:	
6	Name of the Father/Husband	:	
7	Village	:	
8	Mandal	:	
9	District	:	
10	Survey No	:	
11	Land (Leased/Owned)	:	(if owned pattadhar passbook)
13	Total Area (in Ha)	:	
14	Proposed Area (in Ha)	:	
	No of Plants per Ha	:	
	Spacing (in meters)	:	
13	SF/MF/BF	:	
14	Category**:**		General/BC/SC/ST
15	Soil Type	:	Red soils/Black soils/Red loamy soils/Sandy soils
16	Source of Irrigation	:	(Bore well/open well)
17	Drip Irrigation	:	Yes/No
18	Total Amount for Non-Subsidy	:	
19	DD No. for Non- Subsidy amount	:	
20	Whether any Govt. Subsidy availed previously	:	
21	Bank Account Number	:	
22	Name of the Bank	:	
23	Name of the Branch	:	
24	IFSC Code/RTGS Code	:	
25	Mobile number	:	

Declaration

I, _____

declare that the particulars furnished above are true to the best of my knowledge and I promise that the benefit obtained from State Horticulture Mission will be used for the purpose for which it is given and in case of misuse I am liable for any action deemed to be fit by Govt. of Telangana including recovery of the subsidy amount with 12% interest to the Government.

Signature of the Farmer / Entrepreneur.

Recommendations of the

Horticulture Officer _____.

Receipt

Received an application of Sri/Smt _____ S/o./D/o._____(V)_____,(M)_____, Dist_____. On _____ for _____ scheme and this application will be considered after field verification on First come First serve Basis.

Horticulture Extension Officer Horticulture Officer

Time line for Different Components under MIDH – 2024-25

S No	Component	Action	Time frame
1	Committed & Spillover Liabilities	Submission of release proposals	31.08.2024
2	Plantation infrastructure development	Proposals to be submitted for placing before SLEC	31.08.2024
		Grounding & submission of release proposals for both 1st & 2nd instalment	31.01.2025
3	Area Expansion of Fruits & Flowers	Grounding & Submission of final Release proposals	30.11.2024
4	Area Expansion Vegetables	Month wise plan of action & Indent to be placed to COEs	30.11.2024
		Grounding & Submission of final Release proposals	31.01.2025
5	2nd & 3rd year maintenance	Grounding & Submission of final Release proposals	15.09.2024
6	Rejuvenation	Grounding & Submission of final Release proposals	30.11.2024
7	Creation of Water resources (Farm ponds)	Grounding & Submission of final Release proposals	30.11.2024
8	Protected Cultivation- Poly Houses/ Shade net Houses	Proposals to be submitted for placing before SLEC	31.08.2024
		Grounding & submission of release proposals for both 1st & 2nd instalment	31.01.2025
9	Protected Cultivation- Mulching	Grounding & Submission of final Release proposals	30.11.2024
10	Pollination support through Beekeeping	Grounding & Submission of final Release proposals	31.12.2024
11	Frontline Demonstrations	Grounding & Submission of final Release proposals	31.12.2024
12	Integrated Post Harvest Management & Seed processing Unit	Proposals to be submitted for placing before SLEC	31.08.2024
		Grounding & submission of release proposals for both 1st & 2nd instalment	31.01.2025
13	Human Resource Development	Grounding and submission of UC	31.01.2025

Director of Horticulture
Telangana State