

NATIONAL AYUSH MISSION

Operational Guidelines

MEDICINAL PLANTS



सत्यमेव जयते

Government of India

**Department of AYUSH
Ministry of Health & Family Welfare
Government of India**

NATIONAL AYUSH MISSION

OPERATIONAL GUIDELINES FOR MEDICINAL PLANTS

1. PREAMBLE

- 1.1 Medicinal Plants form the major resource base of our indigenous health care traditions. The outreach and acceptability of AYUSH systems, both nationally as well as globally, are dependent on uninterrupted availability of quality medicinal plants based raw material. More than 90% of the species used in trade continue to be sourced from the wild of which about 2/3rd are harvested by destructive means.
- 1.2 The Cultivation of medicinal plants, therefore, is the key to meeting the raw material needs of the AYUSH industry besides offering opportunities for higher levels of income, crop diversification and growth of exports. Indian exports of medicinal plants and herbs are mostly in the form of raw herbs and extracts and account for almost 60-70% of the current exports of herbal/AYUSH products. The export of value added items require product development, setting up of processing facilities, quality assurance and brand promotion. Increasing concerns of unsustainable collection from the wild, disappearance of certain species on the one hand and concerns of quality and standardization on the other make it imperative to promote cultivation of species critical to AYUSH systems of medicine through appropriate financial incentives, policy, infrastructural and marketing support in a synergistic manner.

2. NEED AND JUSTIFICATION

- 2.1 With more than 95% of the AYUSH products being plants based, the raw material base needs to be shifted from forests to the cultivated source for its long term sustainability.
- 2.2 The global trade requires products of standardized phyto-chemical composition free from heavy metals, and other toxic impurities and certified to be organic or Good Agricultural Practices (GAP) compliant. This is possible only through the cultivation route where the chain of custody regime is easier to maintain.
- 2.3 Indian share of the world herbal trade is about 17%. Even here, the export of herbal products is largely in the form of raw herbs with 2/3rd of the export basket comprising raw herbs and extracts. This needs to change considering the US\$120 billion herbal market. It is for this reason that the scheme provides

for support to value addition and processing linked to the clusters of cultivation of selected plants that are in demand by the AYUSH industry and export.

3. NATIONAL MEDICINAL PLANTS BOARD

3.1 The National Medicinal Plants Board (NMPB) was set up through a Government Resolution notified on 24th November 2000 under the Chairmanship of Union Health & Family Welfare Minister. The objective of establishing the Board was to establish an agency which would be responsible for coordination of all matters relating to medicinal plants, including drawing up policies and strategies for conservation, proper harvesting, cost-effective cultivation, research and development, processing, marketing of raw material in order to promote and develop this sector. This was considered necessary as medicinal plants as a subject is handled by different Ministries/Departments like Environment & Forests, Agriculture, Science & Technology and Commerce. The Board, therefore, has the function of co-ordination with Ministries/Department/Organizations/State/UT Governments for development of medicinal plants in general and specifically in the following fields: -

- i) Assessment of demand/supply position relating to medicinal plants both within the country & abroad.
- ii) Advice concerned Ministries/Departments/Organisations/State/UT Governments on policy matters relating to schemes and programmes for development of medicinal plants.
- iii) Provide guidance in the formulation of proposals, schemes and programmes etc. to be taken by agencies having access to land for cultivation and infrastructure for collection, storage transportation of medicinal plants.
- iv) Identification, inventorization and quantification of medicinal plants.
- v) Promotion of *ex-situ* and *in-situ* cultivation and conservation of medicinal plants.
- vi) Promotion of co-operative effort among collectors and growers and assisting them to store, transport and market their produce effectively.
- vii) Setting up of database system for inventorisation, dissemination of information and facilitating the prevention of Patents being obtained for medicinal use of plants which is in the public domain.
- viii) Matter relating to import/export of raw material, as well as value added products either as medicine, food supplements or as herbal cosmetics

including adoption of better techniques for marketing of products to increase their reputation for quality and reliability in the country and abroad.

- ix) Undertaking and awarding Scientific, technological research and cost-effectiveness studies.
- x) Development of protocols for cultivation and quality control.
- xi) Encouraging the protection of Patent Rights and IPR.

3.2 In terms of the Cabinet Resolution of November 24, 2000 and the Cabinet Committee on Economic Affairs approval communicated vide Cabinet Secretariat's O.M. No. CCEA/23/2008 (I) dated 25th July, 2008, the composition of the Board is as under:-

- (a) Minister of Health & Family Welfare - Chairman
- (b) Minister of State, Health and Family Welfare - Vice Chairperson
- (c) Secretaries - Ministries/Departments of AYUSH, Environment & Forests, Scientific & Industrial Research, Bio-technology, Science & Technology, Commerce, Industrial Policy & Promotion, Expenditure, Agriculture & Cooperation, Agriculture Research & Education, Tribal Affairs, Tourism, Development of North Eastern Region.
- (d) Four nominated members having expertise in the field of medico-ethno-botany, pharmaceutical industry of ISM, marketing and trade, legal matters and patents.
- (e) Four nominated members representing exporters of ISM & H drugs, NGOs responsible for creating awareness and increasing availability of medicinal plants, growers of medicinal plants, research and development industry groups in the area of medicinal plants.
- (f) Two nominated members representing federations/co-operatives dealing with medicinal plants.
- (g) One member from Research Councils of Department of AYUSH, one member from Pharmacopoeial Laboratory of Indian Medicines/ Homoeopathic Pharmacopoeia Laboratory, Ghaziabad and two members representing State Governments (by rotation every two years).
- (h) Chief Executive Officer as Member Secretary in the rank of Joint Secretary to the Government of India.

3.3 During the 10th Plan the National Medicinal Plants Board (NMPB) implemented a Central Sector Scheme of "Setting up Medicinal Plants Board". During the 11th Plan, however, the Central Sector Scheme was modified to give sharper focus on promotional activities like resource augmentation, in-situ conservation, research

and development, ex-situ conservation of rare and endangered species, support to Joint Forest Management Committees for value addition/warehousing, capacity building and training of primary collectors and forest dwellers in good collection and sustainable harvesting practices etc. The scheme, was renamed as the “Central Sector Scheme for Conservation, Development and Sustainable Management” and was approved with the 11th Plan outlay of Rs. 321.30 crores. The component relating to commercial cultivation was taken out of the pre-revised Central Sector Scheme and formulated into a new scheme which sought to integrate cultivation with pre and post harvest activities, like, development of nurseries for quality planting material, cultivation of species in demand by the ASU industry, support for post harvest management, marketing, improvement of marketing infrastructure, organic/GAP certification, quality assurance and crop insurance. These components were incorporated in a new Centrally Sponsored Scheme of National Mission on Medicinal Plants, which was sanctioned during 2008-09 at an outlay of Rs. 630.00 crores for the 11th Plan.

3.4 The scheme is continued in the 12th Plan with some modifications based on experiences gained during its implementation as well as based on independent third Party evaluation.

4. Development and cultivation of medicinal plants under the Centrally Sponsored Scheme of National AYUSH Mission

Under NAM this component has been approved with a total outlay of Rs. 822 crores for implementation during the 12th Plan. The Central Government contribution will be 100% in the North East and hill states while The Central and State Government contribution will be 90:10 for the remaining states.

5 OBJECTIVES

5.1 Support cultivation of medicinal plants which is the key to integrity, quality, efficacy and safety of the AYUSH systems of medicines by integrating medicinal plants in the farming systems, offer an option of crop diversification and enhance incomes of farmers.

5.2 Cultivation following the Good Agricultural and Collection Practices (GACPs) to promote standardization and quality assurance and thereby enhance acceptability of the AYUSH systems globally and increase exports of value added items like herbal extracts, phyto-chemicals, dietary supplements, cosmeceuticals and AYUSH products.

- 5.3 Support setting up processing clusters through convergence of cultivation, warehousing, value addition and marketing and development of infrastructure for entrepreneurs to set up units in such clusters.
- 5.4 Implement and support certification mechanism for quality standards, Good Agriculture Practices (GAP), Good Collection Practices (GCP), and Good Storage Practices (GSP).
- 5.5 Promote partnership, convergence and synergy among stake holders involved in R&D, processing and marketing in the public as well as private sector at national, regional, state and sub state level.

6 STRATEGY

- 6.1 To adopt an end-to-end approach covering production, post harvest management, processing and marketing. This will be achieved by promoting cultivation of medicinal plants in identified clusters within selected districts of states having potential for medicinal plants cultivation and to promote such cultivation following Good Agricultural and Collection Practices (GACPs) through synergistic linkage with production and supply of quality planting material, processing, quality testing, certification, warehousing and marketing for meeting the demands of the AYUSH industry and for exports of value added items.
- 6.2 To promote medicinal plants as a crop alternative to the farmers and through increased coverage of medicinal plants and with linkages for processing, marketing and testing, offer remunerative prices to the growers/farmers. This will also reduce pressure on forests on account of wild collection.
- 6.3 To adopt communication through print and electronic media as a strong component of its strategy to promote integration of medicinal plants farming in the agriculture/horticulture systems with emphasis on quality and standardization through appropriate pre and post harvest linkages.
- 6.4 To promote and support collective efforts at cultivation and processing in clusters through Self Help Groups, growers cooperatives/associations, producer companies and such other organizations with strong linkages to manufacturers/traders and R&D institutions.

7 IMPLEMENTATION STRUCTURE

- 7.1 As indicated in the framework for implementation. In addition, National level institutional structure also will have the following:-

7.1.1 Technical Screening Committee (TSC)

Secretary (AYUSH) will have the powers to constitute Technical Screening Committee and nominate Chairman for scrutiny of Action Plan/project proposals received under different activities under the component. The committee will comprise of domain experts in the relevant field and may also include representative from one or more of the following organizations/Ministries:

- a. Representative from National Horticulture Board
- b. Representative from ICAR
- c. Representative from CSIR
- d. Representative from Department of AYUSH
- e. Representative of Secretary, North Eastern Council, Shillong
- f. Domain experts nominated by Secretary (AYUSH) - Two
- g. Representative from National Medicinal Plants Board-Member Secretary

Selection of agency to implement the component in States

7.2 The State Government may designate the Mission Director, State Horticulture Mission as the State implementation agency. In states, which are not covered under the National Horticulture Mission, the State Government may designate the State Agriculture Department as the nodal department for implementation. The funds will be released through the State AYUSH Societies to enable timely flow of funds for implementation of the projects. Alternatively the state government may select the State Medicinal Plants Board (SMPB) as the implementation agency in which case funds will be given to the SMPBs through State AYUSH Society. The states shall choose the most efficient and effective agency available in the state to implement this component.

7.3 The State Horticulture Mission, if designated as the State level implementation agency by the State Government, will implement the component in coordination with the Agriculture, AYUSH, industries department and SMPB and would have to be registered as a Society. It should also have the functional autonomy to receive funds and implement the component. The Panchayati Raj Institutions would be fully involved in identifying the agency for implementation at the district level and in identification of clusters and organizing growers into SHGs/cooperatives/ associations and producer companies. The

implementation agency will be working through State AYUSH Society or any other appropriate mechanism put in place by the State.

7.4 There will also be a Technical Screening Committee at the state level consisting of domain experts to appraise the proposals. The states will have the flexibility to adopt the appropriate model viz. Cooperatives, Federations, Forest Development Corporations, Joint Sector Companies for processing, warehousing, marketing etc. Wherever possible linkages will be developed with State Horticulture Mission in identification of clusters for cultivation and development of infrastructure of Post Harvest Management facilities like warehouses, marketing yards, drying sheds, testing labs and setting up of processing industries. The State Level implementation agency will have the following functions:

- (i) Prepare perspective and annual action plan with the technical support from a “Technical Support Group” at the state level with members from State Agriculture Universities, Facilitation Centres, ICAR, ICFRE, CSIR Institutions, and other experts in the field to oversee its implementation.
- (ii) Receive funds from the State Government for carrying on the activities, maintain proper accounts thereof and submit utilization certificate to the concerned agencies.
- (iii) Release funds to the implementing organizations like SHGs, cooperatives of growers, growers associations, producer companies responsible for different clusters and oversee, monitor and review the implementation of the programmes.
- (iv) Organise base-line survey and feasibility studies in different parts (District, sub-District, or a group of Districts) to determine the status of medicinal plants, its potential and demand, and tailor assistance accordingly. Similar studies would also be undertaken for other components of the programmes.
- (v) Assist and oversee the implementation of the component in different clusters selected with reference to their agro-climatic suitability for growing medicinal plants through farmers, Societies, NGOs, Growers, Associations, Self-Help Groups, State Institutions and other similar entities. The State implementation agency shall also be responsible for mobilizing growers to form SHGs/ Cooperatives/ Federations, producer companies and financial assistance will be available for promoting these grass root level

organizations, which may include the training and other incidental expenses like engaging animators etc.

(vi) Organise workshops, seminars and training programmes for all interested groups/associations at the State level, with help of the Facilitation Centres set up in State Agriculture Universities and ICAR/ICFRE/CSIR Institutions and other organisations having technical expertise.

7.5 At the district level, the component will be coordinated by the District Mission Committee (DMC) of the National Horticulture Mission in states where implementation is through the Horticulture Department. If implemented through the Agriculture Department, the District Mission Directorate will be registered as a society with Deputy Director (Agriculture)/District Agriculture Officer as its head. The District Mission Committee (DMC) will be responsible for project formulation and monitoring. The DMC will have representatives from concerned line Departments, Grower's Associations, Marketing Boards, Industries, Departments, Self Help Groups (SHGs) and other Non-Governmental Organisations as its members. The District Planning Committee and Panchayati Raj Institutions will be integrated/ involved in implementation of the programme as per the choice and discretion of the State Government.

7.6 The State implementation agency may also consider implementing the scheme in selected clusters by directly involving reputed NGOs, cooperatives, state government undertakings, growers associations, producer companies, self help groups without the requirement of routing the proposals through district level implementation agency. In that case, the project report of different organizations/clusters will be consolidated into the State Action Plan and submitted to the NMPB for its consideration. Organizations like Krishi Vigyan Kendras (KVKs) and Agriculture Technology Management Agencies (ATMAs) could also be involved in planning, implementation and monitoring at the district level and below for selected clusters. In such cases, the funds can also be released to the cluster level implementation agency directly without routing them through the District level agency.

7.7 The institutional arrangement for implementing the major activities under the component at the cluster/zone level i.e. technology dissemination, quality planting material, cultivation, post harvest management and marketing will vary depending upon the organizations/institutions present in the state covered under the programme. All the activities related to cultivation, processing,

marketing, quality assurance and certification in different clusters will be consolidated at the State level for better synergy between the Mission activities. State Governments are free to choose their own model, create or orient existing institutions to carry forward the objectives of the Mission in a holistic manner.

7.8 Linkages with other Schemes

Although the Scheme covers all the activities that are required to be supported for a successful end to end medicinal plants based agri-business, there may still be some components which can be dovetailed into the Action Plan from other Schemes of the other Ministries/ Departments and State Governments. For instance, components like micro irrigation, application of fertilizer, construction of irrigation tanks, setting up demonstration plots which are not a part of this scheme may be dovetailed from schemes of Ministries/ Departments concerned. This will ensure a convergence of cultivation with pre and post harvest management activities in its totality.

8 INTERVENTIONS

8.1 Support Cultivation of Medicinal Plants

8.1.1 Cultivation of medicinal plants has not taken off in the country, as the raw material sourced from the wild is available at cheaper rates even as it has deleterious effect on their wild populations. To make cultivation lucrative, it is necessary to support the effort - both technically and financially. A programme to support cultivation through subsidy was implemented during the 10th plan period. Whereas the programme has generally resulted in encouraging cultivation of many species of conservation concern and those in high demand by the AYUSH industry, a number of other species used in AYUSH medicine continued to be sourced from the wild. The scheme seeks to support cultivation of more and more species critical to AYUSH systems. The subsidy available for various medicinal plants has been revised so as to direct subsidy towards cultivation of the species required by AYUSH systems and those of conservation concern.

8.1.2 The cultivation is proposed to be done in conjunction with the processing facilities and markets available for medicinal plants. This is proposed to be done in clusters identified by State Governments through individuals, Self Help

Groups, Cooperative Societies of medicinal plants growers. Preference to cultivation in clusters through SHGs, growers, cooperatives, producer companies over individual centric cultivation will ensure targeting of subsidy to the small and marginal farmers. Therefore, small and marginal farmers will be organised into Self Help Groups and cooperative societies of medicinal plants growers or as producer companies to enable them to take up medicinal plants cultivation, which presently they are unable to do. Financial assistance on project basis will also be provided to State implementation agency for mobilizing the Growers cooperatives/ Federations as well as for preparation of cluster specific project reports/business plans to be eventually consolidated into State Action Plan.

- 8.1.3 Project for cultivation must clearly indicate the source of planting material/seed proposed to be used. Only identified seed source or nurseries supplying good quality planting material will be eligible to supply germplasm to growers seeking assistance under the scheme. The State should strive to chalk out a business plan/project report for each cluster. The Action Plan for the state also cover the list of organizations (public sector or private sector) for good quality planting material along with the details of their capacity, infrastructure, species available and being raised, their location etc. While chalking out the plan for availability of planting material the State should also take into account nursery facilities of various department (e.g. Department of Horticulture, Agriculture, Forests , State Directorate for AYUSH / traditional medicines, State Agricultural Universities, KVKs and Central facilities of CSIR, ICAR, ICFRE etc). If any planting material is proposed to be procured from outside the State and the same should also be clearly spelt out. The Annual Action Plans can also include specific provisions for maintaining gene pools / elite planting material / clonal and seedling seed orchards / hedge gardens / gene banks of medicinal plants. Such proposals will be taken from research wings of concerned State Departments / and appropriate State and Central Governments research and extensions wings organizations. These proposals should be included in the Annual Action Plan as specific components with clear cut time frame of operations linked to the seasonality of operation and clearly spelt out outcomes. The component for maintaining elite germ plasm and its evaluation can not be ad hoc one time proposition and therefore can be a part of the perspective plan chalked out by

the state and can be of a rolling nature within two Plan Periods. It is, however, important to understand that only such organizations should be involved in this component where such activity is an integral part of their core mandate so that they are in a position to sustain any such initiative in the long run from their own resources as well.

8.1.4 The cultivation is proposed to be taken up in areas where processing clusters will be set up as well as other areas where clusters for cultivation are identified with proper linkage with manufacturers/markets will also be provided support for cultivation through growers, SHGs, Cooperative Societies of medicinal plants growers, producer companies and corporate.

8.1.5 The species for which subsidy was provided @ 20% of the cost of cultivation will now be 30% and for those species for which subsidy was provided @ ranging from 50% or 75% of cost norms as admissible during the 11th Plan period will continue to be admissible. However, to offset increase in cost of cultivation on account of inflationary pressure, the basic cost norms for computing the subsidy will be as provided in the 11th Plan for such species, with increase of 10% in the cost norm for every successive year action plan, subject to concurrence of SFC. In order to further improve the range and scope of the programme to make it more effective and need based for the States, additional species of medicinal plants and aromatic plants with medicinal value can be grouped into 30%, 50% and 75% subsidy support under the scheme. The details can be seen in **Annexure-I**. The new species will, however, be included for subsidy support under the Scheme after due approval from the Standing Finance Committee (SFC) which will carefully consider the justification and provided cost norms before granting its approval. Once decision has been taken to include a certain species has been taken the SFC can consider 10% rise in cost norms in subsequent years provided funds were not parked idle for raising these species with the State for the previous financial year, in which case considering enhanced support to the farmers to offset inflation will be entirely the responsibility of the State concerned. This will also work as an incentive to discharge idle parking of funds in the State both for cultivation of species already included for cultivation during the 11th Plan or new species to be included during the 12th plan. The SFC can also exclude a species already included for financial support in case it is found that cultivation of this species

does not require further support, or its cultivation is not successful on account of certain factors.

8.2 Establishment of Seed / germ plasm Centers and nurseries for Supply of Quality Planting Material:

8.2.1 Cultivation of medicinal plants and eventual returns from such cultivation is largely dependent upon the quality of planting material used. However, as of now, there is no mechanism of providing quality germplasm or producing quality planting stock on commercial scale.

8.2.2 It is proposed to establish Seed Centres with Research Wing of State Forest Departments/Research Organisations/State Agriculture Universities to stock and supply certified germplasm of priority medicinal plant species for cultivation. Production and supply of seeds and quality planting material through NGOs and Corporates will also be permitted provided the quality can be certified through an accredited certification agency. Such centres would, however, not be set up in ICAR institutions as the latter have provision for such a component under their own schemes which can be used for housing germ plasm related to medicinal plants also.

8.3 Model Nurseries

8.3.1 To meet the requirement of quality planting material for cultivation assistance would be provided for new nurseries under the public as well as private sector. However in the private sector nurseries will be set up in pilot project mode after exercising due diligence and drawing up a strategy for undertaking such pilots. Infrastructure for model nurseries would include the following:

- i) Mother stocks block maintenance to protect from adverse weather conditions.
- ii) Raising root stock seedlings under net house conditions.
- iii) Propagation house with ventilation having insect proof netting in the sides and fogging and sprinkler irrigation systems.
- iv) Hardening/maintenance in insect proof net house with light screening properties and sprinkler irrigation systems.
- v) Pump house to provide sufficient irrigation and water storage.

8.3.2 A model nursery should on average have an area of about 4 hectares and would cost Rs. 25 lacs per unit. The model nurseries which would be established under the Public sector / SHGs will be eligible for 100% assistance

of a maximum of Rs. 25.00 lakhs per unit. The model nurseries would produce 2 – 3 lakhs plants depending upon the input costs and time required for the plant to be fit for planting. It would be the responsibility of the nurseries to ensure quality of the planting material. For model nurseries in the private sector the assistance will be 50% of the cost subject to a maximum of Rs. 12.50 lakhs per unit through public sector banks.

8.4 Small Nurseries

8.4.1 Small nurseries, covering area of about one hectare, will have infrastructure facilities to hold 60,000 to 70,000 plants. These plants will be maintained for a period of approximately 9-12 months. Infrastructure for the small nurseries will consist of a net house. Micro sprinkler irrigation system will be provided in the net house. The nurseries will also have provision for solar sterilization of soil media to meet the contingency requirement of containers/transfer from small to big containers.

8.4.2 Small nurseries would cost Rs. 6.25 lakhs per unit. The assistance will be to the extent of 100% of the cost for the Public sector / SHGs and 50% of the cost subject to a ceiling of Rs. 3.125 lakhs for the nurseries in the private sector through public sector banks. The small nurseries would produce at least 60,000 plants per year.

8.4.3 It would be the responsibility of the nurseries to ensure quality of the planting material. The private nurseries, initially on pilot basis ,will also be encouraged to move towards self accreditation. The nurseries could be multi-crop or crop specific depending upon the requirements of planting material in the locality/project area. Hence, the type of nursery proposed to be established should be clearly indicated in the Action Plan. The Action Plan should also contain an assessment of the existing nurseries, the number of planting material being produced, crop wise and the additional requirement of nurseries. The Cost norms are available at **Annexure-II**.

8.5 Support for Medicinal Plant Processing and Post Harvest Management including Marketing

8.5.1 It is estimated that as high as 30% of the raw material reaching the manufacturers is of poor quality and is, therefore, rejected. Cultivation of medicinal plants, therefore, needs to be supported with infrastructure for ware housing, drying, grading, storage and transportation. These facilities are essential for increasing the marketability of the medicinal plants, adding value to the produce, increasing profitability and reducing losses. APEDA has set up Agri Export Zones (AEZs) for medicinal and aromatic plants in the states of Kerala and Uttarakhand. Based on the experience gained in implementation of AEZs on medicinal plants in these states, the Scheme seeks to support infrastructure for processing and post harvest management in the different regions of the country in identified clusters/zones which are well endowed with infrastructure of marketing/trading centres, have tradition of medicinal plants as a farming option and has R&D institutions/SAUs for technology dissemination and capacity building. While the AEZs scheme implemented by APEDA has primary focus on exports, the present scheme seeks to add value to the medicinal plants cultivated/collected and meet large domestic requirement of the AYUSH industry. Additionally, the species having export market would also be covered with a view to increasing share of value added items in the exports of herbal/AYUSH products. The species targeted for export should be finalized after assessing the export market for such species. The units in the clusters have to be geographically proximate to each other so that all members of the cluster are in the position of easily utilizing the common facilities. The facilities being created would be shared by all shareholders and may be open to others on payment basis. The illustrative list of facilities to be created in the post-harvesting infrastructure is as follows:

- a. **Drying yards:-** Drying yards to accomplish the primary task of drying the products in hygienic conditions. In addition, cleaning and grading infrastructure is an essential activity to be linked to drying to increase the shelf life and the market price of herbs. Since herbs have to be dried in shades, drying yards with shade net provision or facilities for low temperature drying will have to be created.
- b. **Storage godowns:** – The storage godowns is expected to receive produce from nearby drying yards. The storage godowns are a link between drying yards and processing units. Storage godowns have to be adequately ventilated and set up at strategic locations. The storage

godowns and drying yards have to be located in such a manner that they are not very far from the farm lands and cater to the identified clusters of cultivation.

- c. **Processing unit:-** Processing unit based on the medicinal plants grown in the clusters would have to be set up, some of which will be plant specific. The processing unit should preferably be set up within the existing industrial estates, which have the necessary infrastructure of power, road network and linkages with rail head/sea ports.
- d. **Quality testing of raw material:-** Laboratories for testing of raw material and value added items and their certification for domestic consumption as well as exports would be done through the existing accredited laboratories. In the absence of such laboratories in the zone/ clusters new laboratories will be set up, preferably in a PPP Mode.
- e. **Marketing:-** The main objectives of providing assistance under this component are:-
 - i. To strengthen infrastructure of wholesale markets, agriculture mandies for marketing of medicinal plants.
 - ii. To set up herbal collection and retail outlets wherever they do not exist.
 - iii. To strengthen linkages between farmers and industry/traders.
 - iv. To disseminate information on market, prices, market trends to enable farmers in selection of appropriate medicinal crops.

The components admissible for assistance are:

1. **Market Promotion:-** The programmes for market promotion like media promotion, participation in exhibitions, trade fairs, hiring display facilities are project based but limited to Rs. 10 lakhs for each cluster will be eligible for 50% assistance under market promotion for the herbs/raw material produced by the cluster.
2. **Market Intelligence:-** The Action Plan may include collection, compilation and dissemination of market intelligence to growers. Any other innovative activity relating to market intelligence may also be supported under this component. The assistance for this component will be project based.
3. **Buy – back Interventions:-** The buy – back interventions in the form of buyer – seller meetings, flexible and innovative marketing arrangements, Creation of

revolving fund at Cluster level for marketing of medicinal plants, and mobilization assistance to SHGs, cooperatives, producer companies could be provided under this component of the scheme. Any other activity which seeks to strengthen marketing and institutionalize linkage between buyer and seller may be included under this component. The assistance will be project based.

The above mentioned interventions may be proposed under flexible activities under NAM.

4. **Market Infrastructure:-** Under this component herbal collection and retail outlets that are proposed to be set up at the village level can be given assistance up to Rs 20 lakhs. Assistance will also be available for upgradation/creation of infrastructure in the agriculture mandies for trading of medicinal plants wherever such mandies exist at the village level. Similarly, assistance will be provided to District/State agriculture mandies for creating and upgrading physical infrastructure for trading of medicinal plants. Assistance will also be available for setting up herbal mandies at State/District level. The level of financial assistance for collection and retail outlets through village bodies/SHGs/ Cooperatives will be Rs. 20 lakhs and for State/District level collection and retail outlets upto a maximum of Rs. 2 crores.

f. Quality testing, certification and insurance

- i. **Quality Testing:-** The quality testing of herbs/medicinal plants produced by growers is key to realization of remunerative prices. The growers will be entitled to 50% of the testing charges subject to a maximum of Rs. 5000 if the herbs/medicinal plants are tested in AYUSH/NABL accredited Laboratories (may be proposed under flexible activities).
- ii. **Certification:-** Organic and GAP certification are the key to ensuring quality of the medicinal plants/herbs and can secure benefits to farmers through better prices for their produce and to consumer by way of better quality of herbal/AYUSH products. The certification charges will be admissible on a group basis to the limit of Rs. 5 lakhs for 50 hectares of cultivation in groups/clusters.
- iii. **Crop Insurance:-** Medicinal plants are a new activity under farming and, therefore, farmers need to be covered with crop insurance. This component seeks to provide assistance towards payment of 50% of the premium for particular crop. The premium and the details of the scheme

will be finalized in consultation with Agriculture Insurance Corporation (may be proposed under flexible activities).

- 8.6 Detailed project report/business plan will be prepared for each cluster through consultancy firms, which have the core competence in this area, so as to establish synergy between other schemes of the Department of AYUSH and those of other Ministries before implementation of the scheme. The State implementation agency will be permitted to engage Project Management Consultants for preparing business plans/detailed project report for clusters selected for support under the Scheme. In areas outside the designated zones/clusters, support for creating infrastructure like packing, sheds, processing units, testing labs will also be provided if linked to clusters of cultivation. The assistance for units outside the designated clusters area would be provided only to the public sector/farmers cluster/ Panchyat/farmer's cooperatives/producers company. All the projects will be entrepreneur driven based on proper business plan and market surveys. The detailed project/business plan for different clusters will be consolidated into the State Action Plan to be submitted to NMPB. The State implementation agency will also be permitted to engage project management consultant.

9 ELIGIBILITY

9.1 Nursery

- 9.1.1 Government Organisation (State Agriculture/Forest/Horticulture Department)/Government R&D institution / SHGs, ICAR, CSIR, ICFRE, DBT, DST institutions,
- 9.1.2 NGO, Private entrepreneurs, farmers (They would get only 50% of the grant initially on a pilot basis)

9.2 For Cultivation;

- 9.2.1 Growers, farmers, cultivators
- 9.2.2 Growers Associations, Federations, Self Help Groups, Corporate, growers cooperatives.
- 9.2.3 Cultivation will be assisted only in case of clusters. Each cultivation cluster will have minimum 2 hectare of the land. Each cultivation cluster should be drawn from farmers having lands within a radius of not more than 15 km. Assistance will be available to willing farmers desirous of cultivating medicinal plants on the same land in successive years.

9.3 For Post Harvest Management and Processing and Value Addition (including marketing)

- I. SPV formed by at least three (3) enterprises/company/firms/partnership firms/producer's company/traders/ growers / co-operatives engaged in the business of medicinal plants/and their products shall be eligible for funding under the scheme. Minimum two acres of land is required for a SPV and the land should be in industrial estate/zone/park/cluster/area be designated by the competent authority of the State. The SPV may also have common facility units/laboratory on payment basis for members and outsiders. Separate SPV, however, will not be required in case a Public Sector Unit or the State Government plans to establish the processing / value addition
- II. Bank account should be opened in the name of SPV and the members should contribute at least Rs. 5 lakhs as corpus fund to demonstrate their commitment towards the project.
- III. Outside designated support for infrastructure for packaging, drying sheds, processing units shall be provided to only public sector/farmer's cluster/ Panchyat/farmer's cooperatives/producers company linked to cultivation cluster.
- IV. In case of the public sector 100% financial assistance will be provided limited to Rs. 400 lakhs per project which should be appraised by a scheduled bank for feasibility.
- V. 100% financial assistance limited to Rs. 10 lakhs each for constructing drying sheds and storage go-downs as an adjunct to cultivation cluster will be admissible each if set up by SHGs/ Cooperatives of medicinal plants growers.

Assistance for this will be limited to 50% if set up by individuals or the entrepreneurs.

10 PATTERN OF FINANCIAL ASSISTANCE

For Processing facilities and infrastructural support:

- 10.1 Financial assistance @ 30% of the project cost subject to a maximum of Rs. 30 lakhs will be admissible for setting up of quality test labs for testing of raw material and value added products in a PPP mode on the basis of an MoU between organization, State Implementation Agency and NMPB, admissible

under the flexible component. Additionally, financial assistance for market promotion through the media, participation in exhibitions, trade fairs, developing and hiring of display facilities will be available @ 50% of the project cost limited to Rs. 10 lakhs.

- 10.2 The subsidy for value addition, processing and testing facilities is back ended. However, requirement of credit will not be necessary, if the organization, cooperatives, Trusts, corporate, PSUs have surplus funds supported with bank certificates and the organizations are otherwise financially sound and are not in default with any financial institution.
- 10.3 The assistance from the National Medicinal Plants Board will be utilized only for physical infrastructure, civil works, construction of building, plants & machinery and equipments. All remaining expenses on purchase of land of SPV, salary of cluster development executive, joint participation in national and international exhibition, business delegation abroad and brand development etc. will be borne by SPV.

The component-wise pattern of assistance admissible under the scheme is given at **Annexure-III.**

11 INSTITUTIONAL STRATEGY:

- 11.1 The State implementation agency for the Medicinal plants component of the Mission should be such that it has the infrastructure at the district level and below. For this purpose departments like the Horticulture and Agriculture Department may be considered as appropriate as the State level implementation agency. The State Horticultural Mission may, therefore, be designated as the State implementation agency, if considered appropriate, by the State Government. If SMPBs are given the nodal responsibility, the States should appoint full time CEOs of the States Medicinal Plants Boards and it shall be mandatory to register the SMPBs as societies to enable flow of funds in states which do not have State Horticulture Mission.
- 11.2 Also, the states will be required to make Annual action plans and prepare road map for development of the sector. Assistance will be admissible to only those states who prepare the State Action Plan. Those states where processing zones/clusters will be established will have to prepare detailed project

reports/business plans for the identified zones/clusters group of clusters and incorporate specific business plan/project report into State Action Plan.

- 11.3 The National Medicinal Plants Board (NMPB) has set up Facilitation Centres (FCs) in the State Agriculture Universities and R & D Institutions of Ministry of Science & Technology (CSIR/DBT) to act as a service window to growers/farmers and entrepreneurs on technology transfer, capacity building and training, extension and market information on medicinal plants. The State implementation agency should work in close coordination with the Facilitation Centres (FCs) for technical handholding under the Mission. More such centres can be set up, if required in future.

12. PREPARATION AND SUBMISSION OF PROPOSAL

- 12.1 The State Government shall prepare an Annual Action Plan (Annexure-V) for the various activities under the Scheme and after approval at the State Mission level forward the same to the department of AYUSH as a component in the State Annual Action Plan (SAAP). The Action Plan shall contain inter-alia details of nursery, cultivation cluster and units of post harvest management and processing and value addition. The Action Plan may also be sent in a soft copy to the Board.
- 12.2 NMPB shall place the Medicinal Plant component of the Annual Action Plans before the Technical Screening Committee. The Annual Action Plan after screening by the TSC will be placed before the appraisal committee and approving body of NAM which shall accord approval and recommend release of financial assistance to the States through state consolidated funds to the State implementation agency in one or more instalments. The State implementation agency for this purpose shall be registered as societies for NAM under the Societies Registration Act so that the funds could be channelized through it directly for onward release to the District and sub-district/cluster level or to the SHG, Cooperative Society or the producer company at the cluster level as the case may be.
- 12.3 Release of the funds for the approved activities and to the individual farmers/cultivators/groups will be done by the State implementation agency based on the beneficiaries, groups and entrepreneurs identified for various activities in different clusters. The credit linked subsidy may be released after verification of the work in the field in one instalment but after certification by the

bank about the progress achieved on the ground. For long-gestation crops and other project activities the TSC may fix suitable number of instalments as may be required for smooth implementation of the Action Plan. The format for preparing the Action Plan is given at Annexure – V.

- 12.4 The State Implementing Agency may formulate project for marketing under National Mission on AYUSH in accordance with the guidelines at Annexure – VI for consideration of the Technical Screening Committee (TSC) and NAM.

13. MONITORING AND EVALUATION

- 13.1 Term end evaluation will be conducted at the end of the XII Plan. For effective planning and implementation of the activities under the scheme, Programme Management consultants will be permitted to be engaged both at Central and State levels for the duration of the scheme. The Project Management unit shall consist of as many consultants and support staff of data entry operators etc. as may be considered necessary for effective implementation and monitoring of the scheme. Independent concurrent monitoring and evaluation will also be carried out by engaging professional agencies with expertise in the field. The scheme will also be subjected to mid-term evaluation after 3 years of its implementation.

- 13.2 The state-wise physical targets and outlays will depend upon the proposals received from the state Governments and the availability of funds for the purpose. The TSC will have the authority to revise the targets and outlays among different activities within the overall outlay available under the scheme and allocate funds among states based on the utilization and physical progress achieved on the ground. The overall target is to provide financial assistance for cultivation spread over 1,50,000 hectares raise production of medicinal plants upto 3 lakh tones, reduce dependence on wild collection to about 50% and increase the share of value added items in exports.

13.3 Mentoring and Monitoring by the State Missions

Since the action plan/project is actually being implemented by the State Missions, it is advisable that the State Missions may monitor all their activities at the field level through their own set of experts and take corrective measures accordingly. Therefore, field mentoring and monitoring of all their activities, including cultivation by individual farmers may be carried out by the Implementing agencies and subsidies be linked to such monitoring systems for this purpose the services of retired officers of forest / horticulture / agriculture /

Departments, Scientists etc. may be hired by State Missions. State Mission may also set-up Committees at state / district / block level for monitoring and mentoring of the programme in respect of Medicinal Plants. State Government may also decide to involve State Medicinal Plant Boards in joint monitoring of the scheme components in which case one percent of the action plan can be sanctioned to the state concerned to strengthen the State Medicinal Plant Boards to facilitate the joint monitoring mechanism.

13.4 Third party monitoring

The comprehensive third party monitoring is important for the success of any scheme being implemented at the national level. There could be two types of arrangements - either through the system of experts or hiring an agency. Hiring an agency is a better option as there would be uniformity in monitoring in all the States. NMPB has already experience of hiring Agricultural Finance Corporation for monitoring of Central Sector Scheme. There is need to further upgrade the monitoring and now the monitoring should be done by a National Level Agency with adequate manpower and infrastructure and get the information about the implementation of each activity under the scheme including the cultivation by individual farmers and the location and area data be picked up through the GPS system so that the same can be used in GIS based systems. The data in GIS based system would be used by the concerned company (selected through a tender process) as well as to be provided to NMPB for further temporal and spatial analysis.

13.5 Other measures for Focused Monitoring & Mentoring

NMPB may develop a list of experts and nominate subject-wise/ species-wise expert as Chief Technical Adviser and identify the institutes as Centres of Excellence in different fields of medicinal plants. In consultation with State Missions, focused monitoring & mentoring visits may be organized once in six months. The visit of panel of experts required for the concerned State would help the State Missions through mentoring with respect to their important activities. It is also proposed that same team of experts shall monitor both schemes of National Medicinal Plants Board. The NMPB may establish more facilitation centres and strengthen the existing Facilitation Centres for focused monitoring as well as hand holding through Capacity Building initiative in the States.

LIST OF PRIORITIZED PLANTS FOR CULTIVATION UNDER SCHEME OF NMPB**PLANTS ELIGIBLE FOR 30% SUBSIDY**

#	Botanical Name	Common Name	Cost per acre (In rupees)
1.	<i>Abrus precatorius</i>	Chirmati, Chinnoti, Gudumani	*
2.	<i>Acorus calamus</i> Linn.	Vach	30250
3.	<i>Adhatoda zeylanica</i>	Adusa	*
4.	<i>Aloe vera</i> (Linn.) Burn.	Ghritkumari	20,570
5.	<i>Alpinia calcarata</i>	Smaller Galangal	*
6.	<i>Alpinia galanga</i>	Greater Galanga	23,628
7.	<i>Andrographis paniculata</i> (Linn.) Burn	Kalmegh	12,100
8.	<i>Artemisia annua</i> (Linn.)	Artemisia	16,113
9.	<i>Asparagus racemosus</i> Willd.	Shatavari	30,250
10.	<i>Azadirachta indica</i> A. Juss	Neem	18,150
11.	<i>Bacopa monnieri</i> (L.) Pennell	Brahmi	19,360
12.	<i>Bergenia ciliata</i> Stern.	Pashnabheda	33,119
13.	<i>Boerhaavia diffusa</i> Linn.	Punarnava	14,520
14.	<i>Cassia angustifolia</i> Vahl.	Senna	12,100
15.	<i>Caesalpinia sappan</i> Linn.	Patang	25,918
16.	<i>Catharanthus roseus</i>	Sadabahar	12,100
17.	<i>Celastrus paniculatus</i>	Malkangani, Jyothismathi, Bavanthi Beeja	*
18.	<i>Centella asiatica</i> (Linn.) Urban	Mandookparni	19,360
19.	<i>Chlorophytum borivillianum</i> Sant.	Shwet Musali	1,51,250
20.	<i>Cinnamomum verum</i> Presl <i>C. tamala</i> and <i>C. camphora</i>	Dalchini, Tejpat, Kapoor	*
21.	<i>Citrullus colocynthis</i> Forsk	Indrayan, Colocynth, Chitrphala, Gavaksi, Kasturasa, Trapusi, Bitterm apple	*
22.	<i>Clerodendrum phlomoidis</i> L.f	Ami	*
23.	<i>Clitoria ternatea</i> L.(Blue & White variety)	Aparajita	*
24.	<i>Coleus barbatus</i> Benth. Syn. <i>Coleus forskholii</i>	Pather Chur	20,812
25.	<i>Coleus vettiveroides</i> K.C. Jacob	Hrivera	*
26.	<i>Convolvulus microphyllus</i>	Shankhpushpi	16,113
27.	<i>Cryptolepis buchanani</i> Roem & schult	Krsna sariva	20,598
28.	<i>Curcuma augustifolia</i>	Tikhur	*
29.	<i>Dacalophis hmiltonii</i>	Nannari	*
30.	<i>Digitalis purpurea</i> Linn.	Foxglove	*
31.	<i>Dioscorea bulbifera</i> Linn.	Rotalu, Gethi	30,250
32.	<i>Eclipta alba</i> Hassk.	Kesuria, Bhangru, Bhangra, Kesuti, Ajagara, Bringaraj, Kesar raja, Sumilaka, Suparna, Weed yam	*
33.	<i>Embelia ribes</i> Burm. f.	Vai Vidang	20,570
34.	<i>Emblica officinalis</i> Gaertn.	Amla	31,460
35.	<i>Ephedra gerardiana</i> Wall.	Somlata	*
36.	<i>Garcinia indica</i> Choisy	Kokum	30,250
37.	<i>Ginkgo biloba</i>	Ginkgo	*

38.	<i>Gymnema sylvestre</i> R. Br.	Gudmar	12,100
39.	<i>Hedychium spicatum</i> Buch-Ham.ex Smuth	Kapur kachari	19,360
40.	<i>Hemidesmus indicus</i> R.Br.	Anantmool, Indian Sarsaparilla	16,940
41.	<i>Holarrhena antidysenterica</i> Wall.	Kurchi/Kutaj	*
42.	<i>Hyoscyamus niger</i> L.	Khurasani ajwane	*
43.	<i>Ipomoea mauritiana</i> / <i>Ipomoea digitata</i>	Giant potato	*
44.	<i>Ipomoea petaloidea</i> Choisy	Vrddhadaruka	*
45.	<i>Ipomoea turpethum</i> R. Br.	Trivrit	*
46.	<i>Kaempferia galanga</i>	Indian crocus	*
47.	<i>Litsea glutinosa</i>	Listea	*
48.	<i>Lepidum sativum</i> Linn.	Chandrasur	*
49.	<i>Mucuna prurita</i> Linn.	Konch	9,680
50.	<i>Ocimum sanctum</i> Linn.	Tulsi	14,520
51.	<i>Oryza sativa</i> cv Njavara	Scented rice	*
52.	<i>Phyllanthus amarus</i> Schum & Thonn.	Bhumi amlaki	13,310
53.	<i>Piper longum</i> Linn.	Pippali	30,250
54.	<i>Plantago ovata</i>	Isabgol	*
55.	<i>Pluchea lanceolata</i> (DC) CB Clark.	Rasna	*
56.	<i>Plumbago rosea</i>	Leadwort	*
57.	<i>Pseudarthria viscida</i>	Moovila	*
58.	<i>Psoralea corylifolia</i> L.	Bakuchi	7,260
59.	<i>Rubia cordifolia</i> Linn	Manjishtha	48,400
60.	<i>Sida cordifolia</i>	Flannel weed	*
61.	<i>Solanum anguivi</i>	Katheli-badhi	*
62.	<i>Solanum nigrum</i> Linn.	Makoy	12,100
63.	<i>Stevia rebaudiana</i>	Madhukari	1,51,250
64.	<i>Tephrosia purpurea</i> Pers	Pawad, Dhamasia, Kalika, Plihari, Sharapunkha, Purple Tephrosia, Wild Indigo, Empali	*
65.	<i>Terminalia arjuna</i> (Roxb.) Wt. & Arn.	Arjuna	21,780
66.	<i>Terminalia bellirica</i> Gaertn.	Behera	19,360
67.	<i>Terminalia chebula</i> Retz.	Harad	19,360
68.	<i>Tinospora cordifolia</i> Miers	Giloe	13,310
69.	<i>Tragia involucrate</i>	Barhanta	*
70.	<i>Trichosanthes cucumerina</i>	Patol panchang	*
71.	<i>Valeriana hardwickii</i>	Tagar-ganth, Nihani	*
72.	<i>Vitex nigundo</i>	Nirgundi	12,100
73.	<i>Vetiveria zizanoides</i>	Khas- khas grass	*
74.	<i>Withania somnifera</i> (Linn.) Dunal	Ashwagandha	12,100
75.	<i>Woodfordia fruticosa</i> Kurz.	Dhataki	*

Plants eligible for 50% subsidy

#	Botanical Name	Common Name	Base cost per acre
76.	<i>Abies webbiana</i> Lindl	Talispatra	*
77.	<i>Acacia catechu</i>	Katha	*
78.	<i>Aegle marmelos</i> (Linn) Corr.	Beal	19,360
79.	<i>Albizzia lebeck</i> Benth.	Shirish	18,150
80.	<i>Alstonia scholaris</i> R.Br.	Satvin, Saptaparna	16,141
81.	<i>Altingia excelsa</i> Noronha	Silarasa	*
82.	<i>Anacyclus pyrethrum</i> DC.	Akarkara	*
83.	<i>Atropa belledona</i>	Atropa	30,250
84.	<i>Coscinum fenastratum</i> (Gertn) Colebr.	Peela Chandan	*
85.	<i>Crataeva nurvala</i> Buch – Ham.	Varun	*
86.	<i>Curculigo orchioides</i>	Kali Musali, Musli shiya	*
87.	<i>Dactylorhiza hatagirea hatagirea</i> (D.Don) Soo	Salampanja	*
88.	<i>Desmodium gangeticum</i>	Sarivan	21,780
89.	<i>Gloriosa superba</i> Linn.	Kalihari	66,550
90.	<i>Glycyrrhiza glabra</i> Linn.	Licorice Roots, Mulethi	48,400
91.	<i>Gmelina arborea</i> Linn.	Gambhari	21,780
92.	<i>Hippophae rhamnoides</i> Linn.	Seabuckthorn	24,200
93.	<i>Inula racemosa</i> Hk. f.	Pushkarmool	18,295
94.	<i>Juniperus cumminis</i> Linn	Hapushal, Hanber, Juniper, Bet Hapusha	*
95.	<i>Jurinea macrocephala</i> Benth.	Dhoop, Jari-dhoop	*
96.	<i>Leptadenia reticulata</i> (Retz) Wt. & Arn.	Jivanti	30,250
97.	<i>Mesua ferrea</i> Linn.	Nagakeshar	*
98.	<i>Onosma hispidum</i> Wall.ex Don	Ratanjot	*
99.	<i>Panax pseudo-ginseng</i>	Ginseng	*
100.	<i>Parmelia perlata</i> Ach.	Saileya	*
101.	<i>Piper cubeba</i> Linn. f.	Kababchini	*
102.	<i>Plumbago zeylanica</i> Linn.	Chitrak	14,520
103.	<i>Pueraria tuberosa</i> DC.	Vidarikand	24,200
104.	<i>Premna integrifolia</i> Linn.	Agnimanth	12,100
105.	<i>Pterocarpus marsupium</i> Roxb.	Beejasar	26,620
106.	<i>Rauwolfia serpentina</i> Benth. ex Kurz	Sarpgandha	30,250
107.	<i>Rheum emodi</i>	Archa	98,010
108.	<i>Salacia reticulata, Salacia oblongata</i>	Saptachakra (Saptarangi)	*
109.	<i>Saraca asoca</i> (Roxb.) De Wilde	Ashok	30,250
110.	<i>Smilax china</i> Linn.	Hrddhatri (Madhu snuhi), Chob Lokhandi	24,200
111.	<i>Stereospermum suaveolens</i> DC.	Patala	*
112.	<i>Symplocos racemosa</i> Roxb	Lodh/Pathani	*
113.	<i>Tacomella undulate</i> (Sm.) Seem.	Rohitak	*
114.	<i>Tricopus zeylanicus</i>	Jeevani	*
115.	<i>Tylophora asthmatica</i>	Damabooti	*
116.	<i>Taxus wallichiana</i> Linn.	Thuner, Talispatra	*
117.	<i>Urarea picta</i> (Jacq.) Desv.	Prishnaparni	20,086
118.	<i>Valeriana wallichii</i>	Indian Valerian	*
119.	<i>Vateria indica</i>	Mandadhupa, Dupa	*
120.	<i>Viola Odorata</i>	Bunafsha	*
121.	<i>Zanthoxylum alatum</i>	Timoor	14,520

Plants eligible for 75% subsidy

#	Botanical Name	Common Name	Remark
122.	<i>Aconitum ferox</i> Wall./ <i>A. balfouri</i>	Vatsnabh	38,927
123.	<i>Aconitum chasmanthum</i> Stapf	Vatsnabh(API)	*
124.	<i>Aconitum heterophyllum</i> Wall. <i>ex Royle</i>	Atees	53,240
125.	<i>Aquilaria agallocha</i> Roxb.	Agar	16,141
126.	<i>Berberis aristata</i> DC.	Daruhaldi	30,250
127.	<i>Commiphora wightii</i> (Arn.) <i>Bhandari</i>	Guggal	*
128.	<i>Coptis teeta</i> Wall.	Mamira	*
129.	<i>Ferula foetida</i> Regel.	Hing	*
130.	<i>Gentiana kurroo</i> Royle	Trayamana	*
131.	<i>Mappia foetida</i> Miers.	Ghanera	*
132.	<i>Nardostachys jatamansi</i> DC.	Jatamansi	98,010
133.	<i>Oroxylum indicum</i> Vent.	Syonaka	21,780
134.	<i>Picrorhiza kurroa</i> Benth. <i>ex</i> <i>Royle</i>	Kutki	54,450
135.	<i>Podophyllum hexandrum</i> Royle.	Bankakri, Indian podophyllum	48,400
136.	<i>Polygonatum cirrhifolium</i> Wall.	Mahameda	*
137.	<i>Pterocarpus santalinus</i>	Raktachandan, Red sanders	27,346
138.	<i>Santalum album</i> Linn.	Chandan	23,570
139.	<i>Saussurea costus</i> C.B. Clarke	Kuth, Kustha	42,350
140.	<i>Swertia chirata</i> Buch-Ham	Chirata, Charayatah	39,930

Note:

* Base cost to be considered and approved by SFC

- (1) Economics on cultivation have been finalized based on reports of NABARD, CSIR, ICAR, ICFRE, Forest Deptt., NHB and other reliable sources.
- (2) Economics of species have been worked out on the basis of inputs in the form of elite quality planting material.
- (3) These cost norms do not include expenditure towards manpower, infrastructure development and cost of land.
- (4) More plants may be added to this list as and when cost norms become available.
10% increase in Base cost norms can be given in subsequent years subject to NAM approval.

Norms of assistance for nurseries and cultivation

	Programme	Estimated Cost	Admissible Assistance
1.	NURSERY		
	Production of planting material		
	a) Public sector		
	i) Model nursery (4 ha.)	Rs. 25 lakhs	Maximum of Rs. 25.00 lakhs
	ii) Small Nursery (1 ha.)	Rs. 6.25 lakhs	Maximum of Rs.6.25 lakhs
	b) Private Sector (initially on Pilot basis)		
	i) Model nursery (4 ha.)	Rs. 25 lakhs	50% of the cost limited to Rs. 12.50 lakhs
	ii) Nursery (1 ha.)	Rs. 6.25 lakhs	50% of the cost limited to Rs. 3.125 lakhs
2.	CULTIVATION		
	i) Species that are highly endangered and in high demand by AYUSH industry	As per Annexure – II	75% of the cost of cultivation
	ii) Species that are endangered and sources of supply are declining	As per Annexure – II	50% of the cost of cultivation
	iii) Other species in demand by AYUSH industry and for exports	As per Annexure – II	30% of the cost of cultivation

**NORMS OF ASSISTANCE FOR POST HARVEST MANAGEMENT, PROCESSING
& VALUE ADDITION AND MANAGEMENT SUPPORT**

	Programmes	Estimated Cost	Admissible Assistance
1.	POST HARVEST MANAGEMENT		
	i) Drying sheds	Rs. 10.00 lakhs	100% assistance for Govt. / Semi-Govt. / Public Sector and 50% for SHGs / Cooperatives/ Private sector
	ii) Storage godowns	Rs. 10.00 lakhs	100% assistance for Govt. / Semi-govt. / Public Sector and 50% for SHGs / Cooperatives/ Private sector
2.	PROCESSING AND VALUE ADDITION		
	i) Processing unit	Rs. 400 lakhs	100% assistance in case of Govt / Semi-govt. / SHGs / Cooperatives / Public Sector limited to Rs. 400 lakhs / unit
	ii)Marketing infrastructure:-	<ul style="list-style-type: none"> • Rs. 10.00 lakhs for rural collection center. • Rs. 200 lakhs for district collection center. 	Project based. 100% assistance to Public Sector and 50% assistance to Private Sector /SHGs / Cooperatives
	iii)Organic/GAP certification	Rs. 5 lakhs for 50 ha.	Assistance up to 50% of the cost limited to Rs. 10,000/ha for maximum area of 4 ha/ beneficiary spread over a period of three years would be provided for organic / GAP cultivation. For certification Rs. 5.00 lakhs for 50 ha. will be provided
	iv) Demonstration plots	-	Project based depending upon species cultivated and infrastructure created limited to Rs. 10.00 lakhs / plot of minimum 2 acres
	v) Setting up of seed/ germ plasm centres	-	Rs. 25 lakhs/ centre

14. MEDICINAL PLANT PROCESSING CLUSTERS

Each of the cluster development projects including collection cluster implemented by a Special Purpose Vehicle (SPV) for medicinal plants processing units in a cluster shall be eligible for funding under the scheme upto 60% of cost of the core interventions, 25% of the cost of add on interventions, within overall ambit of 60% of the project cost subject to maximum of Rs. 10.00 crore per cluster. The assistance is further subject to the following:

(i) Assistance for engagement of CDEs and other management support of SPV shall not exceed 5% of the overall project cost.

(ii) Assistance for engaging engineers / architects / construction management / other experts for execution of civil works shall not exceed 5% of the overall project cost.

(a) Project cost for the purpose of the scheme shall mean the total cost of proposed interventions.

(b) The scheme would be modular in nature with a provision to add interventions to the approved project DPR while implementation is on. The addition however, should be in conformity to the overall project and the scheme objectives and subject to approval by Standing Finance Committee (SFC)

(c) SPVs may dovetail funds from other sources as well for the project, provided there is no duplication of funding for the same component / intervention.

However, in cases of such dovetailing, it shall be ensured that the contribution of the participating units of SPV is at least 10% of the overall project cost.

Activities under the flexible component of Medicinal Plants

1. Research & Development in Medicinal Plants
2. Voluntary Certification Scheme
3. IEC Activities
4. Market Promotion, Market intelligence and Buy back interventions- Project based
5. Reimbursement of Testing charges – 50% of Testing charges subject to maximum of Rs. 5,000/- per test
6. Crop insurance – 50% of the premium payable

Administrative support:

Management Support, Capacity Building, IT Support, Audit, Monitoring and Evaluation.

FORMAT FOR SUBMITTING DETAILED ACTION PLAN

Description

1.	Background Information		
	1.1	Geography and Climate	
	1.2	Potential for Medicinal Plants	
	1.3	Existing infrastructure[warehouse/cold storages, markets, mandies, manufacturing units, nurseries (public and private sector), R&D institutions, testing laboratories, certification agencies, farmers associations/cooperatives/SHGs]	
	1.4	Land availability (cluster-wise)	
	1.5	Existing level of cultivation	
2.	SWOT analysis		
3.	Details of the Annual Action Plan		
	3.1	Objective and strategy	
	3.2	Implementation agency at the State level with contact address, phone, e-mail ID	
	3.3	Salient aspects of the Annual Action Plan and the implementation details at district/sub-district level and how different organisations are proposed to be brought together to achieve the Mission objectives	
	3.4	Components wise physical targets - details of nursery, cultivation cluster and units of post harvest management and processing and value addition and financial outlays	
	3.4.1	Nursery	
		(a) Public sector	
		(b) Private sector	
	3.4.2	Cultivation (species-wise proposed area and financial outlays for different clusters)	
	3.4.3	(a) Storage/warehousing	
		(b) Drying/grading sheds	
		(c) Processing unit	
		(d) Quality testing laboratory	
		(e) Support for quality testing	
	3.4.4	Marketing	
		(a) Market promotion	
		(b) Market intelligence	
		(c) Marketing infrastructure	
		(d) Buy – back interventions including mobilisation of SHGs/cooperatives	
	3.4.5	Certification and Insurance	
		(a) Organic/GAP certification	
		(b) Crop insurance	
	3.5	Linkages	
	3.5.1	With R&D Institutions/Facilitation centres	
	3.5.2	With AYUSH industry cluster scheme	
	3.5.3	With National Horticulture Mission	
	3.5.4	With Manufacturing units/traders for marketing	
4.	Mission Management		
	4.1	Project Management Consultant	
	4.2	Salary of the contractual staff, monitoring, travel and other	

		administrative expenses	
5.	Annexures		
		Map of the State giving potential areas and location of existing and the proposed infrastructure under the Action Plan	
		Details of nursery, cultivation cluster, units of post harvest management and processing and value addition may be given in the tables as mentioned	

NURSERY

Format for furnishing of information by States regarding establishment of Nurseries developed under Centrally Sponsored Scheme of "National Mission on Medicinal Plants" of NMPB

(i) Name of the State:				
(ii) Total number of Nurseries (Model/Small)				
Contact person for each Nursery		Year - _____		
Name & Address, Phone / Fax / E-mail	Type of Nursery (Model / Small)	Name of species	Location of Nursery	Assistance Sought

CULTIVATION CLUSTER

Format for furnishing of information by States regarding Clusters of cultivation developed under Centrally Sponsored Scheme of "National Mission on Medicinal Plants" of NMPB

(i) Name of the State:				
(ii) Total number of Clusters				
Contact person for each cluster		Year - _____		
Name & Address, Phone / Fax / E-mail	No. of farmers covered	Name of Plant species and Area covered		
		Species	Area (Ha.)	Assistance Sought

Units of Post Harvest Management and Processing and Value Addition

Format for furnishing of information by States regarding PHM Units developed under Centrally Sponsored Scheme of "National Mission on Medicinal Plants" of NMPB

(i) Name of the State:			
(ii) Total number of PHM / Processing Units			
Contact person for PHM / Processing Unit	Year - _____		
Name & Address, Phone / Fax / E-mail	Details of PHM / Processing Units	No. of Units	Assistance Sought
	Drying sheds		
	Storage Godowns		
	Processing Units		
	Market promotion		
	Market infrastructure		
	Buy back intervention		
	Marketing infrastructure		
	Testing charges / reimbursement		
	Organic / GAP certification		
	Crop Insurance		

Guidelines for Project based support for Marketing under National Mission

1. **Market Promotion:** There is already provision for 50% financial assistance. The Committee was of the view that sources of the balance 50% of the projects cost should be specified before approval of the projects. After discussions, it was decided that:-

1.1 Initially the project on Market promotion would be approved, 'in-principle' only.

1.2 50% of NMPB share (i.e. 50% of the project cost) as first instalment to be released.

1.3 Balance 50% may be released on re-imburement basis after the event is over.

Note:- For advertisement, DAVP guidelines shall be followed and for advertisement in newspaper, only National daily with all India circulation shall be selected.

2. **Market Intelligence:** 100% assistance may be provided to Implementing Agencies. The number of projects to be taken-up in each state would, however depend on number of clusters of cultivation. After detailed discussions, following was decided by the Committee:

2.1. Number of projects to be taken up in each state will not exceed 10 numbers.

2.2. Financial assistance would be provided on 100% basis.

2.3. Financial assistance would be limited to Rs.10.0 lakhs per project including recurring expenditure restricted to Rs. 5.0 lakhs / year.

2.4. No regular staff would be taken up for market intelligence but implementing agency would implement the programme by hiring services of Marketing Consultancy organizations.

2.5 One project should cover minimum of 200 hectares cultivation.

3. **Buy-back Intervention:** In addition to growers / farmers and organizing buyer-seller meeting, there should be some incentive to industry so that their procurement of raw material from growers/farmers remains economically beneficial. The percentage of financial assistance may be linked with quantum of

procurement but would not exceed 10% of the procurement cost which will be shared as 75% by growers / farmers and 25% by Purchasers / Industry.

4. Market Infrastructure:

4.1 Rural centres for collection and sale: The Rural centres for collection and sale may work on weekly basis and basic facilities like Auction Platforms, Storage godown; Drying shed with supporting services may be provided. Land would be provided by respective Public /SHG / Cooperatives and would not form part of the project cost. The guidelines in brief would be as under:

- a. Maximum assistance per Rural centres for collection and sale - Rs. 20.0 Lakhs / unit.
- b. Rural centres for collection and sale may be basically collection centre in production areas.
- c. No. of Rural centres for collection and sale may depend on number of clusters of production.
- d. These centres to be linked with District centres /whole sale markets.
- e. Basic infrastructure like Auction Platform, Drying shed, Storage Godown and supporting services to be provided.
- f. Land to be made available by respective SHG/ cooperative society

Eligibility

100% assistance to Govt / Semi-govt. / SHGs / Cooperatives / Public Sector. Credit linked back ended subsidy @ 40% of the capital cost of project in general areas and 55% in case of Hilly and scheduled areas for private sector.

4.2 District centres for collection and sale / **Whole sale market: Main features:** Maximum assistance per District centres for collection and sale is Rs. 200.0 Lakhs

- a. The District centres for collection and sale would operate on a Hub-and-Spoke Format wherein the main Market (the hub) would be linked to a number of the spokes Rural Markets (Collection centers)
- b. The Rural Markets would be conveniently located at key production centers to allow easy farmers / collector's access and the catchments area of each spoke would be based on meeting the convenient needs of farmers, operational efficiency and effective capital utilization of the

investment.

- c. The District centres for collection and sale would establish backward linkages with farmers through the collection centers and forward linkages through wholesalers, distribution centers, processing units and exporters.
- d. Collection Centers in the villages would integrate producers, collectors and retailers, processing units and exporters into the market system.
- e. An electronic auction system would be established to ensure transparency in price fixation and competition.
- f. The scheme will attract and facilitate private sector investment in the agribusiness sector, by assisting the key stakeholders-entrepreneurs, producers, processing industry manufacturers and exporters.
- g. Producers, farmers, collectors and their associations and other market functionaries from any part of the country may use the infrastructure and facilities of the wholesale Market directly or through the collection centers.
- h. The District centres for collection and sale would provide one-stop solution in terms of providing logistics support including transport services, warehouse facility etc.

Eligibility

100% assistance to Govt / Semi-govt. / SHGs / Cooperatives / Public Sector. Credit linked back ended subsidy @ 50% limited to Rs. 100.00 lakhs to private sector

4.3 Commodities

The commodities to be marketed by the District centres for collection and sale will include medicinal plants, herbs etc.

4.4 Location

The State Government will approve the number and indicative location of the District centres for collection and sale based on the demand, economic viability, commercial considerations etc. Core facilities and essential services to be provided at the District Mandies/ Wholesale Markets:

1. Electronic auction facility	8. Material handling equipment (palletisations and plastic crates)	15. Basic lodging services
2. Storage facility	9. Movement and parking facility for vehicles	16. Storage area of plastic crates
3. Temperature controlled warehouse	10. Futures trading facility	17. Standards for the produce arriving at the market
4. Sorting, grading, washing and packing lines	11. Transport services	18. Bulk weightment etc
5. Labeling of produce	12. Banking services including settlement to transactions	19. Drinking water, toilets and information desks
6. Price displays/bulletin services	13. Vehicle fuelling services	20. Emergency services, policing/ general security and Fire fighting services
7. Quality testing facility	14. Waste and refuse treatment and disposal	

In addition to the above, the District centres for collection and sale will provide the following user facilities and services free of charge to the users.

- a. Price information display screens both at the central and the collection centers (Rural Mandi) for medicinal plants
- b. Advisory on inputs, prices, quality for AYUSH Industry.

4.5 Approval of the Proposal:

The proposals would be submitted by respective Mission Director, duly approved by their State Mission for consideration of TSC of NMPB and NAM.

4.6 Release of Funds

The funds will be released based on the progress of works in three instalments. The State authorities will have to monitor the implementation and furnish quarterly progress reports of utilization of central assistance.