

CENTRALLY SPONSORED SCHEME

OF

NATIONAL MISSION ON MEDICINAL PLANTS

OPERATIONAL GUIDELINES

1. PREAMBLE

1.1 Medicinal Plants form the major resource base of our indigenous health care traditions. Outreach and acceptability of AYUSH systems, both nationally as well as globally, is dependent on uninterrupted availability of quality plant 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 Cultivation of medicinal plants, therefore, is 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. During the year 2004 – 05, the Indian exports of Isabgol and Senna alone were of the order of 40,000 metric tonnes largely in raw form. Export of value added item requires 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 cultivation route where chain of custody regime is easier to maintain.

2.3 Indian share of the world herbal trade is less than 1%. 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. 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 under 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) **Advise** 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 products effectively.
- vii) Setting up of **database** on medicinal plants, dissemination of information and facilitating prevention of patents on plants used in traditional systems.
- 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 The National Medicinal Plants Board (NMPB), has been implementing a Central Sector Scheme of “Setting up Medicinal Plants Board” during the 10th Plan. During the 11th Plan, however, the Central Sector Scheme has been modified to give sharper focus on promotional activities like resource documentation, 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, renamed as the “Central Sector Scheme of Conservation, Development and Sustainable Management” has been approved with an 11th outlay of Rs. 321.30 crores. However, the component relating to commercial cultivation has been taken out of the pre-revised Central Sector Scheme and formulated into a new scheme which seeks 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 have been incorporated in a new Centrally Sponsored Scheme of National Mission on Medicinal Plants.

4. NATIONAL MISSION ON MEDICINAL PLANTS

4.1 The Centrally Sponsored Scheme of “National Mission on Medicinal Plants” has been approved with a total outlay of Rs. 630 crores for implementation during the 11th Plan. During the 11th Plan, the Central Government’s contribution will be 100%. During the 12th Plan, however, the State Government’s contribution is proposed to be suitably enhanced, based on the mid-term review of the scheme. The scheme is proposed to be implemented in a mission mode to organically link different components under the scheme and thus give a strategic push to the Sector during the 11th Plan

5 MISSION 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 zones/clusters through convergence of cultivation, warehousing, value addition and marketing and development of infrastructure for entrepreneurs to set up units in such zones/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 Adopt a Mission mode approach and promote partnership, convergence and synergy among stake holders involved in R&D, processing and marketing in public as well as private sector at national, regional, state and sub state level.

6 MISSION STRATEGY

6.1 The Mission would 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/zones within selected districts of states having potential for medicinal plants cultivation and to promote such cultivation following Good Agriculture 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 The Mission also seeks 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 Mission seeks 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 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 MISSION STRUCTURE

7.1 The Mission will be located in the National Medicinal Plants Board (NMPB), Department of AYUSH. The Mission will have a two tier structure – National and State.

NATIONAL LEVEL

National Medicinal Plants Board

7.2 The National Medicinal Plants Board (NMPB) will function as the General Council of the Mission under the Chairpersonship of Union Minister of Health and Family Welfare.

Standing Finance Committee (SFC)

7.3 The Board has a Standing Finance Committee (SFC), which will be headed by Secretary (AYUSH). This committee will act as the Executive Committee of the Mission and will have the following members:

1. Secretary (AYUSH), Chairperson.
2. Additional Secretary and Financial Advisor, Ministry of Health & Family Welfare.
3. Joint Secretary or officer of equivalent rank, Deptt. Science and Industrial Research.
4. Joint Secretary or officer of equivalent rank, Deptt. of Biotechnology.
5. Joint Secretary or officer of equivalent rank, Deptt. Agriculture Research and Education.
6. Joint Secretary or officer of equivalent rank, Ministry of Environment & Forests.
7. Joint Secretary or officer of equivalent rank, Ministry of Commerce.
8. Joint Secretary or officer of equivalent rank, Ministry of DONER.
9. Representative of Secretary North Eastern Council, Shillong.
10. Joint Secretary, Department of AYUSH.
11. Representative of Ayurvedic Industry.
12. Representative of Exporters of medicinal/herbal products.
13. Representative of Growers Associations/Federations.
14. Two domain experts to be nominated by Secretary (AYUSH)
15. Chief Executive Officer, NMPB - Ex-officio Member Secretary.

7.4 The chairman of the SFC will have authority to invite, as special invitees, representatives from organisations engaged in R&D, quality control, planning and other related disciplines in medicinal plants sector.

7.5 The NMPB will provide the necessary support to both SFC and the Mission. The Chief Executive Officer, NMPB who is of the rank of Joint Secretary will function as the Mission Director. The CEO has been delegated the powers of the Head of the Department and would, therefore, be able to carry out the Mission mandate and also implement and monitor the action

plans/proposals approved by the SFC.

7.6 The Standing Finance Committee (SFC) will have the following functions:

- (i) To oversee the activities of the Board and approve its annual budget.
- (ii) To consider and approve any financial proposal which is to be included for expenditure in the Budget.
- (iii) To consider and approve any proposal for incurring expenditure.
- (iv) To consider and recommend all proposals for creation of new posts.
- (v) To consider and allocate resources among the states and under different components of the scheme.
- (vi) To consider and approve projects under existing pattern of assistance.
- (vii) To consider and approve components of individual projects for which cost/subsidy norms have not been prescribed.
- (viii) The SFC shall also monitor the overall subsidy being disbursed under the scheme and in particular monitor the cap of 30% for cultivation subsidy.
- (ix) Any other matters that the Board may refer to it.

Technical Screening Committee (TSC)

7.7 Secretary (AYUSH) will have the powers to constitute Technical Screening Committees for scrutiny of project proposals received under different components under the scheme. The committees will comprise of domain experts in the relevant field and may also constitute one or more of the following organizations/Ministries:

- (i) Representative from National Horticulture Board
- (ii) Representative from ICAR
- (iii) Representative from CSIR
- (iv) Representative from Department of AYUSH
- (v) Representative of Secretary, North Eastern Council, Shillong
- (vi) Domain experts nominated by Secretary (AYUSH) - Two
- (vii) Representative from National Medicinal Plants Board-Member Secretary

STATE LEVEL

State Level Steering Committee for the Mission

7.8 The State level Steering Committee will be headed by Addl Chief Secretary/ Agriculture Production Commissioner/Development Commissioner at the State level and will include:

- (i) Member Secretary of State Medicinal Plants Board.
- (ii) Principal Secretary/Secretary Health/AYUSH of the State Government
- (iii) Principal Secretary/Secretary Horticulture/Agriculture of the State Government
- (iv) Principal Secretary/Secretary Industries Department of the State
- (v) Representative from National Medicinal Plants Board.
- (vi) Representative(s) from Central Government Institution(s)/Facilitation Centres.
- (vii) PCCF or his representative in the State.
- (viii) Domain experts in the field of Medicinal Plants (two)
- (ix) Mission Director, State Horticulture Mission

Selection of agency to implement the National Mission on Medicinal Plants in States

7.9 The State Government may designate the Mission Director, State Horticulture Mission as the Member Secretary of the State level Steering Committee as well as the State implementation agency. The funds from NMPB will be released through the SHM in such cases and separate accounts maintained. 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 in such cases can, however, be released through the State Medicinal Plants Board or the State Health Societies to enable timely flow of funds for implementation of the projects under the Mission. The state government shall choose the most efficient and effective agency available in the state to implement this Mission

7.10 The State Horticulture Mission, if designated as the State level implementation agency by the State Government, will implement the scheme 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 scheme. 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.

7.11 The Mission will have a strong technical component. There shall be a technical screening committee of domain experts to appraise the proposals/action plans received from the State Governments who will advise, appraise and recommend activities to be supported under the scheme for giving sharp focus to the objectives of the scheme to the SFC. 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 for Mission 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 National Medicinal Plants Board, the State Government and other sources 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 Scheme 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 level organizations, which may include the training and other incidental expenses like engaging animators etc.
- vi) Organise workshops, seminars and training programmes for all interest 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.

7.12 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. The list of existing Facilitation Centres (FCs) is given at **Annexure – V**.

7.13 At the district level, the Mission 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.

7.14 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.

7.15 The institutional arrangement for implementing the major activities under the Mission 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.

Linkages with other Schemes

7.16 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, fertigation, 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 MISSION INTERVENTIONS

Support Cultivation of Medicinal Plants

8.1 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.

8.2 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.

8.3 Project for cultivation must clearly spell out the source of planting material/seed. Only identified seed source or nurseries supplying certified planting material will be eligible to supply germplasm to growers seeking assistance under the scheme. The business plan/project report for

each cluster as well as the Action Plan for the state should cover the list of organizations (public sector or private sector) for quality planting material together with the technical details of their capacity, infrastructure, species proposed to be raised, their location and the financial outlays.

8.4 Though most of the cultivation is proposed to be taken up in states where processing zones/clusters will be set up, other states/districts 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 corporates.

8.5 The list of prioritized plants for cultivation for which subsidy @ ranging from 20% to 75% will be admissible is indicated at the **Annexure – II**. The Action Plan must cover the list of species, the proposed area to be brought under cultivation under each subsidy groups (of 20%, 50% and 75%) and the financial outlay proposed for cultivation component. The cost norms for 57 species are indicated at **Annexure – I**. For the remaining species, the cost norms would be considered at the time of approval of the Action Plan after consultation with the organizations NMPB may consider appropriate.

Establishment of Seed Centres and nurseries for Supply of Certified Planting Material:

8.6 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 certified germplasm or producing certified planting stock on commercial scale.

8.7 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.

Model Nurseries

8.8 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. 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.
- vi) Soil sterilization – steam sterilization system with boilers.

8.9 A model nursery should on average have an area of about 4 hectares and would cost Rs. 20 lacs per unit. The model nurseries which would be established under the Public sector will be eligible for 100% assistance of a maximum of Rs. 20.00 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. 10 lakhs per unit.

Small Nurseries

8.10 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.

8.11 Small nurseries would cost Rs. 4.00 lakhs per unit. The assistance will be to the extent of 100% of the cost for the Public sector and 50% of the cost subject to a ceiling of Rs. 2.00 lakhs for the nurseries in the private sector. The small nurseries would produce at least 60,000 plants per year.

8.12 It would be the responsibility of the nurseries to ensure quality of the planting material through certification for which independent certification agencies will be identified and notified by NMPB. The private nurseries will also be encouraged to move towards self accreditation also. 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.

Support for Medicinal Plant Processing and Post Harvest Management including Marketing

8.13 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 Uttaranchal. 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 illustrative list of facilities to be created in the post-harvesting infrastructure is as follows:

- i) **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.
- ii) **Storage godowns:** – The storage godowns is expected to receive produce from nearby drying yards. The storage godowns as 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.
- iii) **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.
- iv) **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.
- v) **Marketing:-** The main objectives of providing assistance under this component are:-
 - (a) To strengthen infrastructure of wholesale markets, agriculture mandies for marketing of medicinal plants.
 - (b) To set up herbal mandies wherever they do not exist.
 - (c) To strengthen linkages between farmers and industry/traders.
 - (d) To disseminate information on market, prices, market trends to enable farmers in selection of appropriate medicinal crops.

The components admissible for assistance are:

- (a) **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.

- (b) **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.
- (c) **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.
- (d) **Market Infrastructure:-** Under this component herbal mandies that are proposed to be set up at the village level can be given assistance up to Rs 10 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 rural mandies through village bodies/SHGs/ Cooperatives will be Rs. 10 lakhs and for State/District level mandies upto a maximum of Rs. 2 crores.

vi) **Quality testing, certification and insurance**

- (a) **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.
- (b) **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.
- (c) **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.

8.14 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 for the Mission 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. 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 For Cultivation;

- i) Growers, farmers, cultivators
- ii) Growers Associations, Federations, Self Help Groups, Corporates, growers cooperatives.

9.2 For Processing and Post Harvest Management Infrastructure

- i) Government /Non Government organizations, federations, Cooperatives, Industry with R& D unit duly registered and recognized as such by the appropriate authority with a minimum three years of experience in the field
- ii) Entrepreneurs, Industries etc.
- iii) NABL accredited laboratories
- iv) R & D institutions, & Universities

10 PATTERN OF FINANCIAL ASSISTANCE

For cultivation:

10.1 Selection and prioritization of plant species for financial assistance under the schemes of NMPB would have to be based on demand in the domestic and international markets, their availability in the wild and their conservation status (critically endangered, threatened, vulnerable etc). Also, the quantum of subsidy should be different for trees, which have long gestation period as opposed to crops that are annuals, bi-annuals and perennials, which start yielding after 1-2 years. The cost norms of plantations as applicable now are indicated in **Annexure-I**. The list of plants for cultivation together with the subsidy admissible for each category of plants is at **Annexure-II**.

10.2 There are other species like Guggal, Ashok, Arjun, Bael, Harad, Beheda, Nagkesar, Aonla which have long gestation period and, therefore, will require support during the gestation period. Also, there are species which are on CITES Appendix I and II, Schedule VI of Wildlife (Protection) Act negative list of plants for export and plants presently imported which need to be

supported through cultivation. The pattern of subsidy will be a graded pattern of financial assistance as detailed below:

- i) 75% subsidy for growing of species of plants which are included in CITES list, schedule VI of Wildlife Protection Act and negative list of exports and are highly endangered.
- ii) 50% subsidy for cultivation of medicinal plants where sources of supply are critically declining and are long gestation.
- iii) 20% subsidy for cultivation of other species needing support.

10.3 The overall weighted average of subsidy will, however, be kept within 30% while preparing action plan for the State and identifying plants to be supported under the scheme. The list of 93 plants is not exhaustive and more plants may be added to the list based on demand in trade, after obtaining concurrence of Department of Expenditure, Ministry of Finance.

10.4 The subsidy for nursery and plantation is back ended credit linked with 20% credit component. However, credit requirement in case of cooperatives, corporates, Govt. companies, SHGs and Trusts may not be insisted upon if these organizations have surplus funds supported with bank certificates or are otherwise financially sound.

For Processing facilities and infrastructural support:

10.5 Financial assistance @ 25% of the project cost limited to a maximum of Rs. 50 lakhs will be available as back ended subsidy for setting up of value addition and processing unit, like a solvent extraction/distillation unit, for production of value added items. 100% financial assistance limited to Rs. 10 lakhs each for constructing drying sheds and storage godowns 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.

10.6 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. 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.

10.7 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, corporates, PSUs have surplus funds supported with bank certificates and the organizations are otherwise financially sound and are not in default with any financial institution.

The component-wise pattern of assistance admissible under the scheme is given at

Annexure – III.

11 MANAGEMENT SUPPORT

11.1 The State implementation agency for 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 for the Mission, 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 a society to enable flow of funds in states which do not have State Horticulture Mission.

11.3 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.

11.4 It is proposed that 5% allocation will be available for management support which will go to the states for activities like payment of the salary of the contractual staff and project management consultant engaged for implementing the scheme, preparation of annual plans, monitoring, administrative expenses like travel etc. and exposure visits.

12. PREPARATION AND SUBMISSION OF PROPOSAL

12.1 The State Government shall prepare an Annual Action Plan (**Annexure-IV**) for the various activities under the Scheme and after approval at the State level Steering Committee headed by the Additional Chief Secretary/Agriculture Production Commissioner/Development Commissioner at the state level forward 20 copies of the Action to the NMPB. The Action Plan may also be sent in a soft copy to the Board.

12.2 NMPB shall place all the Annual Action Plans before the Technical Screening Committee. The Annual Action Plan after screening by the TSC will be placed before the SFC which shall accord approval and recommend release of financial assistance to the States through the State implementation agency in one installment. The State implementation agency for this purpose shall be registered as societies under the Societies Registration Act so that the funds could be channelised 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. Before releasing funds to the state level implementation agency, a Memorandum of Understanding (MoU) will be entered into with the states incorporating the duties, responsibilities and commitments of the state and the Central Government.

12.3 Further 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 installment but after certification by the bank about the progress achieved on the ground. For long-gestation crops and other project activities the SFC may fix suitable number of installments as may be required for smooth implementation of the Action Plan.

12.4 The State implementation agency may spend upto 5% of the outlay proposed in the Action Plan on the management support which may include preparation of Action Plan for the state and project report/business plan for each cluster proposed to be covered under the scheme in the state. The format for preparing the Action Plan is given at **Annexure – IV**.

13. MONITORING AND EVALUATION

13.1 Term end evaluation will be conducted at the end of the XI 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 2 - 2½ years of its implementation. The funds under the head Management Support will be utilized and provided for in the Annual Action Plan for the Project Management Consultant.

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 SFC 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 80,000 ha. – 1 lakh ha. of area, raise production of medicinal plants upto 2 lakh tones, reduce dependence on wild collection to about 50% and increase the share of value added items in exports. It is estimated to also generate 6 crores mandays of rural employment during the Plan period.

SUMMARY OF UNIT COST OF MEDICINAL PLANT SPECIES

S. No.	Crop Name	Botanical name	cost Per acre (Rs.)	Cost norms per Hectare (Rs.)
1	Amla	Emblica officinalis	26,000	65,000
2	Anantmool	Hemidesmus indicus	14,000	35,000
3	Archa	Rheum emodi	81,000	2,02,000
4	Arjun	Terminalia arjuna	18,000	45,000
5	Ashok	Saraca asoca	25,000	62,500
6	Ashwagandha	Withania somnifera	10,000	25,000
7	Atis	Aconitum heterophyllum	44,000	110,000
8	Bach	Acorus calamus	25,000	62,500
9	Bael	Aegle marmelos	16,000	40,000
10	Bahera	Terminalia bellirica	16,000	40,000
11	Bankakri	Podophyllum hexandrum	40,000	100,000
12	Beledona	Atropa belladonna	25,000	62,500
13	Bhumlamalaki	Phyllanthus amarus	11,000	27,500
14	Bixa	Bixa orellana	42,000	1,05,000
15	Brahmi	Bacopa monnieri	16,000	40,000
16	Chirata	Swertia chirata	33,000	82,500
17	Chitronella	Cymbopogon winterianus	20,000	50,000
18	Cinnamon	Cinnamomum zeylanicum	31,000	77,500
19	Coleus	Coleus forskholii	17,200	43,000
20	Daruhaldi	Berberis aristata	25,000	62,500
21	Gambari	Gmelina arborea	18,000	45,000
22	Ghrit Kumari	Aloe vera	17,000	42,500
23	Giloe	Tinospora cordifolia	11,000	27,500
24	Gudmar	Gymnema sylvestre	10,000	25,000
25	Guggal	Commiphora wightii	64,000	1,60,000
26	Harar	Terminalia chebula	16,000	40,000
27	Jatamansi	Nardostachys jatamansi	81,000	2,02,000
28	Kalihari	Gloriosa superba	55,000	137,500
29	Kalmegh	Andrographis paniculata	10,000	25,000
30	Kokkum	Garcinia indica	25,000	62,500
31	Konch	Mucuna prurita	8,000	20,000
32	Kuth	Saussurea costus	35,000	87,500
33	Kutki	Picrorhiza kurrooa	45,000	112,500
34	Lemon grass	Cymbopogon flexuosus	20,000	50,000
35	Makoy	Solanum nigrum	10,000	25,000
36	Mandukparni	Centella asiatica	16,000	40,000
37	Manjishtha	Rubia cordifolia	40,000	1,00,000
38	Mint	Mentha piperita/ Mentha arvensis	16,000	40,000
39	Mulethi	Glycyrrhiza glabra	40,000	100,000
40	Muskdana	Abelmoschus moschatus	8,000	20,000
41	Neem	Azadirachta indica	15,000	37,500
42	Patchouli	Pogostemon coblem	26,000	65,000
43	Pippali	Piper longum	25,000	62,500
44	Punarnava	Boerhaavia diffusa	12,000	30,000

45	Pushkar Mool	<i>Inula racemosa</i>	15,120	37,800
46	Ratalu	<i>Dioscorea bulbifera</i>	25,000	62,500
47	Sadabahar	<i>Catharanthus roseus</i>	10,000	25,000
48	Safed Musli	<i>Chlorophytum borivillianum</i>	125,000	312,500
49	Sarp Gandha	<i>Rauwolfia serpentina</i>	25,000	62,500
50	Sea Buckthorn	<i>Hippophoe rhamnoides</i>	20,000	50,000
51	Sena	<i>Cassia angustifolia</i>	10,000	25,000
52	Shatavar	<i>Asparagus racemosus</i>	25,000	62,500
53	Siris	<i>Albizia lebbek</i>	15,000	37,500
54	Stevia	<i>Stevia rebaudiana</i>	1,25,000	3,12,500
	Tagar	<i>Valeniana wallichii</i>	24,000	60,000
	Tulsi	<i>Ocimum sanctum</i>	12,000	30,000
	Viavidang	<i>Embelia ribes</i>	17,000	42,500

Note:

- (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.

**LIST OF PRIORITIZED PLANTS FOR DEVELOPMENT AND CULTIVATION
UNDER SCHEME OF NMPB PLANTS ELIGIBLE FOR 20% SUBSIDY**

#	Botanical Name	Common Name	Eligible subsidy (%)	Remark
1.	<i>Acorus calamus</i> Linn.	Vach	20	
2.	<i>Aloe vera</i> (Linn.) Burn.	Ghritkumari	20	
3.	<i>Andrographis paniculata</i> (Linn.) Burn	Kalmegh	20	
4.	<i>Artemisia annua</i> (Linn.)	Artemisia	20	
5.	<i>Asparagus racemosus</i> Willd.	Shatavari	20	
6.	<i>Azadirachta indica</i> A. Juss	Neem	20	
7.	<i>Bacopa monnieri</i> (L.) Pennell	Brahmi	20	
8.	<i>Boerhaavia diffusa</i> Linn.	Punarnava	20	
9.	<i>Cassia angustifolia</i> Vahl.	Senna	20	
10.	<i>Caesalpinia sappan</i> Linn.	Patang	20	
11.	<i>Centella asiatica</i> (Linn.) Urban	Mandookparni	20	
12.	<i>Chlorophytum borivillianum</i> Sant.	Shwet Musali	20	
13.	<i>Cinnamomum verum</i> Presl C. tamala and C. camphora	Dalchini, Tejpat, Kapoor	20	
14.	<i>Coleus barbatus</i> Benth.	Pather Chur	20	
15.	<i>Coleus vettiveroides</i> K.C. Jacob	Hrivera	20	
16.	<i>Convolvulus microphyllus</i>	Shankhpushpi	20	
17.	<i>Cryptolepis buchanani</i> Roem & schult	Krsna sariva	20	
18.	<i>Digitalis purpurea</i> Linn.	Foxglove	20	
19.	<i>Dioscorea bulbifera</i> Linn.	Rotalu, Gethi	20	
20.	<i>Embelia ribes</i> Burm. f.	Vai Vidang	20	
21.	<i>Emblica officinalis</i> Gaertn.	Amla	20	
22.	<i>Garcinia indica</i> Choisy	Kokum	20	Commercial Crop
23.	<i>Ginkgo biloba</i>	Ginkgo	20	
24.	<i>Gymnema sylvestre</i> R. Br.	Gudmar	20	
25.	<i>Hedychium spicatum</i> Buch-Ham.ex Smuth	Kapur kachari	20	
26.	<i>Hemidesmus indicus</i> R.Br.	Anantmool, Indian Sarsaparilla	20	
27.	<i>Holarrhena antidysenterica</i> Wall.	Kurchi/Kutaj	20	
28.	<i>Ipomoea petaloidea</i> Choisy	Vrddhadaruka	20	
29.	<i>Ipomoea turpethum</i> R. Br.	Trivrit	20	
30.	<i>Litsea glutinosa</i>	Listea	20	
31.	<i>Lepidum sativum</i> Linn.	Chandrasur	20	
32.	<i>Mucuna prurita</i> Linn.	Konch	20	

33.	<i>Ocimum sanctum</i> Linn.	Tulsi	20	
34.	<i>Phyllanthus amarus</i> Schum & Thonn.	Bhumi amlaki	20	
35.	<i>Piper longum</i> Linn.	Pippali	20	
36.	<i>Pluchea lanceolata</i> (DC) CB Clark.	Rasna	20	
37.	<i>Solanum nigrum</i> Linn.	Makoy	20	
38.	<i>Stevia rebaudiana</i>	Madhukari	20	Export Potential
39.	<i>Terminalia arjuna</i> (Roxb.) Wt. & Arn.	Arjuna	20	
40.	<i>Terminalia bellirica</i> Gaertn.	Behera	20	
41.	<i>Terminalia chebula</i> Retz.	Harad	20	
42.	<i>Tinospora cordifolia</i> Miers	Giloe	20	
43.	<i>Vitex nigundo</i>	Nirgundi	20	
44.	<i>Withania somnifera</i> (Linn.) Dunal	Ashwagandha	20	
45.	<i>Woodfordia fruticosa</i> Kurz.	Dhataki	20	

Plants eligible for 50% subsidy

#	Botanical Name	Common Name	Eligible subsidy	Remark
46.	<i>Aegle marmelos</i> (Linn) Corr.	Beal	50	LG, Root
47.	<i>Albizzia lebbeck</i> Benth.	Shirish	50	LG, Bark
48.	<i>Alstonia scholaris</i> R.Br.	Satvin, Saptaparna	50	LG, Bark
49.	<i>Altingia excelsa</i> Noronha	Silarasa	50	
50.	<i>Anacyclus pyrethrum</i> DC.	Akarkara	50	
51.	<i>Atropa belledona</i>	Atropa	50	
52.	<i>Coscinum fenastratum</i> (Gertn) Colebr.	Peela Chandan	50	
53.	<i>Crataeva nurvala</i> Buch – Ham.	Varun	50	LG, Bark
54.	<i>Dactylorhiza hatagirea</i> hatagirea (D.Don) Soo	Salampanja	50	
55.	<i>Gloriosa superba</i> Linn.	Kalihari	50	
56.	<i>Glycyrrhiza glabra</i> Linn.	Licorice Roots, Mu	50	
57.	<i>Gmelina arborea</i> Linn.	Gambhari	50	LG, Root
58.	<i>Hippophae rhamnoides</i> Linn.	Seabuckthorn	50	
59.	<i>Inula racemosa</i> Hk. f.	Pushkarmool	50	
60.	<i>Leptadenia reticulata</i> (Retz) Wt. & Arn.	Jivanti	50	
61.	<i>Mesua ferrea</i> Linn.	Nagakeshar	50	LG
62.	<i>Panax pseudo-ginseng</i>	Ginseng	50	
63.	<i>Parmelia perlata</i> Ach.	Saileya	50	HA, SG
64.	<i>Piper cubeba</i> Linn. f.	Kababchini	50	
65.	<i>Plumbago zeylanica</i> Linn.	Chitrak	50	
66.	<i>Pueraria tuberosa</i> DC.	Vidarikand	50	
67.	<i>Premna integrifolia</i> Linn.	Agnimanth	50	HA, Root
68.	<i>Pterocarpus marsupium</i> Roxb.	Beejasar	50	
69.	<i>Rauwolfia serpentina</i> Benth. ex Kurz	Sarpchandha	50	MG, Root
70.	<i>Salacia reticulata</i> , <i>Salacia oblongata</i>	Saptachakra (Saptar)	50	

71.	<i>Saraca asoca</i> (Roxb.) De Wilde	Ashok	50	LG, Bark
72.	<i>Smilax china</i> Linn.	Hrddhatri (Madhu Chob Chini Lokhan	50	
73.	<i>Stereospermum suaveolens</i> DC.	Patala	50	LG, Root
74.	<i>Tacomella undulate</i> (Sm.) Seem.	Rohitak	50	
75.	<i>Tylophora asthmatica</i>	Damabooti	50	
76.	<i>Taxus wallichiana</i> Linn.	Thuner, Talispatra	50	
77.	<i>Urarea picta</i> (Jacq.) Desv.	Prishnaparni	50	

Plants eligible for 75% subsidy

#	Botanical Name	Common Name	Eligible subsidy	Remark
78.	<i>Aconitum ferox</i> Wall./ <i>A. balfouri</i>	Vatsnabh	75	HA
79.	<i>Aconitum heterophyllum</i> Wall. ex Royle	Atees	75	HA
80.	<i>Aquilaria agallocha</i> Roxb.	Agar	75	HA, LG, Endangered
81.	<i>Berberis aristata</i> DC.	Daruhaldi	75	HA, Root
82.	<i>Commiphora wightii</i> (Arn.) Bhandari	Guggal	75	LG, Low Yield
83.	<i>Ferula foetida</i> Regel.	Hing	75	LG, Resin from base of stem
84.	<i>Gentiana kurroa</i> Royle	Trayamana	75	HA
85.	<i>Nardostachys jatamansi</i> DC.	Jatamansi	75	HA, Rhizome
86.	<i>Oroxylum indicum</i> Vent.	Syonaka	75	LG, Root
87.	<i>Picrorhiza kurroa</i> Benth. ex Royle	Kutki	75	
88.	<i>Podophyllum hexandrum</i> Royle.	Bankakri, Indian podophyllum	75	HA, LG
89.	<i>Polygonatum cirrhifolium</i> Wall.	Mahameda	75	
90.	<i>Pterocarpus santalinus</i>	Raktachandan, Red sanders	75	LG, Wood
91.	<i>Santalum album</i> Linn.	Chandan	75	LG, Wood
92.	<i>Saussurea costus</i> C.B. Clarke	Kuth, Kustha	75	
93.	<i>Swertia chirata</i> Buch-Ham	Chirata, Charayatah	75	HA

HA - High Altitude

LG - Long Gestation

MG - Medium Gestation

SG - Short Gestation

Uni - Universal

NORMS OF ASSISTANCE FOR PROGRAMMES

	Programme	Estimated Cost	Admissible Assistance
1.	NURSERY		
	Production of planting material		
	a) Public sector		
	i) Model nursery (4 ha.)	Rs. 20 lakhs	Maximum of Rs. 20.00 lakhs
	ii) Small Nursery (1 ha.)	Rs. 4 lakhs	Maximum of Rs. 4.00 lakhs
	b) Private Sector		
	i) Model nursery (4 ha.)	Rs. 20 lakhs	50% of the cost limited to Rs. 10.00 lakhs
	ii) Nursery (1 ha.)	Rs. 4 lakhs	50% of the cost limited to Rs. 2.00 lakhs
2.	CULTIVATION		
	i) Species that are highly endangered and in high demand by AYUSH industry	As per Annexure – I & II	75% of the cost of cultivation
	ii) Species that are endangered and sources of supply are declining	As per Annexure – I & II	50% of the cost of cultivation
	iii) Other species in demand by AYUSH industry and for exports	As per Annexure – I & II	20% of the cost of cultivation
	iv) The weighted average of subsidy for 93 plants as per list at Annexure –II		35%
3.	POST HARVEST MANAGEMENT		
	i) Drying sheds	Rs. 5 lakhs	100% assistance for SHGs/Cooperatives/Public Sector and 50% for Private
	ii) Storage godowns	Rs. 5 lakhs	100% assistance for SHGs/ Cooperatives/Public Sector and 50% for Private

4.	PROCESSING AND VALUE ADDITION		
	i) Processing unit	Rs. 200 lakhs	25% of the project cost subject to a maximum of Rs. 50 lakhs
	ii) Setting up testing laboratories	Rs. 100 lakhs	30% of the project cost subject to a maximum of Rs. 30 lakhs
	iii) Market promotion	Rs. 10 lakhs	50% of the project cost
	iv) Market Intelligence	Project based	Project based
	v) Buy back intervention	Project based	Project based
	vi)Marketing infrastructure:-	- For rural mandi = Rs. 10 lakhs - For district mandi=Rs. 200 lakhs	Project based. 100% assistance to Public/SHGs/ Cooperatives
	vii)Testing charges/reimbursement	50% of testing charges subject to Rs. 5,000/-	
	viii)Organic/GAP certification	Rs. 5 lakhs for 50 ha.	As per NHM
	ix)Crop insurance	50% of premium	
5.	MANAGEMENT SUPPORT		
	i) State and District level organizations implementing the programme including additional manpower.		5% of the total annual expenditure on the basis of appraised need. The salary of the contractual staff and project management consultant for each component of the scheme to be paid under the scheme
	ii) Project preparation cost and other administrative cost including hiring of transport, TE, office expenses hardware/ software etc.	Project based	Within 5% available for management support
	iii) Other expenses including exposure visits within the country and abroad	Project based	Within 5% available for management support

Annexure - IV

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 (with physical targets 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	

LIST OF FACILITATION CENTRE SANCTIONED BY NMPB DURING

2007-08

S. No.	State	Name of Organization	Name of PIs (Tel./ Fax. No)
1.	Andhra Pradesh	Acharya N.G. Ranga Agricultural University	Dr. R. Mohan Rao, Sr. Scientist & Head (Hort.) Herbal Garden Scheme, Acharya N.G. Ranga Agricultural University, Rajendranagar, Hyderabad - 30 Tel. No. 24013331 Mob. No. 098668-69189
2.	Assam	Assam Agriculture University	Dr. M.P. Borthakur, Directorate of Extension Education, Assam Agriculture University, Jorhat - pin code: 785 013 Tele: 09435094326 (M), 0376-2340030 (off), Fax: 0376-2310831 (c/o DRA), 0376-2340001 (c/o VC), E-Mail: icbarua@aau.ac.in & Iswar_barua@yahoo.com
3.	Bihar	Rajendra Agricultural University, Bihar	J.K. Handoo, University Professor & Chairman, Department of Botany & Plant Physiology, Faculty of Basic Sciences & Humanities, Rajendra Agricultural University, Pusa (Samastipur)- 848125, Bihar. Tel: 06274-240272 (O), 240733 ®, E-mail: raupusa@Sancharnet.
4.	Chhattisgarh	Indira Gandhi Krishi Vishwavidyalaya	Dr. Arvind Kumar Geda, Head, Department of Medicinal & Aromatic Plants, CoA, IGKV, Raipur- 492006 (C.G.), Tele: 91-771-2443093, Fax: 91-771-2442131, e-mail: akgeda@yahoo.com
5.	Gujarat	Junagadh Agricultural University	Dr. V.P. Chovatia, Professor & Head, Department of Agricultural Botany, Junagadh Agricultural University, Junagadh. Pin code- 362 001, Gujarat, Tele: 0285-2672080 ext.- 369, (M) 09879570087
6.	Gujarat	Anand Agricultural University	Director of Research, Anand Agricultural University, Anand- 388 110, Gujarat, Ph: (02692) 263600, Fax: (02692) 261057, E-mail- dr@aau.in
7.	Haryana	Ch. Charan Singh Haryana	Dr. P.K. Verma, Sr. Scientist & Head, Medicinal, Aromatic and Under-Utilized Plants Section, Department

		Agricultural University	of Plant Breeding, CCS HAU, Hisar- 125 004., Ph.- 01662-289283 (O), 9812055209 (M)
8.	Himachal Pradesh	Dr. Y.S. Parmar University of Horticulture & Forestry	Dr. N.S. Chauhan, Deptt. Of Forest Products, Dr. YSP, UHF Nauni- Solan (HP), Pin code- 173 230, Ph: 01792-252495 (O), 94180-79012 (M), e. mail: herbfpu@yahoo.com
9.	Jammu & Kashmir	Indian Institute of Integrative Medicine, Jammu	Dr. M.K. Kaul, Head, Biodiversity & Applied Botany Division, IIIM, Jammu- 180001, J&K. Tel.- (O)- 0191-2569000-10, ®- 0191-538666; E-mail:- kaul_m_k@rediffmail.com
10.	Jharkhand	Birsa Agricultural University	Prof. B.N. Singh, Director Research, Birsa Agricultural University, P.O.- Kanke, Ranchi, pin code- 834 006, Jharkhand Tel. No. 0651-2450610 Fax No. 0651-2451011, e-mail - bnsingh2004@yahoo.com
11.	Karnataka	Gandhi Krishi Vignana Kendra	Dr. M. Vasundhara, Univesity of Agricultural Sciences, Division of Horticulture, GKVK, Bangalore- 65 Tele fax No. 080-23330206 (Director of Research)
12.	Kerala	Kerala Agricultural University	Dr. Baby P Skaria, Associate Professor & Head, Kerala Agricultural University, Aromatic and Medicinal Plants Research Station, Odakkali, Asamannoor P.O., Ernakulam District, Kerala, Pin- 683 549, Tel.- (0484) 2658221, (M) 9447873922, Fax: (0484) 2659881; E-mail:- amprs@satyam.net.in
13.	Madhya Pradesh	Jawaharlal Nehru Krishi Vishwa Vidyalaya	Dr. S.D. Upadhyaya, Department of Crop & Herbal Physiology, Jawaharlal Nehru Krishi Vishwa Vidhyalaya, Adhartal, Jabalpur, pin code- 482004, Madhya Pradesh., Email: sdupadhyaya@yahoo.co.in, Tele:- 0761-2681858/4074367 (O), 0761-2681217(R), Fax: 0761-268138
14.	Maharashtra	Mahatma Phule Krishi Vidyapeeth	Dr. Gadakh Sharad Ramrao, Officer Incharge, Scheme for Medicinal & Aromatic Plants, Department of Botany, Mahatma Phule Krishi Vidyapeeth, Rahuri. Dist. Ahmednagar 413 722, Ph: (O) 02426/243249, (M)

			09822014518, T.Fax- 02426-243249
15.	Maharashtra	BSKKV Konkan Krishi Vidyapeeth, Dapoli, Distt. Ratnagiri	Dr. S.G. Bhave, Associate Dean, Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, College of Forestry, Dapoli - 415 712, Dist. Ratnagiri; Tel. No. 02358-283655, 284013 Fax No. 02358-284013; E-mail: - assodeanfor@rediffmail.com
16.	Manipur	Institute of Bioresources and Sustainable Development (IBSD)	Dr. V.S. Rana, Scientist - B & In-charge, Medicinal Plants & Horticultural Resources Division, Institute of Bioresources and Sustainable Development (IBSD), Imphal - 795 001 Telefax: - 0385-2446121, e-mail: ranavs2000@yahoo.com
17.	Meghalaya	ICAR Research Complex for NEH Region	Dr. Anupam Mishra, Principal Scientist & Incharge, ATIC & Nodal officer KVKs, ICAR Research Complex for NEH Region, Umiam, Meghalaya - 793 103, Tel. No. 0364-2570029, Mob. No. 094361-66505
18.	Orissa	Orissa University of Agriculture & Technology	Dr. Arun Kumar Das, Office-Associate Professor, Department of Hort. College of Agriculture, OUAT, Bhubaneswar, Dist- Khurda, Orissa. Pin Code- 751003, Ph.-0674-2392818 Extn.- 124, e-mail: arundas_akdas @ yahoo.co.in
19.	Punjab	Punjab Agricultural University	Head, Department of Agronomy, Punjab Agricultural University (P.A.U.), Ludhiana. Pin Code- 141 004, Ph: 0161-2411427 (Direct), 0161- 2401960 extn- 308, Fax: 0161-2400945/2402483
20.	Tamil Nadu	Tamil Nadu Agricultural University	Dr. E. Vadivel, Director of Extension Education, Tamil Nadu Agricultural University, Coimbatore. Pin code- 641 003, Tamil Nadu Tel. No. 0422-6611352, 6611233; Fax No. 0422-6611433; E-mail:- dee@tnau.ac.in

21.	Uttarakhand	G.B. Pant University of Agriculture & Technology	Director of Research, G B Pant University of Agriculture & Technology, Pantnagar, pin code-263 145, Ph. No.- 05944-033625 (O), +919412121119 (M), Fax: 05944-233473, E-mail: bsmahapatra@gmail.com
22.	Uttar Pradesh	Narendra Deva University of Agriculture & Technology	Dr. O.P. Singh, Plant Breeder, Narendra Deva University of Agriculture & Technology, Narendra Nagar, Kumarganj, Faizabad - 224 229, Tel. No. 05270-262463, Fax No. 05270-262097, E-mail: opsingh@nduat.up.nic.in, nduat@up.nic.in
23.	West Bengal	Ramakrishna Mission Ashrama, Narendrapur	Swami Vishwamayananda, Assistant Secretary, Ramakrishna Mission Ashrama, Narendrapur, Kolkata-700 103, Ph. No.- 033 2477 -2201/02/03, Extn. - 709, M-9433353167, Fax.- (033)-2477 2070, Email - ayurveda-narendrapur@yahoo.co.in