



Central Sector Scheme for Conservation, Development and Sustainable Management of Medicinal Plants

OPERATIONAL GUIDELINES



National Medicinal Plants Board Ministry of Ayush Government of India

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Ministry of Ayush National Medicinal Plants Board (NMPB)

OPERATIONAL GUIDELINES FOR CENTRAL SECTOR SCHEME FOR CONSERVATION, DEVELOPMENT AND SUSTAINABLE MANAGEMENT OF MEDICINAL PLANTS

Preamble

India is home to diverse range of medicinal plants which have been used for centuries by the local people to meet not only their own primary health care needs but also to address ailments of domesticated animals (Pashuayurveda) & crops. (Vrikshayurveda). Medicinal Plants form the major resource base of our indigenous healthcare traditions. Although in recent years cultivation of medicinal plants has started gaining momentum, still a significant part of our requirements continue to be met from wild sources. In order to meet increasing demand for medicinal plants both domestic and from overseas markets we need to focus on both ex-situ cultivation of medicinal plants as well as in-situ conservation efforts through systematic surveys, augmenting local medicinal plants and aromatic species of medicinal significance through afforestation as per silvicultural principles and management prescriptions. With this in mind the "Central Sector Scheme for Conservation, Development and Sustainable Management of Medicinal Plants" was initially approved by the cabinet vide no. CCEA/21/2008 dated 26.06.2008. The scheme was approved with an outlay of Rs. 450.00 crores for XIIth Plan period in the EFC meeting held on 01-12-2014 and continued till 31stMarch, 2021. The Central Sector Scheme for Conservation, Development and Sustainable Management of Medicinal Plants has been further approved for continuation beyond 31st March. 2021 with an outlay of Rs. 322.41 Crores for a period of five years from 2021-22 to 2025-26 in the SFC meeting held on 17th March, 2021. Thereafter, an Additional Component "Forward and Backward Linkage in Supply Chain of Medicinal Plants (Integrated Component)" has been added as approved in the SFC meeting held on 03rd May, 2023.

The scheme also focusses on quality R&D, capacity building through trainings, raising awareness through promotional activities like creation of Home/School Herbal Gardens. The scheme also seeks to support programs for quality assurance and standardization through development of Good Agriculture and Collection Practices (GACPs); development of monographs laying down standards of quality, safety and efficacy; development of agro-techniques and a credible institution a mechanism for certification of quality of raw drugs, seeds and planting material. Apart from this, medicinal plants collection and trade accounts for as much as 40 to 50% of the household income in certain forest rich regions, hence, the scheme also aims at livelihood improvement of local communities, especially in forest fringe areas.

The activities proposed to be undertaken in the scheme will also help the country to meet its international obligations in the field of medicinal plant's biodiversity and promoting bilateral / international cooperation which is not only critical for future growth of the sector but also for establishing India as a global leader in the sector.

Objectives of the Scheme:

The efforts of the National Medicinal Plants Board (NMPB) need to be considerably upscaled to tackle the whole range of issues impacting the sustained availability of quality herbs. The strategy needs to focus on both cultivation and collection, together with R&D, promotion and information dissemination through IT dedicated mechanisms for procurement of Medicinal and Aromatic Plants (MAPs), ensuring Minimum Support Price, setting up networked Agri-Mandis for

MAPs, drawing up a database of cultivators and growers / cooperatives. Specially warehousing & strengthening of the supply chain is another priority area. In order to cater to the domestic market needs of Ayurveda, Siddha & Unani (ASU) industries, promotion of Primary Producer Companies (PPCs) should be taken-up in a focused manner. These organizations would then be brought into the foreground for marketing of their produce (either cultivated or collected from wild). The most important aspect is of-course capacity building of all the stake-holders especially the collectors who constitute the poorest of the poor of society

The main objectives of the scheme are as follows:

- Promote in-situ and / or ex-situ Conservation, Resource Augmentation of medicinal plants which are important to the AYUSH Industry and Folk Medicine.
- In situ conservation measures would involve survey, inventorisation and documentation
 of important medicinal plants in their native/natural habitat coupled with resource
 augmentation in eco-systems where they form part of the naturally occurring biotic
 community, preventing degradation of such eco-systems in a holistic manner and
 reversing the onslaught of invasive alien weeds;
- Promote ex-situ conservation by supporting such programs in rural / degraded forest / public / non-public / institutional lands / urban & peri-urban lands and waste lands.
- Engage the Eco-Task Force mechanism for reversing habitat degradation of medicinal plants. Conservation & development of eco-systems with medicinal plants bio-diversity.
- Promote R&D in all aspects of medicinal plants, development of agro-techniques, postharvest management, storage and processing, developing molecular characterization tools etc.
- Enhance livelihood systems based on medicinal plants for farmers, collectors and other stakeholders.
- Ensure Quality Assurance, Maintain Good Quality Gene Pool Sources of medicinal plants and aromatic plants having medicinal applications. Mapping, upgrading, modernizing of Medicinal Plants supply chain and creating/optimizing market linkages and value addition.
- Quality standardization, Good Collection Practices and Good Agricultural Practices for Medicinal Plants.
- Information, Education and Communication through seminars, trainings and exposure visits promote capacity building and human resource development through appropriate inter-state and international exposure. Promote publication of documents, monographs, technical bulletins, documentaries, brochures, posters, other publicity materials, etc.
- Take steps to meet India's international obligations in the context of medicinal plant biodiversity and promote bilateral / international cooperation.
- Strengthen NMPB so as to more efficiently co-ordinate all matters related to medicinal
 plants and function as a clearinghouse of information on medicinal plants including their
 occurrence, usage, ethno-botanical uses, cultivation practices, Post harvest practices,
 markets etc. Institutional Strengthening of SMPBs and creating regional centres to
 optimize the strategic reach of the AYUSH systems.
- Promote mainstreaming of medicinal plants in climate change mitigation strategies & promote regeneration / afforestation of medicinal plant tree species towards carbon sequesterisation.
- Take steps to meet India's international obligations in the context of medicinal plant biodiversity and promote bilateral/international cooperation.

STRATEGY

The scheme is proposed to be implemented during 2021-22 to 2025-26 to facilitate conservation and post-harvest management of Medicinal Plants for long term sustainability by adopting the following strategy:-

- a) Medicinal Plant Conservation Areas (MPCAs) by systematic survey, geo referencing of existing natural population of medicinal and native aromatic species having medicinal use.
- b) Enhance conservation through *in-situ* and *ex-situ* resource augmentation and artificial regeneration of local populations of medicinal and aromatic plant species.
- c) Expand area under medicinal and aromatic plants species of medicinal values linked with creation of nurseries to maintain good quality propagation material.
- d) Promote R & D to address the technology gaps particularly with respect to quality, documentation, identification of substitutes for important medicinal plants including Rare Endangered & Threatened (RET) listed plants and species with high demand in trade and bio-activity guided phyto-chemical studies, etc.
- e) Improve production, post-harvest technologies, and certification mechanisms for quality standards, Good Agricultural Practices (GAPs), Good Field Collection Practices (GFCPs) and Good Storage Practices (GSPs), value addition and marketing infrastructure.
- f) Stay abreast of International Developments impacting conservation, availability, trade, quality assurance of medicinal plants.
- g) Provide livelihoods and economic benefit to forest dwellers, cultivators, local healers and other stakeholders.

National Medicinal Plants Board

The Medicinal Plants Board was setup under a Government Resolution notified on 24th November 2000. The objective of establishing a Board was to establish an agency which would be responsible for coordination of all matters relating to medicinal plants. The Board has the function of coordinating with Ministries / Department/Organizations /State/UT Governments for development of medicinal plants in general and specifically in the following fields:

- Assessment of demand / supply position relating to medicinal plants both within the country & abroad.
- Advise the concerned Ministries/ Department/ Organizations/ States/ UTs Governments on policy matters relating to schemes and programs for development of medicinal plants.
- Provide guidance in the formulation of proposals, schemes and programs etc. to be taken by agencies having access to land for cultivation and infrastructure for collection, storage transportation of medicinal plants.
- Identification, inventorization and quantification of medicinal plants.
- Promotion of *ex-situ* and *in-situ* conservation and Resource Augmentation of medicinal plants.
- Promotion of co-operative effort among collectors and growers and assisting them to store, transport and market their products respectively.

- Setting up of data base on medicinal plants, dissemination of information and facilitating prevention of patents on plants used in traditional systems.
- 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.
- Undertaking and awarding Scientific, Technological research and cost-effectiveness studies.
- Development of protocols for cultivation and control.
- Encouraging the protection of Patent Rights and IPR.

I. Components of the Scheme

1. Conservation of Medicinal Plants through multi-pronged strategy

1.1 In-situ conservation

A) Medicinal Plants Conservation and Development Areas (MPCDAs)

Objectives

In-situ conservation of important medicinal plants in their natural habitats by setting up MPCDAs, as well as strengthening/up gradation of existing Medicinal Plants Conservation Areas (MPCAs) through survey inventory, documentation, protection, and main streaming medicinal plants in habitat management approaches.

Activities

- a. Setting up Medicinal Plants Conservation and Development Areas(MPCDAs) through survey, documentation of existing natural population of medicinal and aromatic plants, geo referencing. This would include:
 - Ascertaining threat status of various medicinal plant species traditionally obtained from the wild.
 - Identifying major causes of threat to the populations of threatened species and possible remedy.
 - Drawing up of action plan for conservation and sustainable utilization of important medicinal plants species.
 - Stakeholders capacity building, documentation (including a good quality pictorial directory), hosting on website, conducting pilot research studies etc. for sustainable utilization, engaging services of qualified taxonomists and other necessary professionals for the purpose by the concerned State Agency/SMPB, preparation of case studies, promoting conservation values/ sustainability.

- b. Revisiting/ Reviewing/ documentation in respect of previously designated MPCAs (established more than three years back under different schemes) for further development like up gradation, improving protection, documentation, communication/ dissemination linking with area management plan, geo referencing, engaging professionals on short term basis, capacity Building, community mobilization, hosting on website, piloting studies on utilization/ sustainability issues etc.
- c. Mainstreaming medicinal plant conservation in management approaches based on sound silvicultural/ management principles, conducting systematic survey of local medicinal and aromatics plants with medicinal value, and incorporating sound scientific principles for their management in the Working/ Management Plans and its effective communication to Stakeholders. These management plans should also include details of MPCDAs, where they are constituted.

Eligibility

State Forest / Wildlife Department / Forest Development Corporation / Federations / National and State level Research Organizations/ Universities.

Non-Government/ Voluntary Organizations with expertise in the field (subject to the recommendation of concerned forest department).

Coverage

On an average an MPCDA should extend over an area of 200 ha. though smaller areas of important medicinal plants bio-diversity including sacred groves can also be considered for MPCDAs.

Norms of Assistance

- To set up MPCDAs, 100% central assistance @ 20,000/- per hectare will be provided.
- For up-gradation/reviewing/ strengthening of previously designated Medicinal Plants Conservation Area (MPCA) which were established more than three years ago under NMPB or other schemes in various states, assistance @ 5,000/- per ha. will be provided.
- For main streaming medicinal plant conservation in management approaches based on sound management / silvicultural principles, a lump sum support of up to Rs.1.50 Lakhs will be provided per Forest Division to the concerned Forest/ Wildlife Division.

Submission of Proposals

The proposals from the State Forest/Wild Life Department in this respect will be submitted to NMPB onlinein the relevant proforma. In case proposal is submitted by Forest Division/ Circle a copy of the same should invariably be marked to PCCF/ SMPB /Chief Wild Life Warden as well which will help in implementation and monitoring of the project.

Management support

One project management Consultant along with Office Assistant / Data Entry Operator will be permitted to be engaged for providing support at NMPB level for activities relating to scrutiny, implementation, monitoring and technical support to the state for the component.

B) In-situ resource augmentation

Objectives

 Assisted natural regeneration or artificial re-generation of local populations of medicinal and aromatic plant species for conservation of genetic diversity of medicinal plants, thereby complementing the other biodiversity preservation and climate change mitigation interventions being implemented by the country as part of its international obligations.

Activities

• In-situ resource augmentation of medicinal plants species through assisted natural regeneration. Artificial re-generation of local populations of medicinal and aromatic plant species in particularly important in case of species where wild populations have dwindled on account of habitat degradation, and unsustainable harvest. Active interest and engagement of rural communities in such a conservation program is instrumental to address sustainability of the medicinal plant sector as a whole, hence financial support will also be provided for community mobilization through entry point activities.

Eligibility

- State Forest / Wild Life Departments/ Forest Development Corporation.
- Public Sector Corporations / Federations having the mandate to carry out such activities, Voluntary agencies/ Non-Government Organisations with experience in the field (only for technical support and capacity building)
- National and State level Research Organisation/Universities with the agreement of Forest Department.

Norms of assistance

Cost norms for *in-situ* resource augmentation and plantation of medicinal trees, shrubs, herbs, climbers and perennials are given in **Annexure-I**.

Submission of Proposals

The proposal from the State Forest/Wild Life Department will be submitted to NMPB online in the relevant proforma. In case proposal is submitted by Forest Division/ Circle a copy of the same should invariably be marked to PCCF/ SMPB / Chief Wild Life Warden which will help in monitoring the project during its implementation.

Management support

One project management Consultant along with Office Assistant / Data Entry Operator will be engaged for providing support at NMPB level for activities relating to scrutiny, implementation monitoring etc.

1.2 Ex-situ Conservation

Objective

Ex-situ conservation of medicinal plants species is a complementary action to conserve the genetic diversity of medicinal plant species, thereby reducing pressure on wild habitats and augmenting raw material availability. For many species wild population shave dwindled to critical levels and viable populations of these species are not available for initiating in situ conservation action. *Ex-situ* conservation / plantation of medicinal plants will be a reliable seed source and also serve as field gene banks. This will also help in engaging larger number of stakeholders in production and regeneration of important medicinal plants and aromatic species of medicinal value.

Activities

- For expanding area under medicinal plants and aromatic species of medicinal value.
 Plantations of medicinal plants would be raised in lands outside designated forests. These plantations may be in blocks, strips, boundaries, marginal lands, agro-forestry models etc., in the countryside as well as urban / periurban locations.
- Such plantations would be raised by organisations having ownership / long term lease of lands and requisite technical competence either in-house or hired / outsourced.

Eligibility

- State Forest Departments / Social Forestry Divisions/ State Wild Life Departments.
- Forest Development Corporations / Federations / SMPBs / Integrated Tribal Development Corporations / SC / ST Corporations (in the SC/ST lands) / Municipal bodies / Housing Societies / PSUs / Voluntary Organisations with experience in the field provided they have the required technical competence.
- Scientific Organizations and AYUSH Institutes and other Government Agencies having the mandate/ capacity and interest in the field of medicinal plants.
- Corporate Sector (including reputed AYUSH manufacturers) in partnership with land owners and Panchayats Van Panchayats / BMCs / JFMCs will be considered for project based support subject to forming an SPV and demonstrating commitment by contributing at least Rs.5.00 lakh rupees to an initial corpus to be dedicated for this purpose out of which at least Rs.3.75 lakhs will be contributed by the corporate partner.

Norms of assistance

The cost norms for ex-situ plantation of medicinal trees, shrubs, herbs, climbers and perennials is given in **Annexure-I**.

• The Corporate Sector (including AYUSH manufacturers of repute) can also be supported for raising ex-situ plantations, including as components in boundary plantations, strip plantation, agro forestry etc., with adoption of GAPs & GFCPs. For this purpose a Special Purpose Vehicle (SPV) involving the reputed AYUSH manufacturer and Panchayats or land owners will be formed. Rs. 5.00 Lakh will be provided as initial corpus fund out of which at least 75% will be contributed by the concerned Corporate Sector. Financial support from NMPB will be considered in project mode and transferred to a separate bank account to be opened in the name of the SPV. Such proposals will be supported in project mode.

Submission of Proposals

The proposal from the State Forest / Wild Life Department will be submitted to NMPB online in the relevant proforma. In case proposal is submitted by Forest Division / Circle, a copy of the same should invariably be marked to PCCF / Chief Wild Life Warden which will help in monitoring the project during its implementation. The proposals by the corporate sector will be submitted to NMPB as well as to SMPB concerned concurrently. The SMPB will render its inputs, if any, within a period of three weeks of receipt of the proposals to the NMPB as well as to the Organization concerned, failing which the proposal will be put up for consideration of the PSC/PAC.

Management support

One project management Consultant along with Office Assistant / Data Entry Operator will be engaged for providing support at NMPB level for activities relating to scrutiny, implementation, monitoring and technical support to the state.

1.3 Engaging Eco Task Force for rehabilitation of critical Medicinal Plant Habitats

Objective

To secure reverse / acute degradation of natural habitats in various parts of the country along with eco-restoration through plantation of medicinal and aromatic plants.

Activities

The natural habitat of various important medicinal plants are facing high degradation threats. In order to mitigate such threats, Eco-Task Forces have been successfully engaged to secure reverse / acute degradation of natural habitats in various parts of the country. It is therefore, proposed to commission services of Eco-Task forces involving Ex-servicemen / Territorial Army. This effort is to be initiated in a project mode to be approved by the PAC. The concerned State Forest Department, Ministry of Defence and Ministry of Environment, Forests & Climate Change (MoEFCC) will be consulted for taking up any such initiative. Proposals under this component should have a plantation of at least 60% of the area with native species of medicinal plants.

Eligibility

Eco Task Forces set up in different parts of the country.

Coverage

At least 400 hectares per Eco Task Force per annum will be taken up.

Norms of Assistance

The cost norms for this activity will be project based.

Submission of Proposal

The proposals from States will be received by NMPB online which will organize a tripartite initial consultation with MoEFCC and Army / Headquarters before duly considering the project.

Management support

One Project Management Consultant (PMC) along with Office Assistant / Data Entry Operator will be permitted to be engaged for providing support at NMPB level for activities relating to scrutiny, implementation, monitoring and rendering technical support.

1.4 Support to Joint Forest Management Committees (JFMCs) / Panchayats / Van Panchayats /Self Help Groups (SHGs) / Biodiversity Management Committees (BMCs) for setting of local cluster for value addition, drying, warehousing and augmenting marketing infrastructure etc.

Objectives

There is a need to channelize production and promote sustainable supply of medicinal plants, through capacity building of JFMCs/Van Panchayat / Panchayats / local SHGs / BMCs about the medicinal plants & aromatic species of medicinal value that are locally available for encouraging sustainable harvest, adoption of good collection practices, proper post-harvest handling, marketing and regeneration of Non Timber Forest Produces (NTFPs), etc. This activity will provide livelihood augmentation to local and forest fringe communities.

Activities

- Support will be provided for creation of facilities (including equipments for value addition through drying, de-stoning, cleaning, grading, pulverizing, processing, powdering, billeting and packaging, extracting, warehousing, etc. Capacity building through training programs and exposure visits on Good Collection Practices, Cultivation Practices and Organic Certification.
- Marketing support will be provided for organizations of stakeholders / buyer-seller meets at Forest Development Agency (FDA) District / Division level, Entrepreneurship development for micro and small enterprises (training).
- Packaging / handling equipment, testing facilities created in individual JFMC / BMC or pooled facilities catering to more than one JFMC / BMC / village / Panchayats will be supported.
- Support will be provided for limited resource augmentation and production of seedlings of medicinal plants & aromatic species of medicinal value, if not supported under any other components of the Scheme.
- Capacity building of primary collectors, women Self Help Group (SHG), Public Sector Corporations dealing with NTFP, Tribal Welfare Department and frontline Forestry Personnel duly recommended by Local Forest Department/ SMPB.
- Generation of livelihoods through collection of medicinal plants needs to necessarily be linked with marketing of the produce so collected. In order to facilitate the collector's livelihood, support needs to be provided in the interregnum between collection and actual marketing which will be recoverable from the final payment made for the produce by the organisation like the Forest Development Corporation or any other agency implementing the scheme. For this it is desirable that working capital should be earmarked by the state

- government for the implementing agency. NMPB would contribute 50% of the amount so provided by the state government as working capital.
- The JFMCs / Panchayats / Village Institution's resources can be pooled for collective activities / interventions at common strategic nodal locations involving a number of such local institutions of various villages. Thus the concerned Departments / Agencies in their proposals can consider a cluster approach (where feasible) so that investment made in a unit can actually have a ripple beneficial effect on adjoining JFMCs / Panchayats / Hamlets, etc. and the project resource can be pooled to create strategically located collective processing or other common facilities.

Eligibility

- Joint Forest Management Committees (JFMCs) through Forest Development Agencies (FDAs) / Forest Departments.
- Panchayat / Van Panchayats / BMCs / Eco development committees.
- Other state co-operative/corporate bodies in-charge of medicinal Plants collections and trade.
- Reputed NGOs / Academic organisations with a demonstrable track record (only for activities like community mobilization, hand holding, capacity building, exposure visits, market linkages etc.)

Norms of assistance

The assistance will be based on proposals received from the eligible agencies through the Forest Development Agencies (FDAs)/ Biodiversity Management Committees (BMCs) and will be limited to a maximum of Rs.15.00 lakhs per JFMC / Van Panchayats / BMCs. The project proposal should be consolidated at the level of FDA / District and forwarded to the State Government / SMPB. The proposal should be formulated keeping in view the following details:-

- The size of area to which JFMCs / Van Panchayat has access for collection of medicinal plants.
- The species details of medicinal plants being traditionally traded in local / village hatts / mandies and weekly markets in various seasons of the year.
- Local stakeholders involved in collection of medicinal plants and likely to benefit from the project.
- Dependence of community on local traditional Vaidyas, medicinal plants for their healthcare needs.
- Availability of good NGO partners for community capacity building and hand holding.
- Details of the infrastructure of trade centres, processing units, if any present in the area.
- Availability of other alternative livelihood opportunities to the members of the JFMCs / BMCs / SHGs etc.
- Potential for Resource augmentation Sustainable Collection and Market Linkage.

Submission of Proposals

The proposal from the eligible agencies in the relevant proforma will be submitted through State Forest / Wild Life Department to NMPB online. In case proposal is submitted by Forest Division /

Circle a copy of the same should invariably be marked to PCCF / Chief Wild Life Warden which will help in monitoring the project during its implementation.

Management support

One project management Consultant along with Office Assistant / Data Entry Operator will be engaged for providing support at NMPB level for activities relating to scrutiny, implementation, monitoring and technical support to the state.

2. Research, Technology Development and Quality Assurance

2.1 Research & Development

Objectives

Development of medicinal plant sector in the country is suffering from scattered and inadequate research on various crucial aspects. The research results need to be consolidated, gaps identified and new initiatives taken to address such research needs.

Activities

- (a) Research and Technology Development in the following areas can be supported in project mode:
- Traceability of raw drugs from harvest to consumption level.
- Germination and seed treatment protocols and certification.
- Bio-prospecting, population assessments and conservation biology of Medicinal Plants and Aromatic Plants species having medicinal values.
- Collection, compilation, documentation, validation and digitization of published scientific information on various aspects of selected Medicinal Plants and their ASU & H formulations and preparations of comprehensive monographs thereof.
- Identification of substitutes/adulterants for traded medicinal plants using pharmacognostic, pharmacological and molecular parameters for their inclusion in Pharmacopoeia.
- Finding substitutes for RET listed medicinal plants and finding use of sustainable alternative plant parts.
- Research aimed at lowering cost of cultivation and production of extracts, phytochemicals, natural colours, flavours and fragrances by using latest R&D technologies.
- Bio-activity Guided Fractionation.
- Development of DNA barcoding, spectrometry HPLC methods etc. for phyto-constituents (preferably the bio-actives / marker compounds) and validation of these methods.
- Study of phyto-chemical variations within available genotypes, chemotypes, ecotypes etc., development of post-harvest treatment, search for elite quality germplasm and development of quality planting material for mass scale propagation.
- Establishment of quality standards in respect of norms related to toxicity and heavy metal content to increase acceptability of botanicals in the International market.
- The impact of invasive species on habitats of native medicinal plants and foreign matter on the safety and efficacy of medicinal plants including Aromatic Plants species having medicinal values in their habitat.
- Development of Biotechnological Techniques (BT) & Information Technology (IT) based tools applications related to Medicinal plants.

- Ethno-medicinal documentation and exploration.
- Marketing, econometrics policies / regulatory issues related to Medicinal Plants.
- Establishing National and regional raw drug repositories for references.
- Study the impact of environmental changes like global warming and topographical variations in medicinal plants.
- Setting up of national and regional Botanical Reference Standards (BRS).
- Development of improved planting materials, germ plasm bank, development of improved cultivars / variety etc.
- Development of Agro-techniques of selected medicinal plants.
- Any other emerging issues or suggestions rendered by PAC.
- (b) M.Phil./Ph.D./ Post -Doctoral Fellowship programme on subjects related to medicinal plants through various Educational / Research Institutions in the country, will be supported. Applications will be screened by the Project Screening Committee of NMPB, which will also finalise the emoluments based on prevailing arrangements in other similar Institutions. NMPB will also engage directly a limited number of JRF / SRF / Research Assistants, etc. (upto five) as per UGC / DST norms for specific projects while allowing them to enrol in academic institutions to pursue doctoral / other studies. The engagement and emoluments will be finalised by Project Screening Committee on research and bring this to the notice of PAC.

Eligibility

- R&D Institutions under CSIR, ICAR, ICFRE, ICMR, DBT, DST, Councils under Ministry of Ayush etc.
- Universities recognised by the UGC.
- Industry both in public as well as private sector with R&D facilities.
- Non-Government Organisations/Voluntary Organisations with demonstrated expertise and infrastructure.
- Government funded institutes/colleges with demonstrable track record infrastructure and expertise.

Norms of Assistance

R&D Institutions / Universities in the public sector / Government Aided colleges etc. will be eligible for 100% assistance. However, organizations / Universities / laboratories / Institutions in private sector will be eligible for 50% assistance.

Submission of Proposals

The proposals for R&D will be invited so that strategic research in critical areas is assigned to competent organizations / scientific professionals. The eligible organization can apply directly to NMPB online in the relevant proforma where the proposal will go through scrutiny by the Project Screening Committee (PSC) before being considered for approval by PAC. Prior to placing before the PSC, wherever appropriate the research proposal can first be referred to subject expert by NMPB for taking expert's opinion on quality of the proposals. For such scrutiny, a fee as approved by PAC will be paid to the domain expert by the NMPB for examination and comments.

Management Support

One project management Consultant along with Office Assistant / Data Entry Operator will be

engaged for providing support at NMPB level for activities relating to scrutiny, implementation, monitoring and technical support to the state.

2.2 Quality Assurance

Objectives

Today globally companies are looking for traceability of raw materials to their source, as it is obvious that the quality of the end product can only be as good as the quality of the components that go into that product. Hence the importance of maintaining good standards while collecting, cultivating and post-harvest handling of the raw material cannot be over emphasized.

2.2.1 Promotion of Good Practices

- For India to become a global hub in medicinal plants processing, we need to list out the challenges faced by the sector. One of the most important stakeholders is the group of intermediaries who are a very important part of the supply chain from collectors / cultivators to the end users of the raw material. These inter mediaries are largely in the private sector and deal with bulk handling of raw material from procurement to storage and sale in the mandies. This is the stage at which there are maximum chances of contamination of the raw material, due to lack of general hygiene. Elimination of such sources of contamination is imperative for tackling the issues of microbial overload in herbal products. In order to do so, extensive capacity building of the intermediaries is required. There is a need to create awareness about maintenance of high standards of hygiene amongst collectors, cultivators, other raw material handlers and traders. This capacity building should be an on-going process through a series of stakeholder meetings, workshops, seminars etc. A strategy will be initiated for registration/devising regulation of important intermediaries in the Market Supply Chain of medicinal plants. This will be done by providing support in a project mode, to appropriate agencies.
- In addition to this, we need to evolve norms for proper handling of raw material i.e. what constitutes good practice as far as raw drug handling is concerned. Also there needs to be in place a system of self-regulation through peer groups in mandies. Consultancies studies will be commissioned for this purpose. This will also be addressed through focussed projects through PAC approval.
- Presently testing is by and large limited to the finished products. Industry has always held that in the absence of supply of contamination free raw material, it is not fair to expect the products to stand up to rigorous testing. Hence, maintaining a chain of practices to ensure good quality of raw material will create a win-win situation for the producers / traders on the one hand by ensuring better prices and the manufacturers on the other by ensuring greater market access. This will also be supported in a consultancy / project mode.

In order, to more effectively address the above challenges the following measures will also be taken in project / consultancy mode:

- a) Development of agro-techniques of selected medicinal plants.
- b) Protection of Good Agricultural Practices (GAPs), Good Field Collection Practices (GFCPs), Good Harvesting Practices (GHPs) & Post Harvesting Practices, Good Storage Practices (GSPs). The work done by Quality Council of India (QCI) for GAPs & GFCPs in the 11th Plan will be taken forward towards actual field implementation in project mode.

- c) Support to testing laboratories, reimbursement of testing charges to stakeholders.
- d) Development of certification protocols for sustainable harvesting of seeds, planting materials and raw drugs from the wild in project mode.
- e) Other measures for Quality certification programmes as necessary.

2.2.2 Raw Drug Repositories

Another important aspect of quality is the true botanical identity of the herb. To ensure proper identity, there is a need to establish multiple Raw Drug Repositories (RDRs) which can supply certified samples of Indian medicinal plants on cost basis, to act as Reference Standards.

Phytochemical Reference Standards (PRSs) are required for assay purposes. There is a need to create a mechanism in India for consistent supply / sale of PRS required by various Pharmacopoeias for quality assessment of Indian medicinal plants.

For this purpose, it is essential to establish multiple Raw Drug Repositories in different areas of the country. Each RDR could be encouraged to develop proficiency / core competence in a few of the above listed scientific areas.

The RDR's should ideally work on development of "Key Distinguishing Characters" (KDC) for Indian medicinal plants so that they can be distinguished from their look alike / adulterants. Some of the techniques are:

- Pharmacognosy parameters like Macroscopy (organoleptic characters)
- Microscopy (Anatomy and powder microscopy), TLC, HPLC etc.
- DNA barcoding and fingerprinting
- Detection of characteristic / marker compounds
- Fingerprinting using new techniques like LC-MS-MS and NMR profile etc.

Norms of Assistance

For national repository of raw drugs / BRS total assistance admissible is Rs.10.00 crores, while for regional raw drug repositories it is Rs. 5.00 crores each to Govt. Organizations.

3. Awareness Building, Exposure Visits, Education and Capacity Building of Stakeholders through Information Education and Communication (IEC) strategy:

Medicinal plant sector involves an array of stakeholders varying from resource managers, cultivators, gatherers, supply chain intermediaries, traders, local healers, researchers to manufactures and exporters. It is necessary to disseminate information on different aspects of medicinal plants like harvesting from wild, cultivation technologies, manufacturing, proper handling of raw material, trade etc. among various target groups about the importance of development and management through an appropriate outreach strategy, Capacity building, appropriate recognition, incentivisation etc.

Activities

- Publicity through regular participation in Exhibitions/Fairs
- Aushadhi Vanaspati Mitra Program (AVMP)

- Organizing Workshops / Seminars / Conferences / Arogya Fair etc.
- Medicinal Plant Species specific/Campaigns
- Systematic use of Multimedia and other appropriate communication tools.
- Publication of Periodicals/Magazines and Newsletters
- Setting up and operation of Web Portal.
- Training and Capacity Building initiatives.

3.1. Participation in Exhibition / Fairs and Publicity Materials

To promote the message of Indian Medicinal Plants it is essential to participate in International / National / State Level Exhibitions / Fairs associating all important stakeholder groups in the country. Besides, Trade fairs or Medicinal Plants Expo etc. may also be supported or organized by NMPB to raise awareness on the importance of medicinal plants among the stakeholders and general public.

Activities

- Participation in Exhibitions / Fairs with a focus on botanicals at State, National and International level. Industry and other stakeholders will be encouraged to participate in such expos. NMPB would also participate in such events.
- Developing Souvenirs, Pamphlets, Booklets for display and distribution. Organizing quiz shows for children and students, setting up of interactive kiosks and touch screens and development of role plays.
- Development of different types of herbal kits for distribution to visitors, farmers and other stakeholders.
- Launching mobile exhibitions or Aushadhi Chetna Yatra for spreading the message of medicinal plants through role plays, audio visuals, expert advice on conservation, cultivation, uses etc. of medicinal plants.

Eligibility

NMPB, SMPB, Industry, R&D Institutions / Universities, Government Organizations including Govt. aided Institutions, Non-government Organizations / Voluntary organizations etc.

Pattern of Assistance

Expenditure incurred by the organizations for participation in fairs etc. would be reimbursed subject to prior permission being obtained from NMPB for participation by the concerned organization. Reimbursable items of expenditure would include, hire charges, stall fabrication, developing publicity material, travel and accommodation. Total financial implication for such participation per event will be Rs.1.00 Lakh for state level, Rs.2.00 Lakhs for National level and Rs.3.00 Lakhs for international level. For private organizations including Industry, the cost would be limited to 50% of the above or the actual expenditure whichever is less (which includes Travel, Accommodation, hire charges, stall fabrication, publicity etc.) will be reimbursed. Participation by NMPB will be as per the actuals. The other activities will be in project mode.

Submission of Proposals

Participation in fairs / exhibitions being time bound need to be examined as and when the

proposals are received. Often, by the time the proposals go through the process of screening by PSC and approval by PAC, the dates for the events are over. Hence, the CEO, NMPB will also be authorized to approve expenditure on such activities with approval of Competent Authority.

Eligible Organizations can apply to NMPB in the relevant proformas.

3.2 Aushadhi Vanaspati Mitra Program (AVMP)

This aims at recognizing initiatives of individuals /community/institutions involved in conservation / cultivation, post-harvest management, R&D, marketing etc. of MAPs. These should be exemplary and successful initiatives which are creative, sustainable and have helped in improving medicinal plant raw material availability.

Eligibility

SMPB or any other appropriate state level organization recommended by the concerned SMPB will organize such program of Aushadhi Vanaspati Mitra Program of the concerned state.

Norms of Assistance

A total of Rs. 2.00 lakhs will be provided to each state per year, towards meeting the expenditure for three cash awards (not exceeding Rs. 65,000/- put together) and for organization of the event and other logistics. The States may, if they so desire vary the amounts and number of awards depending on the ground realities.

Submission of Proposals

SMPBs can apply to NMPB online in project mode where the proposal will go through scrutiny by the Project Screening Committee (PSC) before approval by Project Approval Committee (PAC).

3.3 Organization of Workshops / Seminars / Conferences and participation in AROGYA Fairs

The Ministry of Ayush organizes Arogya Fairs from time to time in different states of the country. NMPB is required to set up stalls and display material in such fairs for which there is a need of a dedicated agency who would not only install Arogya stall but also engage in similar work in other such fairs, buyer seller meets etc. The agency will be selected as per GFR.

Objectives

Provide a platform for dissemination of the latest information on Medicinal plants to various stakeholders

Activities

Organizing Seminar / Workshop / Conferences / Exhibition / Arogya Fairs at district, regional, state, national and international level for promotion and awareness of medicinal plants.

Eligibility

Central and State Government organizations.

- Recognized academic / Research / Educational institutions including Government Aided Colleges.
- Registered professional and other philanthropic organizations working on non-profit basis.
- Registered Non-Government Organizations (NGO) / Voluntary Organizations / Trusts with infrastructure and experience in the field of medicinal plants.

Norms of Assistance

The financial assistance would be limited to Rs.1.00 Lakh for organizing district level event, Rs.2.00 lakh for State, Rs.3.00 Lakhs for regional level, Rs.5.00 Lakhs for National level and Rs.10.00 Lakhs for international level event.

Submission of Proposals

Eligible Organization can apply to NMPB online in the relevant proforma where the proposal will go through scrutiny by the Project Screening Committee (PSC) before approval by Project Approval Committee (PAC).

3.4 Publication of Periodicals, Magazines and Newsletters

NMPB can undertake publication of books, periodicals etc. through credible organizations which have proven competence in the field.

Activities

- Publication of books on different aspects of medicinal plants.
- Publication of newsletters through outsourcing.
- Subscription / purchase of national and international magazines / journals/periodicals on importance of medicinal and aromatic plants with medicinal value.
- Newspaper / media advertisements on medicinal plants as and when required.

Eligibility

Proposals will be considered from organizations which have proven competence in the field concerned

Norms of Assistance

100% assistance will be provided in project mode.

Submission of Proposals

Eligible Organizations can apply to NMPB online where the proposal will go through scrutiny by the Project Screening Committee (PSC) before being considered for approval by Project Approval Committee (PAC).

3.5 Setting up & Operation of Web Portal

This is a felt need as NMPB is time and again called upon by various stakeholders including Ministries of GOI for advice on issues for which in-house competence is lacking and also to create a transparent, open access information source for all stakeholders. Interactive portals on medicinal plants accessible to various stakeholders will be supported. This could include query based platforms covering important aspects like Database, documentation, geographical distribution, clusters, products and other related technical and scientific information. The Portal would be supported by a panel of experts on various aspects of medicinal plants from an array of areas ranging from, cultivation, conservation, IPR issues, emerging national and international trends etc. Existing well established portals developed by other organizations can also be taken over up scaled and maintained.

Eligibility

Proposal will be considered from organizations which have proven competence in the field concerned.

Norms of Assistance

- Experts will be provided a fixed remuneration in consultation with the PSC.
- Other cost relating to development, hosting and maintenance of the portal would be project based.

Submission of Proposals

Organizations can apply to NMPB online where the proposal will go through scrutiny by the Project Screening Committee (PSC) before being considered for approval by Project Approval Committee (PAC).

3.6 Training and Capacity Building

Training plays an important role in spreading best practices on conservation, cultivation, good agricultural practices, good field collection practices, post-harvest management, marketing etc. Trainings will be provided to various stakeholders like cultivators, conservationists, traders, supply chain intermediaries, policy makers and end users.

Activities

- To organise training programmes for capacity building of stakeholders on medicinal plants (including cultivation, conservation, GAPs, GFCPs, GMPs, Storage, PHM and Market Information).
- Demonstration of technologies developed by Institutions at farmer's field /conservation areas and natural habitats.

Eligibility

- Central and State Government organizations.
- Recognized Research / Academic / Educational institutions

- Registered professional and other philanthropic organizations working on non-profit basis.
- Registered Non-Government Organizations (NGO) / Voluntary Organizations / Trusts with infrastructure and specific experience in the field of medicinal Plants.

Norms of Assistance

- Rs. 2,000/- per trainee for a minimum of two days with in the state and Rs.5,000/- per trainee outside the state will be provided which will include exposure visits.
- For officers training/exposure visit within the State Rs. 5,000/- per trainee and outside their state the cost will be limited to Rs. 10,000/- per trainee.
- Travel cost will be additional to the above cost. (Travel cost will be limited to 3rd AC train fares per participants. However, for Govt. Servants it will be as per entitlement).

Submission of Proposals

Eligible Organizations can apply to NMPB in the relevant proforma where the proposal will go through scrutiny by the Project Screening Committee (PSC) before approval by Project Approval Committee (PAC).

4. Promotion of Herbal Gardens

Herbal Gardens of various kind will be promoted under the scheme to create awareness about traditional usage of medicinal plants. This would include Herbal Gardens of National and State importance as well as at the level of Institutions, Schools, Universities, Colleges.

Eligibility

- Government Organizations, Universities, Research Institutes, Government Aided Colleges and Schools.
- Non-government Organizations (NGOs), Public Sector Undertakings, Federations, Cooperatives and Societies including Housing Societies etc.

4.1 School Herbal Garden

Setting up of herbal gardens in schools is a good way of reaching the minds of children and make them acquainted with the commonly available and frequently used medicinal plants.

Activities

- Schools will be encouraged to set up herbal gardens with in their school complex. Schools
 can have separate plots to make up a total of 500 sq.m. for 10 15 species of medicinal
 plants including tree species.
- Schools will be responsible for maintenance of the Herbal Gardens including irrigation
 with the active involvement of the students and parent-teacher associations / NGOs and
 also make special arrangements during school vacation period. Students will be involved
 in labelling the plants, watering, weeding etc. which will enhance the knowledge of the
 students about the benefits and uses of the species nurtured by them.
- The material from School Herbal Gardens could be utilized for further propagation.

Norms of Assistance

Assistance will be given @ Rs.25,000/- per school for an area of 500 sq. m. first year for establishment and up to Rs.7,000/- per annum per school as maintenance cost for the next four years. In case, the schools are proposing area for the School Herbal Garden, which is more or lesser than 500 sq.m., assistance can be considered on pro rata basis based on the justification provided.

Submission of Proposals

Eligible Organizations can apply to NMPB online through SMPB in the relevant proforma where the proposal will go through scrutiny by the Project Screening Committee (PSC) before approval by Project Approval Committee (PAC).

4.2 Institutional / Public Herbal Gardens / Ayush Van

To sensitize the AYUSH Professional College students / public at large about the usage of medicinal plants based on indigenous knowledge in colleges, universities, hospitals, other places of educational / recreation / public importance, assistance will be provided for planning and establishing larger herbal gardens.

Ayush Van: In the line of Institutional Herbal Garden, assistance will be provided for planning and establishing Ayush Van as per the existing cost norm of herbal garden.

Activities

- Establishment of herbal garden with medicinal plants and aromatic plants with medicinal value considering the importance of species / varieties of concerned areas.
- Use of proper cultivation practices
- Walking trails, signages etc. to be established in the garden.
- Proper documentation, data collection, harvest and post-harvest management operations to be a part of the herbal garden.
- Material harvested could be used for value addition or further propagation.

Norms of Assistance

- The activities supported would include land development, site protection, setting up irrigation facilities and procurement of basic planting material, laying of beds, planting, initial maintenance, signages, walking trails etc.@ Rs.3.00 lakhs per ha. for establishment.
- Thereafter annual maintenance of the Herbal Garden @ Rs.60,000/- per year per ha. for a maximum of four years.

Submission of Proposals

Eligible Organizations can apply to NMPB online in the relevant proforma where the proposal will go through scrutiny by the Project Screening Committee (PSC) before approval by Project Approval Committee (PAC).

4.3 Herbal Gardens of State and National Importance

A few Herbal Gardens of National Importance will be supported in various Eco-regions of the country in project mode. Similarly, Herbal Gardens of State importance can be established to promote and popularize medicinal plants in an organized manner on a bigger scale. These type of gardens will be established at important or prominent places like the Herbal Gardens at President's / Governor's Estates in the past and will be supported for maintenance for a longer period. Similarly, Herbal Gardens can be created in State Secretariats, Institutions of National importance, prominent tourism spots. Defence establishments, Railways, Corporations and Municipalities etc. in project mode. Two to Four such Herbal Gardens will be supported in each state at sites notified by the state government specifically for this purpose in consultation with NMPB.

Activities

Establishment and maintenance of herbal gardens, keeping in view all the required modalities like walking trails, signages, landscaping, planting in beds and proper documentation etc. Use of herbal gardens in supplying propagation / raw material will also be explored.

Norms of Assistance

The proposal received in a project mode will be examined at PSC level and financial assistance will be provided as per the actual requirement with the approval of PAC, NMPB.

Submission of Proposals

Eligible Organizations can apply to NMPB online where the proposal will go through scrutiny by the Project Screening Committee (PSC) before approval by Project Approval Committee (PAC).

Management Support

One project management Consultant along with Office Assistant / Data Entry Operator will be engaged for providing support at NMPB level for activities relating to scrutiny, implementation, monitoring and technical support to the state.

5. Other Promotional Activities

Support for establishing nursery and development of Quality Planting Material / Germ Plasm Banks

Activities

Support for establishing small nursery as a part of project proposal other than cultivation will be provided

Norms of Assistance

For creation of nursery covering an area of 1 ha, Rs.6.25 Lakhs per unit to be given in two installments. The assistance will be to the extent of 100% to public sector / SHGs and 50% of the cost subject to a ceiling of Rs.3.125 Lakhs in private sector. The nursery will have appropriate infrastructure facility (net house, beds, vermi-compost, signage, irrigation system) to hold 50,000

to 70,000 plants. The organization must have a sustainability plan.

Maintenance of existing medicinal plant nursery: Existing medicinal plant nursery of Minimum five year old supported by NMPB, Ministry of Ayush may be provided financial assistance of upto Rs. 1.50 lakh/ha to raise 50,000-70,000 (approx.) sapling of medicinal plants depending on reasonable justification. Further, if required the maintenance will be provided for maximum twice after a span of five years.

Submission of Proposals

Eligible Organizations can apply to NMPB online where the proposal will go through scrutiny by the Project Screening Committee (PSC) before approval by Project Approval Committee (PAC).

6. Other Interventions

6.1 Bilateral / International cooperation and collaboration with International Agencies

Ministry of Ayush is exploring bilateral and international collaboration in the field of medicinal plants with other countries. MoUs for bilateral collaboration in the field of medicinal plants has already been developed for NMPB which could be appropriately fine-tuned for country specific needs for collaboration requirements. In addition, Collaboration will be explored with international agencies like FAO, World Bank, Asian Development Bank (ADB), UNDP, TRAFFIC, GEF, etc. for mainstreaming of medicinal plant development strategies.

The traditional knowledge based on genetic resources needs to be brought under international best practices on TK & GRs like Access and Benefit Sharing (ABS), Prior Informed Consent (PIC), etc. There are international agreements and protocols to deal with all of these issues, which are constantly evolving and we need to, not only keep abreast of all such developments but also get them tailored to suit India's interest provided we are in a position to put forth our point of view at the correct time. It is evident that the National Medicinal Plant Board (NMPB) should have a dedicated mechanism to carry out requisite spadework to enable it to forge linkages with likeminded countries and render meaningful inputs to argue our case at the relevant international forums, like the meetings of the Conference of Parties (CoPs) of the Convention on Biodiversity (CBD) especially the current discussions on the ongoing program of work, access and benefit sharing issues under the Nagoya Protocol, trans-boundary issues under the Cartagena Protocol on biosafety etc.

Activities

- Participation in meetings of the relevant agencies at the international level.
- Exchange visits of experts with countries of interest especially those having similar biogeography as India.
- Participation in reputed international seminars/exhibitions on botanicals such as Ingredients Russia, Food ingredient China, Vita Foods South America, Canadian Health Food Association, International Food Ingredients and Additives (IFIA), Japan, Supply Side West, CPHI, World Wide. A list of important events will be drawn up after the approval by the PAC. This would also entail subsidizing industry desirous of such participation on reimbursement basis.
- Setting up information centers on medicinal plants in Indian Missions abroad.
- Providing financial assistance for acquiring international certification.

- Subsidizing specific market promoting activities like product registrations, GRAS (Generally Recognized as Safe) affirmation, international certifications, positive listing of Indian botanicals in the importing countries (viz. ARTG of TGA) etc.
- Resolving issues of botanical ingredients which have been illogically banned by some international regulatory bodies.
- Commissioning studies on international regulations in the medicinal plants sector as knowledge about this is scarce at present.

Eligibility

Proposals from Industry and reputed agencies having experience in international regulation on medicinal plants will be considered in project mode for commissioning studies.

Norms of Assistance

Expenditure incurred by the Industry organizations for participation in international exhibitions/ fairs etc. would be reimbursed subject to prior permission being obtained from NMPB for participation by the concerned organization. Reimbursable items of expenditure would include, hire charges, stalls fabrication, developing publicity material, travel and accommodation. Reimbursement would be limited to 50% of the expenditure of Rs.3.00 lakhs whichever is less. Other activities will be supported in project mode with 100% assistance to Public Sector and 50% of the project cost to the private sector. NMPB can also lead delegations / participate in these events.

(a) Setting up of information centres in Indian Missions abroad

Information Centres for Medicinal Plants are a good way to create awareness of Indian medicinal plants. The extent of financial support for this purpose will be determined on country-basis on the recommendation of the concerned Indian Embassy, as per actual financial implication.

The proposals in project mode formulated by NMPB will be examined and approved by PAC.

(b) Commissioning studies on Specific aspects of medicinal plants

Objectives

To keep pace with the increasing trend in demand for medicinal plants' raw materials, it is necessary to 'periodically update the information on various aspects like production, collection, supply & marketing. Such updating will be done by commissioning subject specific studies from time to time Support for collection of statistical information related with various aspects of medicinal plants may be provided to SMPB or other agencies identified having competence in this area by NMPB or the States.

Major areas of studies

An illustrative list of themes is as below:

 Developing a data base of National and Regional Traders of medicinal plants and initiate work towards their registrations.

- Developing a data base of Farmers / Cultivators.
- Demand and Supply of Medicinal Plants
- Livelihood / yield studies
- Supply Chain Mapping
- Rationalization of Transit Pass system
- Consolidation of Yield
- Whole sale Price Data
- Developing case studies and success stories

Such studies would be awarded as per GFR provisions.

Norms for assistance

Project based proposals will be considered by PSC/PAC.

6.2. Marketing

Market Information Services are characterized by lack of domain information on techniques and commercial opportunities, absence of Resource Centers with a regional MAP crop focus and little or no access to international markets. Currently marketing of MAPs happens through Mandis & commodity boards, Agricultural produce marketing committees etc. There are numerous intermediaries. There are examples from states like Uttarakhand where the State Forest Development Corporation have started both fixed and floating mandis which procure MAPs from the doorstep of gatherers thus preventing exploitation and also ensuring remunerative prices.

The following steps will be taken up:

In order to cater to the domestic market needs of ASU industry, promotion of Primary Producer Companies (PPCs) would be taken-up in a focused manner. These organizations would then be brought into the foreground for marketing of their produce (either cultivated or collected from wild).

- Promotion and information dissemination through IT dedicated mechanisms for procurement of MAPs.
- Networked Agri Mandis for MAPs
- Database of Cultivators
- Contract Extractions (PHM)
- Speciality Warehousing & Supply Chain development
- Integration of all Portals with techno commercial information
- Creating an on line MAPs Trade Exchange
- Integration with Krishak Call Centers, KVKs etc.

a) Marketing Intervention

Currently marketing of Medicinal plant produce happens through Mandis and other whole sale markets. Trade is rather opaque and information on prices, arrivals and other trends are not easily accessible to farmers/growers. The following steps will be initiated in order to fill this gap:

- Documenting trade practices.
- Generating information on wholesale prices, arrivals and trends in different markets to benefit both growers and buyers.
- Establishing communication network for speedy collection and dissemination of market data for its efficient and timely utilization.
- Preparing farmer's advisories and issuing the same for the Benefit of farmers towards optimizing returns.
- Developing Databases of Cultivators and Cultivars.
- Integrating and mainstreaming of Medicinal Plants through call centres including Kisan call centres initiatives of Ministry of Agriculture & Farmer's Welfare.
- Putting in place an appropriate pricing regime in respect of produce sourced from wild v/s
 cultivation in favour of cultivated material so as to encourage cultivation and reduce
 pressure on the natural resources.
- Streamlining of HS Codes.

Eligibility

Proposals from reputed agencies having experience in in the field on medicinal plants will be considered in project mode for commissioning studies.

Submission of proposals

Eligible Organizations can apply to NMPB where the proposal will go through scrutiny by the Project Screening Committee (PSC) before approval by Project Approval Committee (PAC).

b) Minimum Support Price (MSP)

In order to supplement the efforts of state governments to encourage sustainable collection of medicinal plants, NMPB would support State agencies engaged in procurement of medicinal plants to the extent of 25% of the amount paid by the agency to the collectors.

- Such support from NMPB will be provided to State Governments which have a definite mechanism for providing MSP support for medicinal plants.
- The support of MSP for medicinal plants however will not be automatic but would be considered on a case to case basis in project mode based on the steps taken by State Govt. and which are likely to support or result in aiding to help conservation & sustainable livelihoods.
- The mount of MSP support would be released in two instalments subject to the states demonstrating that this measure has a positive impact on conservation & livelihood generation and the material thus produced is used by industry.

Management Support

One project management Consultant along with one Office Assistant / Data Entry Operator will be engaged for providing support at NMPB level for activities relating to scrutiny, implementation, monitoring and technical support to the state.

7. Medicinal Plant Species Specific Campaign including use of Multimedia

Species Specific Campaigns will be launched Nationally or at State level for valuable medicinal plants like, Pippali, Chirayata, RET species, Amla, Moringa etc. to promote usage and planting including in institutions, schools, homes etc. The campaigns will also identify barriers to wide availability and use of such species and seek to address the same. The media publicity both print and electronic would also be a part of the campaign and would be organized by both SMPB and NMPB. Multimedia campaigns for important medicinal plants and its products through radio, TV and print would be taken up to provide information on the importance of medical plants in daily life. For this purpose TV spots would be developed through selected agencies and be telecast on TV, radio and outdoor hoardings etc. Besides, talk shows and other programs on radio & TV and preparation of documentaries/case studies etc. would be promoted.

Eligibility

- SMPBs and other State Government organizations.
- Recognized academic / Research / Educational institutions
- Registered professional, NGOs and other philanthropic Organizations working on non-profit basis with activities / experience in the field of medicinal plants.

Norms of Assistance

For Medicinal Plant Species specific campaign, financial assistance will be provided to the eligible organisations in project mode.

Submission of Proposals

Eligible Organizations can apply to NMPB online where the proposal will go through scrutiny by the Project Screening Committee (PSC) before approval by Project Approval Committee (PAC).

8 Institutional Strengthening

8.1. Strengthening of State Medicinal Plant Boards (SMPBs)

• The SMPBs in addition to act coordinating as well as Implementing Agency for various activities supported under NMPB, Ministry of Ayush's scheme, are expected to synergise various interventions by other State agencies related to Medicinal Plants. In order to encourage the states to have an independent office of the SMPB it is proposed that an annual grant-in-aid upto Rs.35.00 Lakhs per annum can be provided to SMPBs other than SMPBs of Union Territories (UTs) and North Eastern States and for SMPBs which are under Union Territories (UTs) and North Eastern States grant-in- aid upto Rs.27.00 Lakhs per annum can be provided on annual basis. The assistance/budget will be provided towards remuneration

of staff (on contractual basis), to meet the expenditure on recurring and non-recurring office expenses, purchase of equipment, office maintenance, mobility support and miscellaneous expenditure including TA/DA/POL, printing/publicity, meeting/conferences, engaging subject matter specialist/ statistical unit etc. In the interest of co-ordination and synergy, NMPB will also direct the States to employ suitable resources/consultants for specific purposes like preparing database of traders, cultivators, compilation of yield data, demand and supply of medicinal plants from different sources like Forest Department & cultivators, case studies, publication, participation in events related to medicinal plants, exposure visits for stake holders etc. NMPB may also promote special studies to evaluate functioning of SMPBs from time to time. An indicative structure and break-up of head-wise staff support to SMPB is given in **Annexure-II**. Full time CEO / Member Secretary and separate Budget Head for SMPB in the state budget shall be preferred for the Nucleus Centre Grant or else it can be modified by NMPB.

- SMPBs are required to submit annual action plans in advance indicating the various activities and programmes they intend to carry out in the State on year-to-year basis.
- In addition to Nucleus Centre grant, the grant-in-aid can be considered for SMPBs to meet the obligations of Contractual Farming activities / projects of previous plan period, if any.
- SMPBs are required to work in close coordination with Regional Cum Facilitation Centres (RCFCs) of NMPB and with other State agencies related to Medicinal Plants.

8.2. Establishing Regional Cum Facilitation Centres (RCFCs) of NMPB (within existing Government Institutions, Corporations, Centres of Excellence etc.) in different Geographic Zones.

Considering the topographical spread and valuable traditional knowledge on medicinal plants in various parts of the country, the success of AYUSH system in the national context actually depends on region and area specific inputs and active participation of regional units in the implementation of the scheme and facilitation thereof. Coordination with states in respect of NMPB schemes for each region is currently constrained and harm-strung by the absence of adequate outreach in various regions of the country. Hence, there is a need to set up the Regional Cum Facilitation Centres (RCFCs). However, no significant infrastructure needs to be created, instead such RCFCswill be set up within the existing Government Departments / Institutions (like Institution of ICAR, CSIR, ICFRE, Universities, AYUSH Institutions etc.) in various eco- regions of the country through signing of MoUs by NMPB with the approval of the PAC. The State Medicinal Plants Boards (SMPBs) in a geographic region of the country will also be mentored by these RCFCs. The Regional Cum Facilitation Centres will be actively engaged in the meetings on technical matters of the SMPBs and also assist in the monitoring of projects s anctioned and other assigned work by NMPB.

It is proposed to set up Seven such RCFCs in existing regional institutions and will have the following coverage:

S.No.	Name of Regional-cum- Facilitation Centre	States / UTs
1.	Northern Region – I	Chandigarh, Delhi, Haryana, Himachal Pradesh,
		Punjab, Uttarakhand, Uttar Pradesh
2.	Northern Region – II	Jammu & Kashmir, Ladakh

3.	Central Region	Chhattisgarh, Madhya Pradesh
4.	Eastern Region	Bihar, Jharkhand, Orissa, West Bengal
5.	Southern Region	Andaman & Nicobar, Andhra Pradesh, Karnataka, Kerala, Lakshadweep, Puducherry, Tamil Nadu, Telangana
6.	North Eastern Region	Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura
7.	Western Region	Dadra & Nagar Haveli and Daman & Diu, Goa, Gujarat, Maharashtra, Rajasthan

Selection of institutions as Regional Cum Facilitation Centre Facilitation Centres (RCFCs)

Research and extension organisations or universities in the above mentioned regions will be identified by open advertisement in Newspapers. The selection of Regional Cum Facilitation Centres in different institutions shall be undertaken through an Advisory Committee of 4 or 5 experts which will be constituted as and when required. The same committee shall also periodically review the progress in implementation of the activities of RCFCs and guide NMPB. The support to these regional centres shall be in project mode and shall be decided with the approval of the Secretary, Ministry of Ayush/ Project Approval Committee (PAC). The Budget and activities can be decided with the approval of PAC as and when required.

Pattern of Financial Assistance:

- 100% financial assistance (in project mode) shall be provided for Government Departments and Organizations including Govt. aided institutions (Institutes getting substantial aid), Universities, Research Institutes etc. as decided with the approval of the Secretary, Ministry of Ayush/ Project Approval Committee (PAC).
- Some of the Regional Centres actively engaged in medicinal plants related activities and having adequate expertise & infrastructure can be considered as Centre of Excellence.

Management Support:

Programme Manager, Domain Expert, Consultant, Jr. Consultant along with Office Assistant / Data Entry Operator etc. will be engaged for providing support at NMPB level to co-ordinate the programme / activities.

9. Administrative and Financial Arrangements of NMPB

NMPB is assisted by the Project Screening Committees (PSCs), Project Approval Committee (PAC) and other Committees constituted as per requirement for Central Sector Scheme for Conservation, Development and Sustainable Management of Medicinal Plants of NMPB.

9.1 Project Screening Committees (PSCs)

Project Screening Committees (PSCs) shall be constituted for considering the project proposals received in the Board. The Composition of the Committee may be altered and different committees may be constituted depending upon the activities under the Scheme to enlist the most appropriate professionals for appraising and monitoring the activities under each Committee and each Committee will be chaired by an official member nominated by Secretary (Ayush) as chairperson.

9.1.1 The Project Screening Committee relating to "Research & Development" will have the following composition:

To be nominated by Secretary (Ayush) i) Chairperson ii) Representative from Botanical Survey of India Member Representative from ICAR. Member iii) Representative from CSIR. iv) Member v) Director General/representative from CCRAS Member Representative from D/o Biotechnology Member vi) Domain experts (From Govt./ Non-Government) Member (Two) vii) Chief Executive Officer, National Medicinal Plants viii) Member Secretary Board or his/her representative

9.1.2 The Project Screening Committee relating to other projects (In-Situ / Ex-Situ Conservation / HG / IEC/Marketing etc.) will have the following composition:

An Official member to be nominated by Secretary (Ayush) Chairperson ii) Representative from Ministry of Environment, Forests & Climate Member Change iii) Representative from Botanical Survey of India Member iv) Representative from Ministry of Ayush Member v) Representative from ICAR Member vi) Director General, CCRAS / Representative from CCRAS Member vii) Representative from Ministry of HRD Member viii) Representative from Ministry of Commerce & Industry Member ix) Representative from CSIR Member x) Director General / Representative from NAFED Member xi) Representative from Ayush Industry Member xii) Domain Experts (From Govt./ Non-Government) Member (Two) xiii) Chief Executive Officer, National Medicinal Plants Board Member Secretary or his / her representative

9.2 Advisory Committee Regional Cum Facilitation Centres (RCFCs)

The Advisory Committee for assessing the progress / performance of Regional Cum Facilitation Centres (RCFCs) will have the following composition:

i) To be decided by Secretary (Ayush)
 ii) Expert (Director Level) from Ministry of Ayush's National
 Level Institutions
 iii) Expert from Non-Government Organization of Ayush /
 Member

Medicinal Plants Sector

iv) Expert from AYUSH Industry Member

v) Expert (Director Level) from State Government Ayush / ISM Departments / Medicinal Plants Organization Member

vi) Chief Executive Officer, NMPB, Ministry of Ayush Member Secretary

The functions of the Advisory Committee for assessing the progress / performance of Regional Cum Facilitation Centres (RCFCs) are as under:

- I To monitor the progress of the Project in conformity with the milestones, targets and objectives as contained in the Agreement or any other document as decided by NMPB.
- ii. Based on the foregoing, to assess and suggest:
 - a. Closing or dropping or modifying any of the components of the Project, within the overall approved objectives, budget and time frame,

- b. Inclusion of additional industrial/institutional partner(s), if the Grantee requests involvement of such partner(s) in the overall interest of the Project, and
- c. Recommendation regarding revision / continuation of the funding support to the Grantee
- iii. To advise on technical aspects of RCFCs activities.
- iv. To advise on any other matter as referred it to by NMPB

9.3 Project Approval Committee (PAC)

The Board is assisted by Project Approval Committee (PAC)with following members:

- i) Secretary (Ayush), Chairperson.
- Additional Secretary and Financial Advisor or representative, Ministry of Health & Family Welfare.
- iii) Joint Secretary or representative, Deptt. of Science and Industrial Research.
- iv) Joint Secretary or representative, Deptt. of Biotechnology.
- v) Joint Secretary or representative, Deptt. of Agriculture Research and Education.
- vi) Joint Secretary or representative, Ministry of Environment, Forests & Climate Change.
- vii) Joint Secretary or Mission Director or representative, National Horticulture Mission, Department of Agriculture & Cooperation.
- viii) Representative of Ayurvedic Industry.
- ix) Representative of Exporters of medicinal / herbal products.
- x) Representative of Growers Associations / Federations.
- xi) Representative of Ministry of Development of North Eastern Region, Government of India, New Delhi.
- xii) Representative of North Eastern Council, Shillong
- xiii) Domain Experts nominated by Secretary AYUSH (Experience in R&D, Conservation, post- harvest management, Capacity Building etc.) Two
- xiv) Chief Executive Officer, NMPB Member Secretary.

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

The Project Approval Committee (PAC) shall have the following functions for this scheme:

- i) To consider and approve any financial proposal which is to be included for release of grants.
- ii) To consider and recommend proposals for creation of new posts.
- iii) To consider and approve components of individual projects for which cost norms have not been prescribed and approve revision of the existing cost norms as and when required
- iv) Any related activity other than the components provided in the guidelines that the Board may refer.
- Any alterations in the guidelines based on new emerging facts/situations can be decided by PAC.
- vi) PAC is empowered to approve special intervention for managing any Unforeseen / emergent requirement.
- vii) PAC can also constitute Empowered Monitoring Committee (EMC) / Sub-committee (SC) and delegate power to CEO, NMPB for any administrative / financial issues.

Note: In all above PSCs, two officers from NMPB (nominated by CEO) shall be part of each committee.

Members of PSC / Advisory Commitee of RCFCs / PAC and other committees (other than those from NMPB and Ministry of Ayush) will be eligible for sitting fee fo each meeting of PSC / PAC or as per theapproved norms of Central Government.

10. Procedure for processing project proposal for approval

- All project proposals will be submitted to the NMPB. Once these are received in the Board, they will undergo initial scrutiny and then be placed before the concerned Project Screening Committee (PSC) of the Board. The proposals reviewed & recommended by the PSC will be placed before the Project Approval Committee (PAC) for final approval.
- 2) Other than, in case, when organizations are submitting their proposals through the concerned SMPBs, the SMPBs will have to render their inputs within a period of one month of receipt of the proposals. If they do not offer any specific inputs to NMPB within the time limit, it will be presumed that SMPBs agree with the proposals and will provide necessary support to the implementing agency, if the project is approved by the PAC.
- 3) The Board will be free to take expert opinion on project proposals from any individual/agency wherever necessary.
- 4) The institutions proposing projects are eligible to levy institutional charges, subject to a maximum of 5% of the total cost of the scheme especially for R & D, Training etc. and other such projects as approved by PAC.
- 5) Once the Board approves a new project, its sanction will be conveyed by the Board to the host institution the sanction letter shall convey expenditure sanction in various broad heads viz. staff, equipment, works, recurring contingencies etc., as finally approved in each case.

11. Implementation and monitoring

All project proposal where the duration is one year should generally commence implementation within 3 months of release of first instalment of grant, failing which the sanctions accorded can be withdrawn. For other project proposals of duration of more than one year also normally the implementation has to start within 3 months otherwise the PI should share the justification for delay in implementation of the project.

The Principal Investigator / Project in-charge (PI) shall submit annual progress report to the Board. The Annual report must contain details about the work done, achievements, results etc.

Release of funds can be withheld in the event of non-receipt of utilization certificate and progress reports in time or unsatisfactory progress of work, for ongoing or any previous project approved to the agency.

On completion of the project, the PI shall submit to the National Medicinal Plants Board a final report in the prescribed proforma, which shall be examined by the concerned programme officer of the Board, for evaluating the project results, their significance and follow-up required therein.

All publications (books, research papers, popular articles) brought out under the project supported by NMPB shall duly acknowledge the support of NMPB.

General conditions

- i) The project proposals may normally be of 3 years duration. However, in Coordinated/network projects, the project period could be a maximum of 5 years at the discretion of the PAC. The projects of MPCDAs, *In-Situ* Resource Augmentation, Ex-Situ Conservation, Eco-Task Force and creation of Herbal Gardens will also be of five years duration. Extension of the project period beyond the approved tenure will be considered with the approval PSC on merit and justification for each proposal.
- ii) Scientists, teachers, officers with relevant academic background, appropriately qualified NGO would be eligible to become PI/ Co-PI. In case the PI is working in Govt. Organisation they should have at least 3 years left to superannuate.
- iii) Any incremental scientific, technical and supporting staff will be on contract basis and their salaries, expenditure on equipments, recurring contingencies, TA (PI and Contractual staff) etc. will be met out of the project grant. The emoluments will be as per the DST pattern for Research and Development or for other as decided by the PAC.
- iv) The projects implemented through private R&D companies/ organizations should comply with the terms and conditions of IPR protection and will be required to sign a MoU to safeguard government interest.
- Any patent filed will be in the joint ownership of NMPB and the concerned organisation / PI.
- vi) In case of NGOs, the agency must have an experience of at least 3 years and good track record in the related field evidenced by the earlier experience and achievements. Also the agency must have qualified key resource persons to successfully implement the project. They will also be required to furnish a list of the projects for which they have received funding during the last five years alongwith the sources there of and the tangible outcomes from such works. The NGOs / Companies will also be required to sign a Bond.
- vii) All NGO's should submit land certificate for ownership of land (in respect of herbal garden) and a certificate for genuiness from Registrar of Co-operative Society / Deputy Commissioner/other concerned civil authority.
- viii) All projects should spell out a clear exit strategy indicating the proposed mechanism for maintenance of assets created.
- ix) The PI shall enjoy the freedom in selection of Co-PI and other staff. The appointment will not be regular in nature, but restricted to the project/scheme on contract basis.
- x) In case of transfer / leaving of PI, Co-PI will hold the charge of the project and will perform the duties of PI. In case there is no Co-PI, the host institute will suggest the name of suitable PI to handle the project. In case of transfer of the PI and the earlier organisation not having appropriate resource person to handle the project the project could be shifted to the institution on the request of the PI concerned. Such decisions will be taken by CEO, NMPB on case to case basis and brought to notice of PSC for information.
- xi) For important projects under implementation which may require technical input from the PSC the PI may be called for presentation from time to time by PSC so that best value could be obtained from such ongoing works.
- xii) Under non-recurring head, financial assistance could be provided for only selected, essential and specialized items of equipments required for project works, for modification of existing structure so for undertaking petty works.
- xiii) The implementing institution, without approval of the CEO, NMPB, shall not re-appropriate funds among different heads of expenditures of a scheme, except in case of recurring contingencies.
- xiv) Component towards rental value of land/lease rent shall not exceed 10% of project cost.
- xv) Expenses towards manpower for supervision, and other technical input shall be as per requirement.
- xvi) Grant-in-aid will be further subjected to the Terms and Conditions as indicated elsewhere in

- the guidelines or in the letter of sanction.
- xvii) It will invariably be the sole duty of the PI and his organization to abide by all laws while implementing the project.
- xviii) Cost norms for activities in high alpine regions and trans Himalayan regions could be upto 1 ½ times of otherwise prescribed norms. This could be decided by the PAC on a case to case basis.
- xix) For any other components in the Scheme for which specific costs, norms have not been given, these will be considered by PAC in project mode.
- xx) Within approved project period, grants, released in a year will be deemed to be carried forward to the next year if not fully utilized in the initial year.
- xxi) In a need based approach to enable response to changing situations PAC may decide to incorporate additional activities within the overall outlay of the Scheme.
- xxii) Proformas and terms and conditions shall be uploaded on the NMPB website. The same will also be reviewed / fine-tuned from time to time by the PSC and shall be dully intimated to the PAC.
- xxiii) Periodic progress reports received from the PI will be reviewed by the concerned programme officer in the NMPB so as to decide the progress is satisfactory or there are any shortfall or any course correction is needed for which feedback has to be given to the implementing organization.
- xxiv) An annual increase of 10% of the outlay of the sanctioned amount will be provided for conservation & Resource augmentation projects.

12 Monitoring and Evaluation

L Monitoring and Evaluation by the State Medicinal Plants Boards.

The State Medicinal Plant Boards (where they are themselves not the implementing agency) can be involved in monitoring the projects at the field level through their own set of experts for mentoring and suggesting corrective measures. The SMPBs can approach NMPB for offering their willingness for undertaking this assignment. Therefore, field mentoring and monitoring of all projects can be undertaken by SMPB's / other organizations and for this purpose, the services of retired officers of Forests / Horticulture / Agriculture departments, scientists etc. may be hired within this grant approved for SMPB / other organizations.

II. Third Party Monitoring

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. One or more National Level Agencies with adequate manpower and infrastructure will be engaged by NMPB to monitor the projects as per requirement. In addition, NMPB may also constitute short term mentoring-cum-monitoring teams from time to time for specific projects, as felt necessary.

III. Chief Technical Advisers / Domain Expert for Mentoring

NMPB will draw up a list of experts and nominate theme wise / species wise experts as Chief Technical Advisers (CTAs) on important themes related to medicinal plants. The CTAs will be asked from time to time to visit States / Project implementation locations to provide hand-holding support on their area of expertise to the states / implementing agencies and for providing such services, CTAs will be reimbursed AC II tier / Economy Class Air fare and local travelling expenses, Boarding / lodging

charges etc. and will also be eligible for sitting fee as per rule. However, such hand holding assignments (excluding travel time from their HQ) will be of short duration (3 days or less) after which CTAs will submit the reports to NMPB, for each such assignment.

NMPB can also engage Domain Expert as per requirement for implementation and monitoring of the projects / activities.

Note: The proforma for submission of the proposals and utilization certificates, progress report etc. are available on NMPB's website.

AT A GLANCE

Appendix

IMPORTANT COST NORMS FOR COMPONENT ASSISTANCE

S. No.	Component	Cost	Remarks
1	•		
1	In-situ conservation A) Establishment of Medicinal Plants Conservation and Development Areas (MPCDAs)	Rs. 20,000 per hectare	100% Central Assistance
	B) Revisit and upgradation of MPCA	Rs. 5000/- per hectare	100% Assistance
	C) Assistance for mainstreaming Medicinal Plants in Management / Working Plans	Rs. 1.50 lakh per forest Division / Wildlife Division	100% Assistance
	D) in-situ resource augmentation	Cost norms of MoEF&CC under National Afforestation Programme	100% Assistance
2	Ex-situ conservation		
	i) ex-situ conservation	Cost norms of MoEF&CC under CSS National Afforestation Programme	As per para 1.2
3.	Eco Task Force for rehabilitation of		
	Eco Task Force	Project based	100% assistance to the eligible organization
4.	Support to JFMC/ Panchayats/Van	Panchayats/ SHGs	
	Value addition, drying,	Rs.15.00 lakhs per JFMC /	100% assistance per JFMC /
	warehousing and augmenting	Panchayats / Van Panchayats /	Panchayats / Van Panchayats /
_	marketing infrastructure etc.	SHGs / BMCs	SHGs / BMCs
5.	Research, Technology Developme	nt and Quality Assurance	
	i) R&D Projects on theme areas	Project based	100% assistance for Govt. Institutions / PSUs, Govt. Aided Institutions etc. and Non-profit making Philanthropic Organizations with requisite expertise.
			50% assistance for projects received from private sector organizations
	ii) Network research projects involving two or more institutions	Project based	100% assistance for Govt. Institutions/PSUs, Govt. Aided Institutions etc. and Non-profit making Philanthropic Organizations with requisite expertise.
			50% assistance for projects received from private sector organizations
	iii) Raw drug repository of medicinal plants	Rs.10.00 crores for national raw drugs repository and Rs. 5.00 crores each for regional raw drug repositories	100% assistance to Govt. Institutions/PSUs. For private organizations assistance would be decided by PAC in project mode

	ESTABLISHING	Designations of	1000/
	ESTABLISHING QUALITY STANDARDS	Project based	100% assistance.
	AND CERTIFICATION and other		
	interventions not specifically		
	mentioned elsewhere.		
6	Awareness Building, Exposure Vis		
	Training and Capacity Building	a) Rs. 2,000 per trainee (farmer)	100% Assistance
	Programmes for field staff of Forest	for a minimum of 2 days within	
	Dept., Institutions, Universities,	the state.	1. Travel cost will be limited to 3 rd
	Horticulture Dept., Agriculture	b) Rs. 5,000 per head for	AC train fares per participants. However, for Govt. Servants it will
	Dept., Growers and Collectors	exposure visits to other states.	be as per entitlement.
		exposure visits to other states.	be as per endiement.
		c). The expenditure on officers	2. For places not connected by
		training within the State will be	Rail, travel by available modes will
		Rs. 5,000/- per officer and	be permitted as approved by the
		outside the State the cost would	PSC/ PAC.
		be restricted to Rs. 10,000 per	
		officer (Travel cost will be	
	Markahana/ Saminar/ Aranya	additional)	100% aggistance
	Workshops/ Seminar/ Arogya	a) Rs. 1.00 lakhs for District level.	100% assistance
		b) Rs. 2.00 lakhs for State level,	
		c) Rs. 3.00 lakhs for Regional	
		level,	
		d) Rs. 5.00 lakhs for National	
		level	
		e) Rs. 10.00 lakhs for	
	Destining tion in a 1-9-90 or / f-9-	International level.	1000/
	Participation in exhibition/ fair	For participation by other	100% assistance for Govt.
		Agencies a) Rs. 1.00 lakh for State level,	Organizations
		b) Rs. 2.00 lakhs for National	For Private organizations including
		level	industries 50% of the prescribed
	c) Rs. 3.00 lakhs		cost or actual expenditure
		International level	whichever is less (which includes
			expenditure on Travel,
			accommodation, Hire charges,
			stall fabrication, etc.) will be
			reimbursed.
			Participation by NMPB will be as
			per the actuals.
7	PROMOTION OF HERRAL CARRE	L L	
7	PROMOTION OF HERBAL GARDE Herbal Gardens of State and	As per the project proposal	100% assistance
	National Importance	, to per the project proposal	10070 40010141100
	Institutional/ Public Herbal Garden/	a) Rs. 3.00 lakhs per hectare for	100% assistance
	Ayush Van	establishment	
		b) Annual maintenance of the	
		Herbal Garden @ upto Rs. 60,000/- per year per ha. for next	
		four years.	
	School Herbal Gardens	a) Rs. 25,000/- per school for an	100% assistance
		area of 500 sqm.	
		·	
		b) Up to Rs. 7,000/- per annum	
		/ per school for maintenance for	
		next 4 years	
L			

8	MANAGEMENT	SUPPORT	Upto 5% of the outlay under the scheme to NMPB	This will include salary and Admn. Expenses of NMPB incl. TE. OE, appointment of
				Consultants for each component, monitoring, publicity, advertising etc.

COST NORMS FOR IN-SITU RESOURCE AUGMENTATION, EX-SITU CONSERVATION AND PLANTATION OF MEDICINAL TREES, HERBS AND PERENNIALS

(Adopted from Operational Guidelines of National Afforestation Programme of Ministry of Environment & Forests)

S. No.	Model/ Intervention	Plantation including maintenance	Soil & Moisture Conservation (15% of Plantation cost)	M&E, Microplanning, fencing, awareness raising (10% of plantation cost)	Overheads (10% of Plantation cost)	Entry Point activities (Fixed)	Total
1.	Aided Natural Regeneration (200 plants / hectare	9750	1460	975	975	4000	17160
2.	Artificial Regeneration (1100 Plants / Hectares)	17100	2565	1710	1710	4000	27085
3.	Mixed Plantation of trees having MFP and medicinal value (1100 plants / hectares)	17100	2565	1710	1710	4000	27085
4.	Regeneration of perennial herbs and shrubs of medicinal value (2000 plants / hectares)	20400	3060	2040	2040	4000	31540

- The number of plants per hectare are admissible to the costing indicted above. The project proposal envisaging any change in the plantation density would be eligible for a corresponding prorata change in the cost norms. The concerned State Govt. agency shall have to certify that due regard has been given to the agro-climatic factors while preparing the project.
- 2. The cost norms above have been worked out at the wage rate of Rs. 75.00 per day. Escalation in the cost will be allowed to State Governments only after ensuring that their approved wage rate in the State exceeds the limit of Rs. 75.00 per day. The increase in the cost norms would be proportionate to the increase in the wages. In case the wage rate is less than Rs. 75.00 per day, the cost per hectare would be less (on pro rata basis) than the rates proposed in the scheme.
- 3. While distributing the cost, total expenditure on the following items together may not exceed 20% of the plantation cost:
 - i) Overheads including staff / establishment / vehicles etc. (not to exceed 10%)
 - ii) Concurrent monitoring and evaluation (not exceed 2%)
 - iii) Micro-planting (not exceed 2%)

- iv) Fencing (not exceed 5%). For projects requiring higher allocation for fencing, funds to the extent 10% of plantation cost may be authorized by suitably reducing the allocation under item (i) above.
- v) Awareness raising (not to exceed 1%)
- 4. Implements would be purchased from within the overheads. The watch and ward components over the 5 years after plantation would be allowed as part of maintenance personnel deployed for maintenance would also be made responsible for watch and ward.
- 5. Savings under any items above could be used for the activities listed in items other than (i). For examples, savings for fencing and overheads, could be used for extension/Entry point activity.
- 6. The sites which are more challenging like higher elevations, refractory, saline, alkaline and acidic lands, very heavy weed infested, rain shadow areas, cold and hot arid areas, areas requiring soil replacement and critical irrigations supplements etc., allowance of 25% over similar treatment model shall be permitted. Details of such problematic areas along with justification should be provided. Cost norms for alpine / trans Himalayan region will be one and half times for the project cost.
- 7. Also for improved planning technology like use of tissue culture, clonal seedlings etc., allowance of 25% over similar treatment model shall be permitted. Details of improved technology adopted should be given.

Annexure-II

Indicative Component/Head-wise Expenditure of grant for Maintenance of Nucleus Centre of SMPBs other than Union Territories (UTs) and North Eastern States.

Table - 1

S.No.	Component / Head	Unit Cost	Total (Rs. in Lakhs)	Grand Total (Rs. in Lakhs)
1.	Provision for Consultants on contract basis – (03 Nos.)			
	(i) Consultant (Medicinal Plants) – (01 No.)	1* 12 @ Rs. 35000/-	4.20	
	(ii) Consultant (Agriculture/ Horticulture) – (01 No.)(iii) Consultant (Botany / Taxonomy) – (01 No.)	1* 12 @ Rs. 35000 1* 12 @ Rs. 35000/-	4.20	12.60
2.	Provision for Supporting Staff on contract basis - (04 Nos.)		4.20	
	(i) Account Assistant – (01 No.)	1* 12 @ Rs. 22500/-	2.70	
	(ii) Office Assistant / Secretarial Assistant – (02 No.)	2* 12 @ Rs. 20000/-	4.80	8.94
	(iii) Peon / Messenger – (01 No.)	1* 12 @ Rs. 12000/-	1.44	
3.	(i) Office Expenses (ii) Advertisement / Publicity / Printing	-	2.00	5.46
	(iii) Recurring expenses on office equipment & Contingency	-	1.46	
<u>4.</u> 5.	Mobility Support /POL including TA, DA etc. (i) IEC Activities (Organising Conferences,	-	2.00	2.00
3.	Seminar/Webinar, Training Programmes/Workshops etc.)	-	3.60	6.00
	(ii) Data collection, maintenance/ documentation, purchase of books etc.	-	2.40	
			Total	35.00

Note: Any change in the components due to the requirements of the State concerned within the total outlay can be considered with the approval of CEO, NMPB.

Indicative Component/Head-wise Expenditure of grant for Maintenance of Nucleus Centre of SMPBs which are under Union Territories (UTs) and North Eastern States

Table – 2

S.No.	Component / Head	Unit Cost	Total (Rs. in Lakhs)	Grand Total (Rs. in Lakhs)
1.	Provision for Consultants on contract basis – (02 Nos.)		•	
	(i) Consultant (Medicinal Plants) or			
	Consultant (Agriculture / Horticulture) – (01 No.)	1* 12 @ Rs. 35000/-	4.20	
	(ii) Consultant (Botany / Taxonomy) – (01 No.)	1* 12 @ Rs. 35000/-	4.20	8.40
2.	Provision for Supporting Staff on contract basis - (03 Nos.)			
	(i) Account Assistant – (01 No.)	1* 12 @ Rs. 22500/-	2.70	
	(ii) Office Assistant / Secretarial Assistant – (01 No.)	1* 12 @ Rs. 20000/-	2.40	6.54
	(iii) Peon / Messenger – (01 No.)	1* 12 @ Rs. 12000/-	1.44	
3.	(i) Office Expenses	-	2.00	
	(ii) Advertisement / Publicity / Printing	-	2.00	5.00
	(iii) Recurring expenses on office equipment & Contingency	-	1.00	0.00
4.	Mobility Support /POL including TA, DA etc.	-	1.80	1.80
5.	(i) IEC Activities (Organising Conferences, Seminar / Webinar, Training Programmes / Workshops etc.)	-	3.00	
	(ii) Data collection, maintenance/ documentation, purchase of books etc.	-	2.26	5.26
			Total	27.00

Note: Any change in the components due to the requirements of the State concerned within the total outlay can be considered with the approval of CEO, NMPB.

National Medicinal Plants Board

TERMS & CONDITIONS OF FINANCIAL ASSISTANCE (GRANT)

- The institution/ organization/ Principal Investigator (PI) would maintain a separate statement
 of Accounts/register. The organization has to maintain an account in Nationalized Bank. The
 accounts should be operated jointly by two office-bearers. The grant-in-aid will be released
 through FDA/SFDAs/FDCs in respect of forestry projects and for other projects the Grant-inaid will be released through the Institute/ organisation concerned.
- 2. The grantee (NGOs) will execute a bond on Rs. 100/- stamp paper in the prescribed proforma with two sureties to the effect that the grantee will abide by all the conditions of the grant. In the event of any failure to comply with these conditions or committing any breach of the bond, the grantee with sureties individually and jointly will be liable to refund to the Government of India the entire amount of the grant together with interest at such rate as is stipulated in the Bond. The requirement of furnishing two sureties will not be necessary if the grantee institution/ organisation is a Society registered under the Societies Registration Act-1860 or is a Cooperative Society. When the bond is also signed by two sureties both of them should be solvent and owner of such assets of value not less than the amount of the Bond as can be attached and sold in execution of a court's decree. This fact should be certified by the District Magistrate or other equivalent authority on the body of the bond.
- 3. The project for which grant in aid is being sought should commence implementation within a period of 3 months from the date of receipt of grants.
- 4. If the grant or any part thereof is to be utilised for a purpose other than that for which it is sanctioned, prior approval of the Board should be obtained by the grantee.
- 5. The payment of the grant-in-aid will be made by this Board through crossed demand draft/RTGS/ECS mode after all the requirements mentioned in this sanction letter have been fulfilled by the grantee.
- 6. For those PI, who have undertaken NMPB supported projects unsatisfactorily then, project proposals of such PI will not be considered for funding from NMPB for consecutive 3 years after finalisation of the project.
- 7. Interest generated on the grant-in-aid released by NMPB will need to be refunded to NMPB.
- 8. The payment of grant is subject to the following conditions:
 - a) Submission of agency and bank details.
 - b) Pre-receipt of the grant-in-aid amount.
 - c) The grantee shall furnish a certificate that the person signing the undertaking is duly authorized to operate upon and bind the funds of the grantee organization.
 - d) The grantee shall furnish a certificate that the grantee is not involved in any court proceedings relating to the account or conduct of any of its office bearers. A certificate

to the effect that the institution is not involved in corrupt practices should also be furnished.

- e) The grantee shall furnish a certificate to the effect that it has not been sanctioned grantin-aid for the same purpose by any other agency of Central Government/State Government during the same period.
- f) The grantee will not, without the prior sanction of the Government of India, dispose of, or divert the use for any other purpose of permanent and semi- permanent assets that may be created or acquired out of the grant. If and when such body is dissolved the assets are to be reverted to the Government.
- g) Accounts of the grantee should also be open for the test check and regular audit of the comptroller and Auditor General of India at their discretion.
- h) No portion of the grant shall be utilized for furtherance of a political movement prejudicial to the security of the nation.
- i) Grantee Organization/Institutes should submit an undertaking in writing that the grantee agrees to be governed by the conditions of the grant mentioned in this Annexure and the sanction letter.
- j) Private and voluntary organizations receiving recurring grant-in-aid to the tune of Rs.5.00 lakhs and above shall submit 5 copies of their Annual Reports including audited Statement of Accounts (English or Hindi) along with soft copy within six months of the close of the financial year.
- k) At the end of the year the grantee shall have to submit five (05) copies of Annual Progress Report (Mentioning physical and financial targets achieved) along with the Utilization Certificate (UC) and audited statement of Accounts failing which grant shall be stopped.
- 9. Acceptance of UCs will be subject to the following:
 - a) The grantee shall maintain a register of all assets acquired out of this grant as per GFR. This register is required to be maintained separately in respect of such sanction and two copies of the same duly signed by the grantee be furnished to this Board annually.
 - b) The Register of assets maintained by the grantee should be available for scrutiny by audit or any other person authorized in this behalf by this Ministry.
 - c) The grantee should forward to NMPB a Utilization Certificate in form GFR-12A and GFR-12C along with the Audited Statement of Accounts both of which should be duly certified by a Chartered Accountant / Government Auditor and counter signed by PI soon as possible after the close of the financial year and in any case not later than six months of its closing.
- 10. The cost of computer including UPS and all accessories should be minimum and reasonable and as per the prevalent market rate.

- 11. Rates of wages applicable for carrying out various works proposed in the projects would be to the extent of prevailing schedule of rates in the State/ UTs/Central Government Institutes.
- 12. The voluntary organizations have to furnish documentary proof in support of land ownership. The Government organizations have to indicate details about status of land.
- 13. For extension activities like training, seminar, workshop etc. payment towards boarding lodging and transport, the admissible limit would be as per Government of India norms
- Resource persons may be paid honorarium and TA/DA as per existing Government of India norms.
- 15. Expenses on equipment(s) should be need based. Further, in case the institution/organization is already having the same equipment(s); purchase of the equipment(s) for that project shall be avoided as far as possible.
- Salary on contractual staff should be kept to the minimum. The emoluments to the contractual staff under the R&D projects or other projects shall be as per the norms of the DST/ CSIR.
- 17. Regular / permanent or hired staff of the institute/organization working as Principal Investigator/ Co-PI will not be eligible for payment of salary from this grant.
- 18. Sub contracting with in the project is not permissible.
- 19. Other terms and conditions will be those as applicable in State/Central Government institutes as the case may be.
- 20. PI has to certify that all applicable laws/rules and legal provisions are followed while preparing the project proposal.
- 21. It is also to be certified that the project proposal is formulated as per the relevant provisions/ clauses of the guidelines of the Central Sector Scheme for Conservation, Development and Sustainable Management of Medicinal Plants.
- 22. Any patent filed or accepted as an outcome of NMPB's funded project(s) shall be the joint property of the NMPB and the grantee organization. Any commercialization of the patent shall be done only with the explicit approval of NMPB.

FORWARD AND BACKWARD LINKAGE IN SUPPLY CHAIN OF MEDICINAL PLANTS (INTEGRATED COMPONENT)

II. Forward and backward linkage in supply chain of medicinal plants (Integrated component)

1.0 Introduction

- Supply chain management of medicinal plants is crucial for sustenance of the medicinal plant sector. There is a need for increasing focus on demand based availability of quality planting material, trainings, post-harvest management infrastructure and marketing of medicinal plants produce. Also, a network of dedicated Infrastructure for Quality Planting Material for Medicinal Plants and Post Harvest Management, Value Addition & Marketing along with support for Information Education Communication (IEC) activities and Quality Testing & Certification will be instrumental in increasing the impact on livelihood and also reducing quantitative and qualitative post- harvest losses. Efforts will be made to integrate these infrastructures with e- Charak.
- 1.2 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 encourage the farmers by providing the facilities like nursery to raise the quality planting material/seeds, infrastructure & technologies for post-harvest management, value addition, marketing, sensitization programmes for skill development, certification for quality raw material in a synergistic manner by supporting appropriate financial assistance to the implementing agencies.

2.0 Objectives

- i. To establish nursery/seed germplasm centre to raise the Quality Planting Material/seeds for the producers for cultivation/plantation of medicinal plants.
- ii. To create general awareness and provide training to the farmers, entrepreneurs, market functionaries and other stakeholders on various aspects of medicinal plants (including cultivation, GAPs, GFCPs, storage, PHM techniques, value addition, market Information etc.)
- iii. To support the Post-harvest management unit, primary processing unit including value addition and marketing infrastructure to facilitate market linkage.
- iv. Implement and support testing and certification mechanism for quality standards.

3.0 Integrated Project – Components

3.1 Infrastructure for Quality Planting Material for Medicinal Plants

3.1.1 Establishment of Seed Germ Plasm Centre: Cultivation of medicinal plants and eventual returns from such cultivation is largely dependent upon the quality of planting material used. However, specific mechanism for providing quality germplasm or producing quality planting stock on commercial scale is missing. Therefore, there is need to establish seed germplasm centres with the nurseries and seed banks in agricultural universities, Institutions of CSIR & ICAR, KVKs etc. support may be provided to establish seed germplasm centres

in Forest Departments/Research Organizations/Agriculture Universities and other organizations (Public/Private) engaged in medicinal plants activities to stock and supply certified germplasm of prioritized medicinal plant species for cultivation. The seed may be produced of those plants which can be mainly raised from the seeds. A seed germplasm centre should have minimum area of 04 hectares.

Norms of Assistance:-

Assistance of upto Rs. 25.00 lakh shall be admissible. The Cost norms are available at **Annexure-I.**

3.1.2. Establishment of nurseries for Supply of Quality Planting Material

i. Model Nurseries:

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:

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

The model nurseries would produce 2–3 lakh saplings of medicinal 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. A model nursery should have an area of minimum 04 hectares.

ii. Small Nurseries: The nursery should have appropriate infrastructure facility (net house, beds, vermi-compost, signage, Micro sprinkler irrigation system) to hold 50,000 to 70,000 saplings of medicinal plants in minimum 1 ha area. The nurseries should also have provision for solar sterilization of soil media to meet the contingency requirement of containers/transfer from small to big containers. The organization must have a sustainability plan. It would be the responsibility of the nurseries to ensure quality of the planting material. The private nurseries 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.

Norms of Assistance:

- Maximum assistance @ Rs. 25 lakh per unit (4 hectare) for model nursery and Rs. 6.25 lakh per unit (1 hectare) for Small nurseries. The Cost norms are available at Annexure-I.
- iii. **Maintenance of existing medicinal plant nursery**: Existing medicinal plant nursery of Minimum five year old supported by NMPB, Ministry of Ayush may be provided financial assistance of upto Rs. 1.50 lakh/ha to raise 50,000-70,000 (approx.) sapling of medicinal plants depending on reasonable justification. Further, if required the maintenance will be provided for maximum twice after a span of five years.
- IV. The indicative list of Medicinal plants to raise the quality planting material is present at **Annexure-II**.

3.2 Information Education Communication (IEC) activities

Training plays an important role in creating awareness on best practices for cultivation, good agricultural practices, good field collection practices, post-harvest management, value addition, marketing etc. Trainings will be provided to various stakeholders such as cultivators, collectors, traders, supply chain intermediaries, policy makers and end users.

Activities:

- To organise training programmes on medicinal plants cultivation, Good Agricultural Practices (GAPs), Post-Harvest Management Practices (PHMs), Storage, Value Addition, Market Information etc.
- Demonstration of technologies developed by Institutions at farmer's field.
- o To organise the buyer seller meets for stakeholders to provide market linkage.

Norms of Assistance:

- Rs. 2,000/- per trainee for a minimum of two days with in the state and Rs. 5,000/per trainee outside the state will be provided which will include exposure visits.

 Travel cost will be additional to the above cost. Travel cost will be limited to 3rd

 AC train fares per participants. However, for Govt. Servants it will be as per
 entitlement.
- The financial assistance would be limited to Rs.1.00 lakh for organizing District Level and Rs. 2.00 lakh for State level Buyer Seller Meet.
- The Cost norms are available at Annexure-I.

3.3 Infrastructure for Post-Harvest Management and Marketing

It is estimated that as high as 30% of the raw material reaching the manufacturers is of poor quality and is, therefore, rejected. Hence, there is a need to support post-harvest management infrastructure such as storage godowns, drying yards and primary processing units / value addition infrastructure. These facilities are essential for increasing the marketability of the medicinal plants, adding value to the produce, increasing profitability and reducing losses. The scheme seeks to support infrastructure for post-

harvest management in the different regions of the country near cultivation zones. The facilities being created would be shared by all stakeholders and may be open to others on payment basis. The facilities to be created in the post-harvest management infrastructure is as follows:

- **3.3.1 Drying yard:** Drying yards to accomplish the primary task of drying the products in hygienic conditions. Since herbs have to be dried in shades, drying yards with shade net provision or facilities for low temperature drying may be created. Equipment's for drying like solar dryer may also be purchased, if required.
- 3.3.2 Storage godown: The storage godown is expected to receive produce from nearby drying yards. The storage godown are a link between drying yards and primary processing units. Storage godown have to be adequately ventilated and set up at strategic locations. The storage godown and drying yards have to be located in such a manner that they are not very far from the farm lands.
- 3.3.3 Value Addition Infrastructure: The scheme seeks to add value to the medicinal plants cultivated/collected and meet large domestic requirement of the ASU&H industry. Support will be provided for creation of facilities for primary processing including equipment for value addition such as de-stoning, cleaning, grading, pulverizing, primary processing, powdering, billeting and packaging, extracting, etc.
- **3.3.4 Rural Collection Centre:** The Rural collection centre may have basic facilities like weigh bridge, auction platforms, washing & drying, whole sale packaging etc. with supporting services.

Norms of Assistance:-

- Maximum assistance for establishment of Storage Godown is Rs. 10.00 lakh per unit
- Maximum assistance for establishment of Drying Yard is Rs. 10.00 lakh per unit.
- Maximum assistance for establishment of Value Addition Infrastructure is Rs.
 15.00 lakh per unit.
- Maximum assistance for establishment of Rural Collection Center is Rs. 20.00 lakh per unit.
- Land would be provided by respective Public /SHG / Cooperatives and would not form part of the project cost.
- The Cost norms are available at Annexure-I.

3.4 Quality Testing

The quality testing of herbs/medicinal plants produced by growers is key to realization of remunerative prices. The growers may 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. However, flexibility is applicable for variation with proper justification. The Cost norms are available **at Annexure-I.**

3.5 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 may be admissible on a group basis to the limit of Rs. 5.00 lakh for minimum of 50 hectares area under cultivation in groups/clusters. However, flexibility is applicable for variation with proper justification. The Cost norms are available **at Annexure-I.**

4.0 Eligibility

- Maximum assistance upto Rs. 1.20 Crore for one Integrated Project. The Government organizations will be eligible for 100% Grant in aid and Private organizations (having minimum of 5 years' experience working in Medicinal plants sector) will be eligible for 50% Grant-in aid.
- ii. The preference will be given only to those Project Implementing Agencies who have the infrastructural facilities at village/block level for better implementation of the project.
- iii. The Project Implementing Agency may apply as per the given format for the integrated component at **Annexure–III.**

5.0 Maximum assistance for different components

5.1 Forward and Backward Linkage in Supply Chain of Medicinal Plants (Integrated Component)

Supply chain management of medicinal plants is crucial for sustenance of the medicinal plant sector. There is a need for increasing focus on availability of quality planting material, trainings, post-harvest management infrastructure and marketing of medicinal plants produce. Also, a network of dedicated Infrastructure for Quality Planting Material for Medicinal Plants and Post - Harvest Management & Marketing along with support for Information Education Communication (IEC) activities and Quality Testing & Certification will be instrumental in increasing the impact on livelihood and also reducing quantitative and qualitative post- harvest losses.

Maximum assistance for different components:

Sr. No.	Name of components	Maximum assistance
1.	Infrastructure for Quality Planting Material for Medicinal Plants	Rs. 50.00 lakh
2.	Information Education Communication (IEC) activities	Rs. 7.50 lakh
3.	Infrastructure for Post - Harvest Management and Marketing	Rs. 55.00 lakh
4.	Quality Testing and Certification	Rs. 7.50 lakh
	Total Project Cost	Rs. 120.00 Lakh

Note: However, because of functional nature of the scheme depending on the project proposals received and approved, flexibility is applicable for variation with proper justification.

5.2 Project Period

One to Three Years (depending upon the species).

5.3 Fund release

Funds will be released in two instalments.

6.0 Submission of Proposal

- The project proposals (in the relevant proforma as at Annexure II) on 'Forward and backward linkage in supply chain of medicinal plants (Integrated Component)' may be forwarded through State Medicinal Plants Board (SMPB) to the NMPB. Wherever, SMPB is non-functional, the proposals may be forwarded by Regional Cum Facilitation Centres (RCFCs) to the NMPB.
- The SMPB/RCFC shall forward the integrated project proposals to NMPB after initial scrutiny.
- Project will be placed before Project Screening Committee (as described in para 9.1 at page 28) before being considered for approval by PAC (as described in para 9.3 at page 30) at NMPB level. Prior to placing before the PSC, wherever appropriate, the proposal can first be referred to the expert for technical opinion. For such scrutiny a fee will be paid to the domain expert by the NMPB for examination and comments as per the guideline.
- After necessary approval, NMPB will release fund to the Project Implementing Agency as per the guidelines.
- SMPBs / RCFCs shall be responsible for reviewing and monitoring the implementation of the projects and Project Investigator should submit the progress report, utilization certificate and other related documents (monitoring report from concerned SMPB/RCFCs) to NMPB.

7.0 Implementation Framework

7.1 Norms for Integrated Projects

- 7.1.1 The exact nature of infrastructure to be supported under the scheme will be decided on the basis of medicinal plants produce in the catchment area of the project. Medicinal Plants Sector is growing at a fast pace and several innovative storage, preservation and minimal processing technologies are being developed day by day which will also be considered under the scheme with the recommendation of Standing Finance Committee /Project Approval Committee.
- 7.1.2 Considering the functional nature of the facilities and with a view to plug in the gaps in the supply chain of medicinal plants and to enhance the capacity utilization and viability of the project, the applicants may avail the assistance under this scheme in conjunction with other schemes being implemented by other Central Ministries/Departments /Organizations or State Governments. However, no assistance will be provided for the components/facilities for which grant -in-aid has already been approved /availed.

7.2 Norms for Project Implementing Agency /PI are as under:-

- i. Project Investigator may organize base-line survey and feasibility studies in different parts (District or a group of Districts, block etc.) to determine the status of medicinal plants demand and supply in the identified areas.
- ii. For the proposed activities under integrated component, Project Implementing Agency has to give an undertaking that project area has not been covered/is not proposed to be covered under any other scheme of Central or State Government.
- iii. To identify the medicinal plants as per the agro climatic zone as well as industry demand to raise the planting material.
- iv. To identify and register the individual farmers / cluster to maintain the data of farmers like area and crop under cultivation, Aadhaar no., land record (Khasra Khatoni number), GPS location etc to supply of QPM to support cultivation (as per the format) in identified area and monitor survival rate of QPM distributed.
- v. The farmers involved in cultivation of Medicinal Plants to be linked with QPM (seed and seedling material/ sapling) along with Post-Harvest Management (PHM) facilities and Infrastructure for value addition infrastructure & Marketing in the vicinity.
- vi. To provide the species wise yield data as per the formats.
- vii. To facilitate the market linkage between farmers and ASU&H industry/ manufacturing units.
- viii. To organize Information Education Communication (IEC) activities like training programme on cultivation techniques, Post-harvest management techniques etc and buyer seller meets to the farmers of identified area where QPM has to be distributed.
- ix. Progress report to be compiled and shared with NMPB through SMPB/RCFC as per given format at **Annexure-IV**, **V & VI**.
- x. Documentation of data related to the, production statistics, marketing of the produce and other record management including output & outcome of the project.
- xi. All the activities related to cultivation, processing, marketing, quality assurance, testing and certification in identified areas will be consolidated by Project Implementing Agency and would be coordinated at the State level for better synergy. Project Investigator are free to choose their own model, create or orient existing institutions to carry forward the objectives of the scheme in a holistic manner.
- xii. There should be a robust institutional arrangement for implementing the major activities such as quality planting material, technology dissemination, post-harvest management, primary processing/ value addition infrastructure, marketing etc. under the Forward and backward linkage in supply chain of medicinal plants (Integrated Component).
- xiii. To submit the assessment report regarding impact on livelihood of the beneficiaries.
- xiv. All the Pl's should submit land certificate for ownership of land (in respect of Nursery, Seed Germ Plasm Centre, Drying yard, Storage godown, Value addition infrastructure and Rural Collection Centre) and a certificate for genuiness from Deputy Commissioner/other concerned civil authority etc.
- xv. For integrated projects under implementation which may require technical input from the PSC the PI may be called for presentation from time to time by PSC so that best value could be obtained from such ongoing activities.
- xvi. Grant-in-aid will be further subjected to the 'Terms and Conditions' as indicated in the guidelines or in the sanction letter.
- xvii. It will invariably be the sole duty of the PI and his organization to abide by all laws while implementing the project.
- xviii. The NMPB, Ministry of Ayush may seek any clarification and/ or any document/ information at any stage of the project. The Ministry reserves the right to modify the Scheme Guidelines or any other terms and conditions as contained herein.

xix. If at any point of time, it comes to the notice of the NMPB, Ministry of Ayush that the grant has been availed by manipulation/ concealment of information/ facts, the same shall be withdrawn immediately and the amount, if any, released shall be refunded.

Note: General conditions (as mentioned at Page no. – 32) is also applicable on the PI and organization wherever required.

8.0 Administrative support

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

National level: NMPB may recruit the following staff for effective implementation of the integrated projects:

SI. No	Name of the Position	No. of Position	Emoluments/month
1.	Project Manager	01	Rs. 85,000 <i>l</i>
2.	Project Consultant	03	Rs. 50,000 <i>l</i>
3.	Office Assistant	03	Rs. 30,000/

9.0 Monitoring and Evaluation

Monitoring and evaluation will also be carried out as per the Provision of Central Sector Scheme by engaging professional agencies with expertise in the field (mentioned at point no. 12, page no. – 33).

10.0 Court's Jurisdiction

Any dispute arising out of selection of proposals and implementation of approved project under this scheme guideline will be subject to Courts/ Tribunals having jurisdiction over Delhi.

Norms of Assistance for Infrastructure for Quality Planting Material, IEC Activities, Infrastructure for Post-Harvest Management & Marketing, Quality Testing and Certification.

S. No.	Programme	Cost Norms	Remarks			
	Infrastructure for Quality Planting Material (Production of planting material)					
1.1	Setting up of seed germ plasm centres (4 ha.)	Rs. 25.00 lakhs	Public sector applicants will be eligible for 100% Grant-in aid			
1.2	Model nursery (4 ha.)	Rs. 25.00 lakhs	and Private sector applicants			
1.3	Small nursery (1 ha.)	Rs. 6.25 Lakh	will be eligible for 50% Grant- in aid			
2.0	Information Education and Comn	nunication				
	Trainings of Farmers (for a minimum of two days)	Rs. 2,000/- per trainee with in the state and Rs. 5,000/- per trainee outside the state will be provided. Travel cost will be additional to the above cost.				
		Travel cost will be limited to 3rd AC train fares per participants. However, for Govt. Servants it will be as per entitlement. For places not connected by Rail, travel by available modes will be permitted as approved by the PSC / PAC.				
2.2	Buyer seller Meets	The financial assistance would be limited to Rs.1.00 lakh for organizing district level event, Rs. 2.00 lakh for State level.				
3.0	Infrastructure For Post-Harvest N	lanagement and Mark	eting			
3.1	Drying yard	Rs. 10.00Lakh	Public sector applicants will			
	Storage godown	Rs. 10.00 Lakh	be eligible for 100% Granh			
3.3	Value Addition infrastructure	Rs. 15.00 Lakh	aid and Private sector			
3.4	Rural Collection Center	Rs. 20.00 Lakh	applicants will be eligible for 50% Grant - in aid.			
	Quality Testing	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.				
5.0	Certification	The certification charges will be admissible on a group basis to the limit of Rs. 5.00 lakhs for 50 hectares of cultivation in groups/clusters.				

Project Tenure – One to Three Years depending upon the species (fund will be released in two to three instalments).

Annexure-II

The Indicative List of Medicinal Plants to Raise the Quality Planting Material

S.No.	Botanical Name	Common Name
1	Abies webbiana Lindl	Talispatra
2	Abrus precatorius Linn.	Chirmati, Chinnoti
3	Acacia catechu (L.f.) Willd	Katha
4	Aconitum chasmanthum Stapf	Vatsnabh(API)
5	Aconitum ferox Wall./A. balfouri	Vatsnabh
6	Aconitum heterophyllum Wall. ex Royle	Atees
7	Acorus calamus Linn.	Vach
8	Adhatoda zeylanica Medic.	Adusa
9	Aegle marmelos (Linn) Corr.	Beal
10	Albizzia lebback Benth.	Shirish
11	Aloe vera (Linn.) Burn.	Ghritkumari
12	Alpinia calcarata Rosc.	Smaller Galanga
13	Alpinia galanga Willd.	Greater Galanga
14	Alstonia scholaris R.Br.	Satvin, Saptaparna
15	Altingia excelsa Noronha	Silarasa
16	Anacyclus pyrethrum DC.	Akarkara
17	Andrographis paniculata (Linn.) Burn	Kalmegh
18	Aquilaria agallocha Roxb.	Agar
19	Artemisia annua (Linn.)	Artemisia
20	Asparagus racemosus Willd.	Shatavari
21	Atropa belledona Linn	Atropa
22	Azadirachta indica A. Juss	Neem
23	Bacopa monnieri (Linn.) Pennell	Brahmi
24	Berberis aristata DC.	Daruhaldi
25	Bergenia ciliata Stern.	Pashnabheda
26	Boerhaavia diffusa Linn.	Punarnava
27	Caesalpinia sappan Linn.	Patang
28	Cassia angustifolia Vahl.	Senna
29	Catharanthus roseus ((Linn.) G.Don)	Sadabahar
30	Celastrus paniculatus Willd.	Malkangani, Jyothismathi
31	Centella asiatica (Linn.) Urban.	Mandookparni
32	Chlorophytum borivillianum Sant.	ShwetMusali
33	Cinnamomum tamala (BuchHam.) T.Nees & C.H.Eberm	Tezpatta
34	Cinnamomum verum Presl.	Dalchini
35	Cinnamomum camphora Linn.	Kapoor

20	Clave de reducire in blave e i-l 1 f	A:
36 37	Clerodendrum phlomoides L.f	Arni
38	Clitoria ternatea Linn.(Blue & White veriety) Coleus barbatus Benth. Syn. Coleus forskholii	Aparajita Pather Chur
39	Coleus vettiveroides K.C. Jacob	Hrivera
40	Commiphora wightii (Arn.) Bhandari	Guggal
41	Convolvulus microphyllus Choisy	Shankhpushpi
42	Coptis teeta Wall.	Mamira
43	Coscinum fenastratum (Gertn) Colebr.	Peela Chandan
44	Crataeva nurvala Buch – Ham.	Varun
45	Cryptolepis buchanani Roem & schult	Krsnasariva
46	Curculigo orchioides Gaertn.	Kali Musali,Muslishiya
47	Curcuma augustifolia Roxb.	Tikhur
48	Decalepis hamiltonii Wight & Arn.	Nannari
49	Dactylorhiza hatagirea (D.Don)	Salampanja
50	Desmodium gangeticum (Linn.) DC.	Sarivan
51	Digitalis purpurea Linn.	Foxglove
52	Dioscorea bulbifera Linn.	Rotalu, Gethi
53	Eclipta alba Hassk.	Kesuria, Bhangra, Bhringaraj
54	Embelia ribes Burm. f.	Vai Vidang
55	Emblica officinalis gaertn.	Amla
56	Ephedra gerardiana Wall.	Somlata
57	Ferula foetida Regel.	Hing
58	Garcinia indica Choisy.	Kokum
59	Gentiana kurroo Royle	Trayamana
60	Ginkgo biloba Linn.	Ginkgo
61	Gloriosa superba Linn.	Kalihari
62	Glycyrrhiza glabra Linn.	Licorice Roots, Mulethi
63	Gmelina arborea Linn.	Gambhari
64	Gymnema sylvestre R. Br.	Gudmar
65	Hedychium spicatum Buch-Ham. ex Smuth	Kapurkachari
66	Hemidesmus indicus R.Br.	Anantmool
67	Hippophae rhamnoides Linn.	Seabuckthorn
68	Holarrhena antidysenterica Wall.	Kurchi/Kutaj
69	Hyocyamus niger Linn.	Khurasaniajwane
70	Inula racemosa Hk. f.	Pushkarmool
71	Ipomoea mauritiana / Ipomoea digitata	Giant potato
72	Ipomoea petaloidea Choisy.	Vrddhadaruka
73	Ipomoea turpethum R. Br.	Trivrit
74	Juniperus communis Linn.	Hapushal, Bethar, Hapusha
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75 Jurinea macrocephala Benth. Dhoop, Jari-dhoop 76 Kaempferia galanga Linn. Indian crocus 77 Lepidum sativum Linn. Chandrasur 78 Leptadenia reticulata (Retz) Wt. & Arn Jivanti 79 Litsea glutinosa (Lour.) C.B. Rob Listea 80 Mappia foetida Miers. Ghanera 81 Mesua ferrea Linn. Nagakeshar 82 Moringa olifera Lam. Sahjan 83 Mucuna pruriens Linn. Konch 84 Nardostachys jatamansi DC. Jatamansi 85 Ocimum sanctum Linn. Tulsi 86 Onosma hispidum Wall. ex Don Ratanjot 87 Oroxylum indicum Vent. Syonaka 88 Panax pseudo-ginseng Wall. Ginseng 89 Phyllanthus amarus Schum & Thonn. Bhumi amlaki 90 Picrorhiza kurroa Benth. ex Royle Kutki 91 Piper cubeba Linn. Pippali 93 Plantago ovata Forks Isabgol 94 Pluchea lanceolata (DC) CB Clark. Rasna 95 Plumbago rosea Linn. Leadwort 96 Plumbago zeylanica Linn. Chitrak 97 Podophyllum hexandrum Royle. Bankakri 98 Polygonatum cirrhifolium Wall. Mahameda 99 Premna integrifolia Linn. Agnimanth 100 Pseudarthria viscida (Linn.) Wight & Arn. Moovila 101 Psoralea corylifolia Linn. Bakuchi 102 Pterocarpus marsupium Roxb. Beejasar 105 Rauvolfia serpentina Benth. ex Kurz Sarggandha 106 Rheum emodi Wall. ex Meisn. Archa 107 Rubia cordifolia Linn. Manjishtha 108 Salacia reticulata Wright 109 Santalum album Linn. Chandan 110 Saraca asoca (Roxb.) De Wilde 111 Saussurea costus C.B. Clarke Kuth, Kustha 112 Sida cordifolia Linn. Hrddhatri			
77 Lepidum sativum Linn. Chandrasur 78 Leptadenia reticulata (Retz) Wt. & Arn Jivanti 79 Litsea glutinosa (Lour.) C.B. Rob Listea 80 Mappia foetida Miers. Ghanera 81 Mesua ferrea Linn. Nagakeshar 82 Moringa olifera Lam. Sahjan 83 Mucuna pruriens Linn. Konch 84 Nardostachys jatamansi DC. Jatamansi 85 Ocimum sanctum Linn. Tulsi 86 Onosma hispidum Wall. ex Don Ratanjot 87 Oroxylum indicum Vent. Syonaka 88 Panax pseudo-ginseng Wall. Ginseng 89 Phyllanthus amarus Schum & Thonn. Bhumi amlaki 90 Picrorhiza kurroa Benth. ex Royle Kutki 91 Piper cubeba Linn. F. Kababchini 92 Piper longum Linn. Pippali 93 Plantago ovata Forks Isabgol 94 Pluchea lanceolata (DC) CB Clark. Rasna 95 Plumbago rosea Linn. Leadwort 96 Plumbago rosea Linn. Chitrak 97 Podophyllum hexandrum Royle. Bankakri 98 Polygonatum cirrhifolium Wall. Mahameda 99 Premna integrifolia Linn. Agnimanth 100 Pseudarthria viscida (Linn.) Wight & Arn. Moovila 101 Psoralea corylifolia Linn. Bakuchi 102 Pterocarpus santalinus L.f. Raktachandan 104 Pueraria tuberosa DC. Vidarikand 105 Rauvolfia serpentina Benth. ex Kurz Sarpgandha 106 Rheum emodi Wall. ex Meisn. Archa 107 Rubia cordifolia Linn. Manjishtha 108 Salacia reticulata Wright 109 Santalum album Linn. Chandan 110 Saraca asoca (Roxb.) De Wilde 111 Saussurea costus C.B. Clarke Kuth, Kustha 112 Sida cordifolia Linn. Flannel weed	75	Jurinea macrocephala Benth.	Dhoop, Jari-dhoop
78 Leptadenia reticulata (Retz) Wt. & Arn Jivanti 79 Litsea glutinosa (Lour.) C.B. Rob Listea 80 Mappia foetida Miers. Ghanera 81 Mesua ferrea Linn. Nagakeshar 82 Moringa olifera Lam. Sahjan 83 Mucuna pruriens Linn. Konch 84 Nardostachys jatamansi DC. Jatamansi 85 Ocimum sanctum Linn. Tulsi 86 Onosma hispidum Wall. ex Don Ratanjot 87 Oroxylum indicum Vent. Syonaka 88 Panax pseudo-ginseng Wall. Ginseng 89 Phyllanthus amarus Schum & Thonn. Bhumi amlaki 90 Picrorhiza kurroa Benth. ex Royle Kutki 91 Piper cubeba Linn. f. Kababchini 92 Piper longum Linn. Pippali 93 Plantago ovata Forks Isabgol 94 Plumbago rosea Linn. Leadwort 95 Plumbago zeylanica Linn. Leadwort 96 Plumbago zeylanica Linn. Chitrak	76	Kaempferia galanga Linn.	Indian crocus
79 Litsea glutinosa (Lour.) C.B. Rob Listea 80 Mappia foetida Miers. Ghanera 81 Mesua ferrea Linn. Nagakeshar 82 Moringa olifera Lam. Sahjan 83 Mucuna pruriens Linn. Konch 84 Nardostachys jatamansi DC. Jatamansi 85 Ocimum sanctum Linn. Tulsi 86 Onosma hispidum Wall. ex Don Ratanjot 87 Oroxylum indicum Vent. Syonaka 88 Panax pseudo-ginseng Wall. Ginseng 89 Phyllanthus amarus Schum & Thonn. Bhumi amlaki 90 Picrorhiza kurroa Benth. ex Royle Kutki 91 Piper cubeba Linn. f. Kababchini 92 Piper longum Linn. Pippali 93 Plantago ovata Forks Isabgol 94 Pluchea lanceolata (DC) CB Clark. Rasna 95 Plumbago rosea Linn. Leadwort 96 Plumbago zeylanica Linn. Chitrak 97 Podophyllum hexandrum Royle. Bankakri	77	Lepidum sativum Linn.	Chandrasur
80 Mappia foetida Miers. Ghanera 81 Mesua ferrea Linn. Nagakeshar 82 Moringa olifera Lam. Sahjan 83 Mucuna pruriens Linn. Konch 84 Nardostachys jatamansi DC. Jatamansi 86 Onosma hispidum Wall. ex Don Ratanjot 87 Oroxylum indicum Vent. Syonaka 88 Panax pseudo-ginseng Wall. Ginseng 89 Phyllanthus amarus Schum & Thonn. Bhumi amlaki 90 Picrorhiza kurroa Benth. ex Royle Kutki 91 Piper cubeba Linn. f. Kababchini 92 Piper longum Linn. Pippali 93 Plantago ovata Forks Isabgol 94 Pluchea lanceolata (DC) CB Clark. Rasna 95 Plumbago rosea Linn. Leadwort 96 Plumbago rosea Linn. Chitrak 97 Podophyllum hexandrum Royle. Bankakri 98 Polygonatum cirrhifolium Wall. Mahameda 99 Premna integrifolia Linn. Agnimanth 100 Pseudarthria viscida (Linn.) Wight & Arn. Moovila 101 Psoralea corylifolia Linn. Bakuchi 102 Pterocarpus marsupium Roxb. Beejasar 103 Pterocarpus santalinus L.f Raktachandan 104 Pueraria tuberosa DC. Vidarikand 105 Rauvolfia serpentina Benth. ex Kurz Sarpgandha 107 Rubia cordifolia Linn. Manjishtha 108 Salacia reticulata Wright Saroca (Roxb.) De Wilde 111 Saussurea costus C.B. Clarke Kuth, Kustha 112 Sida cordifolia Linn. Flannel weed	78	Leptadenia reticulata (Retz) Wt. & Arn	Jivanti
81 Mesua ferrea Linn. Nagakeshar 82 Moringa olifera Lam. Sahjan 83 Mucuna pruriens Linn. Konch 84 Nardostachys jatamansi DC. Jatamansi 85 Ocimum sanctum Linn. Tulsi 86 Onosma hispidum Wall. ex Don Ratanjot 87 Oroxylum indicum Vent. Syonaka 88 Panax pseudo-ginseng Wall. Ginseng 89 Phyllanthus amarus Schum & Thonn. Bhumi amlaki 90 Picrorhiza kurroa Benth. ex Royle Kutki 91 Piper cubeba Linn. f. Kababchini 92 Piper longum Linn. Pippali 93 Plantago ovata Forks Isabgol 94 Pluchea lanceolata (DC) CB Clark. Rasna 95 Plumbago rosea Linn. Leadwort 96 Plumbago zeylanica Linn. Chitrak 97 Podophyllum hexandrum Royle. Bankakri 98 Polygonatum cirrhifolium Wall. Mahameda 99 Premna integrifolia Linn. Agnimanth 100 Pseudarthria viscida (Linn.) Wight & Arn. Moovila </td <td>79</td> <td>Litsea glutinosa (Lour.) C.B. Rob</td> <td>Listea</td>	79	Litsea glutinosa (Lour.) C.B. Rob	Listea
82 Moringa olifera Lam. Sahjan 83 Mucuna pruriens Linn. Konch 84 Nardostachys jatamansi DC. Jatamansi 85 Ocimum sanctum Linn. Tulsi 86 Onosma hispidum Wall. ex Don Ratanjot 87 Oroxylum indicum Vent. Syonaka 88 Panax pseudo-ginseng Wall. Ginseng 89 Phyllanthus amarus Schum & Thonn. Bhumi amlaki 90 Picrorhiza kurroa Benth. ex Royle Kutki 91 Piper cubeba Linn. f. Kababchini 92 Piper longum Linn. Pippali 93 Plantago ovata Forks Isabgol 94 Pluchea lanceolata (DC) CB Clark. Rasna 95 Plumbago rosea Linn. Leadwort 96 Plumbago rosea Linn. Chitrak 97 Podophyllum hexandrum Royle. Bankakri 98 Polygonatum cirrhifolium Wall. Mahameda 99 Premna integrifolia Linn. Agnimanth 100 Pseudarthria viscida (Linn.) Wight & Arn. Moovila 101 Psoralea corylifolia Linn. Bakuchi 102 Pterocarpus marsupium Roxb. Beejasar 103 Pterocarpus santalinus L.f Raktachandan 104 Pueraria tuberosa DC. Vidarikand 105 Rauvolfia serpentina Benth. ex Kurz Sarpgandha 106 Rheum emodi Wall. ex Meisn. Archa 107 Rubia cordifolia Linn. Manjishtha 108 Salacia reticulata Wright Saptachakra (Saptarangi) 109 Santalum album Linn. Chandan 110 Saraca asoca (Roxb.) De Wilde Ashok 111 Saussurea costus C.B. Clarke Kuth, Kustha 112 Sida cordifolia Linn. Flannel weed	80	Mappia foetida Miers.	Ghanera
83 Mucuna pruriens Linn. Konch 84 Nardostachys jatamansi DC. Jatamansi 85 Ocimum sanctum Linn. Tulsi 86 Onosma hispidum Wall. ex Don Ratanjot 87 Oroxylum indicum Vent. Syonaka 88 Panax pseudo-ginseng Wall. Ginseng 89 Phyllanthus amarus Schum & Thonn. Bhumi amlaki 90 Picrorhiza kurroa Benth. ex Royle Kutki 91 Piper cubeba Linn. f. Kababchini 92 Piper longum Linn. Pippali 93 Plantago ovata Forks Isabgol 94 Pluchea lanceolata (DC) CB Clark. Rasna 95 Plumbago rosea Linn. Chitrak 96 Plumbago zeylanica Linn. Chitrak 97 Podophyllum hexandrum Royle. Bankakri 98 Polygonatum cirrhifolium Wall. Mahameda 99 Premna integrifolia Linn. Agnimanth 100 Pseudarthria viscida (Linn.) Wight & Arn. Moovila 101 Psoralea corylifolia Linn. Bakuchi 102 Pterocarpus marsupium Roxb. Beejasar 103 Pterocarpus santalinus L.f. Raktachandan 104 Pueraria tuberosa DC. Vidarikand 105 Rauvolffa serpentina Benth. ex Kurz Sarpgandha 106 Rheum emodi Wall. ex Meisn. Archa 107 Rubia cordifolia Linn. Manjishtha 108 Salacia reticulata Wright Saptachakra (Saptarangi) 109 Santalum album Linn. Chandan 110 Saraca asoca (Roxb.) De Wilde Ashok 111 Saussurea costus C.B. Clarke Kuth, Kustha 112 Sida cordifolia Linn. Flannel weed	81	Mesua ferrea Linn.	Nagakeshar
84 Nardostachys jatamansi DC. Jatamansi 85 Ocimum sanctum Linn. Tulsi 86 Onosma hispidum Wall. ex Don Ratanjot 87 Oroxylum indicum Vent. Syonaka 88 Panax pseudo-ginseng Wall. Ginseng 89 Phyllanthus amarus Schum & Thonn. Bhumi amlaki 90 Picrorhiza kurroa Benth. ex Royle Kutki 91 Piper cubeba Linn. f. Kababchini 92 Piper longum Linn. Pippali 93 Plantago ovata Forks Isabgol 94 Pluchea lanceolata (DC) CB Clark. Rasna 95 Plumbago rosea Linn. Leadwort 96 Plumbago zeylanica Linn. Chitrak 97 Podophyllum hexandrum Royle. Bankakri 98 Polygonatum cirrhifolium Wall. Mahameda 99 Premna integrifolia Linn. Agnimanth 100 Pseudarthria viscida (Linn.) Wight & Arn. Moovila 101 Psoralea corylifolia Linn. Bakuchi 102 Pterocarpus marsupium Roxb. Beejasar 103 Pterocarpus santalinus L.f	82	Moringa olifera Lam.	Sahjan
85 Ocimum sanctum Linn. Tulsi 86 Onosma hispidum Wall. ex Don Ratanjot 87 Oroxylum indicum Vent. Syonaka 88 Panax pseudo-ginseng Wall. Ginseng 89 Phyllanthus amarus Schum & Thonn. Bhumi amlaki 90 Picrorhiza kurroa Benth. ex Royle Kutki 91 Piper cubeba Linn. f. Kababchini 92 Piper longum Linn. Pippali 93 Plantago ovata Forks Isabgol 94 Pluchea lanceolata (DC) CB Clark. Rasna 95 Plumbago rosea Linn. Leadwort 96 Plumbago zeylanica Linn. Chitrak 97 Podophyllum hexandrum Royle. Bankakri 98 Polygonatum cirrhifolium Wall. Mahameda 99 Premna integrifolia Linn. Agnimanth 100 Pseudarthria viscida (Linn.) Wight & Arn. Moovila 101 Psoralea corylifolia Linn. Bakuchi 102 Pterocarpus marsupium Roxb. Beejasar 103 Pterocarpus santalinus L.f Raktachandan 104 Pueraria tuberosa DC. Vidarikand 105 Rauvolfia serpentina Benth. ex Kurz Sarpgandha 106 Rheum emodi Wall. ex Meisn. Archa 107 Rubia cordifolia Linn. Manjishtha 108 Salacia reticulata Wright Saptachakra (Saptarangi) 109 Santalum album Linn. Chandan 110 Saraca asoca (Roxb.) De Wilde Ashok 111 Saussurea costus C.B. Clarke Kuth, Kustha 112 Sida cordifolia Linn. Flannel weed	83	Mucuna pruriens Linn.	Konch
86 Onosma hispidum Wall. ex Don Ratanjot 87 Oroxylum indicum Vent. Syonaka 88 Panax pseudo-ginseng Wall. Ginseng 89 Phyllanthus amarus Schum & Thonn. Bhumi amlaki 90 Picrorhiza kurroa Benth. ex Royle Kutki 91 Piper cubeba Linn. f. Kababchini 92 Piper longum Linn. Pippali 93 Plantago ovata Forks Isabgol 94 Pluchea lanceolata (DC) CB Clark. Rasna 95 Plumbago rosea Linn. Leadwort 96 Plumbago zeylanica Linn. Chitrak 97 Podophyllum hexandrum Royle. Bankakri 98 Polygonatum cirrhifolium Wall. Mahameda 99 Premna integrifolia Linn. Agnimanth 100 Pseudarthria viscida (Linn.) Wight & Arn. Moovila 101 Psoralea corylifolia Linn. Bakuchi 102 Pterocarpus marsupium Roxb. Beejasar 103 Pterocarpus santalinus L.f Raktachandan 104 Pueraria tuberosa DC. Vidarikand 105 Rauvolfia serpentina Benth. ex Kurz Sarpgandha 106 Rheum emodi Wall. ex Meisn. Archa 107 Rubia cordifolia Linn. Manjishtha 108 Salacia reticulata Wright Saptachakra (Saptarangi) 109 Santalum album Linn. Chandan 110 Saraca asoca (Roxb.) De Wilde Ashok 111 Saussurea costus C.B. Clarke Kuth, Kustha 112 Sida cordifolia Linn. Flannel weed	84	Nardostachys jatamansi DC.	Jatamansi
87 Oroxylum indicum Vent. Syonaka 88 Panax pseudo-ginseng Wall. Ginseng 89 Phyllanthus amarus Schum & Thonn. Bhumi amlaki 90 Picrorhiza kurroa Benth. ex Royle Kutki 91 Piper cubeba Linn. f. Kababchini 92 Piper longum Linn. Pippali 93 Plantago ovata Forks Isabgol 94 Pluchea lanceolata (DC) CB Clark. Rasna 95 Plumbago rosea Linn. Leadwort 96 Plumbago zeylanica Linn. Chitrak 97 Podophyllum hexandrum Royle. Bankakri 98 Polygonatum cirrhifolium Wall. Mahameda 99 Premna integrifolia Linn. Agnimanth 100 Pseudarthria viscida (Linn.) Wight & Arn. Moovila 101 Psoralea corylifolia Linn. Bakuchi 102 Pterocarpus marsupium Roxb. Beejasar 103 Pterocarpus santalinus L.f Raktachandan 104 Pueraria tuberosa DC. Vidarikand 105 Rauvolfia serpentina Benth. ex Kurz Sarpgandha 106 Rheum emodi Wall. ex Meisn. Archa 107 Rubia cordifolia Linn. Manjishtha 108 Salacia reticulata Wright Saptachakra (Saptarangi) 109 Santalum album Linn. Chandan 110 Saraca asoca (Roxb.) De Wilde Ashok 111 Saussurea costus C.B. Clarke Kuth, Kustha 112 Sida cordifolia Linn. Flannel weed	85	Ocimum sanctum Linn.	Tulsi
88 Panax pseudo-ginseng Wall. 99 Phyllanthus amarus Schum & Thonn. 90 Picrorhiza kurroa Benth. ex Royle 91 Piper cubeba Linn. f. 92 Piper longum Linn. 93 Plantago ovata Forks 94 Pluchea lanceolata (DC) CB Clark. 95 Plumbago rosea Linn. 96 Plumbago zeylanica Linn. 97 Podophyllum hexandrum Royle. 98 Polygonatum cirrhifolium Wall. 99 Premna integrifolia Linn. 100 Pseudarthria viscida (Linn.) Wight & Arn. 101 Psoralea corylifolia Linn. 102 Pterocarpus marsupium Roxb. 103 Pterocarpus santalinus L.f 104 Pueraria tuberosa DC. 105 Rauvolfia serpentina Benth. ex Kurz 106 Rheum emodi Wall. ex Meisn. 107 Rubia cordifolia Linn. 108 Salacia reticulata Wright 109 Santalum album Linn. 100 Chandan 110 Saraca asoca (Roxb.) De Wilde 111 Saussurea costus C.B. Clarke Kutth, Kustha 112 Sida cordifolia Linn. Flannel weed	86	Onosma hispidum Wall. ex Don	Ratanjot
89 Phyllanthus amarus Schum & Thonn. Bhumi amlaki 90 Picrorhiza kurroa Benth. ex Royle Kutki 91 Piper cubeba Linn. f. Kababchini 92 Piper longum Linn. Pippali 93 Plantago ovata Forks Isabgol 94 Pluchea lanceolata (DC) CB Clark. Rasna 95 Plumbago rosea Linn. Leadwort 96 Plumbago zeylanica Linn. Chitrak 97 Podophyllum hexandrum Royle. Bankakri 98 Polygonatum cirrhifolium Wall. Mahameda 99 Premna integrifolia Linn. Agnimanth 100 Pseudarthria viscida (Linn.) Wight & Arn. Moovila 101 Psoralea corylifolia Linn. Bakuchi 102 Pterocarpus marsupium Roxb. Beejasar 103 Pterocarpus santalinus L.f Raktachandan 104 Pueraria tuberosa DC. Vidarikand 105 Rauvolfia serpentina Benth. ex Kurz Sarpgandha 106 Rheum emodi Wall. ex Meisn. Archa 107 Rubia cordifolia Linn. Manjishtha 108 Salacia reticulata Wright Saptachakra (Saptarangi) 109 Santalum album Linn. Chandan 110 Saraca asoca (Roxb.) De Wilde Ashok 111 Saussurea costus C.B. Clarke Kuth, Kustha 112 Sida cordifolia Linn. Flannel weed	87	Oroxylum indicum Vent.	Syonaka
90 Picrorhiza kurroa Benth. ex Royle 91 Piper cubeba Linn. f. 92 Piper longum Linn. 93 Plantago ovata Forks 94 Pluchea lanceolata (DC) CB Clark. 95 Plumbago rosea Linn. 96 Plumbago zeylanica Linn. 97 Podophyllum hexandrum Royle. 98 Polygonatum cirrhifolium Wall. 99 Premna integrifolia Linn. 90 Pseudarthria viscida (Linn.) Wight & Arn. 91 Psoralea corylifolia Linn. 92 Pterocarpus marsupium Roxb. 93 Pterocarpus santalinus L.f 94 Raktachandan 95 Pterocarpus marsupium Roxb. 96 Polygonatum cirrhifolium Wall. 97 Podophyllum hexandrum Royle. 98 Polygonatum cirrhifolium Wall. 99 Premna integrifolia Linn. 99 Premna integrifolia Linn. 90 Pseudarthria viscida (Linn.) Wight & Arn. 91 Psoralea corylifolia Linn. 91 Psoralea corylifolia Linn. 91 Pterocarpus marsupium Roxb. 91 Pterocarpus marsupium Roxb. 92 Pterocarpus marsupium Roxb. 93 Pterocarpus santalinus L.f 94 Raktachandan 95 Pterocarpus santalinus L.f 96 Raktachandan 97 Podophyllum hexandrum Royle. 98 Polygonatum Royle. 99 Premna integrifolia Linn. 90 Psoralea corylifolia Linn. 90 Psoralea corylifolia Linn. 91 Psoralea corylifo	88	Panax pseudo-ginseng Wall.	Ginseng
91 Piper cubeba Linn. f. Kababchini 92 Piper longum Linn. Pippali 93 Plantago ovata Forks Isabgol 94 Pluchea lanceolata (DC) CB Clark. Rasna 95 Plumbago rosea Linn. Leadwort 96 Plumbago zeylanica Linn. Chitrak 97 Podophyllum hexandrum Royle. Bankakri 98 Polygonatum cirrhifolium Wall. Mahameda 99 Premna integrifolia Linn. Agnimanth 100 Pseudarthria viscida (Linn.) Wight & Arn. Moovila 101 Psoralea corylifolia Linn. Bakuchi 102 Pterocarpus marsupium Roxb. Beejasar 103 Pterocarpus santalinus L.f Raktachandan 104 Pueraria tuberosa DC. Vidarikand 105 Rauvolfia serpentina Benth. ex Kurz Sarpgandha 106 Rheum emodi Wall. ex Meisn. Archa 107 Rubia cordifolia Linn. Manjishtha 108 Salacia reticulata Wright Saptachakra (Saptarangi) 109 Santalum album Linn. Chandan 110 Saraca asoca (Roxb.) De Wilde Ashok 111 Saussurea costus C.B. Clarke Kuth, Kustha 112 Sida cordifolia Linn. Flannel weed	89	Phyllanthus amarus Schum & Thonn.	Bhumi amlaki
92 Piper longum Linn. 93 Plantago ovata Forks 94 Pluchea lanceolata (DC) CB Clark. 95 Plumbago rosea Linn. 96 Plumbago zeylanica Linn. 97 Podophyllum hexandrum Royle. 98 Polygonatum cirrhifolium Wall. 99 Premna integrifolia Linn. 100 Pseudarthria viscida (Linn.) Wight & Arn. 101 Psoralea corylifolia Linn. 102 Pterocarpus marsupium Roxb. 103 Pterocarpus santalinus L.f 104 Pueraria tuberosa DC. 105 Rauvolfia serpentina Benth. ex Kurz 106 Rheum emodi Wall. ex Meisn. 107 Rubia cordifolia Linn. 108 Salacia reticulata Wright 109 Santalum album Linn. 100 Chandan 110 Saraca asoca (Roxb.) De Wilde 111 Saussurea costus C.B. Clarke 112 Sida cordifolia Linn. Flannel weed	90	Picrorhiza kurroa Benth. ex Royle	Kutki
93 Plantago ovata Forks 94 Pluchea lanceolata (DC) CB Clark. 95 Plumbago rosea Linn. 96 Plumbago zeylanica Linn. 97 Podophyllum hexandrum Royle. 98 Polygonatum cirrhifolium Wall. 99 Premna integrifolia Linn. 100 Pseudarthria viscida (Linn.) Wight & Arn. 101 Psoralea corylifolia Linn. 102 Pterocarpus marsupium Roxb. 103 Pterocarpus santalinus L.f 104 Pueraria tuberosa DC. 105 Rauvolfia serpentina Benth. ex Kurz 106 Rheum emodi Wall. ex Meisn. 107 Rubia cordifolia Linn. 108 Salacia reticulata Wright 109 Santalum album Linn. 109 Saraca asoca (Roxb.) De Wilde 110 Sida cordifolia Linn. 111 Saussurea costus C.B. Clarke 112 Sida cordifolia Linn. 112 Sida cordifolia Linn. 113 Flannel weed	91	Piper cubeba Linn. f.	Kababchini
94 Pluchea lanceolata (DC) CB Clark. 95 Plumbago rosea Linn. 96 Plumbago zeylanica Linn. 97 Podophyllum hexandrum Royle. 98 Polygonatum cirrhifolium Wall. 99 Premna integrifolia Linn. 100 Pseudarthria viscida (Linn.) Wight & Arn. 101 Psoralea corylifolia Linn. 102 Pterocarpus marsupium Roxb. 103 Pterocarpus santalinus L.f 104 Pueraria tuberosa DC. 105 Rauvolfia serpentina Benth. ex Kurz 106 Rheum emodi Wall. ex Meisn. 107 Rubia cordifolia Linn. Manjishtha 108 Salacia reticulata Wright 109 Santalum album Linn. Saussurea costus C.B. Clarke Kuth, Kustha Flannel weed	92	Piper longum Linn.	Pippali
95 Plumbago rosea Linn. 96 Plumbago zeylanica Linn. 97 Podophyllum hexandrum Royle. 98 Polygonatum cirrhifolium Wall. 99 Premna integrifolia Linn. 100 Pseudarthria viscida (Linn.) Wight & Arn. 101 Psoralea corylifolia Linn. 102 Pterocarpus marsupium Roxb. 103 Pterocarpus santalinus L.f. 104 Pueraria tuberosa DC. 105 Rauvolfia serpentina Benth. ex Kurz 106 Rheum emodi Wall. ex Meisn. 107 Rubia cordifolia Linn. 108 Salacia reticulata Wright 109 Santalum album Linn. 109 Saraca asoca (Roxb.) De Wilde 110 Sida cordifolia Linn. 1110 Sarasea costus C.B. Clarke 112 Sida cordifolia Linn. 114 Flannel weed	93	Plantago ovata Forks	Isabgol
96 Plumbago zeylanica Linn. 97 Podophyllum hexandrum Royle. 98 Polygonatum cirrhifolium Wall. 99 Premna integrifolia Linn. 100 Pseudarthria viscida (Linn.) Wight & Arn. 101 Psoralea corylifolia Linn. 102 Pterocarpus marsupium Roxb. 103 Pterocarpus santalinus L.f 104 Pueraria tuberosa DC. 105 Rauvolfia serpentina Benth. ex Kurz 106 Rheum emodi Wall. ex Meisn. 107 Rubia cordifolia Linn. 108 Salacia reticulata Wright 109 Santalum album Linn. 110 Saraca asoca (Roxb.) De Wilde 111 Saussurea costus C.B. Clarke 112 Sida cordifolia Linn. Flannel weed	94	Pluchea lanceolata (DC) CB Clark.	Rasna
97 Podophyllum hexandrum Royle. 98 Polygonatum cirrhifolium Wall. 99 Premna integrifolia Linn. 100 Pseudarthria viscida (Linn.) Wight & Arn. 101 Psoralea corylifolia Linn. 102 Pterocarpus marsupium Roxb. 103 Pterocarpus santalinus L.f 104 Pueraria tuberosa DC. 105 Rauvolfia serpentina Benth. ex Kurz 106 Rheum emodi Wall. ex Meisn. 107 Rubia cordifolia Linn. 108 Salacia reticulata Wright 109 Santalum album Linn. 110 Saraca asoca (Roxb.) De Wilde 111 Saussurea costus C.B. Clarke 112 Sida cordifolia Linn. Flannel weed	95	Plumbago rosea Linn.	Leadwort
98 Polygonatum cirrhifolium Wall. 99 Premna integrifolia Linn. 100 Pseudarthria viscida (Linn.) Wight & Arn. 101 Psoralea corylifolia Linn. 102 Pterocarpus marsupium Roxb. 103 Pterocarpus santalinus L.f Raktachandan 104 Pueraria tuberosa DC. 105 Rauvolfia serpentina Benth. ex Kurz Sarpgandha 106 Rheum emodi Wall. ex Meisn. 107 Rubia cordifolia Linn. 108 Salacia reticulata Wright Saptachakra (Saptarangi) 109 Santalum album Linn. 110 Saraca asoca (Roxb.) De Wilde 111 Saussurea costus C.B. Clarke 112 Sida cordifolia Linn. Flannel weed	96	Plumbago zeylanica Linn.	Chitrak
99 Premna integrifolia Linn. 100 Pseudarthria viscida (Linn.) Wight & Arn. 101 Psoralea corylifolia Linn. 102 Pterocarpus marsupium Roxb. 103 Pterocarpus santalinus L.f 104 Pueraria tuberosa DC. 105 Rauvolfia serpentina Benth. ex Kurz 106 Rheum emodi Wall. ex Meisn. 107 Rubia cordifolia Linn. 108 Salacia reticulata Wright 109 Santalum album Linn. 110 Saraca asoca (Roxb.) De Wilde 111 Saussurea costus C.B. Clarke 112 Sida cordifolia Linn. Manimanth Moovila Meejasar Raktachandan Vidarikand Sarpgandha Archa Sarpgandha Archa Manjishtha Saptachakra (Saptarangi) Chandan Ashok Kuth, Kustha	97	Podophyllum hexandrum Royle.	Bankakri
100 Pseudarthria viscida (Linn.) Wight & Arn. Moovila 101 Psoralea corylifolia Linn. Bakuchi 102 Pterocarpus marsupium Roxb. Beejasar 103 Pterocarpus santalinus L.f Raktachandan 104 Pueraria tuberosa DC. Vidarikand 105 Rauvolfia serpentina Benth. ex Kurz Sarpgandha 106 Rheum emodi Wall. ex Meisn. Archa 107 Rubia cordifolia Linn. Manjishtha 108 Salacia reticulata Wright Saptachakra (Saptarangi) 109 Santalum album Linn. Chandan 110 Saraca asoca (Roxb.) De Wilde Ashok 111 Saussurea costus C.B. Clarke Kuth, Kustha 112 Sida cordifolia Linn. Flannel weed	98	Polygonatum cirrhifolium Wall.	Mahameda
101 Psoralea corylifolia Linn. 102 Pterocarpus marsupium Roxb. 103 Pterocarpus santalinus L.f 104 Pueraria tuberosa DC. 105 Rauvolfia serpentina Benth. ex Kurz 106 Rheum emodi Wall. ex Meisn. 107 Rubia cordifolia Linn. 108 Salacia reticulata Wright 109 Santalum album Linn. 110 Saraca asoca (Roxb.) De Wilde 111 Saussurea costus C.B. Clarke 112 Sida cordifolia Linn. Bakuchi Rekuchi Relejasar Raktachandan Vidarikand Sarpgandha Archa Manjishtha Saptachakra (Saptarangi) Chandan Ashok Kuth, Kustha	99	Premna integrifolia Linn.	Agnimanth
102Pterocarpus marsupium Roxb.Beejasar103Pterocarpus santalinus L.fRaktachandan104Pueraria tuberosa DC.Vidarikand105Rauvolfia serpentina Benth. ex KurzSarpgandha106Rheum emodi Wall. ex Meisn.Archa107Rubia cordifolia Linn.Manjishtha108Salacia reticulata WrightSaptachakra (Saptarangi)109Santalum album Linn.Chandan110Saraca asoca (Roxb.) De WildeAshok111Saussurea costus C.B. ClarkeKuth, Kustha112Sida cordifolia Linn.Flannel weed	100	Pseudarthria viscida (Linn.) Wight & Arn.	Moovila
103 Pterocarpus santalinus L.f Raktachandan 104 Pueraria tuberosa DC. Vidarikand 105 Rauvolfia serpentina Benth. ex Kurz Sarpgandha 106 Rheum emodi Wall. ex Meisn. Archa 107 Rubia cordifolia Linn. Manjishtha 108 Salacia reticulata Wright Saptachakra (Saptarangi) 109 Santalum album Linn. Chandan 110 Saraca asoca (Roxb.) De Wilde Ashok 111 Saussurea costus C.B. Clarke Kuth, Kustha 112 Sida cordifolia Linn. Flannel weed	101	Psoralea corylifolia Linn.	Bakuchi
104Pueraria tuberosa DC.Vidarikand105Rauvolfia serpentina Benth. ex KurzSarpgandha106Rheum emodi Wall. ex Meisn.Archa107Rubia cordifolia Linn.Manjishtha108Salacia reticulata WrightSaptachakra (Saptarangi)109Santalum album Linn.Chandan110Saraca asoca (Roxb.) De WildeAshok111Saussurea costus C.B. ClarkeKuth, Kustha112Sida cordifolia Linn.Flannel weed	102	Pterocarpus marsupium Roxb.	Beejasar
105Rauvolfia serpentina Benth. ex KurzSarpgandha106Rheum emodi Wall. ex Meisn.Archa107Rubia cordifolia Linn.Manjishtha108Salacia reticulata WrightSaptachakra (Saptarangi)109Santalum album Linn.Chandan110Saraca asoca (Roxb.) De WildeAshok111Saussurea costus C.B. ClarkeKuth, Kustha112Sida cordifolia Linn.Flannel weed	103	Pterocarpus santalinus L.f	Raktachandan
106Rheum emodi Wall. ex Meisn.Archa107Rubia cordifolia Linn.Manjishtha108Salacia reticulata WrightSaptachakra (Saptarangi)109Santalum album Linn.Chandan110Saraca asoca (Roxb.) De WildeAshok111Saussurea costus C.B. ClarkeKuth, Kustha112Sida cordifolia Linn.Flannel weed	104	Pueraria tuberosa DC.	Vidarikand
106Rheum emodi Wall. ex Meisn.Archa107Rubia cordifolia Linn.Manjishtha108Salacia reticulata WrightSaptachakra (Saptarangi)109Santalum album Linn.Chandan110Saraca asoca (Roxb.) De WildeAshok111Saussurea costus C.B. ClarkeKuth, Kustha112Sida cordifolia Linn.Flannel weed	105	Rauvolfia serpentina Benth. ex Kurz	Sarpgandha
108 Salacia reticulata Wright Saptachakra (Saptarangi) 109 Santalum album Linn. Chandan 110 Saraca asoca (Roxb.) De Wilde Ashok 111 Saussurea costus C.B. Clarke Kuth, Kustha 112 Sida cordifolia Linn. Flannel weed	106	Rheum emodi Wall. ex Meisn.	
109Santalum album Linn.Chandan110Saraca asoca (Roxb.) De WildeAshok111Saussurea costus C.B. ClarkeKuth, Kustha112Sida cordifolia Linn.Flannel weed	107	Rubia cordifolia Linn.	Manjishtha
110Saraca asoca (Roxb.) De WildeAshok111Saussurea costus C.B. ClarkeKuth, Kustha112Sida cordifolia Linn.Flannel weed	108	Salacia reticulata Wright	Saptachakra (Saptarangi)
111Saussurea costus C.B. ClarkeKuth, Kustha112Sida cordifolia Linn.Flannel weed	109	Santalum album Linn.	Chandan
112 Sida cordifolia Linn. Flannel weed	110	Saraca asoca (Roxb.) De Wilde	Ashok
	111	Saussurea costus C.B. Clarke	Kuth, Kustha
113 Smilax china Linn. Hrddhatri	112	Sida cordifolia Linn.	Flannel weed
	113	Smilax china Linn.	Hrddhatri

114	Solanum anguivi Lam.	Katheli-badhi
115	Solanum nigrum Linn.	Makoy
116	Stereospermum suaveolens DC.	Patala
117	Stevia rebaudiana Bertoni	Madhukari
118	Swertia chirayita Buch-Ham	Chirata
119	Symplocos racemosa Roxb	Lodh/Pathani
120	Tacomella undulata (Sm.) Seem.	Rohitak
121	Taxus wallichiana Linn.	Thuner, Talispatra
122	Tephrosia purpurea Pers	Pawad, Sharapunkha
123	Terminalia arjuna (Roxb.) Wt. &Arn.	Arjuna
124	Terminalia bellirica Gaertn.	Behera
125	Terminalia chebula Retz.	Harad
126	Tinospora cordifolia Miers	Giloe
127	Tragia involucrata Linn.	Barhanta
128	Trichosanthes cucumerina Linn.	Patolpanchang
129	Tricopus zeylanicus Gärtner.	Jeevani
130	Tylophora asthmatica (L.f.) Wight & Arn.	Damabooti
131	Uraria picta (Jacq.) Desv.	Prishnaparni
132	Valeriana hardwickii Wall.	Tagar-ganth
133	Valeriana wallichii DC.	Indian Valerian
134	Vateria indica Linn.	Mandadhupa, Dupa
135	Vetiveria zizanioides (Linn.) Nash	Khas- khas grass
136	Viola odorata Linn.	Bunafsha
137	Vitex negundo Linn.	Nirgundi
138	Withania somnifera (Linn.) Dunal	Ashwagandha
139	Woodfordia fruticosa Kurz.	Dhataki
140	Zanthoxylum alatum DC.	Timoor

FORMAT FOR SUBMITTING DETAILED INTEGRATED PROJECT PROPOSALS

1.0	Back	ground Information (Base line Survey)	Information					
			to be furnis hed					
			neu					
	1.1	Geography and Climate						
		Coography and Chinate						
	1.2	Potential for proposed Medicinal Plant species based on demand and supply and market availability						
	1.3	Existing infrastructure [ware house/cold storages, markets, Mandis, manufacturing units, nurseries (public/private sector), R&D institutions, testing laboratories/ certification agencies, farmers associations/ cooperatives/ SHGs]						
	1.4	4 Land availability with organization along with GPS location						
	1.5	Status on existing proposed medicinal plants availability and demand of industries in the state						
	1.6	Any other information						
2.0	Proje	ect proposal						
	2.1	Objective and strategy						
	2.2	Project Implementing Agency with contact address, phone, e-mail ID						
	2.3	Salient aspects of the Project and the component wise implementation details of integrated projects with time lines and how different organizations are proposed to be brought together to achieve objectives						
	2.4	Component wise physical targets and financial outlays - details of Seed Germplasm Centre / nursery, IEC activities,-Post-harvest management infrastructure, Quality testing and Certification.						

2.4.1	Infrastructur	e for QPM	(Layout to b	e provided)				
	Name of Activity	No.of unit	Financial Assistance (in lakh)	No. of *Beneficiaries (to be covered)	No. of Saplings to be Raised / seeds to be obtained			
(a)	Seed Germ Plasm Center							
(b)	Model Nursery							
(c)	Small Nursery							
2.4.2	IEC Activities		Financial Assistance	Level of Activities	No. of Farmers	Objective		
(a)	Trainings of Farmers (for a minimum of two days)							
(b)	Buyer seller Meet							
2.4.3	Infrastructu provided)	e for Post - Harvest Management and Marketing (Layout to be						
	Name of Activity	No.of unit	Financial Assistance (in lakh)		Total Area Proposed for Construction	GPS Location		
(a)	Drying Yard							
(b)	Storage Godown							
(c)	Value addition							
(d)	Rural Collection Centre							
2.4.4	Quality testing							
		Testing Charges	No. of Samples	Financial Assistance (in lakh)	Name of Species	Name of Ayush / NABL Accredited Labs		

		2.4.5	Certification										
				Area Covered (in ha.)	Financial Assistance (in lakh)	Name of Species	Name of Certifying Agency	GPS Location					
3.0	Lin	kages	ages										
	3.1	With	With R&D Institutions/Facilitation centres										
	3.2	With	With AYUSH industry (Manufacturing units/traders for marketing)										
4.0	An	nexur	е										
			GIS Mapping of the State giving potential identified areas and location of existing and the proposed infrastructure under the project										
		Details of nursery, Seed Germ Plasm centre, Post-harvest Management Infrastructure.											
		The Sketch plan of the area under nursery / Seed Germ Plasm Centres / PHM / Marketing / Value addition showing location of infrastructure components and land utilization.											

*Details of Beneficiary

1 -	Name of Beneficiary	Aadhar No.	Detail Along with District	Name of Species to be raised	Area to be Covered Under Cultivation (ha.)	Yield (in	Any other information, if any
	Total						

Note – PI may ensure that the activities proposed / organized should not overlap with any other scheme of Central or State Government.

FORMAT FOR SUBMITTING DETAILED PROJECT REPORT FOR SUPPLY OF QUALITY PLANTING MATERIAL UNDER INTEGRATED COMPONENT

Nursery and Seed Germ Plasm Centre

1.	Name	of the	Organization	า		:						
2.	Status	of Or	ganization			:						
3.	with P	hone/F	ull Address: ax/E-mail									
4.	Financ	ial As	sistance Rec	eived (in l	akh)							
5.	Locati Centre		the nursery	/Seed Ge	rmplasm	:						
	1.	State										
	2.	Distri	ct									
	3.	Towr	or village									
Nearest Railway Station												
	5.	Land	Survey No.									
	6.	GPS	Location									
6.			neficiaries configuration		der the							
7.		. •	s Raised/ Q Kg or Tone	•	Seeds							
		r Inclu	f the Nursery ding Mother			:						
	Details	of Mo	other Plants:									
	1. Mot	her P	ants availat	ole with th	e organisa	ation						
	Ai Ha		Crop/ Variety		Source Planting Material	Age	of P	lants		Performance Record		
						Yea	rs	Months	Yes	No		
	2. Mot	her P	ants taken f	from othe	r Source			1	1			

			Source material	of planting	g	Addre	Address			Performance Record				
	3. Details of Mother Plants:													
		Area Ha	in	Crop	Plants		Source A Planting Material		Age of	Age of Plants		Performan		
									Years	Months	Yes	, <u> </u>	No	
8.	Met	hod c	of Q	РМ р	oropaga	tion:	<u> </u>							
9.	Deta	Details of the facilities for production of disease free planting material:												
	I. Tools & Equipments:													
	Sr. No. Name of the				the Eq	e Equipment's			Year of Purchase			Numbers		
	II. Plants & Machineries Including Tunnels, Shade-House and Poly-House: Type of Number Year of Erection Area/Dimension Remark													
	Typ Infr	e astru	ctu		Numbe	Number		Year of Erect		tion Area/[Dimension		
	III.	Α	ny	othe	rinform	ation							-	
10.	Sou	rce o	f Irr	igati	on:-									
		1. Gr	our	nd Wa	ater									
	2. Surface Water													
	;	3. Mi	cro	Irriga	ation (Dr	rip/Sprink	ler)							
11.	Stat	us of	lmp	leme	ntation	of Operat	ion M	anual						
	Flow Chart with Timeline For Production			Ne of F	Identification of Inp Necessary for Eac of Production with Specifications			h Stage Planting		entification of each lanting Material roduced		rd Keeping		

	Details of Technically qualified staff in the nursery / Seed Germ Plasm Centres and their training level								
	SI. No.	Name	Qualification	Training underwent, If Any					
13.	B. DECLARATION:								
	a) I hereby declare that information given above is true to the best of my knowledge and belief.								
				Signature of the Applicant					
	Place:								
	Date :								

*Detail of Beneficiaries

	Name of	Aadhar	Contact	Name of	No. of	Area	Yield
No.	Beneficiary	No.	Detail Along with District and village	Species	Saplings Distributed / seed distributed (in Kg)	Saplings	obtained per hectare (MT)
						(na.)	
	Total						

Signature of the Applica	ant
--------------------------	-----

	3
Place:	
Date:	

FORMAT FOR SUBMITTING DETAILED PROJECT REPORT FOR IEC ACTIVITIES (TRAINING PROGRAMMES AND BUYER SELLER MEET).

- 1. Title of event:
- 2. Name of organization:
- 3. Name, designation and address of Organising Secretary & Convener telephone/ Mobile/ Fax/ e-mail address:
- 4. Place and date for Buyer Seller Meet/Training programme:
- 5. Financial Assistance Received from NMPB (in lakh):
- 6. Amount utilized for the purpose:
- 7. Physical targets (for training and capacity building the details of the Resource persons, the target group trained, the details including the duration and number of training programmes and trainees and the subject matter of the training programme as well as buyer seller meet):
- 8. Course content (please specify day-wise with indicative schedule of lectures/ practical sessions:
- 9. Expertise available with the organization. (If certain expertise/skills were outsourced name the institutions/experts along with their consent):
- 10. Outputs and outcomes (both tangible and intangible), incremental incomes, employment, number of beneficiaries, gender development etc.:
 - a. Indicate important areas/ topics/ key speakers/ resource persons etc. along with likely list of participants.
 - b. In what way, the buyer seller meet and trainings contributed to the existing knowledge, particularly in respect of Medicinal Plants sector and recommendation (if any):
- 11. Please indicate the number of NMPB nominees/ nominees of other organization participated in buyer seller meet and Training
- 12. Any other relevant information:

Signature of Official with Stamp Signature of Organizing Secretary/ Head of the Institution with Stamp

Enclosures:

- 1. Photographs of the event
- 2. Report of the event
- 3. List of trainers in training
- 4. Participants in the buyer seller meet

FORMAT FOR SUBMITTING DETAILED PROJECT REPORT FOR POST HARVEST MANAGEMENT, VALUE ADDITION AND MARKETING INFRASTRUCTURE.

	Name of t organisati		•						
2.	Status of Organisat	ion							
	Name and Address v Phone/En	vith	• •						
	Fund rece	eived	••						
	Type of Infrastruc	cture	••	Assistance Received	infrastru (State, D Town on Nearest Station,	d Marketing uctures District, r village, Railway Land No. along	Area / Dimension	Capacity in	Species wise Volume Dried /Stored /Processed /traded Per annum MT
(a)	Drying Ya	ard							
(b)	Storage Godown								
(c)	Value Ad Infrastruc								
(d)	Rural Co Centre								
	Details of ral Collec				nt's ava	ailable in V	/alue Additio	on Infrastruc	cture and Ru
	Sr. No. Name of the Equipment's					Year of Pur	chase	Numbers	

7.	The Sketch plan of the area showing location of infrastructure, components and land utilized					
8.	Details of Technically qualified staff in the PHM and marketing infrastructure					
	SI. No.	Name	Qualification	Training undertaken, if any		
	DECLARATION: a) I hereby declare that information given above is true to the best of my knowledge and belief.					
				Signature of the Applicant		
	Place:					
	Date :					

*Detail of Beneficiaries

Name of	Stored / dried raw	Name of	Contact Detail Along	Yield per
Beneficiaries	material in tones	Species	with District and village	hectare
				(in MT)











Government of India Ministry of Ayush National Medicinal Plants Board

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