

Research and Development

Largest share of the world population, about 80%, rely on traditional medicines for their primary health care needs which are herbal and healer based. Beside this, viewing the harmful effects of synthetic chemicals, the inclination toward the herbal remedy is also increasing worldwide. In order to meet the increasing demand of quality medicinal plant material for trade and drug formulations both in domestic as well as international market, National Medicinal Plants Board (NMPB) is supporting Research & Development activity on various aspects of medicinal plants. In this regards the NMPB provides project based financial assistance to various research organization/ institutions for Research & Development on medicinal plants.

Key areas:

- Traceability of raw drugs from harvest to consumption level.
- Germination and seed treatment protocols and certification.
- Bio-prospecting, population assessments and conservation biology.
- 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 MASs 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.
- Environmental changes/ global warming and topographical variations in medicinal plants.
- Setting up of national and regional Botanical Reference Standards (BRS).
- Development of improved planting materials, germplasm bank and cultivars etc.
- Any other emerging issues or suggestions rendered by SFC.

Support for R&D

National Medicinal Plants Board (NMPB) provides funding for R&D projects. This section of NMPB website allows you to apply for online proposal submission, and to maintain your contact and biographical information if you have already received a grant from NMPB.

Themes for R&D

Proposals can be submitted round the year for area specific medicinal plants for the following themes:

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Who can apply?

- Institutions under CSIR, ICAR, ICFRE, ICMR, DBT, DST, Councils of Department of AYUSH etc.
- Universities recognised by the UGC
- Industry both in public as well as private sector with R&D facilities
- Non-government/Voluntary Organisations, with demonstrated expertise and infrastructure
- Government funded institutes/colleges with demonstrable track record infrastructure and expertise
- Individual Research Fellow M.Phil/ Ph.D/ Post Doctoral Fellowship (PDF) programme
Scholars for 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. (unto 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 SFC.

Norms of Assistance

NMPB facilitates financial assistance to carrying out high-priority conservation projects lasting between 3 and 5 years. Projects should improve medicinal plant based skills and attitudes, and reduce threats to biodiversity. The results from the projects should inform national action plans and international conservation priorities.

- 100% assistance for R&D Institutions/Universities in the public sector/Government aided college's etc.
- 50% assistance for organizations/labs/Institutions in private sector.

Before applying for a Grant, please read these criteria carefully to determine whether your project is eligible. You are also encouraged to review the current NMPB projects to see if there is already one in your area/subject before you apply.