GOVERNMENT OF INDIA MINISTRY OF AYUSH LOK SABHA UNSTARRED QUESTION NO. 814 TO BE ANSWERED ON 30.07.2024

'National Medicinal Plants Board (NMPB)'

814. Shri Sandosh Kumar P:

Will the Minister of Ayush be pleased to state:

- (a) the total fund allotted to National Medicinal Plants Board;
- (b) the list of projects funded under National Medicinal Plants Board, State-wise;
- (c) the key achievements of the board since its formation; and
- (d) the future plans for development under the National Medicinal Plants Board?

ANSWER

MINISTER OF STATE (INDEPENDENT CHARGE) MINISTRY OF AYUSH (SHRI PRATAPRAO JADHAV)

Ans. (a):

Yes Sir, National Medicinal Plants Board (NMPB), Ministry of Ayush is implementing the Central Sector Scheme for Conservation, Development and Sustainable Management of Medicinal Plants for overall development of Medicinal Plants Sector and the scheme is approved till 2025-26. The total fund allotted to NMPB is Rs.121322.50 lakhs since inception i.e. 2000-01 to 2023-24.

During the financial years 2008-09 to 2014-15, the Centrally Sponsored Scheme of National Mission on Medicinal Plants (NMMP) was also implemented by NMPB with the total allocation of Rs.37114.00 lakhs.

The respective year-wise details of total fund allotted to NMPB since 2000-01 to 2023-24 under both Central Sector Scheme and Centrally Sponsored Scheme are at **Annexure-I.**

Ans. (b):

National Medicinal Plants Board (NMPB), Ministry of Ayush, under its Central Sector Scheme (CSS) for 'Conservation, Development and Sustainable Management of Medicinal Plants' provides project based financial support to carryout research activities on various aspects of medicinal plants to government as well as private universities/research institutions/organizations across the country. Research & Development is one of the most important activities for the overall development of medicinal plants such as isolation of active constituents and their development into new therapeutics; standardization and validation of known herbal medicines and other related aspects; authentication of the botanical identity for ascertaining the genuineness of raw drug is also great concern in the market. The State-wise list of projects funded under NMPB since its inception is at **Annexure-II**.

Ans. (c): The detailed note on NMPB and key achievements of the board since its formation is detailed at **Annexure-III.**

Ans. (d): As per mandate of Scheme, NMPB provides financial subsidy to the eligible / suitable project proposals for development of Medicinal Plants Sector.

Ministry of Ayush National Medicinal Plants Board (NMPB)

(a) Ans. For Rajya Sabha Question No.814

The total fund allotted to National Medicinal Plants Board (NMPB) since inception i.e. 2000-01 to 2023-24 under Central Sector Scheme for Conservation, Development and Sustainable Management of Medicinal Plants (Central Sector Scheme) and under Centrally Sponsored Scheme of National Mission on Medicinal Plants (Centrally Sponsored Scheme - NMMP) during the period 2008-09 to 2014-15 is as detailed below:

(Rs. in lakhs)

S. No.	Year	Central Sector Scheme	Centrally Sponsored Scheme NMMP
1	2000-01	93.50	0.00
2	2001-02	4610.00	0.00
3	2002-03	2316.00	0.00
4	2003-04	2000.00	0.00
5	2004-05	2305.00	0.00
6	2005-06	3000.00	0.00
7	2006-07	3800.00	0.00
8	2007-08	8000.00	0.00
9	2008-09	4300.00	3000.00
10	2009-10	5000.00	3000.00
11	2010-11	5000.00	5000.00
12	2011-12	5800.00	5614.00
13	2012-13	6500.00	6500.00
14	2013-14	7000.00	7000.00
15	2014-15	7000.00	7000.00
16	2015-16	6888.00	0.00
17	2016-17	7000.00	0.00
18	2017-18	7100.00	0.00
19	2018-19	6249.00	0.00
20	2019-20	5950.00	0.00
21	2020-21	6000.00	0.00
22	2021-22	6213.00	0.00
23	2022-23	4849.00	0.00
24	2023-24	4349.00	0.00
r	Fotal	121322.50	37114.00

Ministry of Ayush National Medicinal Plants Board (NMPB)

b) Ans. For Rajya Sabha Question No.814: The State-wise list of projects funded by National Medicinal Plants Board (NMPB) under Central Sector Scheme for Conservation, Development and Sustainable Management of Medicinal Plants, since inception i.e. 2000-01 to 2024-25:

S. No.	State	Number of projects
1	Andaman & Nicobar Islands	8
2	Andhra Pradesh	66
3	Arunachal Pradesh	30
4	Assam	60
5	Bihar	1
6	Chhattisgarh	48
7	Chandigarh	6
8	Delhi	107
9	Dadra & Nagar Haveli	3
10	Daman & Diu	0
11	Goa	9
12	Gujarat	88
13	Haryana	31
14	Himachal Pradesh	59
15	Jammu & Kashmir	50
16	Jharkhand	21
17	Karnataka	139
18	Kerala	119
19	Ladakh	2
20	Lakshadweep	0
21	Madhya Pradesh	104
22	Maharashtra	120
23	Manipur	33
24	Meghalaya	13
25	Mizoram	38
26	Nagaland	20
27	Odisha	60
28	Puducherry	4
29	Punjab	34
30	Rajasthan	66
31	Sikkim	35
32	Tamil Nadu	135
33	Telangana	26
34	Tripura	17
35	Uttar Pradesh	104
36	Uttarakhand	137
37	West Bengal	67
	Total	1860

Government of India Ministry of Ayush National Medicinal Plants Board (NMPB)

c) Ans. For Rajya Sabha Question No.814

The key achievements of the board since its formation:

About National Medicinal Plants Board (NMPB):

The NMPB, Ministry of Ayush is implementing "Central Sector Scheme on Conservation, Development and Sustainable Management of Medicinal Plants" throughout the Country. Under the scheme, project based support is provided to State Forest Departments for Conservation, Resource Augmentation of medicinal plants and support to JFMCs/BMCs etc. for value addition and livelihood generation in forest areas. There is also provision to provide project based support to develop different types of Herbal Gardens viz. School Herbal Gardens, Institutional / Public Herbal Gardens, State and National importance and Nurseries / QPM / Projects. NMPB also provides financial assistance in project mode to various institutes/ organizations throughout the country to organise awareness programme, exposure visits and capacity building programmes (seminars / conferences / workshops, etc.) through Information Education and Communication (IEC) activities. The 'Forward and backward linkage in supply chain of medicinal plants' – Integrated Component has been added during the financial year 2023-24 in the Central Sector Scheme on "Conservation, Development and Sustainable Management of Medicinal Plants" under which there is a provision for financial assistance for following activities:

- Infrastructure for Quality Planting Material to raise the planting material of medicinal plants for cultivation.
- Information Education Communication (IEC) activities to aware the farmers.
- Infrastructure for Post-Harvest Management and Marketing to increase the marketability of the medicinal plants, adding value to the produce, increasing profitability and reducing losses.
- Quality Testing and Certification of raw material.

The key achievements of the board since its inception:

- i. Supported 72,138.37 hectare area under Resource Augmentation
- ii. Supported 12,727 hectare area under In-situ Conservation
- iii. Supported 22,260.45 hectare area under MPCDAs (112 in number)
- iv. Supported 2102.15 hectare area under revisit of old MPCAs (21 in number)
- v. 1189 number of JFMCs/Van Panchayat/BMCs supported for value addition activities like drying, primary processing, storage etc.
- vi. Supported 27712 gardens and 136 nurseries in the country.
- National Medicinal Plants Board (NMPB), Ministry of Ayush has established 8 (eight)
 Regional Cum Facilitation Centres (RCFCs) in the existing government Departments /
 Institutions (like Institution of ICAR, CSIR, ICFRE, Universities, AYUSH Institutions etc.)
 on project mode out of which 2 (two) RCFCs were closed and 6 (six) are ongoing. Through
 these RCFCs, 1,48,86,853 Quality Planting Material (QPM) of Medicinal Plants species
 developed, 463 Trainings organized and 25,490 farmers were trained.

• Raw Drug Repositories

Easy availability of authentic scientific data of the raw drugs will promote the research on the medicines belonging to AYUSH system which will lead to further propagation of these systems. Though most of our raw drugs are commonly available, there

is a lack of scientific documentation which makes research on these medicines very difficult. This also reduces the chances of commercial exploitation of these medicines. As a step in this direction, Ministry of AYUSH, through the National Medicinal Plants Board, has initiated establishment of National Raw Drug Repository and four Regional Raw Drug Repositories. Accordingly, NRDR has been established at Regional Ayurveda Research Institutes (CCRAS), Jhansi and three RRDR has also been supported include AIIA, New Delhi, NIA Jaipur National Institute of Siddha, Chennai and PCIM&H Ghaziabad. Details of RDR are as below:

S.	Regions	State/ UT	Organization/ Institutes	
No.				
1	Regional Raw Drug	Uttar	Pharmacopoeia Commission for	
	Repository -Gangetic Plain	Pradesh	Indian Medicine & Homoeopathy	
	Region		(PCIM&H), Ghaziabad	
2	Regional Raw Drug	New Delhi	All India Institute of Ayurveda,	
	Repository -Trans- Ganga		Sarita Vihar, New Delhi	
	Plain Region			
3	Regional Raw Drug	TamilNadu	National Institute of Siddha,	
	Repository -Southern Plateau		Chennai	
	Region		CCRUM	
			CCRS	
4	Regional Raw Drug	Rajasthan	National Institute of Ayurveda	
	Repository -Western Dry		(NIA), Jaipur	
	Region			
5	National Raw Drug	Uttar	Central Ayurveda Research	
	Repository	Pradesh	Institute (under CCRAS), Jhansi	

 Details of research projects supported on various aspects of medicinal plants under Central Sector Scheme for conservation, development and sustainable management of medicinal plants theme-wise since inception to till date i.e. during 2001-2002 to 2023-24 to different organizations throughout country are as below:

S.No.	Research Areas	No. of Projects
1	Bioactivity guided fractionation studies and pre-clinical studies	50
2	Development of agro techniques, standardization of nursery techniques and cultivation practices	79
3	Documentation and development of geo tag digital library	21
4	Finding out substitute and authentication of raw drugs	24
5	Genotype Identification, genetic improvement, genome study and germplasm collection & conservation	26
6	Intercropping and sustainable production technology	32
7	In-vitro propagation studies, micro-propagation chemical & molecular profiling and phyto-chemicals evaluation	95
8	Post-harvest Management, assessment of heavy metals and integrated pest management	56
9	Survey, identification, characterization and conservation of medicinal plants	29
10	Varietal development and prospect of marketing	11
	Total	423

• Publication:

- Agro-Techniques of 104 selected medicinal plants were published in three volumes.
- Success stories, compilation of research outcomes in handbook were also published as:
 - Various R&D activities of Medicinal Tree Species "Triphala".
 - o Various R&D initiatives on medicinal plant species used in "Dashamoola".
 - Monograph on Salacia
 - Vrikshayurveda for farmers
- Mahajon, B., Dwivedi, H., Vijayakumar, V., Sanwal, C. S., & Nesari, T. M. (2023). Research and development activities under central sector scheme of the National Medicinal Plants Board, India. Medicinal Plants-International Journal of Phytomedicines and Related Industries, 15(3), 610-618.
- Dadhich, Mahesh Kumar; Sanwal, Chandra Shekhar; Mahajon, Bidhan; ... Himanshu Dwivedi. Contributions of the National Medicinal Plants Board (NMPB), Ministry of Ayush in the medicinal plants sector An appraisal. International Journal of Ayurveda Research. 5(2):62-75, Apr-Jun 2024.
- Nesari, T. M., Sanwal, C., S Mahajon, B., Dwivedi, H., & R. Sharma (2024). A review on quantification of major phytoconstituents in commonly used
- medicinal plants. Medicinal Plants-International Journal of Phytomedicines and Related Industries, 16(2), 235-245.
- Under these sponsored /financially supported research projects, NMPB so far identified **05** unique projects which are novel in nature and patentable. The filings of IPR are published.
 - (1.) Bio-production of secondary metabolites from *Aegle marmelos* (R&D/TN-04/2006-07).
 - (2.) *In vitro* production of secondary metabolites from tree species of Dasamoola through hairy root cultures (R&D/TN-0112013-14-NMPB).
 - (3.) Development of anti-cancer and anti-inflammatory agents from *Dioscoria floribunda* (R&D/UP-04/2015-16).
 - (4) Cyto-morphological Phytochemical, Molecular Characterization and Formulation of New Herbal Product from selected species of Genus Berreris (L.) from Himachal Pradesh (R&D/HP-02/2019-20).
 - (5.) Post-harvest management practices for medicinal tuber crops (MP-01/2017-18).
- To provide a platform for trade of Medicinal Plants & to provide easy market access National Medicinal Plants Board (NMPB), Ministry of AYUSH has launched "e-CHARAK" mobile application as well as web portal for the promotion and marketing of medicinal plants/herbs. "e-CHARAK" is a platform to enable information exchange between various stakeholders mainly farmers involved in the medicinal plants sector across the country. The "e-CHARAK" application supports different local languages and it also provides fortnightly market price of 100 MPs from 25 herbal markets across India.
- NMPB has developed a helpline in collaboration with CDAC Hyderabad, to address specific issues faced by various stakeholders across Medicinal Plants supply chain viz, QPM Nursery, Cultivation, Plant Protection, Post-Harvest Management, Marketing etc. Medicinal Plants Stakeholders can access the helpline through web based application. The Helpline Toll-free no. is 1800-120-5778.
- NMPB has successfully supported project entitled "Study on Analysis of Supply and Value Chain of Major Medicinal Plants in Selected mandis and Marketing Channel of Medicinal Plants Produce at National Level" through Agricultural Finance Corporation Ltd.

- NMPB has successfully supported project entitled "Cost Benefits Analysis of Major Commercially Cultivated Medicinal Plant Species" through Agricultural Finance Corporation Ltd.
- NMPB has compiled a book entitled "Medicinal Plants in India: An Assessment of their Demand and Supply, Ved and Goraya (2017)".
- NMPB has successfully supported project entitled "To Collect Data of Raw Drugs Medicinal and Aromatic Plants Trader-Exporter-Importer-Extractor from approx. 50 Mandis of India" through Rawal Medherbs Consultants LLP, New Delhi.
- Conference/Seminar/Workshop/Training Program for promotion of Medicinal Plants: National Medicinal Plant Board, Ministry of Ayush has supported total 520 projects to institutes/organization to organise awareness Building program, Exposure Visits, Education and Capacity Building of Stakeholders through Information Education and Communication (IEC) strategy under Central Sector Scheme (CSS) for conservation, development and sustainable management of medicinal plants. More than, 14000 farmers were benefited for Good Agricultural Practices (GAPs) and Good Field Collection Practices (GFCPs) for medicinal plants through aforesaid trainings programme/Workshop/Seminar etc.
- Professor Ayushman- A Herbal Comic Books: NMPB in collaboration with Amar Chitra Katha, Mumbai has published three series of "Professor Ayushman' Comic Book for Children on Medicinal Plants & Their Values". Further, recently NMPB, Ministry of Ayush in collaboration with Amar Chitra Katha and Morarji Desai National Institute of Yoga (MDNIY) has launched a comic book on 'Professor Ayushman-Yoga Sepcial'.
- **Publication of Journal "Medicinal Plants":** NMPB, Ministry of Ayush in collaboration with Society for Conservation and Resource Development of Medicinal Plants (SMP), New Delhi has published a Journal 'Medicinal Plants' International Journal of Phyto medicines and related industries.
- Voluntary Certification Scheme for Medicinal Plant Produce (VCSMPP): NMPB, Ministry of Ayush in collaboration with the Quality Council of India (QCI), has launched a Voluntary Certification Scheme for Medicinal Plant Produce (VCSMPP) to encourage Good Agricultural Practices (GAP) and Good Field Collection Practices (GFCP) in medicinal plants and enhance quality and safety of these plants.
- Launched 20 Medicinal plants Folder for 2020: NMPB, Ministry of Ayush has launched 20 Medicinal Plants folder for 2020 to promote, cultivate and creating awareness among local people about rich diverse traditional knowledge on Medicinal Plants and their method of consuming and benefit throughout the country.
- E-Book "20 Medicinal Plants of '21 for Covid-19 Care": To create awareness on use of medicinal plants in Covid-19 care National Medicinal Plants Board, Ministry of Ayush has released an E-Book "20 Medicinal Plants of '21 for Covid-19 Care" which highlights the important medicinal plants and their therapeutic properties.
- Beside this, under Centrally Sponsored Scheme of National Mission on Medicinal Plants (NMMP) during the financial years 2008-09 to 2014-15, National Medicinal Plants Board (NMPB), Ministry of Ayush had supported 178968 hectare area under cultivation of medicinal plants, 1058 number of nurseries, 275 number of post-harvest management unit, 08 number of semi / processing units throughout the country.
