#### GOVERNMENT OF INDIA MINISTRY OF AYUSH

# LOK SABHA STARRED QUESTION NO.199 TO BE ANSWERED ON 10<sup>TH</sup> DECEMBER, 2021 RESEARCH AND DOCUMENTATION OF MEDICINAL PLANTS

# \*199. SHRI MITESH RAMESHBHAI PATEL (BAKABHAI): SHRIMATI SHARDABEN ANILBHAI PATEL:

Will the Minister of AYUSH be pleased to state

the steps taken by the Government for research and documentation of medicinal plants used by various tribal groups and villagers for the treatment of various types of diseases in the country along with the details thereof

# ANSWER THE MINISTER OF AYUSH

(SHRI SARBANANDA SONOWAL)

A Statement is laid on the Table of the House.

# STATEMENT REFERRED TO IN REPLY TO LOK SABHA STARRED QUESTION NO.199\* FOR 10<sup>TH</sup> DECEMBER, 2021

The Ministry of AYUSH through its Research Councils *viz*. Central Council for Research in Ayurvedic Sciences (CCRAS), Central Council for Research in Unani Medicine (CCRUM), Central Council for Research in Homoeopathy (CCRH) and Central Council for Research in Siddha (CCRS) are engaged in documentation & validation of medicinal plants used by various tribal groups and villagers for the treatment of various types of diseases.

- 1. CCRAS has initiated the Tribal Health Care Research Programme (THCRP)under Tribal Sub Plan (TSP) programme in 1982 in Arunachal Pradesh. Presently, it is continued at 14 peripheral institutes/units of CCRAS in 14 states/UTs, for documentation & validation of Local health traditions/Folklore used by Tribes related to the therapeutic use of Medicinal Plants(Annexure-I). In addition, CCRAS has documented/published the Local health traditions/ folk claims from tribal areas & other regions in the form of 22 books/monographs (Annexure II).
- 2. CCRUM has been undertaking the 'Survey and Cultivation of Medicinal Plants' program through its five Institutes namely the National Research Institute of Unani Medicine for Skin Disorders, Hyderabad and four Regional Research Institute of Unani Medicine, Srinagar, Aligarh, Bhadrak and Chennai(Annexure-III). Under the program, the Council has undertaken a series of ethno-botanical surveys in different forest division in different parts of the Country and documented 9,567 folklore claims which the Council has published in nine volumes (Annexure IV).
- 3. CCRH has a 'Research Centre for Medicinal Plants Research in Homoeopathy' in Tamil Nadu at Indira Nagar (Ooty), Emerald Post, Nilgiris District (T. N.). As a part of ethnobotanical surveys, in Niligiri tribes, documentation has been done on 157 plants used by tribes for 25 different diseases. The findings are published by CCRH in the book titled, "Plants in Ethnomedicine of the Nilgiri tribes in Tamil Nadu, India" in the year 2009. Out of these 09 drugs are validated for folklore claims in the research programs in Homoeopathy (Annexure V).
- 4. CCRS is involved through its a peripheral Unit of Siddha Medicinal Plants Garden (SMPG), Mettur Dam, Salem district, Tamilnadu, for documentation of ethno-medicinal uses of medicinal plants from the nearby tribal communities. Three projects, related to Ethno-botanical survey are supported under Intra-Mural Research (IMR) as:

- A) Medico-ethnobotanical study at Palamalai Hills.
- B) A survey on the ethno-medicinally important plants for common ailments in Tiruppur District, Tamil Nadu.
- C) Digitization of Herbarium, Museum and compilation of folklore claims of SMPU, Palayamkottai.

Under these projects six publications are made (Annexure VI).

In addition, the National Medicinal Plants Board (NMPB), Ministry of AYUSH, under its Central Sector Scheme on 'Conservation, Development and Sustainable Management of Medicinal Plants' has also supported R&D projects on 'documentation &validation of medicinal plants used by tribal groups'at Assam, Mizoram, Orissa, Uttarakhand and Uttar Pradesh States for the treatment of various diseases(Annexure VII).

In addition, Ministry of Tribal Affairs provides funds to State Tribal Research Institute/ renowned Research Institute for under taking research work on Tribal medicinal practices and medicinal plants under the schemes "Support to Tribal Research Institute" and 'Tribal Festival, Research Information and Mass Education'. The details of such sanctioned projects, State-wise/Union Territory-wise is at **Annexure VIII**.

## Annexure I

# List of the CCRAS Peripheral Institutes involved in Tribal Health Care Research Programme (THCRP)

Sl. No.	Names of the Institutes	
1.	Central Ayurveda Research Institute, Bhubaneswar, Odisha	
2.	M.S. Regional Ayurveda Research Institute, Jaipur, Rajasthan	
3.	Regional Ayurveda Research Institute, Gwalior, Madhya Pradesh	
4.	Regional Ayurveda Research Institute, Vijayawada, Andhra Pradesh	
5.	Regional Ayurveda Research Institute, Nagpur, Maharashtra	
6.	Central Ayurveda Research Institute, Bengaluru, Karnataka	
7.	Regional Ayurveda Research Institute, Patna, Bihar	
8.	Dr. Achanta Lakshmipati Regional Ayurveda Research Institute, Chennai, Tamil	
	Nadu	
9.	Central Ayurveda Research Institute, Guwahati, Assam	
10.	Regional Ayurveda Research Institute, Gangtok, Sikkim	
11.	Regional Ayurveda Research Institute, Jammu, J&K.	
12.	12. Regional Ayurveda Research Institute, Port Blair, Andaman and Nicobar Islands.	
13.	Regional Ayurveda Research Institute, Ahmedabad, Gujarat	
14.	Regional Ayurveda Research Centre, Agartala, Tripura.	

Annexure II

## List of Books and Monographs on Medico-Botanical Wealth/ Explorations published by CCRAS

SI.	Title of the Book / Monograph	Year of		
No.		Publication		
	Monographs			
1.	Tribal Pockets of Nilgiris Recordings of the Field Study on Medical Flora and Health Practices (English)	1976		
2.	Uttarakhand Vanoushadhi Darshika (English)	1977		
3.	Preliminary Techno Economical Survey of Natural Resources and Herbal 1978 Wealth of Laddakh (English)			
4.	Observations of Medico-Botany of Andaman-Nicobar Islands (English)	1980		
5.	Contribution to the Medico-Botany of East Godavari and West Godavari District of Andhra Pradesh (English)	1989		
6.	Medico-Botanical Exploration of Puri District, Orissa (English)	1989		
7.	Glimpses of Medico-Botany of Bastar District, Madhya Pradesh (English)	1990		
8.	Medico-Ethno-Botanical Explorations of Sikkim Himalayas (English)	1991		
9.	Medico-Ethno-Botany of Sonebhadra District (English)	1993		
10.	The Medico-Ethno-Botany of Lower Subansiri District, Arunachal Pradesh (English)	1993		
11.	Medico-Botanical Exploration of Phulbani and Koraput districts of Orissa (English)	1996		
12.	A Report on Medical Plants of Kachchh, Gujarat (English)	1998		
13.	Medicinal Plants of Nagpur and Wardha Forest Divisions, Maharashtra (English)	1999		
14.	Medico-Botany of Andaman & Nicobar Islands: Recent study (English)	2016		
	Books			
15.	An Appraisal of Tribal Folk Medicine (English)	1999		
16.	Healing Herbs of Himalaya (English)	2008		
17.	Himalaya ki Arogyadayi Vanaspatiyan (Hindi)	2008		
18.	Herbal Wealth of Uttrakhand, Vol. I (English)	2015		
19.	Herbal Wealth of Uttrakhand, Vol. II (English)	2016		
20.	Herbal Wealth of Western Ghats – Agasthyamalai (English)	2016		
21.	A Hand Book on Medicinal Plants of Himalayas used in Sowa-Rigpa (English)	2016		
22.	Glimpses of CCRAS Contributions (50 Glorious years), Volume III-Medicinal Plant Research. (English)	2018		

### **Annexure-III**

## List of the Institutes engaged in 'Survey and Cultivation of Medicinal Plants program by CCRUM

SI. No	Name of the Institute	
1.	National Research Institute of Unani Medicine for Skin Disorders, Hyderabad.	
2.	Regional Research Institute of Unani Medicine, Aligarh.	
3.	Regional Research Institute of Unani Medicine, Bhadrak.	
4.	Regional Research Institute of Unani Medicine, Chennai.	
5.	Regional Research Institute of Unani Medicine, Srinagar.	

# List of the Books published by CCRUM

SI. No	Name of the Book	Year of		
		Publication		
1.	Medicinal Plants in Folklores of Northern India (English)	2001		
2.	Medicinal Plants in Folklores of Bihar and Orissa (English)	2001		
3.	Medicinal Plants in Folklores of Southern India (English)	2001		
4.	Medicinal Plants in Folklores of Kashmir Himalayas (English)	2001		
5.	Medicinal Plants in Folklores of Northern India Part – II (English)	2006		
6.	Medicinal Plants in Folklores of Southern India Part – II 2006 (English)			
7.	Medicinal Plants in Folklores of Orissa Part – II (English) 2006			
8.	Medicinal in Folklores of Odisha Part –III (English) 2014			
9.	Medicinal Plants in Folklores of Southern India Part-III (English)	2018		

#### Annexure-V

## Name of the plants validated with their indications

Sl.	Name of the drug	Found useful in the clinical conditions under Clinical
No.		Verification Program in Homoeopathy
1.	Curcuma longa	Asthma, Bronchitis
2.	Cynodon dactylon	Nausea, Vomiting, Dyspepsia
3.	Calotropis gigantea	Obesity
4.	Achyranthes aspera	Aphthous, Stomatitis
	(Latjira)	
5.	Glycosmis pentaphylla	Hyperacidity
6.	Justicia adhathoda	Upper respiratory tract infection
7.	Asclepia scurassavica	Gingivitis, Haemorrhoids
8.	Centella asiatica/	Backache
	Hydrocotyle asiatica	
9.	Ricinus communis	Diarrhoea

#### **Annexure-VI**

## Details of publications are made under the supported projects of CCRS

Sl. No.	Details of publications	Year
1.	Research article entitled "Selected Folklore Claims of Malayali Tribes of Palamalai Hills, Salem District, Tamil Nadu, India".	2018
2.	Research article entitled "Impact of Anthropogenic Pressure on the Phytodiversity of Palamalai Hills, Salem District, Tamil Nadu".	2018
3.	Research article entitled "A Study on the diversity of Medicinal plants in Palamalai hills, Salem district, Tamil Nadu".	2018
4.	Ethno-gynaecological knowledge on medicinal plants among the rural communities of Tirrupur district, Tamilnadu	2020
5.	A survey on the floral diversity of rural areas in Udumalpet Taluk, Tiruppur District, Tamil Nadu.	2020
6.	Documentation and quantitative analysis of the traditional knowledge on medicinal plants in Udumalpet Block, Tiruppur District, Tamil Nadu.	2021

### **Annexure-VII**

# Details of projects supported by NMPB, Ministry of AYUSH, under its Central Sector Scheme on 'Conservation, Development and Sustainable Management of Medicinal Plants' is as:

Sr No	State	Project No.	Project Title	Details of Organization
1.	Mizoram	R&D/MZ- 05/2005-06	Documentation of Ethnomedicinal plants of Mizoram	Department of Botany, Govt. Zirtiri Residential Science College, Govt. of Mizoram, Ramthar Veng, Aizwal – 796 001.
2.	Assam	R&D/AS- 06/2006-07	Formulation of mosquito repellant & larvicidal bio-pesticide from certain ethnomedicinal plants of N.E. India	Department of Biotechnology, Guwahati University, Guwahati - 781 014 Assam.
3.	Orissa	R&D/OR- 01/2006-07	Inventory of medicinal flora and indigenous phytotherapy of tribal rich including germplasm conservation of a few Rare Endangered and Threatened species.	Regional Research Laboratory (CSIR), Bhubaneswar - 751 013, Orissa.
4.	Uttarakh and	R&D/UA- 06/2006-07	A study on prioritization & categorization of ailments specific medicinal plants and their contribution in traditional health care systems of tribal & non-tribal communities of high altitude region of Alaknanda catchment of Uttarakhand	G.B. Pant Institute of Himalayan Environment and Development, Garhwal Unit, P. Box 92, Srinagar (Garhwal), Uttarakhand.
5.	Uttar- Pradesh	R&D/UP- 01/2014-15	Exploration, identification and isolation of bone fracture healing agents from Indian folk traditional plants <i>Pholidota articulata</i> and <i>Coelogyne cristata</i> (Orchidaceae)	Deptt. of Sophisticated Analytical Instrument Facility, Mass Spectrometry Lab, SAIF Divn., Central Drug Research Institute, Sitapur Road, Sector 10, Jankipuram Extension, Lucknow-226031, UP.

#### a). Support to Tribal Research Institutes (TRIs):

The details of projects undertaken by State Tribal Research Institutes research Organizations:

S.No.	States	Name of Project
1	Kerala	Documentation of knowledge of more than 300 major tribal healers of Kerala
2	Sikkim	The State of Sikkim TRI has conducted study on "Identification, documentation and validation of ethno-medicinal plants practices by the Lepcha tribes of Sikkim"
3	Rajasthan	MI V Tribal Research & Training Institute has done project for documentation & research of tribal medicinal knowledge
4	Madhya Pradesh	The TRI has made a study on the medicine used by tribals One project has been sanctioned to AIIMS. Bhopal titled "natural product isolation with characterization of active ingredients and ethnobotanical role of medicinal plants used in tribal population of Madhya Pradesh- medicinal chemistry perspective with special emphasis on in vitro anti neoplastic property".
5	Karnataka	1.Preservation of indigenous knowledge among the tribals     2.Ethno-medicinal practice among Hakkipikki     3.Research Study on Ethno-medicinal practice among Rajgond,
6	Odisha	1 Traditional Medicinal Healing Practices among Selected Scheduled Tribe Communities in Odisha 2. Indigenous Ethno-Medicinal Practices among the Kandha and Santal of Odisha 3 Compendium on Traditional Tribal Medicine (Bonda, Didayi, Kandha, Dongnia, Kandha, Santal, Munda, Bhumij, Kolha, Kharia, Mankirdia, Juang, Saora, Koya, Kisan, Dharua, Oraons, Bhuiyan, Gadaba, Bhumjia and Gond). 4. Indigenous Knowledge on Selection. Sustainable Utilization of Local Flora and Fauna, for Food by Tribes (PTG) of Odisha: A Potential Resource for Food and Environmental Security.
7	Assam	Tribal Research Institute has conducted research study on 'Documentation of Medicinal Plants of Assam'.
8	Maharashtra	Research and Documentation of Traditional Healing Practices of Tribal Communities in Maharashtra.
9	Manipur	<ul> <li>I. Research Study on Medicinal Herbs&amp; Plants- Tribal Medicine</li> <li>II. Tribal Medicine and Healing Practices</li> </ul>
10	Tripura	<ul> <li>I. Tribal Folk Medicines of Tripura.</li> <li>II. tribal Healers and Medicinal Practices in Tripura.</li> <li>III. Medicinal Plants &amp; Herbs. A study on its uses amongst the tribal community of Tripura.</li> <li>IV. Upajati Kobiraj O Ochaider Banousodhi Chikitsha O Chas Poddhoti (Bengali)</li> </ul>
11	Mizoram	Research, Patent and Documentation of traditional Medicine and Plants practices in Mizoram

#### (b) Tribal Festival, Research Information and Mass Education:

Under the scheme Tribal Festival, Research Information and Mass Education, Ministry has sanctioned projects to renowned Institutes for research on Tribal medicinal practices and medicinal plants. The details are as under:

Sl. No.	Name of the Institute	Project details
1.	National Institute of pharmaceutical Education and Research (NIP) ER), Guwahati	<ul><li>a. Documentation of traditional health care practices, traditional medicines and to enable research.</li><li>b. To validate the traditional medicinal knowledge used by tribal population for treating cardio-metabolic diseases</li></ul>
2.	Pravara Institute of Medical Science, LONI	Survey for Identification. Enlisting of Traditional Tribal Healers, Study, Documentation and testing of Tribal Health Traditions, Tribal Medicine (Healing Practices and Ethno-Medicine) of different Tribal Communities in State of Maharashtra
3.	Patanjali Research Institute, Uttrakhand	Traditional Medicine and healing practices
4.	All India Institute of Medical Sciences, Jodhpur	a.Study of epistemology of traditional knowledge & practice of local traditional healers of district Sirohi. Rajasthan. b.Effect of the region-specific module for the training and capacity building on behavioural change among traditional healers of district Sirohi, Rajasthan.  c. Piloting of telemedicine with special reference to health needs of indigenous habitats of district Sirohi, Rajasthan.
5.	Indira Gandhi National Tribal University, Amarkantak. Madhya Pradesh	Documentation of ethno/traditional medicines (the process of collection, preparation, use and practice)
6.	Amrita Vishwa Vidyapeetham, Kerala	Strengthening Tribal Health by building awareness and Integrating Tribal Healer- into existing Health Systems in Odisha