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An Economic Study of Regional Pattern of Growth of Herbal Medicine

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ABSTRACT

The purpose of the research paper is to highlight the regional variation of various herbal medicines in Jammu and Kashmir and also highlight presence of some valuable herbs in Jammu and Kashmir. Jammu and Kashmir is a treasure trove of medicinal plants due to favorable and diverse agro-climatic zones. A number of locally grown herbs like Kuth, Zeera, Patees, Morin, Kreech, Kutki and many more have been used for medicinal purposes since times immemorial. Most of these species were abundantly found in the forests of the area. Major objective of this research paper is to explore the potential in medicinal herbal growth, available resources, to understand the challenges and opportunities within the medicinal plant sector. This review reveals that Jammu and Kashmir harbors a rich diversity of valuable medicinal plants and attempts are being made at different levels for sustainable utilization of this resource in order to develop the medicinal plant sector.

Keywords:

1.0 Introduction

The state of Jammu and Kashmir comprises three natural divisions namely Jammu, Kashmir and Ladakh. The forests of the state in its forested mountains, lowlands and wet lands, support innumerable varieties of plants and trees, boundless species of animals and a myriad of birds and insects.

The variable climate exerts a profound influence on the vegetation of this region. The climate of the state ranges from the burning and the scorching heat of the plains of (Jammu Division) to the snow-capped heights of Gulmarg (Kashmir) and the mud peak of Mountgodwinaust in (Ladakh) 21,265 feet above sea level, the second highest in the world.

All these are different agro climatic zones. Broadly, the state of Jammu and Kashmir comprises three distinct climatic regions: cold arid desert areas of Ladakh, temperate Kashmir Valley, and the humid sub-tropical region of Jammu. The temperature in the region varies spatially. Leh is the coldest (-28°C average) while Jammu is the hottest. Mean monthly temperature is lowest in January and highest in July except in Jammu where highest temperature is experienced in June.

Mean monthly temperature in January varies from -17°C at Drass to 14°C at Jammu; Kargil and Leh being other stations of below freezing average. Considering the overall distribution of climatic elements, four units become obvious as such Jammu & Kashmir state is divided into four agro climatic zones, viz. low altitude subtropical zone, mid to high altitude intermediate zone, mid to high altitude temperate zone and cold arid zone. In the regions of Jammu and Kashmir, the soils are loamy and there is little clay content in them.

The soil is poor in lime but with a high content of magnesia. There is sufficient organic matter and nitrogen content in the alluvium of the State as a result of plant residue, crops stubble, natural vegetation and animal excretion. The Kashmir region or valley is a significant part of the state. The valley is an ancient lake basin 140 km. long and 32 km. wide. The average elevation of the valley is 5,300 feet above sea level. The tall mountains that surround the valley rising up to 16,000 feet ensure that the weather here is pleasant for most of the year. Its rich alluvial soil well drained by rivers and streams, yields rice, saffron, vegetables and a variety of fruit.

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2.0 Objectives

- To highlight the regional variation of various herbal medicines in Jammu and Kashmir.
- To highlight presence of some valuable herbs in Jammu and Kashmir.

3.0 Methodology

The present study is mainly based on the secondary sources which is collected from various Govt. offices and agencies located in the state of (J & k). The discussions were also held with the officials of various department and knowledgeable persons connected with the industries. Discussions were also held with the existing industrial associations on various aspects of the survey. Primary survey was also conducted to get the on field details from actual cultivators and farmers. The purpose of this research paper is to feature the presence of herbal plants in different areas of Jammu and Kashmir.

4.0 Results and Analysis

Area wise distribution of medicinal plants:

The below table will show the area wise distribution of herbal plants availability in different areas of Jammu and Kashmir.

Table 1: Distribution of Medicinal Plants

Division	Districts/Areas	Common species
Leh	Nubra, Kardungla, Nyoma, Upshi, Khalsti, Dahanu (Drokpa)	Inula racemosa, Sea buckthorn, Kuth and Atis etc.
Kargil	Drass, Parkacik, Penzila, Rangdm, Padam	Inularacemosa, Seabukthorn Kuth, Patis.
Bandipora	Athwattu, Tragbal	Kala zera, Kuth, Dhoop, Patis, Phytollaca, Artemisia.
Langate	Drass, Parkacik, Penzila, Rangdm, Padam	Inula racemosa, Seabukthorn Kuth, Patis.
Baramulla	Rafi-abad, Gabbewar, Kazinag, Uri, Bota Pathri	Zeera, Kuth, Dioscoria, Podopyllum, Anthropa Bellodana, Artemisia, Dhoop.
Budgam	Tosh, Maidan, Liddermal, Doodpathri, Yusmarg, Dalwan	Zera, Kuth, Dioscorea, Patis kour, Podophyllum, Atropa bellodana, Artemisia, Dhoop

Division	Districts/Areas	Common species
Anantnag	Daksum, Qazigund and Kuthar, Tral, Chandanwari, Batkote, Simthan, Margantop	Arnebia, kuth, Dioscorea, Patis, Podophyllum, Atropa bellodana, Saussuera lappa, rheum spp., Dhoop.
Srinagar	Zabarvari, Dhara	Kuth, Podophyllum, Artemisia, Dhoop
Kupwara	Tangdhar, Ramhal, Dera	kuth, Dioscorea, Patis, Podophyllum, Artmemisia, Pytollaca
Pulwama	Hirapora, Kung-button	kuth, Dioscorea, Patis, Podophyllum, Artmemisia, Pytollaca
Doda	Marwa, Chattroo/marwa	kuth, Dioscorea, Patis, Dhoop
Kishtwar	Kishtwar, Padder, Machail	Zeera, Kuth, Dioscorea, Dhoop, Chilgoza, Pin
Baderwah	Chinta, Jai, Seoj	Kuth, Bunafsha, Mushkbala, Patis, Berberis, Arnebia, and Podophyllum
Batote	Marmat, Sanasor, Gandhri	Kuth, Taxus
Udhampur	Udhampur forest division, Lattidhuna, Sudhmahandev	Acorcus, Kuth, Rasaunt
Reasi	Reasi,	Amla, harar, Berberis, Gloriosa
Jammu	Akhnoor, Chinota, Mathwar	Adhatoda, Gloriosa, Harad, Amla, Ratti
Kathua	Billawar, Banjal, Basholi, Sukrala	Amla, Kuth, Dhoop, Mushkbala, Dioscoria, Harad
Kathua	Jasrota wildlife sanctuary	Amla, Khair, Behra
Rajouri	Rajouri, Budhal, Sheshra	Dhoop, Muskballa, Kutki, Unab acorus.

Source: Direction office Jammu and Kashmir Forest Department

Table 1 shows the variation and distribution and diversity of medicinal herbs in the Jammu and Kashmir. It is compulsory to study the diversity, distribution and utilization pattern of medicinal plants, document its uses, and identify the regional presence of these plants in order to suggest suitable conservation and management strategies. The purpose of this review is to highlight the features of areas related to availability of herbal medicines in Jammu and Kashmir.

Conservation and management of traditional medicinal plants is an essential concern worldwide, especially in developing countries. The ever-escalating demand for the medicinal plants in pharmaceutical industries and in traditional system

has resulted in overexploitation leading to the reduction of their natural populations. Besides, habitat loss due to anthropogenic activities has further intensified the concern. If overexploitation of these plants continues, many species may decrease in, and ultimately disappear from their natural habitats

Although, a number of studies have been carried out to study the diversity and distribution pattern of the medicinal plants in various Himalayan states of India, including Jammu and Kashmir by the help of information provided by like CAMP (Conservation Assessment and management Prioritization) workshop. For this purpose it is essential to know about the location of areas of medicinal herbs in Jammu and Kashmir in order to manage these resources properly.

The table clearly indicates that in almost all districts of Jammu and Kashmir there are different types of herbal medicines found. In order to maintain the availability of herbal plants, Plants should only be collected in such a manner that ensures their continued presence, both in specific collection locations and across the landscape. The most serious threats to medicinal plants of Kashmir are habitat loss and fragmentation, climate change, and invasive species.

Special care has to be given when attributing a legal protection status to a species. Keeping in view the depletion of the medicinal resources, various government and non –government organizations are involved in conservation of these species in Himalayan region in general and particularly in Jammu and Kashmir, various organizations such as Indian Institute of Integrative Medicine, Jammu (formerly known as RRL, Jammu), Centre for Biodiversity Studies, BGSB University, Rajouri , University of Kashmir, Srinagar, Sher-a-Kashmir Agriculture University of Science and Technology, Jammu and Srinagar , State forest Research Institute, J&K.

5.0 Conclusion

In the regions of Jammu and Kashmir, the soils are loamy and there is little clay content in them. The soil is poor in lime but with a high content of magnesia. There is sufficient organic matter and nitrogen content in the alluvium as a result of plant residue, crops stubble, natural vegetation and animal excretion. Due to which large number of medicinal herbs are found in the area naturally. Jammu and Kashmir is well known for its herbal medicines since time immemorial.

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