International Journal of Pharmaceutical and Medical Research
Volume – 9 Issue – 1-12 January-December 2021
Website: www.woarjournals.org/IJPMR *ISSN: 2348-0262*

Traditional Knowledge and Domestication of Medicinal Plants in Shekhawati Region, Rajasthan: Contemporary Practices and Applications

Dr. Babita [1], Dr. Mukesh Kumar Sharma [2], Dr. Snehlata [3]

[1] Assistant Professor, Department of Geography, Maharani Girls PG College, Rampura, Alsisar, Jhunjhunu,Rajasthan

[2] Principal, Maharani Girls PG College, Rampura, Alsisar, Jhunjhunu,Rajasthan

[3] Assistant Professor, Department of Geography, Maharani Girls PG College, Rampura, Alsisar, Jhunjhunu,Rajasthan

Abstract: ***The Shekhawati region of Rajasthan, India, is renowned for its rich heritage of traditional medicinal knowledge and domestication of medicinal plants. This paper examines the applied use of domesticated medicinal species in households, farms, and local healthcare, highlighting the integration of traditional practices into modern lifestyles. Field surveys and interviews with local practitioners, pansaris (herbalists), and households were conducted to document plant species, their applications, and preparation methods. The study reveals a sustained reliance on traditional remedies for common ailments, with adaptive strategies in response to urbanization and commercialization. Findings suggest that while modern pharmaceuticals are increasingly accessible, traditional practices remain vital for primary healthcare, cultural identity, and biodiversity conservation. Policy implications for the sustainable promotion of domesticated medicinal plants in contemporary society are discussed.***

Keywords: Medicinal plants, Traditional practices, Domestication, Shekhawati, Rajasthan, Ethnobotany, Modern applications, Herbal medicine..

1.1 Introduction

Medicinal plants have been integral to human health care for millennia, providing remedies for a wide range of ailments. In Rajasthan, the arid and semi-arid landscapes of Shekhawati have shaped a unique system of traditional herbal medicine adapted to local ecological conditions. The domestication of medicinal plants—cultivating them in home gardens, farms, and community spaces—ensures their availability and sustainability. Modern times have witnessed shifts in healthcare practices, with increased accessibility to allopathic medicine, yet traditional remedies remain culturally and practically significant. This paper explores the contemporary applications of domesticated medicinal plants in Shekhawati, focusing on how traditional knowledge is retained, adapted, and utilized.

1.2 Historical Background

Rajasthan's traditional medicine system traces its roots to Ayurveda, Siddha, and folk medicine. Shekhawati, historically a trading and cultural hub, has facilitated knowledge exchange of medicinal plants across regions. Historical texts such as the Charaka Samhita and local oral traditions document the therapeutic use of herbs like Aloe vera, Tulsi (Ocimum sanctum), Ashwagandha (Withania somnifera), and Guduchi (Tinospora cordifolia). Domestication practices emerged as a response to limited natural availability and the need for consistent supply for household remedies and local commerce. Over time, pansaris and traditional healers became key custodians of this knowledge.

1.3 Review of Literature

The area under research work was studied by following botanists and time to time viz; first of all the Sekhawati region was touched from vegetational study point of view by Mulay and Ratnam (1950), Bikaner and pilani neighbourhood areas by joshi (1956 and 1958), vegetation of chirawa by Nair (1956), again Nair and Joshi for Pilani and neighbourhood areas (1957), vegetation of harsh nath in aravalli's hills was studied by Nair and Nathawat (1957), vegetation of Jhunjhunu, Manderella and neighbourhood by Nair (1961), vegetation of ajit sagar dam by Nair and Kanodia (1959); Nair, Kandodia and Thomas (1961) studied the vegetation of Khetri town and neghbourhood areas and vegetation of Lohargal and it's neighbourhood areas of Sikar district by Nair and Malhotra (1961). After the work of Nair and Malhotra (1961), i.e. four decades ago. the area was again left for any sort of further research work in the field of applied Botany.

Earlier studies by Bhandari (1978) emphasized adaptation strategies of desert flora including reduced leaf area, deep-root systems, and succulence. Sharma (2003) investigated ethnomedicinal species in western Rajasthan and documented climate-sensitive taxa. Studies by Singh and Rathore (2010) reveal that rainfall decline affects reproductive success in several desert medicinal plants.

A significant, very authentic taxonomic work was contributed in the field of botany by Bhandari with the publcation of a book Flora of the Indian desert (1990). From the field of applied phytogeography point of view. Charan gave a valuable contribution with a publication of a book on Plant Geography (1992). Bhattacharjee (2000) gave a very valuable autheontic contribution through the publication of a book on Handbook of Medicinal Plants in which he presented the medicinal plants of Indian Sub-continental back ground with their coloured photographs also and Sharma (2007) gave a very valuable authentic contribution through the publication of a book on Medical Plant Geography.

Several studies have emphasized the ethnobotanical significance of Rajasthan's flora. Jain (1981) provided extensive documentation of medicinal plants and their traditional uses. Sharma et al. (2007) highlighted the integration of domesticated species in home gardens for healthcare. Singh and Kaur (2010) explored socio-economic aspects of medicinal plant cultivation in arid regions. More recent works (Kumar and Gupta, 2015) examined the modern applications and commercialization potential of traditional remedies in Rajasthan. However, a gap remains in systematically assessing how these plants and practices are applied in contemporary rural and urban households of Shekhawati.

1.4 Objectives

1. To identify and document domesticated medicinal plants used in Shekhawati households and farms.

2. To analyze contemporary applications of traditional remedies in daily life.

3. To examine adaptive strategies employed to maintain traditional practices amid modernization.

4. To provide recommendations for sustainable promotion and conservation of medicinal plants.

1.5 Methodology

1. Study Design: Descriptive and ethnobotanical survey.

2. Data Collection: Semi-structured interviews with 150 households, 25 local pansaris, and herbal vendors.

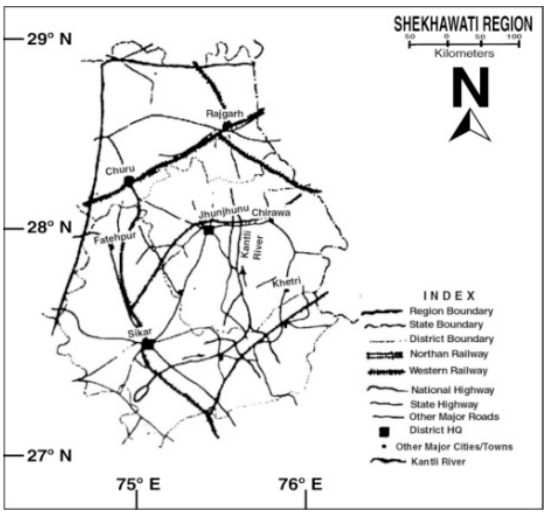
3. Plant Identification: Field visits and collection of specimens, verified using standard botanical references (Jain, 1981).

4. Data Analysis: Quantitative (frequency of plant use) and qualitative (case studies of remedies) analysis.

1.6 Study Area

Figure-1.1 shows the area under study i.e. Shekhawati region which is located in the north-eastern part of Rajasthan state and the region has geographical extension from 26°26' to 29°20' N latitude and 74° 44' to 76°34' E longitude on the map of Rajasthan. The area under study covers fully or partly three districts, namely Churu, Jhujhunun and Sikar. Churu district's out of 7, only 3 tehsils fall under Shekhawati region (Churu, Rajgarh and Taranagar) whereas Jhunjhunu district as a whole with its six tehsils (Buhana, Chirawa, Khetri, Jhunjhunu, Nawalgarh and Udaipurwati) in which Buhana tehsil emerged out as a new tehsil on the map of Jhunjhunu district (2001), it was no more existence in the year of 1991 and Sikar district also covered fully with it's six tehsils (Data Ramgarh, Fatehpur, Laxmangarh, Neem ka Thana, Sikar and Shri Madhopur). The region has 23 Panchayat Samitis in all. Thus, the region under study has 15 tehsils in total with it's total 15343 sq. km. geographical area which makes 5.6% of the state's total. At the part of district-wise contribution by area point of view in Shekhawati region it is observed that part and portion of Churu district contributes 29%, Jhunjhunu district contributes 31% and Sikar by 40%, respectively.

Figure- 1.1 Location Map of Shekhawati Region



Among these tehsils area point of view, the tehsil of Churu is largest one and Buhana smallest, respectively. District-wise area point of view Sikar stands at first position which is followed by Jhunjhunu and lowest contribution is made by Churu i.e. 1683 sq. km. only.

At the part of population, Shekhawati region contributes 8.7 percent of the state's total in which sex-ratio is 948 females per thousand males in Total Population whereas it is very low i.e. 887 in Child Population for the area under study. The region obtains high Literacy rate which is about 10% more than that of the state's average. Among tehsils, Buhana ranks at first position while as Neem ka Thana contributes lowest in this aspect. The region obtains high density (244) i.e. 50 percent more than that of state's average which is 165 persons per sq. area 2001. The region has also Slum population but it is very low or to say negligible i.e. 2.5% only of the urban area's total.

The whole region has distribution of two types of soils; Sandy soil and Red Loamy soil. The former soil type has obvious distribution in Churu district, the areas of sand dunes topography; the later soil group is mostly distributed over the districts of Jhunjhunu and Sikar (classification based on dominancy, availability and agricultural productivity). The distribution of soil type and it's physical as well as chemical

nature is a significant aspect from vegetation as well as plant species distribution point of view.

On the basis of another type of soil type classification according Prof. Thorpe and Smith based on the origin of the soil, the observations revealed in this direction that Remosols type of soil has distribution in the areas of sand dunes topography; all three tehsils of Churu districts have, Red sandy soil which is more alkaline in nature. Hilly topography soil and Riverine soil have their distribution according the distribution of habitat of study area.

1.7 Observations

1. Over 50 domesticated medicinal species were documented across households and farms.

2. Most commonly used plants included Tulsi, Aloe vera, Ashwagandha, Guduchi, Harad (Terminalia chebula), and Neem (Azadirachta indica).

3. Remedies for common ailments: cold, cough, fever, digestive issues, skin infections, and stress management.

4. Preparation methods: decoctions, pastes, powders, oils, and infusions.

5. Households with home gardens reported higher reliance on traditional remedies.

1.8 Discussion

The domestication of medicinal plants ensures consistent availability, especially during seasonal scarcities. Modern lifestyles have introduced changes in application, such as the use of herbal powders with tea or milk for daily health maintenance. Knowledge transmission occurs through family traditions, community workshops, and local pansaris. Challenges include declining biodiversity, urban migration, and commercialization pressures that sometimes reduce access to rare species.

1.9 Results

1. High prevalence of domesticated plant use: 78% of surveyed households regularly used at least three medicinal species.

2. Traditional knowledge remains robust but is increasingly hybridized with modern practices.

3. Pansaris continue to play a central role in healthcare advice and herbal preparation.

4. Economic potential exists in marketing locally produced medicinal products.

1.10 Conclusion

Traditional knowledge of medicinal plants in Shekhawati remains vital, with domesticated species playing a key role in daily healthcare. Modernization has modified practices but has not eliminated the relevance of these remedies. Conservation of plant species, support for pansaris, and awareness campaigns are essential to sustain this heritage.

1.11 Recommendations

1. Promote cultivation of medicinal plants in home gardens and farms.

2. Integrate traditional medicine with primary healthcare initiatives.

3. Support local pansaris with training in sustainable harvesting and marketing.

4. Develop educational programs to preserve ethnobotanical knowledge.

5. Encourage documentation and research to protect endangered species.

References

[1.]Charan, A.K. (1992). Plant Geography, Rawat Publication, Jaipur

[2.]Jain, S.K. (1981). A Manual of Ethnobotany. Jodhpur: Scientific Publishers.

[3.]Sharma, R., Meena, P., and Singh, V. (2007). Medicinal plant diversity in home gardens of Rajasthan. Indian Journal of Traditional Knowledge, 6(4), 603–609.

[4.]Singh, R., and Kaur, H. (2010). Socio-economic importance of medicinal plants in arid Rajasthan. Journal of Arid Environments, 74(9), 1105–1112.

[5.]Kumar, A., and Gupta, S. (2015). Traditional medicinal plants and modern applications in Rajasthan. Indian Journal of Applied Research, 5(3), 21–27.

[6.] Sharma, M.K. (2007). Medical Plant Geography, Rachna Publication, Jaipur.

[7.]Sharma M.K. et.al. (2014). Medicinal Phytogeography. M. D. Publication, Jaipur

[8.]Sharma M.K.(2013) Traditional Health Geography: Indigenous Knowledge and Ayurvedic Practices in the Shekhawati Region, Rajasthan, Journal -IJMPR, Volume-(1), Issue-1 (Nov.-Dec.. 2013) , 2348-0262, p.28-40.

[9.]Sharma M.K.(2014) Applied Phytogeographical Distribution of Family- wise Medicinal Plants insemi- Arid (Khetri Region, Rajasthan), Journal -Sanchayka, Volume-(7), Issue-1(Jan.- Mar. 2014) , 2231-3001, p.38-40.

[10.]Sharma M.K.(2014) Folk Medicinal Practices of Shekhawati Region : A Living Heritage of Traditional Healing, Journal -IJGAES, Volume-(2) Issue- 6 (Nov- Dec. 2014), 2348-0254, p.25-27.