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DANG REGION RAJASTHAN (INDIA): URGENTLY NEEDS TO CONSERVE ITS ENDANGERED ETHNOMEDICINAL AND ETHNOVETERINARY PLANT SPECIES

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ABSTRACT

The continued presence of plants is absolutely necessary for human beings to continue on our planet. People have been able to heal themselves with traditional herbal remedies from ancient times all the way up until the present day, and numerous examples have demonstrated via trial and error that ethnomedicines are both useful and have no adverse side effects. The rise in population, urbanization, and industrialization, in addition to overgrazing, are contributing causes to the swift extinction of ethnomedicinal plants. Other factors include overgrazing. The term "ethnomedicinal plant conservation" refers to the practice of preserving natural resources that are beneficial to both people and the environment. As a result, it is crucial for the future of environmentally responsible and sustainable growth to ensure the preservation of these medicinal plants. The preservation of these ethnomedicinal plants can be accomplished most effectively both in-situ and ex-situ, which are both considered to be viable options.

Keywords: Traditional medicine, Traditional veterinary medicine, Conservation, and Green growth.

1. INTRODUCTION

The study of human interactions with plants is known as ethnobotany. In recent decades, there has been a resurgence in interest in natural medications, particularly those that are produced from plants. This interest was sparked by the notion that "Green medicine" is superior to synthetic pharmaceuticals in terms of both health and safety. Plant-based supplements are becoming increasingly popular in Western countries as a result of the detrimental effects of synthetic pharmaceuticals and a greater understanding of plant-based remedies. Alterations in both food and lifestyle are also major factors driving demand for these supplements. The market for Western herbal medicine has been growing at a rate of 15–20% annually. Medicinal plants can be preserved with the help of these considerations. Dholpur is the city that is the farthest east in Rajasthan and is located on the Chambal River's left bank. Dholpur is the Dang district that takes up most land in Rajasthan. One of the arid regions of Rajasthan, the Dang region of Dholpur is characterized by degraded ravines, barren soil, and a scarcity of available water. Because of these conditions, the community is having a more difficult time engaging in agricultural activities and animal husbandry. Poverty on a global scale is caused by low levels of agricultural production and livestock productivity. Most Dang farmers barely endure hunger.

2. RARE ETHNOMEDICINAL AND ETHNOVETERINARY PLANTS IN DANG REGION

Tulsi (*Ocimum sanctum*), Dhonk (*Anogeissus pendula*), Doob (*Cynodon dactylon)*, Bargad (*Ficus benghalensis)*, Peepal (*Ficus religiosa*), Banana (*Musa paradisiaca*, *Musa* spp.), Anar (*Punica granatum*) and Khejari (*Prosopis cineraria*), Neem (*Azadirachta indica*), Kadama (*Anthocephalus kadamba*), Amla (*Emblica officinalis*), Bilva patra/Bel (*Aegle marmelos*), Asoka (*Saraca indica*), *Santalum album* (Santalum), Oonga (*Achyranthes aspera*), various species of *Prosopis*, *Tecomella*, *Cassia*, *Melia* and *Boerhavia* and others.

3. PRESERVING NATURE IS NECESSARY

India has the second-most medicinal and ethnomedicinal herbs. Losing medicinal plant species is an economic, ethical, social, and cultural tragedy. Scientific strategies for medicinal plant conservation include the following:

3.1. Traditional Medicine Conservation

Tribal people worship plants in order to seek their blessings and particular requests. This is because, according to Indian mythology, the gods and goddesses are delighted when they are revered. In general, those who live in tribal communities have a profound reverence and care for the natural world. These indigenous groups not only employ treatments derived from plants, but they also make an effort to conserve such remedies by cultivating

and exchanging medicinally significant plant seeds and other propagation materials. Indigenous tribes made the decision to practice vegetative propagation because they saw economic value in doing so.

3.2. In-Situ Medicinal Plant Conservation

The natural reserves, biospheres, national parks, and sanctuaries that use this method of conservation are able to maintain the integrity of the plant ecosystems that are found inside their respective boundaries.

3.3. Ex-Situ Medicinal Plant Conservation

- Medicinal plant exhibition garden or Herbal Garden: Safe, rare, and endangered plants are grown naturally.
- Field gene bank method: These easy methods cultivate endangered and threatened medicinal plant species under protection.
- Seed bank: Endangered and threatened indigenous and crudely exploited plants.
- Mericlone banks contain endangered medicinal plant species and intraspecific variants.
- Cryo banks store germplasm kept at 196°C.
- Cell repository: This technology preserves medicinal plant cells under controlled temperature, moisture, salt concentration, *etc*. for future use.

3.4. Cultural practice

Proper rotation of plants that are adapted to their environment is an important part of good plant management. The growth stages of the medicinal plant species should serve as guidance when selecting the location, climate, soil, irrigation, and drainage systems. Seeds and other propagation materials that are not contaminated with any pathogens should be quarantined.

3.5 The reasons for the extinction of medicinal plants and the steps that can be taken to stop it

According to the World Health Organization (WHO), there has been a recent surge in people's interest in traditional phytomedicine, and a number of treatments derived from plants are now widely available in health food stores all over the world. The habitats of medicinal plants are being destroyed by human activities such as settlements, agriculture, and urbanization, as well as by development projects such as bridges, national roads, and factories. This is leading to the extinction of certain medicinal plant species.

4. CONCLUSION

According to the findings of the current study, the plant resources of medicinal plants in the Dholpur area are few. As a consequence of these findings, it is imperative that these resources be protected for the benefit of future generations. The demand for these rare medicinal plant species is steadily decreasing, which is leading to a drop in the resources that occur naturally. This is causing a decline in the availability of resources. These kinds of preservation methods can be of tremendous assistance in working toward the goal of establishing sustainable development. The relevance of this study rests in the fact that it will make certain that the many different kinds of medicinal plants continue to grow in the wild, in the habitats in which they originally developed.

REFERENCES

1. Vyas LN and Gupta RS 1962, An annotated list of medicinal plants of Alwar, Rajasthan: Ser. 1. Proc. Raj. Acad. Sci. 9(2) 49-55.
2. Chopra, IC and Abrol BK 1964, Some medicinal plants suitable for cultivation in Indian arid zone. Proc. Symp. Indian Arid Zone, Jodhpur, 56- 58.
3. Ganguly BN and Kaul RN 1965, Utilization potential of a few important medicinal plants of western Rajasthan. Symp. recent advances in the development, production and utilization of medicinal and aromatic plants in India (MSS).
4. Gupta RK, Gaur YD, Malhotra SP and Dutta BD 1966, Medicinal plants of Arid zone. JNour. D'Agric. Tropicale et de3 Botanique Applicque 13(6-7) 247-288.
5. Roy GP 1976, Bhartiya Marusthal Ke Ausdhiya Paudhe (in Hindi) Banaspatiki 4(1) 69-75.
6. Paroda RS 1979, Plant resources of Indian arid zone for industrial uses. Proc. Int. Arid lands Congr. Plant Resources, Taxus Tech. University pp, 261-268.
7. Singh V and Pandey RP 1980, Medicinal Plant lore of the tribals of eastern Rajasthan (India). J Econ. Taxon. Bot. 1 137-147.

9. Chakravarty HL 1975, 'Herbal Heritage of India'. Bull. Bot. Soc. Bengal. 29 97-103.
10. Jain SK 1975, Medicinal Plants. 2nd ed, National Book Trust Of India, New Delhi.
11. Chandra K 1978, Medicinally important plants of Ajmer. Scientia. 21 77-80.
12. Shekhawat, M.S., Sharma, M.K. and Trivedi, P.C. (2006). Ethnoveterinary plants of Jaipur district, Rajasthan. India, Trivedi P.C. (ed.) Herbal Medicinal Traditional Practices, Aavishkar Publishers, Distributors, Jaipur, pp. 200-206
13. Trivedi, P.C. and Nargas, J. (1998). Ethnomedicinal plants of Rajasthan state (CSIR Project). Annual project report, University of Rajasthan, Jaipur.