Ethnobotanical Exploration of Medicinal Plants: A Review

[1]Dr. Renu Jatan, [2]Dr. Nidhi, [3]Dr.Anju Ahlawat

[1,2]Assistant Professor GCW Rohtak
[3]Assistant Professor Hindu College Sonepat

Abstract: This review paper illustrate that medicinally important plants are now a day's play major role in treatment of various diseases and many medically important plants are reported in different district of Haryana. Many medicinal plants are threatened due to overexploitation. Sincere efforts are required to protect these plants. Sacred groves can serves as a powerful tool in conservation of medicinal plant wealth of India. Systematic documentation of ethnbotanical exploration can preserve traditional medicinal practices. This paper reviews the status of ethno botanical exploration in different district of Haryana and also reviews the role of sacred grooves in conservation of medicinal plants.

Key Words: Ethno botany, Medicinal plants, Conservation, Haryana.

Introduction: Ethno botany is the study of relationship which exists between people of primitive societies and their plant environment [1]. Due to change in life style of human beings many diseases such as obesity, diabetes, are on rise. And there are many side effects of allopathic drugs so man is switching to herbal medicines for cure of their remedies. Herbal plants have a strong traditional base and potential to be used as drugs for treatment of many diseases. WHO had made an attempt to identify all medicinally important plants used globally and listed more than 20000 species [2]. Floristic and ethno-botanical studies can provide enough information about species composition, ecology and medicinal use of plant species. This review paper is also based on the objective to find out species composition of medicinal plants especially in Haryana.

Review: Plants have potential to cure different human ailments like diarrhea, asthma, cold, cough and diabetes. Local people use 56 plants belonging to 33 families to cure 66 minor and major diseases. In different plants different plant parts like root, leaf, stem, fruit and seeds are used to cure diseases [3]. Due to increased population there is a gradual increase in harvesting of plant natural resources and this causes a gradual decrease in plant diversity of Jind district .Loss of plant diversity is a great social, economical and cultural loss [4]. Ethno botanical studies in subhansiri district of Arunachal Pradesh shows that local people depends on herbal medicines for treatment of human diseases as well as of livestock diseases. Fruits, leaves, stem, roots of 140 medicinal plants in case of human beings and 16 medicinal plants in case of livestock diseases are used for treatment [5]. Studies on taxonomic diversity of medicinal plants of Ethiopia shows that 145 medicinal plants are used to cure 64 human ailments. Increased population, agricultural expansion, deforestation and overgrazing are bigger threats to diversity of medicinal plants. Issue of medicinal plants should be included in school curriculum and farmers should be encouraged to grow more medicinal plants in their home garden [6]. Sacred grooves are home to many rare and endangered plant species and many plant species that are extinct in other parts of country are well preserved in groves [7]. Rural people of Yamunanagar district of Haryana uses 46 medicinal plants for treatment of diarrhea, dysentery, skin diseases, asthma, and piles [8] .Vascular floristic wealth of Banaras Hindu University shows dominance of foreign origin flora over the flora of Indian origin [9]. *Tinospora cordifolia* is a multipurpose medicinal plant and due to immense medicinal properties there is overexploitation of this plant by pharmaceutical companies and this lead to acute scarcity of plant [10]. Tropical dry deciduous forests in north western India are rich in diversity of plants and 87 species of 29 families are reported from two forest ecosystems [11] several medicinal plants that are found to be threatened in forests are found to be well preserved in sacred grooves. The sacredness, religious beliefs and taboos play a important role in conservation of medicinal flora. Sacred groves provide a powerful tool for ensuring biodiversity conservation through community participation [12]. In Chhattisgarh state of India a no of tree species that have been heavily extracted from the forests are found to be exist in grooves due to their divine protection. Therefore for conservation of genetic diversity of flora and fauna of Chhattisgarh state of India due consideration should be given to sacred groves [13] . In 20 sacred groves of Mahendergarh district of Haryana 50 plant species with medicinal properties are reported and all these species are threatened due to human pressure [14]. In karnal district of Haryana 345 angiosperm plants are reported that are having medicinal role and this information about floristic composition help in management and conservation of plant wealth of India [15].Thymus vulgaris is used for treatment of of rheumatism, muscle swelling and insect bites and due to this immense medicinal properties it is used in pharmaceutical companies on large scale26 plants like *Datura metal, Achyranthes aspera, Calotropis procera* are used in [16] treatment of snake bite in seven villages of Khargone district of Madhya Pradesh.[17]

Conclusion: studies on ethnobotany in different states of India including Haryana shows that plants have potential to cure many diseases of human beings and of animals. But due to increase in population there is overharvesting of plant resources and many medicinal plants are threatened due to overexploitation by pharmaceutical companies. For conservation of medicinal wealth of flora much emphasis should be given to conservation of sacred grooves as sacred grooves are rich in plant diversity and many plants which are found to be threatened in forests are found to be safe in sacred grooves due to their divine nature. For preservation of traditional medicinal practices proper documentation of ethnobotanical studies is required and ethnobotanist and local people together can benefit a community because people everywhere have knowledge of plants.

References:

1. Schultes, R.E. (The role of ethnobotanist in search for new medicinal plants).Lloydia, 1962; 25(4) : 257-266.
2. Pandey M.M., Rastogi S, Rawat, A.K. (The Internet Journal of Alternative Medicine). 2008; 6(1): 1-10

3. Yadav SS, Bhandoria MS. (Ethnobotanical exploration in Mahendergarh district of Haryana (India)) Journal of Medicinal Plants Research, 2013;7(18): 1263-1271
4. Singh Mahabir, Kumar Manoj . (Study of plant diversity of Jind district, Haryana, India). Asian Journal of Plant Science and Research, 2013; 3(3): 44-53
5. Murtem G, Chaudhry Pradeep. (An Ethnobotanical Study of Medicinal Plants Used by the Tribes in Upper Subansiri District of Arunachal Pradesh, India). American Journal of Ethnomedicine, *2016; Vol. 3, No. 3*
6. Maryo Melesse, Nemomissa Sileshi, Bekele Tamirat (An ethnobotanical study of medicinal plants of the Kembatta ethnic group in Enset-based agricultural landscape of Kembatta Tembaro (KT) Zone). Southern Ethiopia , 2015 ; 5(7): 42-61
7. Amirthalingam M (2016) (Sacred Groves of India–An Overview). International Journal of Current Research in Biosciences and Plant Biology, 2016; 3 (4).
8. Parul, Vashishtha B.D. (An Ethnobotanical study in plains of Yamuna Nagar District, Haryana, India). International Journal of Innovative Research in Science, Engineering and Technology,2015; 4(1): 18600-18607
9. Singh, A. (2012) (Medicinal floristic wealth of Banaras Hindu University Main Campus, India: An overview.) Indian Journal of Plant Science, 2012; 01(2-3): 56-84
10. Mittal, Jitendra, Sharma, Madan Mohan, Batra, Amla (Tinospora cordifolia: a multipurpose medicinal plant- A review.). Journal of Medicinal Plants Studies, 2014; 2(2):32-47
11. Sharma Vandana Chaudhry Smita (Vegetation composition and plant diversity in mining disturbed tropical thorn forest of Asola-Bhatti Wildlife Sanctuary, Northern India).Taiwania,2018; 63(3): 267-280
12. Khan, M.L., Devi, Ashalata, Khumbongmayum , Tripathi R.S. (The Sacred Groves And Their Significance In Conserving Biodiversity- An Overview). International Journal of Ecology And Environmental Sciences, *2008;* 34 (3): 277-291
13. Chandrakar, Komal, Verma, Daneshver Kumar, Sharma, Devendra and Yadav, K.C. (A Study on the Role of Sacred Groves in Conserving the Genetic Diversity of the Rare, Endangered and Threatened Species of Flora & Fauna of Chhattisgarh State India). International Journal of Scientific and Research Publications, 2014; 4(1): 2250-3153.
14. Yadav S, Yadav JP, Arya V, Panghal M. (Sacred grooves in conservation of plant biodiversity in Mahendergarh District of Haryana.) Indian J. Tradit. Knowl, 2010; 9(4):693-700.
15. Kaur,.Vashistha B.D. (Ethnobotanical studies on Karnal district, Haryana, India.) International Research Journal of Biological Sciences, 2014; 3(8): 46-55
16. Hosseinzadeh, S., Jafarikukhdan, A., Hosseini, A. and Armand, R. (The Application of Medicinal Plants in Traditional and Modern Medicine: A Review of *Thymus vulgaris)*. International Journal of Clinical Medicine, 2015; 6:35-642.
17. Jeetendra Sainkhediya, Kumar Aske Dilip (Ethno Medicinal Plants used by Tribal Communities for the Treatment of Snakebite in West Nimar, MP, India**)** .ISCA Journal of Biological Sciences, *2012 ;*Vol. 1(2): 77-79,