SMGroup

SM Tropical Medicine Journal

Short Communication

Ethnomedicinal Plants: Efforts on their Cultivation and Conservation in Pabau Block, Pauri Garhwal

Manisha Naithani and Munesh Kumar*

Department of Forestry and Natural Resources, HNB Garhwal University, India

Article Information

Received date: Feb 14, 2017
Accepted date: Apr 25, 2017
Published date: Apr 28, 2017

***Corresponding author**

Munesh Kumar, Department of Forestry and Natural Resources, HNB Garhwal University, India, Tel: +91-9411789420; Email: muneshmzu@yahoo.com

Article DOI 10.36876/smtmj.1013

OPEN ACCESS

ISSN: 2573-363X

Abstract

This study was carried out in Pabau Block of District Pauri Garhwal in different villages between altitudes of 1349 to 1800m amsl to understand ethnomedicinal uses of plants and the efforts of the local people for their cultivation and conservation. Here plants were used for the treatment of various diseases including other daily uses of plants for the local inhabitant. The study suggests that cultivation of medicinal plants and their conservation will play an important role in the livelihood strategies of the villagers.

About 80% of the population of most developing countries still use traditional medicines derived from plants for treating human diseases [1]. So many countries of world like China, Cuba, India, Sri Lanka, Thailand etc. have endorsed the official use of traditional system of medicines in their health care programme [2].

Plants have traditionally served for man's as a most important weapon against pathogens [3] and it is also an important and supplementary source of drugs and dietary. Moreover; several difficult diseases i.e., diabetes, memory loss and vitality which is generally not possible to treat by the allopathic medicines, could be cured effectively by use of herbal medicines [4,5].

Ethnomedicinal plants knowledge since the time of Great Sage Charak has led to discover many important drug of modern age [6]. Ethnomedicines are the base of many communities, for their primary health care system [7]. India has one of the oldest, richest and most diverse cultural traditions associated with the use of medicinal plants in the form of traditional systems of medicine [2,8].

The traditional Indian Systems of Medicine (ISM) is one of the most ancient medicine practices in the world, which derives maximum formulations from plants and plant extracts that exist in the forests. About 400 plants are used in regular production of Ayurvedic, Unani, Siddha and tribal medicine. About 75% are from tropical and 25% from temperate forests. It has been given that 30% of preparations are derived from roots, 14% from barks, 16% from whole plants, 5% from flowers, 10% from fruits, 6% from leaves, 7% from seeds, 3% from woods, 4% from rhizomes, 6% from stems and only less than 20% of the species used are cultivated [2].

There are thousands of medicinal plants in use throughout the world, with a tremendous range of actions and degrees of potency and most have a specific action on a particular body system, known to be suitable for treating certain types of ailment [9,10].

Herbal medicines are in huge demand not only in India but all over the world for primary healthcare, their biological and medicinal activities, side-affectless and low costs [11,12]. The global demand for herbal medicine is not only large, but also growing [13]. It is estimated that 70-80% of people worldwide rely chiefly on traditional, largely herbal medicine to meet their primary healthcare need [14]. The extent to which herbal preparations are prescribed with in conventional medicine varies greatly between countries, for instance being much higher in Germany then in the UK or USA.

Cultivation is commonly recommended as a conservation measure for medicinal plants to provide alternative supplies for medicinal species in market demand. If cultivation is to be introduced, then there can be many problems inhibiting success, for instance in India, lack of knowledge of cultivation and post- harvest techniques for some species, and lack of availability of planting material of good quality [15].

Garhwal Himalaya has been the reservoir of enormous natural resource. People primitive who live close to forest possess a deep practical knowledge on indigenous flora, pertaining to curatives, culture, customs, ethos, cults, religion, belief, legends, myths as well as other miscellaneous uses [16]. The practice of herbal remedies has descended down from generation to generation for cure simple ailments to the most complicated one.

How to cite this article Naithani M and Kumar M. Ethnomedicinal Plants: Efforts on their Cultivation and Conservation in Pabau Block, Pauri Garhwal. SM Trop Med J. 2017; 2(1): 1013.
https://dx.doi.org/10.36876/smtmj.1013

The present study was carried out in Pabau Block of District Pauri Garhwal to understand the use of ethnomedicinal plants their cultivation and conservation efforts by the local people. Pabau Block is located in the rural part of Uttarakhand, lies in between 29°45' to 30°15'N latitudes and 78°24' to 79°23'E longitudes where few villagers survey were conducted between altitudes of 1349 to 1800m amsl. Although so far people have not received proper attention of ethnomedicinal in this region.

It has been noticed that, the region is rich in plant diversity and the peoples are using these plants for curing different ailments both human and animal. The villagers are trying to cultivate some plants in minor scale as well as conserving them in natural conditions also.

In the field survey of 2016 on the ethnomedicinal plants, it has been reported that local villagers treatment many diseases using local plants. The information was gathered from local people inhabitant of study area especially old age people because they are well aware of the plants and their uses.

In the present study plants were used for the treatment of various diseases, belonging to different genera and families. The traditional healers were using these plants to treat various diseases like ulcer, skin infection, sugar, dysentery, diarrhea, leprosy, wounds, anemia, diabetes, inflammations and fever, dental caries, stomach-ache, pyorrhea, arthritis, blood pressure, ringworm, boils and pimples, asthma, cough & cold, vomiting, eye tonic, jaundice, piles and fistula, kidney problem etc. The local inhabitant are also using these plants for several other purposes such as timber, fuel, vegetable, food, fruit, beautification, spice, tooth powder and believed to get rid of all evils. The plants parts used are; roots, leaves, fruits, seeds, stems, barks, bud, flower and whole plants. These are taken orally or applied locally in the form of infusion, decoction, paste or powder as required.

The traditionally available medicinal plant found in Pabau Block of Pauri District are supposed to serve as alternative to medicinal facilities available to the local communities who have poor economic conditions. The status of traditional knowledge of medicinal plants everywhere is a deep concerning matter as the traditional knowledge is day by day declining and evanescing from the country side [2]. Due to commercially exploited by drug dealers many species are under threat category. There is an essential need for protection and conservation of such species for sustainable development [17].

Among the species reported from the present study villages, some of the villagers are cultivating some valuable species such as *Aloe vera*, *Boerhavia diffusa*, *Centella asiatica*, *Ocimum sanctum*, *Crocus sativus*, *Tinospora sinensis* in limited amount. The ethno-medicinal survey of the study area indicates that currently the local people use these plant species for themselves but some of these people use for commercial purpose such as *Aloe vera* and *Tinospora sinensis* however, not in large scale. The cultivation of these medicinal plants are helping in earn something for poor village's people. Therefore ehnomedicinal plant have plenty importance for economic generations.

The conservation practices followed by the villages of ethnomedicinal plants in the form of cultivation practices, conservation in natural habitat and collect the stored material for long term utilization were identified and documented for species. The conservation practices have also been observed in three villages i.e., Hariyali shen, Gwadigad and Sarana where few families are engaged in cultivation of medicinal plants and preserving them for further uses.

In the mountain state of Uttarakhand, due to excessive extraction of medicinal plant species is observed serious problems leading loss of medicinal plants resources. The state government of Uttarakhand has introduced series of policies to promote the conservation of these species and encourage farmers to cultivate them and supplement their incomes. Cultivation of medicinal plant is gaining ground because of the sky rocketing prices of allopathic medicines which also have side effects. Cultivation of medicinal plants is economically very attractive. Success stories of farmers on cultivating *Aloe vera* have also been reported [18]. The cultivation of medicinal plants is considered to be of great importance for the safeguarding of biodiversity and contribution to rural livelihoods in Uttarakhand. It is hoped that cultivated medicinal plant material will provide an alternative source of supply to the market, and thereby reduce the need for collection of these plants from the wild. Cultivation will also provide an additional source of income for the state's rural poor.

The study shows that the cultivation of medicinal plants and their conservation will play an important role in the livelihood strategies of the villagers. Thus cultivation of medicinal plants is a viable option to improve the livelihoods of poor farmers.

References

1. De Silva T. Industrial utilization of medicinal plants in developing countries. Bodeker G, Bhat KKS, Burley J. and Vantomme P, editors. In: Medicinal plants for Forest Conservation and Healthcare. Non Wood Forest Products. FAO, Rome, Itlay. 1997; 38-48.
2. Pala NA, Negi AK, Todaria NP. Traditional uses of medicinal plants of Pauri Garhwal, Uttrakhand. New York Science Journal. 2010; 3: 61-65.
3. Ashima. Medicinal Plants Used in the Treatment of Skin Diseases-A Review. Research and Review: Journal of Agriculture and Allied Sciences. 2016; 5: 79-85.
4. Sharma M, Kumar A. Traditional medicinal plants of Rajasthan used in Tribal medicine: A Review. International Journal of Life Science and Parma Research. 2013; 3: 38-42.
5. Agarwal S, Kumar VR, Kumar A. Ethnobotanical studies on Ocimum species in Rajasthan, India. Int Res J Pharm. 2013; 4: 228-231.
6. Uniyal SK, Awasthi A, Rawat GS. Current status and distribution of commercially exploited medicinal and aromatic plants in upper Gori valley, Kumaon Himalaya, Uttaranchal. Current Science. 2002; 82: 1246-1252.
7. Vedavathy S. Scope and importance of traditional medicine, India Journal of Traditional Knowledge. 2003; 2: 236-239.
8. GOI. Report of the Task Force on Conservation and Sustainable use of Medicinal Plants. New Delhi: Planning Commission, Govt of India. 2000.
9. Chevallier A. The encyclopaedia of medicinal plants. New York: DK Publishing Inc. 1996; 298.
10. Kandari LS, Phondari PG, Payal KC, Rao KS, Maikhuri RK. Ethnobotanical study towards conservation of medicinal and aromatic plants in upper catchments of dhavli Ganga in the central Himalaya. J Mount Sci. 2012; 9: 287-296.
11. Lai PK, Roy J. Antimicrobial and chemopreventive properties of herbs and spices. Curr Med Chem. 2004; 11: 1451-1460.
12. Tapsell LC, Hemphill I, Cobiac L, Patch CS, Sullivan DR, Fenech M, et al. Health benefits of herbs and spices: the past, the present, the future. Med J Aust. 2006; 185: 4-24.

Citation: Naithani M and Kumar M. Ethnomedicinal Plants: Efforts on their Cultivation and Conservation in Pabau Block, Pauri Garhwal. SM Trop Med J. 2017; 2(1): 1013.
https://dx.doi.org/10.36876/smtmj.1013

13. Srivastava R. Studying the information needs of medicinal plants stakeholders in Europe. TRAFFIC Dispatches. 2000; 15: 5.

14. Pei SJ. Ethnobotanical approaches of traditional medicine studies: Some experiences from Asia. Pharm Biol. 2001; 39: 74-79.

15. Uniyal RC. Research for 'Medicinal plants cultivation in India-a reference book in Medicinal Plants Stakeholders' Meeting. TRAFFFIC – India, New Delhi, India. 2000.

16. Dangwal LR, Sharma A, Rana CS. Ethno-medicinal Plants of the Garhwal Himalaya Used to Cure Various Diseases: A Case Study. New York Science Journal. 2010; 3: 28-31.

17. Sharma J, Gaur RD, Painuli RM. Conservation status and diversity of some important plants in the Shiwalik Himalaya of Uttarakhand, India. Department of Botany, HNBGU, Srinagar (Garhwal)-266174, Uttarakhand, India. 2011.

18. Biswas BC. Cultivation of Medicinal Plant Success Stories of Two Farmers. Fertiliser Marketing News. 2010; 41: 1-4.

Citation: Naithani M and Kumar M. Ethnomedicinal Plants: Efforts on their Cultivation and Conservation in Pabau Block, Pauri Garhwal. SM Trop Med J. 2017; 2(1): 1013.
https://dx.doi.org/10.36876/smtmj.1013