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Contribution of Medicinal Plants for People, Their Health And Illness

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Abstract

The medicinal properties of plant species have made an outstanding contribution in the origin and evoluation of many traditional herbal therapies. A large number of people in both developing and developed countries rely on medicinal plant products to maintain their health or treat illness. Over the past few years however, the medicinal plants have regained a wide recognition due to an escalating faith in herbal medicine in view of its lesser side effects compared, to allopathic median medicinal plants, defined as plants used for maintaining health and treating illness are used in a plethora of ways in both allopathic and traditional systems of medicine in countries across the world.

Key words: Pharmaceutical, Habitat, Empirical, sustainable

Introduction

Forests have played key roles in the lives of people living in both mountains and lowland areas by supplying fresh water and oxygen as well as providing a diversity of valuable forest products for food and medicine. The cosmetic industries are increasingly using natural ingredients in their products and these natural ingredients include extracts of several medicinal plants. official statistics on medicinal plants trade and consumption are secant not very informative as medicinal plant products are often part of the informal economy.

Literature Review :

0Plants are reported to be the first medicines for mankind. It has been documented that hundreds of plant species are harvested for their medicinal properties all over the World. Though modern pharmaceutical chemical drugs are available to treat illnesses, medicinal plants remain an important tool for treating various diseases. In Indonesia, Plectranthus amboinicus is a traditional food used in soup to stimulate lactation for a month or so following childbirth. The herb is also used as a substitute for oregano in the food trade and food labeled “oregano-flavored” (Gurgel and Silva, 2009). The results of a

most recent research on the study of its neuro protective effect using aluminum induced neurotoxicity in rats strengthen the oxidative stress hypothesis of aluminum-induced neurotoxicity and suggest the beneficial role of the methanolic leaf extract in the management of Alzheimer's disease, oxidative stress and moreover cognitive-enhancing activity of the plant may be exerted through antioxidant mechanism (Rajathi et al., 2013). Reports states that compounds such as superoxide anion and peroxides do not directly interact with lipids to initiate oxidation but they interact with metals or oxygen to form reactive species whereas, the enzyme superoxide dismutase that is found in tissues catalyzes the conversion of superoxide anion to hydrogen peroxide (Joanny, 2005). All these above mentioned literature review relates the potential benefits of using these plants as medicine for microbial infection, inflammation, cancer and the associated oxidative stress with cancer. Moreover, these literature reports warrant and provide us a new avenvue for the commencement of our research work in thesea medicinal plants.

Experimental Procedure

The ongoing growing recognition of medicinal plants is due to several reasons, including escalating faith is herbal medicine, allopathic medicine may cure a wide range of diseases, however, its prices and side-effects are causing many people to return to herbal medicines which have lesser side effects.

Traditional medicine based on herbal remedies has always played a key role in the health systems of many countries. In India the native people are exploring a variety of herbals for effective curing of various ailments, The plant parts used, preparation and administration of drugs vary from one place to other. The value and importance of traditional knowledge are now being increasingly acknowledge all over the world. The pharmaceutical industry continues to investigate and confirm the efficacy of many medicines and toxins used by traditional communities.

Through millennia of trail and error, indigenous people have gained substantial knowledge of medicinal plants which has been transmitted from generation to generation as part of oral traditions However, concerns are being raised about the loss of native knowledge and the possible extinction of medicinal plant resources due to disruptions to traditional ways of life induced by colonial forces. Several of these medicinal plant species have slow growth rate, low population densities and narrow geographic ranges. Further more, the indigenous knowledge on the use of lesser-known medicinal plants is also rapidly declining. Through the realization of the continuous erosion in the traditional knowledge of many valuable plants for medicine in the past and the renewal interest.

Table 1. Number of plant flora and the medicinal plants reported from selected countries

Country	Higher plant species	Medicinal plant species	% of medicinal plants
Africa	45,000	5000	11.1
Australia	19,324	1,511	7.8
China	26,092	4,941	18.9
Bhutan	5,603	600	10.7
India	15,000	3,000	20.0
Indonesia	22,500	1,000	4.4
MalaYSIA	15,500	1,200	7.7
Nepal	6,973	700	10.0
Pakistan	4,950	300	6.18
Philippines	8,931	850	9.5
Sri Lanka	3,314	550	16.5
Thailand	11,625	1,800	15.5
USA	21,641	2,564	11.8
Vietnam	10,500	1,800	17.1

Use and diversity in medicinal plants:

About 3 lacs species in flora in which 53000 are known for medicinal uses. In India of the 18000 species of higher plants, 8000 are known for medicinal uses. This proportion of medicinal plants in the highest proportion of plants known for their medicinal uses in any country of the word: Ayurveda the oldest medical system in Indian sub-continent has alone reported approximately 2000 medicinal plant species. The northern part of India harbours a great diversity of medicinal plants because of the majestic Himalayan

range. India's forests have long played an intergral mole in supporting the lives of Aboriginal people, meeting their physical, spiritual, cultural and material needs Traditional knowledge related to medicinal plants has been instrumental in the survival and wellbeing of Aboriginal people for thousands of years. Unfortunately this type of knowledge has been seriously eroding over the past decades indicating challenges for restoration.

Table 2. Source of medicinal plants in the study area

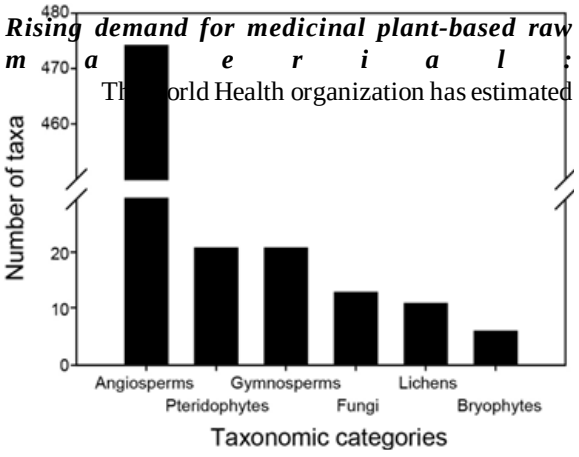
Medicinal plant cultivation	Frequency	Percentage
Cultivated	112	48.91
Collect at wild habitat	85	37.12
Buy in market	17	7.42
From neighbors	14	6.11
others	1	0.44
Total	229	

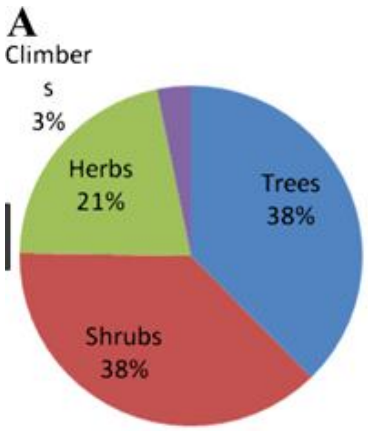
Several plant species are endemic to the Himalayan region. So far about 8000 species of angiosperms 1750 species are known as medicinal plants. The maximum species of medicinal plants have been reported from Uttaranchal, followed by Sikkim and North Bangal. The trans-Himalaya sustains about 350 species of medicinal plants, out of total known number of higher plants from India, approximately 46% are endemic to the Himalaya and 200 extend their distribution to the adjacent areas. About 200 species of Himalayan medicinal plants are consumed raw, roasted, boiled, fried cooked or they are used in the form of axe spices fams or pickles. Apart from the human use, animal husbandry uses many plant species as its primary source of healthcare in northern India.

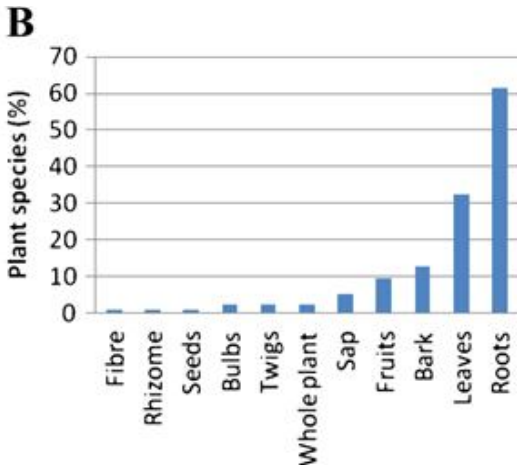
The continuous in erease in human population is one of the causes for concern in meeting the daily requirements of food and medicine as the economy and livelihoods of human societies living in developing countries primarily depand on forest products. This phenomenon is leading to continuous erosion of forest and forest products, thus making challenge to meet the requirements as well as to conserve useful bio-resources. More and more species are being gradually added in the Material Medica however, the standards of their purity and correct identification do not keep pace with the process of expansion.

Rising demand for medicinal plant-based raw m a e r i a l :

Th orld Health organization has estimated







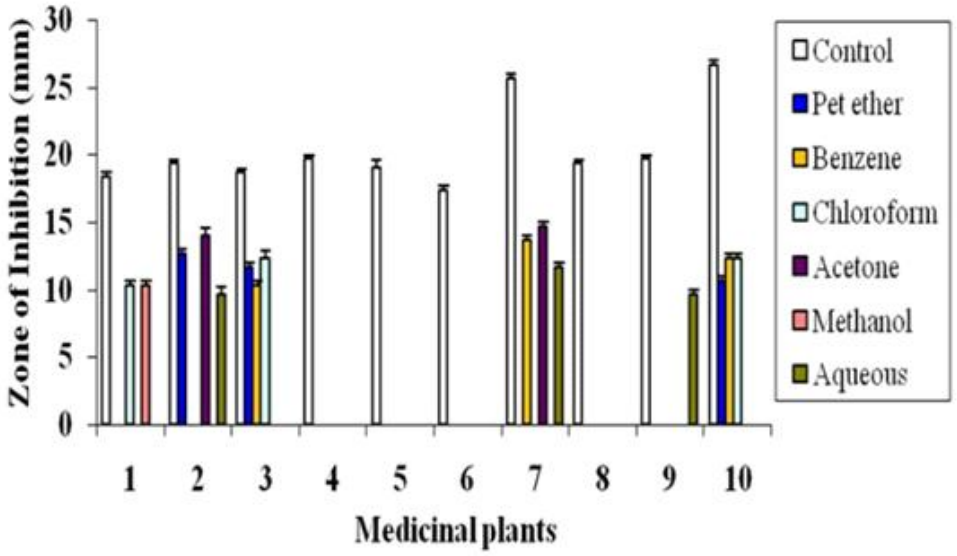


Figure 3: The antibacterial activity of medicinal plants against *P. vulgaris*.
Abbreviations: 1, *A. racemosus*; 2 *A. tenuifolius*; 3, *B. aegyptiaca*; 4, *C. diurnum*; 5, *C. dichotoma*; 6 , *E. alba* ; 7, *M. koenigii* ; 8 , *P. murex*; 9, *R. communis*; 10, *T. foenum-graecum*.

the present demand for medicinal plants US dollar 15 billion per year The demand for medicinal plant-based raw materials is growing at the rate of 20% to 25% per year. In India, the medicinal plant-based trade is estimated to be approximately Rs 6500 crore per year. The projected escalating demand of medicinal plants has led to the over harvesting of many plants from wild which subsequently results in the loss of their existing populations. More than 90% of the 500 plant species used in preparing medicine by various industries are harvested from wild population in India. Harvesting medicinal plants for commercial use coupled with the destructive harvest of underground parts of slow reproducing slow growing and habitat-specific species are the crucial factors in meeting the goal of sustainability. Further more rising demand with shrinking habitats may lead to the local extinction of many medicinal-plant species.

Determinants of medicinal plant consumption :

There are four spatial levels of analysis such as international, national, local and household. At each level, three to four main factors and links between factors are indentified, each link is assigned a unique member. Direct impacts are caused by physical or biological factors that influence medicinal plant consumption without interacting with social systems or other mechanisms the direct impact of climate changes on medicinal plant supplies through changed growth conditions. There is now near unanimous agreement that anthropogenic greenhouse gas emissions will change the Earth's climate. Climate change will directly affect medicinal plant supply through changes in habitat structure and plant species composition. Policies and budgets influence the supply of medicinal plants through decisions affecting resource management. Between 1960 to 1970 many Nepalese farmers moved from hill areas to lowlands in response to overcrowding and stagnant agricultural productivity in the hills and eradication of malaria and agricultural land availability in the lowlands while the world population growth rate has declined between 1960 to 1970, substantial population increases are still expected in some regions.

Methods

The field survey covered different seasons. The survey was started in rainy seasons and collections ware repeated every month for three years. Seasonal variations and frequency of plant occurrence were noted. The interviews were conducted randomly of local vaidyes and Hakims who act as plant collectors and local healers. The study did not involve interviews with tribal people and the dosages specific formulations and mode of administration were recorded but retainer as intellectual property of the informants.

During the field visits the survey of data collection was made in different places such as bare lands, waste lands near ponds road side and agricultural farms. The collected samples of plants were brought for personal collection and identification.

Results and Discussion

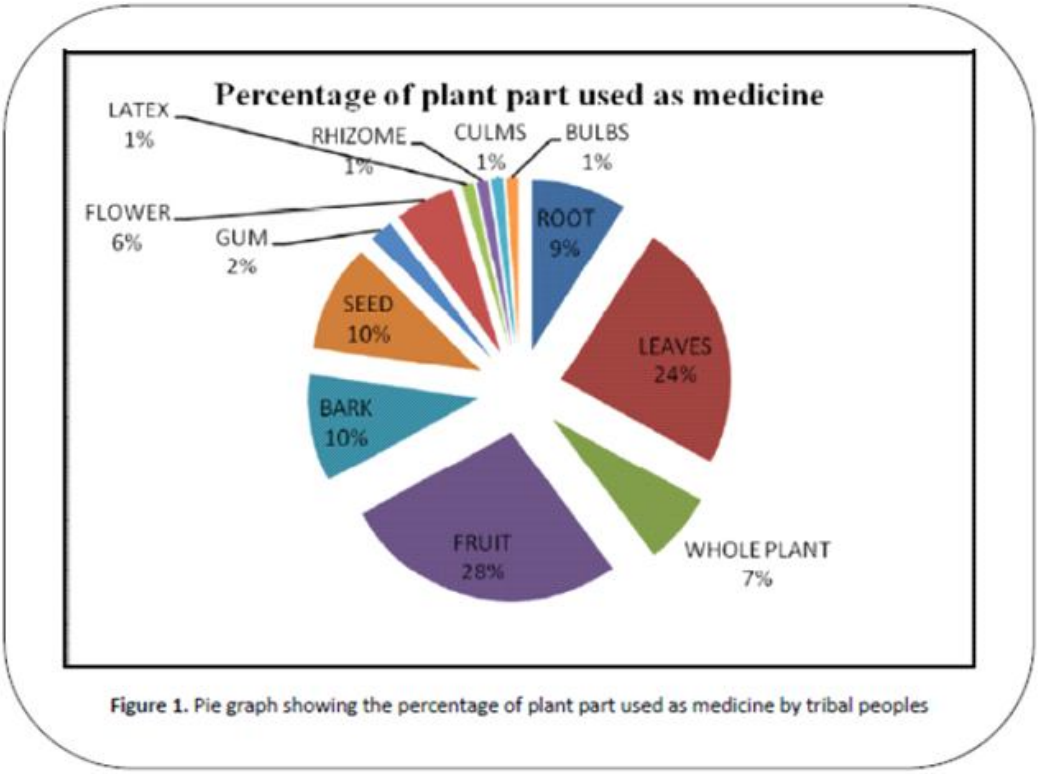


Figure 1. Pie graph showing the percentage of plant part used as medicine by tribal peoples

The traditional medical systems of northern India such as Ayurveda and Tibetan are part of a time-tested culture and honoured by people still today. India has a tradition of codified health care systems Ayurveda, Siddha and Unani functions mainly through folk stream and classical stream. The former is based on oral traditions, practiced by villagers and the tribal communities Keeping the importance of plants in consideration, large numbers of commercially important medicinal plant species are over-exploited by persons involved in the trade.

Conclusion

The paper inductively synthesises available scattered knowledge on medicinal plant production, trade and consumption to propose a conceptual framework indentifying the factors, and their interconnectedness, determining medicinal plant consumption. The proof of success however is whether the proposed framework will stimulate research that is empirically and theoretically richer than in the past and whether the resultant outcomes will more

effectively contribute to improved human health and better plant resource management. Therefore, there is immediate need to conserve these important plant species for sustainable uses for the future. Efforts should be taken to start sustainable cultivation and harvesting programmes in agricultural farms around Chandausi.

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