

IMPORTANCE OF HERBAL MEDICINAL PLANTS IN PRESENT SCENARIO – REVIEW

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Abstract- India is a land with richest biodiversity of flora and fauna. Medicinal plants have been used for curing of diseases in various developing countries. These plants uses range the production of various pharmaceutical product for herbal medicine preparations. Because herbal medicine has been considered one of oldest form of ayurvedic medicine treatment in human recant past history. Increasing the forest wealth by plantation to increase Biodiversity on earth. It help to advancement for ecotourism. Because increase Biodiversity due to it protect natural environment and our natural Heritage.

But the loss of biodiversity is mainly due to habitat destruction and over exploitation of Natural resources, Excessive and Uncontrolled biotic interference also gives effect depletion of biodiversity analytical causes over grazing, industry, urbanization, scientific and Educational research. Rapid destruction of forest vegetation is the main reason for loss of Biodiversity. Which causes mainly extinction of species both flora and fauna.

In this review we are highlighting important knowledge utility of medicinal plants is mostly used for curing of various diseases. Such diabetes, cancer AIDS etc. Today due to deforestation and various types of medicinal flora has been disappeared from environment due to there is urgent need to collect and recording. Such information for the morden medicine system.

Key Words: Environment, Diabetes, Word Health Organisation, Pharmaceutical, Agronomy, AIDS.

1.INTRODUCTION

Medicinal plants are considered as rich sources of Antioxidants which can be used in preparation of drug formulation either pharmaceutical or Homoeopathic. A part of these plants (stem, Roots, Leaf, Flower) play important role in development of various types of medicines around the world. According to WHO- A medicinal plant is that species of plant kingdom, whose parts (flower, leaves, stem, fruits, seeds) are directly used

or used in same preperation as a medicine to treat a conclition or disease from phytomedecine [1].

Export of medicinal plants and herbs from India is increasing last few years. India is second largest producer of castor seed in world. These herbs having medicinal properties which is used in treatment of many internal diseases. Medicinal plants such as *Turmeric, Ginger, Neem, Tulsi, Aloe vera* cure several common diseases. These are considered as home remedy in many parts of country.

Medicinal plants have been the basis of treatment of various diseases in African traditional medecine as well as other forms of treatment. About 80% of world population still depends completely on Traditional and Herbal medecine for treatment of disease [2].

Over 90% of traditional treatment contains medicinal plants. This paper represent, specially, the Highlighted of medicinal flora that have been used for therapeutic cure of various ailments. Plant have been traditionally used for hundred of years as a sources of Indigenouse people of different tribal group that medicinal plants have been used countless time for curing of disease mainly in developing countries [3]. They are easily available with do not side effects when compared to modern medecine.

2.MATERIALS AND METHOD

Systematic review paper was conducted on the basis of study of various research article, research paper and article, mazine, newspaper. Knowledge comprehensively throughful interpretation of finding of various research projects to study various uses of medicinal plants treating in cancer, diabetes and other diseases.

The Indian subcontinent consists of about 17,000 species of flowering plants. Out of them about 1000 species of useful and medicinal plants are reported. Out of these only 1000 species are considered as medicinal herbs, some of them are our regular food plants. They are trees, shrubs, climbers, herbs and grasses. The medicinal properties of plants have been investigated in the recent scientific

developments throughout the world, due to their potent therapeutic efficacy and antioxidant activities, no side effects and economic viability.

3. BENEFICIAL ASPECT OF THIS PROJECT FOR SOCIETY

- i. India is a independent country. Discovery of new herbal medicines is helpful for India as well as different countries under collaboration of advancement and enrichment of Indian medicine has play important role to putting mild stone of different laboratory work which help for different countries to put in collaboration with work of scientific level research, data interpretation of discovery of new medicines in pharmaceutical field.
- ii. Medicinal plants play vital role in disease prevention and their promotion and use fit into all existing strategies. There is concious effort need to be made to properly identify, recognises position in the design and implementation of these strategies [4].
- iii. Biodiversity refers to variability among the living organism plants, animals, microbes from all sources. It refers to variability's within species, it is assemblage of different life forms. It has been estimated more than 50 million species of plant animals and microbes out of these about two millions organism have been identified. But other species are not discovered yet.
- iv. Environment is complex of factors which include everything that may effect of life of organism. Soil, Water forces winds, Temperature, Humidity, Rainfall are abiotic factors.
- v. These factors studied separately. But they may considering interacting effect upon various organisms (Plant & animals) in environment.
- vi. The India is very rich in all aspects of Biodiversity and represent to total world flora and fauna and microorganism.
- vii. The Indian subcontinent commonly known as 'Hindustan centre' one of twelve centre of origin and diversity of crop plants. The important crop plants are rice, sugarcane, millets, Brassica compestris, *Ficus religiosa*, citrus, *Punica granatum*, jack fruit, black peeper, Cardomon, turmeric, *Ocimum sanctum*, *Maduca longifolia*, *Terminalia arjuna*, *Acacia nilotica*, *Vitex nirgundi*, *Sal*, *Khajur*, *bamboo*, *Catharanthus roseus*, *Agele marmelos*, *Asparagus racemosus*.
- viii. These species of flora and fauna comes under category of endangered No. of different species which are extinct due to habitat destruction and climatic changes. These extinct species were noted in Red Data book under endangered species category. In that various no. of extinct species has been registered. Because either

these species are totally extinct or facing risk of endangered in biotic environment.

- ix. To overcome of these problems detailed study of medicinal flora important because medicinal plants posses various type of phytochemicals like Saponins, alkaloids, hydrocarbons, phytotoxins, flavanoids, tanins steriods, terpenoids etc.
- x. These plants leaves, flowers, barks, roots has been widely used in treatment of various diseases. The phytochemicals in this plant shows biological activities including protection against various pathogens and increases immunity in Hameopathy and Ayurvedic, Unani and Allopathic medicine system.
- xi. This project research improve strengthen the relationship between indigenous knowledge ethanomedicinal practices in the field of Pharmacology. Therefore it is suggested that summary report of medicinal plants would be useful and in developing news drugs for treatment of Diabetes, Blood Pressure, Cancer, AIDs and many more
- xii. Ethanobotanical study not still play important role in primary health care but also play vital role in conservation of phytodiversity and cultural diversity on earth. Study of Medicinal plants and diversity. help to increases forest area surrounding in nature it decreases harmful effect of pollution on flora, fauna, living being surrounding environment.
- xiii. Biodiversity is a sources of significant various benefits which form foundation of sustainable development. Conservation is the protection, preservation and management of natural resources such as forest, medicinal plants , Flora and wildlife. Though conservation of Biodiversity, basis the survival of many species and habitats which are threatened due to human activities [5].
- xiv. By conservation of phytodiversity in nature it indirectly helps protect wild life in nature. Because animals are directly depends upon plants for shelter and survival. Because wild flora and fauna both are equally important for maintaining proper balance in nature, wild flora and fauna is important living organism as a Biotic factors of surrounding ecosystem. By maintaining number of flora and fauna in nature, it give stability in environment and ecosystem helps to maintain sustainable management in nature.

4. LIST OF COMMON PLANTS USED FOR THE TREATMENT OF DIABETIC & CANCER

4.1 *Agele marmelos*

Common name : Bael

Family : Rutaceae

Parts used : Bael leaf extracts, fruit extracts, root



Medicinal uses:- Bael is most ancient sacred tree in India. It is used as dedication of Gods. Its leaves of tree used for worship of Lord Shiva.

The plant species act as climate purifier by absorbing harmful gases from atmosphere
 Medicinal values: Bael has several medicinal value because of the presence of various alkaloids, polysachriods, essential oil. It shows anti oxidant activities.

It is used in anticancer activity.



- According to Ayurveda Bael fruits are also used in treatment of diarrhea, dysentery and Peptic ulcers.

- Bael leaves, fruit extracts, root have been studied for their antimicrobial properties.
- Scientific studies shows that it shows many ethanobotanical uses, report indicates that the fruit posses broad range of therapeutic effects it included free radical scavenging antioxidant, antibacterial antidiabetic properties, cardio-protective properties.
- The medicinal value of Bael fruit is enhanced due to presence of Tanin. This substance helps to cure diabetes.
- The *Agel marmelos* has been used as herbal medicine in Ayurveda, Unani and Siddha system of medicine

The unripe dried fruit is astringent digestive stomachic and used to cure diarrhea. Due to this reason Bael fruit useful for digestion it helps to destroys worms in Intestine.

4.2 *Bahunia varigeta*

Common name : Orchid tree or Kachnar

Family : Fabaceae

Plants used:



Bark, extract, leaves, whole plant extract, flower buds, roots

Medicinal uses:-

1. Purplish- *Bahunia purpurea*
2. Yellow- *Bahunia tomentosa*- Southern India
3. White to purplish- *Bahunia accuminata*

Mostly white flower of Bahunia is used for ornamental purpose.

Kachnar tree is a Nitrogen fixing tree to enrich soil fertility and anti ulcer anticarcinogenic.

- Kachnar tree have antidiabetic antiinflammatory, antitumour, antibacterial, anti ulcer,



anticarcinogenic, antimicrobials antidiabetic properties antimalarial, antifungal pain reducing properties.

- It's leaves very nutritious and helpful in curing weakness and reducing sugar level.
- All parts of kachnar plant has been important medicine in Ayurvedic system of medicine in controlling diabetes scientific study proven that insulin like substance present in leaves of this plant.



- It's branches ash used as toothache.

The flowers of Kachnar are thought to be blood purifier. They help in getting rid of blood toxins.

- Kachnar bark is used in treating stomach related problem, ulcer, tumour
- It purifies cleans ulcer and wound. It is antidermatis and cure urinary disorders
- It's fruit is light dry having binding capacity used for treatment of tuberculosis, Bronchial asthma. It is cure disorder of blood.
- In traditional system of medicine leaves are rich in reducing sugar (tanin sugar) good nutritive value for tasar silk worm
- In Ayurvedic system all the parts of this plant used in thyroid and glandular enlargements

4.3 *Catharanthus roseus*

Common Name : Sadabahar or Vinca rosea

Family : Apocynaceae

Plants used : Leaves, stem, flower, root

Sadabahar or periwinkle is very commonly grown plant in India. There are two varieties pink and white coloured flower.



Sadabahar or *Vinca rosea* that is evergreen shrub that is commonly grown world wide both ornamental and medicinal purpose.

Health benefits: *Vinca rosea* contain two classes of active compounds, the alkaloids, the tanins, more than 100 alkaloids found in this plant of which vincristine and vinblastine are most notable for their medicinal properties. In traditional medicinal system it is used a gargle of sore throats, flower extracts used for infant eye wash.

1. The leaves, stem are a sources of alkaloids that have antitumor and anticancer properties
2. The leaves are used to control diabetes and high blood pressure.
3. t relieves muscle pain and depression.
4. Because of its property of detoxification and act as poison it is used to relief wasp strings.
5. The *Vinca rosea* plant ensure brain health. Its active ingredients improve blood supply to the brain. Hence it increase level of O₂ that brain can utilised. It also releases serotonin levels and prevent abnormal coagulation of blood.

The chemotherapy agent is extracted from *Vinca rosea* used to treat Leukemia's Lymphomas, Childhood cancer.

4.4 *Azadirachita indica*

Common name	:	Neem
Family	:	Meliaceae
Plants used	:	Leaves, Flowers, Fruits, Bark, Seed, Neem twigs

Medicinal uses:-

Neem leaf is used for leprosy, eye disorder, bloody nose, intestinal worm, stomach upset, loss of appetite, skin ulcers, disease of the heart, (Cardiovascular disease) fever, diabetes, gum disease and liver problems.



- The bark is used for malaria, stomach and intestinal ulcers, skin disease, pain, diabetes, leprosy, eye disorder.
- Neem is tree. The bark, leaves, seeds are used for preparation in Pharmaceutical medicinal purpose.



- According to "Ayurveda for all" Book it suggest primary purpose of neem leaf it Purify blood and prevent damage caused by free radicals in the body.
- Neem leaves have antibacterial properties it works wonders on infection, burn and any kind of skin problems, it stimulates the immune system.
- The stem root bark, fruit are used as tonic and astringent.
- Neem leaf extracts and seeds are used as an active ingredient as effective cure of diabetes.

- Neem tablets can also taken as dietary supplement
- Its seed oil is help to reduce the insulin requirements helps to lowering blood glucose level. Due to this reason popularity of Neem is diabetes curing drugs.

5. TRADITIONAL USES OF MEDICINAL PLANTS IN NATURE

A World Health Organization (WHO) expert group defined traditional medicine as sum total of all knowledge and practice. Over 90% of Traditional treatment contain medicinal plant origin. Our ancient literature also remarkable information right from Athurveda which give reference on Native plants and their medicinal properties helpful human suffering for enhancement of long and healthy life. Forest play an important role in reducing environmental pollution in Nature for absorbing CO₂ from atmosphere and increases pure oxygen in Nature.

This research review report will be useful for Researchers, P.G students in various fields of medicine for purpose of completion of their project, dissertation and helpful for discovery of new medicine in treatment of various diseases in future.

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