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Conservation Practices and Utilization strategies of Medicinal Plants in Bhandare districtrict of Vidarbha Region M.S. India

D.D. Ramteke, S.B. Zade and C.J. Khune
Dept. of Botany and Biotechnology, Samarth Mahavidyalaya Lakhani Dist- Bhandara
P.G. Dept. of Zoology and Sericulture, M. B. Patel College Sakoli Dist- Bhandara (Maharashtra)

Abstract

Herbal remedies have attained much more popularity in the treatment of minor ailments due to increasing awareness of personal health maintenance through natural products. Indeed the market and public demand has been so great that there is extinction risk to many medicinal plants and obviously the loss of genetic diversity demanding immediate innervations for conservation. The present investigation has been done in Bhandara of Vidarbha region of Maharashtra state. The paper includes important medicinal plant, which is under endangered and threatened categories. It also include survey, conservation, cultivation along with their utilization with respect to economic, ethanobotanical and ethanomedicinal properties.

Keywords -: *Conservation, medicinal plants, Vidarbha region, ethanomedicinal.*

Introduction

Medicinal plants are the local heritage with global importance. Herbs have always been the principle form of medicine in India. It is estimated that around 70 thousand plant species at one time have been used for medicinal purposes. The Rigveda, Yajurveda, Charak samhita, sushrut samhita describes properties and types of various medicinal plants in Ayurvedic system of medicine.

There is a great commercial demand of pharmacopoeias drugs and their products in India, efforts have been made to introduce much drug plant under conservation and utilization by tribal people of the Bhandara district of the vidarbha region. The present works have undertaken studies on conservation along with utilization of medicinal plants, which are economically, ethanobotanically and ethanomedicinally important. There is need to give priority to conservation of endangered & threatened medicinal plants through in-situ and ex-situ preservation of these species.

Methodology

The survey of various medicinal plants, which are found in the region, are considered for this study. These plants are ethanomedicinally as well as ethanobotanically very important. These plants are collected for their morphotaxonomic studies. Information related to their chemical nature and mode of action is studied by trial on tribal peoples. Information regarding to the one of particular plant or its part to cure various diseases have been collected. Some times decoction of plants or in some cases plant parts are mixed together and use as drug.

The specimens are preserved in h4erbarium. The visual charts of plants with various information are prepared and stored in the laboratory. Further research should also link management and conservation of medicinal plants with the development of these resources. First of all conservation of vulnerable species is done at grass root level. For this purpose sustainable collection and management practices on public

land has been adopted. It takes place by means of agricultural development. These researches have focused to improve basic knowledge about cultivation practices and dissemination of plant species.

Discussion

Since a decade the need was felt to have compressive conservation and management. The total scenario demands sustainable system approach. The plants have different habit and habitats. Generally it is herbs, shrubs or tree. These plants are naturally occurring in the region and need special care. Conservation practices and management of medicinal plant for the benefit of life including humankind of biosphere. So that it may yield sustainable benefit to present generation.

In-situ Conservation

Medicinal plants mentioned in this paper conserve at the genetic, species and eco system level on long-term basis. There are also endemic species. Conservation of these widely spread population is possible only through setting up a network of representative medicinal plant reserve.

Ex-Situ Conservation

Development of ethanomedicinal and ethnobotanical plant garden of important plant known to various ethic communities of the Bhandara District. Gene banks are developed for medicinal plants found in the region with priority to known rare, endangered, threatened and endemic Species. Nursery network is most urgent task in order to ensure immediate availability of plants.

Utilization strategies

Medicinal plants have curative properties due to presence of various complex chemical substances of different chemical compositions, which are found as secondary plant metabolites. These plant metabolites according to their composition are grouped as alkaloids, glycosides, corticoids, essential oils etc. The alkaloids form largest group which includes morphine & codeine (poppy), Strychnine and brucin (nuxvomica), quinine (cinchona), scolaphomine (datura), reserpine (rauwolfia), Glycosides from another important group by sycurhizine (liquorice), barboline (aloe), Cannocides (senna) etc. Corticosteroides have been reported from solasodine (Solarium sp.), senocides (senna), etc.

The plants considered for study are naturally occurring. Due to limitation of paper it is not possible to name all the plants here but some important plant species are listed here with botanical Nomenclature. The present work is done for study conservation of medicinal plant diversity in ancient literature, their taxonomic status, database management, Biotechnology and gene pool maintenance of some medicinal and herbal plants like *Abelmoschus moschatus*, *Acrous calamus*, *Andrographis paniculata*, *Asparagus resimosus*, *Bacopa moniera*, *Berberis aristata*, *Centella asiatica*, *Clotolaria ternatea*, *Commiphora wighii*, *Curcuma amada*, *Cassia angustifolia*, *Coleus barbatus*, *Emblica officinales*, *Gloriosa superba*, *Hemidesmus indicum*, *Lepidium sativum*, *Mucuna prurita*, *Lepidum sativum*, *Phyllanthus niruri*, *Picrorhiza kurroa*, *Piper longum*, *Plumbago zylanica*, *Rauwolfia serpentima Sassuria costus, Semicarpus anacardium*, *Solanum nigrum*, *Stevia rebaudiana*, *Swertia chirata*, *Tinosora cordifolia*, *Withania somnirera etc*. The present work done for study conservation and utilization of some importance medicinal plants found in area of Bhandara district in ancient literature, their status, database management, Biotechnology and gene

maintenance.

Conclusion & Result

The strategic multidiscipline research in a holistic manner will check the depletion rate of these important medicinal plants, Available genetic resources of these plants after a huge resource of such utilzing phyto molecules of varied applications. This need not only to conserve & characterized but also used to be protected in terms to provide a sustainable source.

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