

Ethanomedicinal Plants – The Forgotten Healers

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India is one of the twelve mega-biodiversity countries of the world and is blessed with a variety of topographical regions, climates and ecological zones. The flora is extremely diverse and thus medicinal plants play an important role in Indian traditional health care systems.

Ethnic people have great expertise in their surrounding plants. Ethano-medicine is the science that deals with the study of traditional medical practices and documentation of indigenous knowledge of the people on plants [1]. This indigenous knowledge about local medicinal plants is time tested and continuously being transferred from one generation to the next, but due to many reasons existence of this valuable knowledge is threatened.

According to the Planning commission of India in 2000, over 8000 plant species are used in our country and most of these plants are collected from the forest by unethical, unorganized and unscientific methods [2]. Due to biodiversity loss, over-exploitation of trade species, invasive species, unsustainable anthropogenic activity, globalization, green revolution, subsistence farming to cash crops, modern agricultural practices, rural-urban migration, socio-economic changes, modern lifestyle, the dependence on external resources without giving importance to the enriched localized natural resources, commercial exploitation, grazing, environment-unfriendly harvesting techniques, death of experienced old aged traditional healers without transferring or recording their knowledge, secrecy and young people's lack of

interest; the cumulative knowledge of medicinal plants is being eroded and might get lost.

Ethnic people rely on plants to acquire primary health care benefits and economic values which are based on observations, needs and experiences. These plants have very easy access, affordability, good result with no or fewer side effects, and are endowed with rich bioactive compounds which show various pharmacological activities. When chemical compounds are derived from a natural source, the success rate of drug research is good which provides a unique opportunity for the pharmaceutical industry to identify its ability to discover a new drug. In past, many important drugs in modern pharmaceuticals have been discovered through this traditional knowledge. For example, Vinblastin and Vincristine are derived from Rosy periwinkle, and used in Hodgkin's disease and pediatric leukemia. Glaucoma is treated with Phytostigmine which is derived from Calabar beans. The famous antimalarial drug named Quinine is found in the bark of the Cinchona tree. Wild Yams found in South America gave Cortisone, which is an active ingredient of birth control pills. During surgery a muscle relaxant is used named Tubocurarine is searched from curare lianas from Amazon rainforests [3]. This underlines the demand of the present era to give utmost attention to the drug discovery process from medicinal plants to search for the disease cure.

Thus, the Conservation, cultivation and sustainable utilization of these plant species along with the documentation are important

steps to prevent the erosion of traditional knowledge. This will also help to strengthen the ecological balance and cultural diversity as well as maintain the livelihood security of local inhabitants. Although ethnic people are practicing and using these herbal remedies from time immemorial but no proper method exists to document this priceless knowledge. This knowledge can only be protected by documenting and placing it in the public domain before it gets disappear with the last practitioners. So, for data collection, various surveys can be conducted with structured questionnaires/interviews, group meetings with Vaidus, herbalists, pansaries, farmers, laborers, landowners, shopkeepers, hakims, and local people having awareness about the medicinal plants along with cowherds, goatherds, shepherds, etc as stated in the Ayurveda. Recently, the World Health Organization (WHO) and the Government of India established the Global Centre for Traditional Medicine (GCTM) in India [4]. It shows the GOI's and WHO's concern towards ethnomedicine for global health and sustainable development.

Despite all of this, many difficulties have to be solved to attain the real potential of ethnomedicinal practices. Combined efforts of the public and government sectors are essential for the promotion of herbal medicine. In recent years, pharmaceutical companies found this medicinal plant wealth as a source of income as the demand for these plants is increasing day by day.

So, it is our present need to bring it under a regulatory framework and encourage these communities for the cultivation of ethanomedicinal plants providing them with developed and improved cultivation techniques of economically viable plant species with market linkage. Apart from this various challenges have to be overcome like irrational use, pharmacovigilance, growing trade demands, research gaps, standardization, quality control issues, etc. Strict implementation of rules, monitoring, and periodic revision of various regulations related to the production, transport, and utilization of herbal preparations should be done. These all steps will safeguard the livelihood improvement and income generation for the people as well as the conservation of plant species.

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Conflict of Interest

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