

Bio-Resources & Its Utilization in Health Sector of India



Dnyaneshwar kantaram Jadhav

Department of Ayurved Medicine, Director of Nakshatra Ayurved clinic & Research center, India

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***Corresponding author:** Dnyaneshwar kantaram Jadhav, Department of Ayurved Medicine, Director of Nakshatra Ayurved clinic & Research center, Mumbai, India Email: dj85015@gmail.com

Abstract

Ayurveda are science of life, which not only have curative drug but have describe prevention of disease. This science include all natural resources for achieve its Moto, like herbal drug, marine thing, stones (jeams), bhasma of dhatus etc. In between period whole world get attracted toward modern medicine. This modern medicine get popular due to its instant result. Slowly people realized side effect of all that chemical medicine.

Nowadays people get attracted toward bio-resource because they want to stay healthy & away from side effect of medicine. The uses of bio resource are best for human. But its sources are limited. If we decide use herbal drug than we must grow it, or else it subsequently result in the loss of their existence. India has richest area of medicinal plants. Variety of bio-resources is available in that area. So there is an urgent need to establish the traditional pathy and utilize all this bio-resources.

Keywords: Bio-resources; Health sector of India; Ayurveda

Introduction

Indian subcontinent is well known for its diversity of forest & the age old healthcare tradition. Every state of India has different culture, climates & plants. As per one Sanskrit shloka, "No Plants on Earth, Which doesn't have Medicine Properties" [1]. As growth of the human population increase more and more, natural area & resources began utilized to build buildings. Such condition invites much new disease. With development in technology and industry, healthcare sector also grow rapidly, new generation of antibiotics are coming in market. But such synthetic drugs are not digested in human body & have its own side effect. To prepare this synthetic drug pollution of air and water also occur. Nowadays people get attracted toward bio-resource because they want to stay healthy & away from side effect of medicine. Ayurveda are science of life, which not only have curative drug but have describe prevention of disease. This science include all natural resources for achieve its Moto, like herbal drug, marine thning, stones, bhasma of dhatus etc [2].

The uses of bio resource are best for human. But its sources are limited. If we decide use herbal drug than we must grow it, or else it subsequently result in the loss of their existence. The ongoing growing recognition of medicine plant is due to several reasons, including establishes faith of people on herbal medicine. Many NGO starts cultivating medicinal plants & botanical garden.

Importance of 'Gomutra' well known to worlds so growing pet animals which are useful for medicine is also need of time. India have richest area of medicinal plants, so there is an urgent need to establish the traditional bio-resources value in both national & international perspective realizing the ongoing development trend.

Definition of Bio-resources

Bioresources are non-fossil biogenic resources which can be used by humans for multiple purposes to produce food, substantial products, and/or energy carriers [3].

5. Types of Bio-Resources [4]

- a. Primary Bio-resources.
- b. Secondary Bio-resources.
- c. Tertiary Bio-resources.
- d. Quaternary Bio-resources
- a. Primary Bio-Resources

Primary bio-resources are generated for a specific purpose. It may generate in forest, agriculture or aquaculture to enable the production of food, substantial products, or eventually energy.

Examples are Grain, fish, Potato, Wood, algae, bamboo.

b. Secondary Bio-Resources

Secondary bio-resources are generated during primary processing (in further industrial processing) as by-products or residues, it can be generated during maintenance of large green areas.

Characteristics of Secondary bio-resources are:

- a) They accrue genuine from virgin materials.
 - b) They contain low amount of impurities
 - c) They are produced in large quantities.
- a. As maintenance residues they are harvested on large green areas such as parks, lawns, sport places, and dikes as genuine fractions in significant amounts under controlled conditions in ample quality in terms of purity and freshness.

C. Tertiary Bio-resources

Tertiary bio-resources are also parts from virgin materials, which were separated along the processing chain. But compared to secondary bio-resources they are residues which occur rather in small amounts at the generation place and/ or are not genuine. Also uncontrolled modifications, E.g. degradation during storage, may have taken place.

Characteristics of Tertiary bio-resources are:

- i. They have lower value than secondary bio-resources.
- ii. In maintenance of green areas such as gardens, other green areas, and special installations with vegetation.
- iii. The plant residues are not genuine and/or often partly degraded before they arrive in a utilization facility.

D. Quaternary Bio-Resources

Quaternary bio-resources occur after a product was used. They can be distinguished regarding the time frames of their generation after start of utilization into short, mid, and long-term categories. In short-term after begin of product use they are generated in all cases of food and feed consumption in the form of human feces and urine and as animal excrements. Such bio-resources are generated with short delay after food or feed consumption at a time scale of hours. With a mid-term delay the quaternary bio-resources appear in days to months after begin of utilization.

Example No.1: packaging materials are only in use for the period of transport, newsprints for one time readings. The time

frame for the long-term after use group can reach from years to centuries.

Example No.2: wood construction materials, integrated in houses may last decades to centuries till they become waste wood. Materials used for furniture construction commonly have a life-time ranging from years to decades.

Need of Use of Bio-resources

With development in technology and industry, healthcare sector also grow rapidly, new generation of antibiotics are coming in market. But such synthetic drugs are not digested in human body & have its own side effect. To prepare this synthetic drug pollution of air and water also occur. Nowadays people move toward natural thing which give less side effect and which is eco-friendly also.

Utilization

Herbs are natural products and their chemical composition varies depending on several factors and therefore varying from people to people, from energetic decoctions to the use of herbal extracts following Western methodologies of mainstream medicine.

In every country traditional medicines find foundation in magical or religious beliefs, or popular experience and the World Health Organization is engaged to establish definitive guidelines for methodology of clinical research and the appraisal of effectiveness of traditional medicine. India has ancient traditional science like Ayurveda and many cultural medicine too [5]. So its need of time to utilize these natural Bio-resources in health sector.

Discussion

India have richest area of medicinal plants, so there is an urgent need to establish the traditional bio-resources value in both national & international perspective realizing the ongoing development trend.

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