

Importance and Scope of Lesser Known Tree Species in Livelihood and Biodiversity Conservation

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Introduction

Rural men and women, especially in poor households, engage in diverse and multiple activities to improve their livelihoods by maximizing income-generating activities, while minimizing vulnerability and risk, and achieving other household objectives (improved health, nutrition and education, etc.) (Shoji Lal Bairwa *et al.* 2014). The livelihoods of forest communities depend largely on the renewable goods and services from the natural resources as well as activities that impact the integrity of the forests and disrupt the livelihoods of the dependent communities. As one of the oldest civilizations of the world, India has kaleidoscopic multiethnic society, the forest being an integral part of its rich socio-cultural heritage. Traditionally, the Indian society depended on a large number of plant species for its subsistence and sustenance needs.

However, with the advent of so-called “Scientific Forestry”, the emphasis shifted mainly on a few timber species, which were essentially required by the British government for its industrial development. As all the management plans focused on a few commercially important species like Teak and Sal, coupled with increasing biotic interference, over-exploitation and consequent forest degradation, other important species gradually became lesser known. Besides, there are a large number of species, which have traditionally been used for food and nutritional supplements and are consumed at local levels only. Species like *Ficus*, *Averrhoa carambola* and *Cordia myxa* etc. are gradually disappearing from the forests although they have a good potential for commercial exploitation (Tomar, 2008). These species are rarely planted in afforestation and agro forestry programmes, as a result of which these are disappearing from the natural habitat. Many of these species are widely used in Ayurvedic preparations. These species are very valuable to the

local communities for meeting their day-to-day requirements for food, fodder, fuel, medicines, tans, dyes etc., and can provide cash returns to the villagers.

Such many species useful for contributing to food security, health (nutritional / medicinal), income generation, and environmental services. In past, these species were cultivated and their used were harvested up to their potential. And they were well known among the people. But with time, due to lack of awareness and research in field of their biology, silviculture, management, utilization and marketing aspects, these species have become vulnerable and less common to common man.

Being less known these rarely planted in afforestation and agro forestry programmes, as a result of which they started disappearing from natural habitat and included into the category of plants which are less known to common man and hence the term lesser known originate. Though it is difficult to define just what qualifies as a ‘lesser known’. Terms such as ‘underutilized’, ‘neglected’, ‘orphan’, ‘minor’, ‘promising’, ‘niche’ and ‘traditional’ are often used interchangeable in different countries of the world.

“Lesser Known Tree Species those which are little known or known only locally, their existence is ignored because better known or more commercial important tree species predominate in the forest. LKTS though more viable and potential, drawn less attention in past, now needs recognition, awareness and focus.

The lesser known tree species represent an enormous wealth of agro biodiversity and have great potential for contributing to improved incomes, food security and nutrition and for combating the ‘hidden hunger’ caused by micronutrient (vitamin and mineral) deficiencies. They are strongly linked to the cultural heritage of their place of origin. Also many are mainly local and traditional crops or wild species whose distribution, biology, cultivation and



uses are poorly documented. These species have weak or no formal seed supply system. They are collected from wild or produced in traditional production systems with little or no external inputs. Also these species receive little attention from research, extension services, farmers, policy and decision makers, donors, technology providers and consumers. They may be highly nutritious and/ or have medicinal properties or multiple uses (Tomar *et al.* 2006)

In particular those currently identified as 'lesser known', can contribute significantly to improved health and nutrition, livelihood, household food security and ecological sustainability, these tree species offer enormous potential for contributing in combating hidden hunger and offering medicinal and income generation options. They are also closely tied to cultural traditions, and therefore have an important role in supporting social diversity. (Hoeschle-Zeledon, I. and Jaenicke, H. 2009).

In recent years, LKTS have come out of the shadows and are moving fast into the limelight of rural development. Several national research systems are supporting work on these plant species, though not to the same extent as research on other timber species like Teak, Poplar, Eucalyptus, Sisoo, etc. Policy makers and funding agencies are now recognizing the value of LKTS for diversification of biodiversity, which will in turn help to buffer the risks of environmental and economic disasters. However, these efforts need direction and focus.

LKTS can contribute significantly for up scaling livelihood such as :

1. For providing fuel, fodder, medicines, fruits, vegetables, gum, oils, lac, dyes, lac, tannins fibers, flosses, honey, host for silkworm, lac insect, bees, etc. for numerous domestic

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requirements.

2. For providing small wood, timber, etc. for agricultural implements, house construction, furniture, mats, baskets, packing boxes, etc. for household use.
3. For income generation.
4. For conserving cultural heritage.
5. For improving aesthetic view and conserve environment.

Factors responsible for interest in the lesser known trees :

1. Their role as alternative sources of income.
2. Collapse of commodity prices.
3. Greater appreciation of bio-diversity's role in setting research agendas.
4. Stronger national agricultural research systems, willing to invest beyond primary commodities.
5. Search for cultural identities in a globalised, more mobile world.
6. Demand for traditional food in large multi-ethnic cities.
7. Better understanding of the limits of the green revolution

Conclusion

Scientifically much more work is required to be carried out in Lesser Known tree species, facing various degrees of threats. Authors strongly feel that there is an urgent need to document the inventory of their habitats; uses and cultivation practices since many such treasures being ignored and some of these have started disappearing. We must arrest this trend. Adoption of such an approach will go a long way in conservation of lesser known tree species, their planting and maintenance is recommended.

