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SUSTAINABLE LIVELIHOODS THROUGH MAHUA PLANT

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The tribal areas of northern and central India love the Mahua flowers. It is a source of the wonderfully exotic mahua wine and also the sweets made of mahua cake is a delicacy in this region. The wine is a part of the cultural landscape of the Bastar and Santhal tribes of India. The non tribals of these forests are not in favour of growing this tree; hence the population of these trees is dwindling fast and needs urgent conservation measures. Recently on a visit to the Kanha forests in Madhya Pradesh, we found that the tribals were unable to sell their mahua liquor to guests although dried mahua flowers were sold openly in shops. The government law said that they could only produce limited wine for their own consumption but could not sell it. This order has drastically reduced their revenues, they said. The tree is much revered in their wedding and death rituals and it is believed that mahua tree is the abode of gods. Proverbs and songs about mahua dot the religio-cultural ceremonies of the tribals and is recorded in their folklore.

Botanically known as *Madhuca indica* J. F. Gmel. (= *Madhuca longifolia*), belonging to family Sapotaceae, the plant grows predominantly in Punjab, Uttar Pradesh, Bihar, West Bengal, Maharashtra, Andhra Pradesh, Madhya Pradesh, Karnataka and Tamil Nadu in India. It grows in dry deciduous forests, dry Teak and Sal forests and is drought resistant. The flowers bloom from March to May and are pollinated by wind. Every mahua tree produces 20-200 kg seeds each year. Due to hardy and pest resistant characteristics of the tree, it holds extensive socio-economic value in the northern India's tribal population. The species of plants are grown along road sides and canal banks for commercial purposes as well as forming part of social forestry program. There are about 30 potential genotypes distributed across the country and they are found to be rich in oil content, which ranges from 26-51 per cent.

Seeds of Mahua are an important product for the tribes and enhance their incomes too. The fat produced from the seed is used in skin care, in manufacturing of soap or detergents and also vegetable butter. The oil is edible and also used as a laxative for treating habitual constipation, piles and hemorrhoids and also as an emetic. Tribal people also use Mahua oil for illuminating lamps and as hair fixer. Bark and leaves are also used as medicines, for curing eczema, scalds and burns. The oil cake is used as bio fertilizer, organic manure and as feed for fish and cattle. The leaves of Mahua tree are rich in alkaloid glucoside named Saponin, which is important medicinally. Tussock silk is also produced in these regions as the moth *Antheraea paphia* feeds on the leaves of mahua and produce this commercially important wild silk. The properties of the mahua oil lies within the accepted norms of the bio diesel production of various countries. It is, therefore, being extensively used as diesel substitute and this has led to the sustainable development of rural areas by earning revenue through the renewable fuel sale. This illustrates the importance of this tree in the lives of the tribes inhabiting these areas where mahua grows profusely. It provides livelihoods and generates incomes for them from this versatile forest produce.

What does the Forest act say that makes the tribal so angry about using forest resources like mahua? Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights Act, 2006) says- "An Act to recognize and vest the forest rights and occupation in forest land in forest dwelling Scheduled Tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights could not be recorded...."

Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 has diluted the personal interests of forest dwelling Scheduled Tribes with that of the "Other Traditional Forest Dwellers".

It is significant to point here that this act is seen as conflict of interest between the forest dwelling Scheduled Tribes and other traditional forest dwellers. Often we forget that it is the first right of the tribal dweller to manage his forest and its produce judiciously and this right has to be respected. Often the Gram

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Sabha's or the village assembly's voice is ignored and the Joint forestry program (JFM) which is being run by the forest department takes crucial and arbitrary decisions on the use of land and its resource. Participatory management in its truest sense is being ignored and the tribal voice, his culture and ethos is being sidelined.



Figure 1: Dried Mahua flowers for sale

Forests for tribal have been source of income and revenue and their emotional, psychological and cultural attachments with the forest is well known. *Madhuca indica*, as one of the forest product, is used for commercial purposes by the tribal population until recently. However, with the passing of the act, tribal forest dwellers have been treated at par with non forest tribal dwellers and this has thwarted the spirit of the various safeguards available to the members of the Scheduled Tribes under the Constitution and other relevant laws of the country. The act has also stopped the tribal community to use *Madhuca indica* for any commercial purposes. The need of the hour is to respect the tribal right to live in harmony with their surroundings and not impose diktats which will breed discord and conflict between tribal and non tribal.