



ETHNOBOTANICAL USES OF PLANTS FOR HOUSEHOLD USE AND AGRICULTURAL IMPLEMENTS BY KOKNI TRIBAL OF NASIK AND DHULE DISTRICTS OF MAHARASHTRA

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ABSTRACT:

The Kokni tribal residing in Nasik & Dhule districts of Maharashtra depends on plant wealth for their livelihood. The tribal are living in close vicinity of forest and for their daily needs they are totally dependent on forest for food and shelter. The ethnobotanical study revealed that various plants species belonging to different families were used for domestic use and preparation of agricultural implements. Ethnobotanical surveys were carried out in the tribal belt of Nasik and Dhule to examine and record the plants employed by the Kokni tribe in their domestic uses and making agricultural implements. The economically weaker section of the Kokni tribe is largely dependent upon the forest wealth for their domestic use of plants. The study reveals used of different plants species used by Kokni tribal of Nasik and Dhule districts for their domestic use and agricultural use.

Keywords: Household, Agriculture, Domestic, Kokni, Nasik, Dhule, Maharashtra.

INTRODUCTION:

Ethnobotany studies the enduring and organic bond between human communities and plants. It has been acknowledged as an interdisciplinary discipline encompassing a variety of fascinating and practical facets of plant sciences, history, anthropology, culture, and literature. The groundbreaking work of Jain renowned as the "Father of Indian Ethnobotany," encouraged such a study in India. The study of Ethnobotany reveals a variety of potential applications for plants, both known and undiscovered. The preservation of genetic resources is another area where it is relevant. In order to find new

sources of medication, food, and other life-supporting natural species, it is helpful.

For a variety of uses, the indigenous communities have relied heavily on the wild plants. This traditional knowledge of wild plants has been the subject of numerous research, most of which focused on their culinary and medicinal uses. All around the world, tribes and other ethnic groups have used these plants for a variety of things, including food, medicine, intoxicants, beverages, dyes, resins, oils, wood, firewood, furniture, agricultural implements, handicrafts, and musical instruments. Along with these purposes, some of these plants are revered by tribal people as being sacred, and many of them are connected to magical or religious beliefs. Only a small portion of these species have been used commercially, therefore research into native cultures employment of these wild plants may help discover a large number of new plants that are superior and alternative sources of food, medicine, and other goods.

MATERIALS AND METHODS:

Ethnobotanical field surveys were carried out during the year 2017 to 2020 in different Kokni tribal belts of Nasik and Dhule districts of Maharashtra and data about the uses of plants for domestic uses and preparation of agricultural implements was collected from the tribal people. For the collection of information about the uses of plants questionnaire was prepared as per the format given by Jain and Mudgal. Plant samples were gathered from various villages throughout the field investigation, and the uses were recorded. For proper verification and the creation of herbarium sheets, plant specimens were collected together with digital photographs of the plants. The appropriate floras were used to identify the plant specimens. In order to verify the authenticity of the new specimens, Blatter Herbarium at St. Xavier's College (Autonomous), Mumbai, Maharashtra, compared them to the earlier gathered herbaria. For additional reference, the GPS coordinates of the samples that were gathered were also recorded.

OBSERVATIONS:

PLANTS USED FOR HOUSE BUILDING/HUTS:

The indigenous people build their homes close to water sources or agricultural grounds. Traditionally, the thatch for the huts is a sloping type made of straw, plant twigs, or leaves, and half-baked tiles. They are erected on a different location outside the hamlet or on a separate woodland hillock or ridge.

Dr. Sachin Dadaji Kuvar

In regions with high temperatures and heavy yearly precipitation, they build their homes with mud, unbaked bricks, and stone for the walls and grasses, bamboo leaves, and tiles for the roof.

Both thatching and baked mud tiles are used to cover the roof. Mud bricks, coated with cow dung and clay, make up the four walls of the tribal shelter. The wall and roof of the hut are supported by four poles located at each of its four corners. Some of the plant species that may have the poles include *Tectona grandis*, *Acacia nilotica*, *Anogeissus latifolia*, *Ficus religiosa*, *Ficus benghalensis*, *Prosopis cineraria*, *Prosopis juliflora*, *Terminalia tomentosa*, *Wrightia tinctoria* etc. The roofs of most tribal homes slope downward and are thatched.

Acacia nilotica, *Anogeissus pendula*, *Bauhinia racemosa*, *Calotropis procera*, *Pennisetum americanum*, *Prosopis cineraria*, *Prosopis juliflora*, *Saccharum bengalense*, *Saccharum spontaneum*, *Tecomella undulata* and *Ziziphus nummularia* are among the plant species whose thin, dried twigs are frequently used for thatching. The thin wooden branches and twigs of a few plants are utilised to build the wooden network. *Saccharum bengalense* culms, leaves, and inflorescence make up the majority of the thatching material. It is also made from the leaves and culms of *Typha angustifolia* and *Pennisetum americanum*. The thatched roof is installed on the network after being built independently on the ground.

Saccharum bengalense and *Pennisetum americanum* are the main plants which are used in the ropes preparation to make thatch. *Azadirachta indica*, *Terminalia tomentosa*, *Anogeissus pendula*, *Acacia nilotica* and *Anogeissus latifolia* are the species used for beams that support the roof. Two of the roof's sloping sections have a longer longitudinal beam spanning the length of them, while the other two are shorter and run horizontally to support the longer beam. *Azadirachta indica*, *Prosopis cineraria* and *Acacia nilotica* wood are used to make the doors of the tribal hut.

Table 1: Plants Species Used To Prepare Agricultural Implements

Sr. No.	Botanical Name Of The Plant	Agricultural Implement Prepared
1.	<i>Acacia leucophloea</i>	Plough
2.	<i>Acacia nilotica</i>	Axe handle, Yoke of Plough, Soil leveler
3.	<i>Anogeissus latifolia</i>	Handler
4.	<i>Bauhinia racemosa</i>	Plough
5.	<i>Dendrocalamus strictus</i>	Seed drill
6.	<i>Diospyros melanoxylon</i>	Yoke of Plough
7.	<i>Mangifera indica</i>	Axe handle, Plough
8.	<i>Tecomella undulata</i>	Axe handle
9.	<i>Terminalia tomentosa</i>	Soil leveler
10.	<i>Ziziphus nummularia</i>	Yoke of Plough

THE PLANTS SPECIES USED FOR PREPARATION OF KITCHEN ARTICLES:

Bowl and Plates: During feasts and other family gatherings, the leaves of *Butea monosperma* are used to make "Drona" and "Pattal." Broad bowls known as "dronas" are made by sewing two or more leaves together with the petiole of *Azadirachta indica* or the thorn of *Acacia nilotica*. Tribals also make plates from the leaves of *Butea monosperma*, *Ficus benghalensis* and *Diospyros melanoxylon*.

Domestic hand flour mill (Chakki): A domestic hand flour mill composed of *Tectona grandis*, *Ziziphus mauritiana* or *Anogeissus latifoia*, is set in the middle of two circular stone slabs arranged one over the other. Crushing and grinding of grains, millets, pulses, and several other items are its various uses. This section is rotated on a pivot by a handle that is fastened on the upper slab of stone. The wood of *Acacia nilotica*, *Balanites aegyptiaca*, *Ziziphus mauritiana*, *Anogeissus latifoia* or *Dichrostachys cinerea* is used to make the handle.

Hanging Pot Rest: The *Grewia flavescens* or *Dendrocalamus strictus* species are used to weave the hanging pot rest, which is suspended from the roof's ceiling. Bread, butter, fruits, milk, and other items are shielded from dogs and cats by it.

Mortar and Pestle: Pestle is a strong barrel shaped structure comprised of *Tectona grandis*, *Anogeissus latifoia* and *Terminalia tomentosa* wood. However it is light in weight yet doesn't break on beating. The mortar is both of stone or

Dr. Sachin Dadaji Kuvar

wood emptied inside and implanted in the floor of the cottage. It is prepared by using the wood of *Acacia nilotica* or *Acacia catechu*.

PLANTS USED FOR PREPARING DOMESTIC ARTICLES:

1. Baskets (Dalka): Culms of *Saccharum bengalense* and parts of *Grewia tenax*, *Grewia flavescens*, *Sida ovata*, *Corchorus* species and *Ziziphus nummularia* are used for making basket for family and agricultural use.

2. Carpets and Brooms: Leaves of *Phoenix sylvestris*, *Desmostachya bipinnata*, *Saccharum bengalense*, *Sida ovata* and *Abutilon indicum* are used for making carpets and brooms by the tribal.

3. Sleeping Beds: The legs of bed is prepared using the wood of *Tectona grandis*, *Acacia leucophloea*, *Acacia nilotica*, *Azadirachta indica*, *Anogeissus latifolia*, *Terminalia tomentosa* and the edge of bed is prepared using the wood of *Acacia nilotica*, *Anogeissus pendula*, *Balanites aegyptiaca*, *Butea monosperma*, *Dichrostachys cinerea*, *Diospyros melanoxylon*, *Mangifera indica* and *Miliusa tomentosa*.

4. Wooden Peg (Khoti): The Khoti is made up of wood of *Acacia nilotica* or *Anogeissus pendula*. Khoti is used for tying the cattle with a rope and khoti is used for hanging the clothes in huts.

5. Storage Pots: Dried fruits of *Lagenaria siceraria* is used for the carrying of water in the fields. Big containers are made up of *Dendrocalamus strictus* to store grains in the tribal house.

6. Wooden box: This is a wooden box used to keep utensils and clothes which is made of *Acacia nilotica*, *Acacia leucophloea*, *Azadirachta indica*, *Lannea coromandelica* and *Adina cordifolia* wood.

RESULT AND DISCUSSION:

Due to their low cost and easy accessibility in the community, the majority of tribal farmers still work with small, dispersed land holdings and employ native tools and implements. Large machines are inappropriate for farmers, and animal power is the main source of power in tribal farming. The plateau area requires tools and a lighter power source that are portable and easy to tow or carry. The majority of the population resides in hamlets or hunts, which are primarily constructed of wood and plants. Mud and bamboos are sometimes used to build walls. It was discovered that *Tectona grandis* served as the primary building material for hunts and was covered in the leaves and branches of *Diospyros melanoxylon*, *Terminalia tomentosa* and *Butea monosperma*. Wood is

used to make crafts, furniture, and agricultural tools. It is also used to build houses. One of the main ingredients and a fuel source is fuel wood. The main plants used to make wood are *Tectona grandis* and *Terminalia tomentosa*. *Butea monosperma* leaves are used to make bowl and plates.

CONCLUSION:

During recent years, mindfulness is expanding in regards to the acknowledgment, documentation and utilization of native information. The significant information moved by the ancestral local area must be reported appropriately. Ethnobotany assumes a fundamental part in finding and recording the act of conventional plant utilizes. It is worried about the investigation of the connection among plants and individuals and the field of Ethnobotany likewise fills in as an asset for conventional information about different purposes of plants by the ancestral local area.

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