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# An Ethnobotanical Study of Ajodhya Forest Range of Purulia District, West Bengal

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**Abstract**

During the course of an ethnobotanical study undertaken in tropical dry deciduous forest in Ajodhya hill of Purulia district, West Bengal, the authors recorded their knowledge about the uses of non-timber forest produces through an intimate contact with the tribal communities like Santhal, Bhumij and Munda of the area. A precise account about the traditional uses of plant products by the tribal and their status has been prepared in this work.The knowledge of the tribes which traditionally concerns medicinal use of species is noteworthy. It is interesting to find three species linked with their religious and cultural activities. Sustainable uses of these plants for conservation and economic benevolence of the indigenous communities are necessary.

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**Introduction**

India is a country which is flourished with profound forest resources. However the annual loss of Indian forests is presently about 1.5 million hectares so that the existing forests cover is about 30% of the total geographical area of the country. Since this value needs to be elevated nearly to one third of the total geographical area, efforts are launched on war-footing for aforestation collaterally with restoration and conservation of the existing forests utilizing the self designing capacity of the nature. The non-timber forest products i.e. “Any commodity obtained from the forest that does not necessitate harvesting trees,” (Anon 2008) have now started getting consideration in matters of conservation through their sustainable economic uses. In view of the foregoing, the present work was undertaken in such an area as Ajodhya a forest of Ajodhya hill which is rich in both density and diversity of tribal population. (Guha and Bakshi, 1984; Bennet, 1987; Panigrahi and Murti, 1989; Murti and Panigrahi, 1999);

**Review of Literature**

Literature review reavealed that documentation of ethnobotanical works from the Purulia and allied district Bankura has been made by different workers like (Mallick and Mallick 2012; Dey, 2012; Banerjee et.al. 2013; Rahaman and Karmakar,2015).The present work, new of its kind for the area, adheres to the objective of documenting from primary sources the indigenous knowledge about the use of forest plants associated with the lives of the hill tribes. This work is done in Badthgutu village of Bagmundi beat of Bagmundi range in Ajodhya hill, Purulia district,( Sao,2017).This place are lived mainly Santal tribal group of people, (Chanda, 2010).

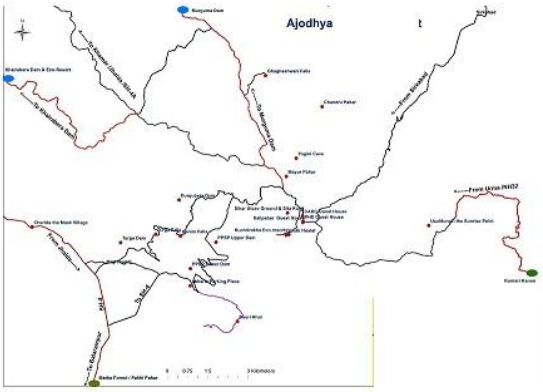
**Objective of the Study**

General objective of present of this program to know about the ethnobotanical knowledge of trible groups.Indigenous knowledge of plants uses of tribal group village. Ecosystem management is considered an important component of this study.To assess of plant specie which help to tribal mantain there life style.To asses splant species are help to economically the trible group.This study help to the knowledge and value the plant.

**Study Area**

The forest range ajodhya is lying between 22º60’ and 23º50’ north latitude and 85º75’ and 86º65’ east longitude, is one of the draught prone and economically backward area of the district Purulia of West Bengal. The present work was undertaken in Badthgutu village of Ajodhya forest range -

which is a tribal dominated area. The climate of the area is of tropical monsoon type with three seasons, viz. pre-monsoon (mid-February tomid-June), monsoon (mid-June to mid-October) and post-monsoon (mid-October to mid-February).The soil is of lateritic type and the temperature ranges from 26ºC to 44ºC during summer and from 11ºC to 24ºC during winter. Annual rainfall is more or less 1033mm and .relative humidity is highest during July to September. Soil is covered by mostly residual soil formed by weathering of bed rock. The village is very small in size where resides approximately 15 tribal familes out of which 5 families belongs to munda, 2 familes belongs to Bhumij and rest other belongs to santal. The children of the village are mainly study in a Ajodhya hill high school.




**Photos**

**Fig- Village site**

**Fig- Making of caps, brooms using plants parts**

**Fig-A tribal lady making sal plates**

**Fig- Sal Plate**

**Fig- Plant parts use for fuel**

**Method & Material**

Field work was performed during 2016 and 2017 in bagmundi forest range to document the primary data concerning the plants species used as sources of food, fuel, forage, medicine and drugs, dyes, fibres and other essentials as classified under non timber forest produce (NTFP) by Neggi (2002) were noted by the interview with the tribal people of the village during March2016–February 2017 following the standard methods (Jain, 1987;Jain and Mudgal, 1999). The primary data were based on the knowledge and experience gained from knowledgeable informants, middle aged women and men of different tribal communities. The species were identified with the help of Bengal Plants ( Prain, 1903).

**Result & discussion**

The uses of non timber forest products used by the people of Ajodhya are depicted in the following table:

**Table**

**Plants recognized as non timber forest during ethnobotanical studies in Ajodhya forest region Badgutu village of bagmundi range of Purulia district, West Bengal**.

| Sl. No. | Name of the plants | Family | Vernacular name | Habit | Nature of the plants parts | Uses |
|---|---|---|---|---|---|---|
| 1 | *Asparagus racemosus* (L. 1753.) | Liliaceae | Satamul | Climber | Root | I .Dried root are used as medicine |
| 2. | *Bauhinia vahlii* (White & Arn.,1834) Benth | Caesalpiniaceae | Chihor | Climber | Stem, Seeds | 1.The stems are used for matting,basketry and wickerwork ii. Leaves serve as fodder. iii. Seeds are used as a pulse. |
| 3 | *Buchanania lanzan* (Lour.) | Anacardiaceae | Piyal | Tree | Seeds, leaves | i. Seeds that is edible to human. It is known as chironji. |
| 4 | *Butea monosperma* (Lam) .Taub | Fabaceae | Palash | Tree | Flowers, Root, Leave | I. Flowers are used for the preparation of dye. ii. A strong fibre, obtained from the roots,is used for native sandals,ropes etc. iii leaves are used as fodder. |
| 5 | *Diospyros melanoxylon* (Roxb.) | Ebenaceae | Kend | shurb | Leaves | I. leaves are used for wrapping the tobacco and making |
| 6 | *Dioscorea alata* (L.) | Dioscoreaceae | Chupri alu | climber | root | I. Root – cooked. Usually boiled an used as a vegetable |
| 7 | *Dendrocalamus strictus* (Roxb.) Nees | Poaceae | Bans | Tree | Stem | I. Young stems cooked as a vegetable. ii. The stems are used for agriculture implements, raw material in paper mills. |
| 8. | *Dolichos biflorus* (L.) | Fabacea | Kurti kolai | climber | Seeds | I. Seeds are mainly used as medicine |
| 9. | *Dillenia pentagyna* (Roxb.) | Dilleniaceae | Chalta | Small tree | Flower, Fruits | I. Flower buds used as raw, cooked. ii. Fruits are also eaten, either raw , cooked. |
| 10. | *Lagertroemia parviflora* (L.)Pers. | Lythraceae | Sidha | Tree | Stem | I. A excellent fuel tree, it gives a good charcoal. ii. The timber, which is known locally as Sida is used for general carpentry |
| 11 | *Phoenix acaulis* (Roxb.) | Palmace | Bhui khejur | Shurbs | Root | I. Root eaten |
| 12 | *Semicarpas anacardium* (L.F) | Anacardiaceae | Vela | Shrub | Seed, Stem | I .Oil obtained from the seeds. ii. A gum is obtained from the tree. |
| 13 | *Shorea robusta* (Gaertn.) | Dipterocarpaceae | Sal | Tree | leaves, seeds (Saloi), gums | i.leaves are used as plate ii.seeds are used to produce oil. iii. Gum is used as dhuna |
| 14 | *Syzygium cumini* (Benth.) | Myrtaceae | Jam | Tree | Fruit, Branches | I. Fruit is eaten raw. ii. The branches are used to whiten |

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|---|---|---|---|---|---|---|
| | | | | | | the teeth. |
| 15 | *Woodfordia fruticosa* (L.) Kurz. | Lythraceae | Dhatki | Shrub | Flower, Stem | I. The flowers are eaten as food. ii. A gum is obtained from the plant |
| 16 | *Ziziphus mauritiana* (Lam.) | Rhamnaceae | Kul | Tree | Fruit, Leave | I. The fruit is eaten raw. ii.The leaves are a source of tannins |

A taxonomic analysis of the phytoresources, thus scored inTable-1, revealed that most of the species are from angiospermic and with the life and livelihood of the tribal communities of Badgutu village area Ajodhya forest region Bagmundi , Purulia district. The ratio of tree, shrub, and climber species used by them was found to be 7:5:4 which is somewhat at par with the physiognomy of the forests with which they are in traditional bondage. To strengthen programmes of conservation of the concerned phytodiversity there is a need to convey economic benevolence to the indigenous people through their sustainable use. Leaves and tender shoots of three species are used to feed the domestic animals. For making beverage four species are used. As many as wild edible species have also been documented. The proximate principles of wild edibles, documented in this work, need scientific evaluation; to address issues of food security of the tribal's and cater our nutritional requirements. Perpetuation of religious and cultural activities of the tribal's linked with the indigenous phytoresources is also deemed essential for ensuring long term sustainability of the ecosystem in concern.

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