



ROLE OF TRIBAL PEOPLE IN THE CONSERVATION OF BIODIVERSITY IN GADCHIROLI DISTRICT (M.S.)

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ABSTRACT: The Gadchiroli district has a total population of 10, 72,942, with 5, 41,328 males and 5, 31,614 females (As per Census 2011). Chamorshi taluka, with a population of 1, 79,120 people and a percentage of 16.69 percent, has the highest population density. The indigenous community makes up the majority of the population in the district. The district's tribal population is 4,15,306 individuals, or 38.17 percent of the total population, while the scheduled tribe population is 1,20,745 people, or 11.25 percent (www.gadchiroli.gov.in). As a result, the district is classified as a tribal district. The KOYA people are tribals that live in the highland terrain. Gond, Madia, Pardhan, and Kolam are the four major tribal communities in the district. They speak their own dialects, such as gondi and madiya. The district's tribals have their unique culture. They are used to worship their God "Persa Pen" as well as other gods. On auspicious occasions and when new crops arrive, they dance "Rela." The Rela dance is a popular tribal dance. The "Dhol" dance is the other type of dance. The biggest tribal celebrations are Holi, Dashehara, and Diwali. Families from the indigenous community live in the district's lush forest. According to ISFR 2019, Gadchiroli district has a maximum of 68.81 percent of its land under forest cover out of a total of 10,806 sq km in Maharashtra (www.ifsr.org). Tribal peoples play an important role in preserving biodiversity in and around their natural habitat in the Gadchiroli district. Animals were viewed as equal partners in an interwoven social network of human and non-human beings, endowed with spirit and the ability to act and communicate, by tribal peoples. Plants that provide as a source of wild edible food in the form of roots, tubers, rhizomes, seeds, fruits, and as agricultural and horticultural plants are protected by these ethnic and indigenous peoples. Some of these ethnic people's indigenous cultivars are employed in agricultural cultivar development initiatives to boost productivity and contain features that increase resistance to various pests and illnesses. Many of the plants saved by tribal people are used as antidotes for snake bites and scorpion stings, traditional healers set bone fractures, heal wounds or arthritis, or as abortifacients and cures for menstrual issues, among other things. The indigenous people have a strong bond with the forest because their entire way of existence is reliant on it. Tribal people's habits, habitats, and cultures contribute to forest environment protection. Since ancient times, tribal people have had their own system of living in harmony with nature, without harming or destroying the forest. They have their own way of forest conservation because they are genuinely concerned about conserving the forests and demonstrating the age-old pattern of man-nature coexistence.

Key words: - Tribal People, Flora, Fauna, Diversity, Conservation.

INTRODUCTION :

The Scheduled Tribes (STs) of India rank near the bottom of the HDI. Human development metrics for STs in India are 54% poorer than for other communities, according to UNDP assessments (UNDP, Factsheet 2011). According to this estimation, more than three-fourths of the ST population can be termed multi-dimensionally poor. In addition, this is shown in their academic accomplishments. STs have a literacy rate that is 14% lower than the general population in India, according to the 2011

census. Nearly 50 percent of children from this social category drop out while transferring from primary to secondary grades (based on the educational status documented in the same census) (based on the educational status recorded in the same census). Since over 80% of them drop out in grade X, barely a token 20% show up for the high school graduation exam. Gondi and madiya are two of their dialects. The district's indigenous people have their own distinct way of life. A variety of religious rituals include the employment of them to honour the

"Persa Pen" god and others. On auspicious occasions and when fresh crops arrive, they perform the "Rela" dance. Rela dance is popular dance among the tribals. The "Dhol" dance is the other form. Holi, Dashehara and Diwali are the important festivals of tribals. Tribal peoples of the Gadchiroli district play an important role in conservation of biodiversity in and surrounding areas of their natural habitat. Animated with soul and the capacity to act and communicate, the tribal people saw animals as equal partners in an interwoven social network of human and more-than-human entities. These indigenous and ethnic groups protect the plants that provide them with wild edible food such as roots, tubers, rhizomes, seeds, and fruits, as well as agricultural and horticultural uses. (Ravishankar, T. 1990,1995,1998).

Many tribal societies attribute significant spiritual value to animals, such as the love – Eagle, courage – Bear, knowledge – Beaver, humanity – Wolf, and truth – Turtle, as expressed by the likes of (Cardinale B. J. & Azmi HK. 1989).

The medicinal and culinary benefits of approximately 59 animal species had been discovered in a previous study of these tribes.

(Bagde N & Jain S.2017) However, animals and their parts also serve essential roles for trading and in rituals, religious beliefs, myths and mysticism, the creation of goods, decorations and apparel, in storytelling, song and dance. "Some animal species are related with tribal traditional knowledge and can be regarded of cultural value Tribal people still have a deep contact with the animals of the region be it through the people's understanding of the risks that some species offer or through activities like trapping and hunting. When it comes to their romance, this couple has only received sporadic coverage (Solanki G.S. & Chutia P. 2004). On the other hand, Tribes history, community organisation, social relations, style of homes,

etc., were covered by Von Cramon-Taubadel and Lycett in 2018. The habit, habitat & culture of tribal people contribute in the conservation of forest ecology. Since ancient times, tribal peoples have developed a unique way of coexisting together with the natural world, avoiding the destruction of forests in the process. For the simple reason that they care about the forests and want to demonstrate the long-established pattern of coexistence between humans and nature, they have developed their own way of forest conservation.

Given the lack of information on traditional uses for animals other than food and medicine, and to better understand tribal conservation methods for plants and animals, it is imperative that more research be done. As a result, work is being done with these tribes in Maharashtra's Gadchiroli District to investigate conservation methods. Gadchiroli District is famous for its high levels of ecological, physical and cultural diversity, and the district is home to a variety of traditional groups with 4 major and over 47 sub-tribes.

MATERIALS AND METHODS:

- Tribal villages located deep into the forest areas were picked to ensure less contact with the so-called civilised culture. In order to cooperate with people who still rely on the forest for their way of life, a survey of tribal communities was conducted.
- Camps were set up in tribal schools or huts after the places were chosen, and each stay lasted 30 to 35 days in order to foster goodwill and collect data on tribal socio-cultural factors, which are the driving forces behind biodiversity conservation.
- Field surveys were carried out to obtain data on tribal lifestyles and their contribution to biodiversity protection.
- The data was crosschecked with different individuals in different places across the

research area in different seasons to ensure higher validity of the data.

- The data was obtained in native languages utilising tape recorders to avoid the disrupting the knowledge.

OBSERVATION:

Unique Aspects of Plant Utilization by Tribal Communities

Tribal use of plants in Gadchiroli area is accompanied by some unique traits. Often numerous plants are employed for a single purpose yet other sections of the plants may have potential usefulness values. For example *Bridelia retusa(asana)*, *Canthiumdicoccum(arsul)*, *Ficus racemosa(umbar)*, *Madhucalongifoli(mohful)*, *Palaquiumellipticum*, *Phyllanthus emblica(avala)*, *Polyalthiacerasoides*, *Premna tomentosa(chambaara)*, *Scleicheraoleosa(kusumb)*, *Terminalia bellerica(behada)* and *Xylia xylocarp(yerul)* are used almost exclusively for their edible fruits and seeds (Arora R.K. 1991). These plants are not used even for construction or making agricultural implements and similar uses.

Knowledge of tribes on medicinal plants

For thousands of years, tribal groups have recognised and used the medicinal powers of plants. All people of the community are familiar with a few of the most frequent therapeutic plants in the area. However, the older members hold a significant deal of knowledge of medicinal plants as well as on medicines for curing some life threatening disorders (Alves R.R.N & Rosa I.L. 2013). (Alves R.R.N & Rosa I.L. 2013). Plants are the sole or combined medicine of tribal people. Same plant may be used for different disorders: for example *Calotropis gigantea* is used as vermicide and for chest pain, *Centella asiatica* used for gynaecological problems and for jaundice, *Dodonaea viscosa* used for headache, stomach pain and piles, *Wrightia tinctoria* for treating mumps and as lactagogue.

In certain circumstances a mixture of several plants are used in the treatment for e.g. *Albizia lebbec* combined with *Cassia fistula* and *Euphorbia hirta* is utilised for urinary disease. And *Capparis zeylanica* with *Pongamia pinnata*, *Cissus quadrangularis* and *Toddalia asiatica* is utilised for venereal illness. Each tribe has its own manner of harvesting the herbs as well as the manufacture of medicines. Medication dosage and duration are determined by the patient's age and disease severity (Sengupta S. 1991). The tribes pick the plant portion needed for medicine at a particular time such, either before flowering or fruiting, or in a particular season.

Animal Conserved by tribal people for various purpose

The tribal people conserve various domestic & wildlife animals on the basis of spiritual, medicinal, food & myths purpose. The animals are culture by either breeding technique or by using skill management (Singh R. K. etal. 2010). Due to this skill management of tribes various domestic as well as wildlife animals are conserved in the forest ecosystem of Gadchiroli district. Thus the traditional knowledge of indigenous people helps in the formation of stable ecosystem in Gadchiroli district. Some examples of animals are as follows.

1. Honeybee (*Apis indica*)

A vast range of bee species may be found in the Gadchiroli district's various regions. By using the apiculture method, the tribal people cultivate a variety of bee species. They made a honey box out of local bamboo, a swarming net, a knife, and gloves that are readily available in the market to raise honeybees. One bucket, one colander, two plastic boxes, two knives, and a rope make up the honey extraction kit, which includes both basic and more specialist materials. Since no fire is used in the extraction process, neither the honeycomb nor the bees within are harmed. Climbing to the top of the

honeycomb requires the use of a specialised suit. Hands are used to remove bees from the honeycomb's storage section. Finally, the honey-filled portion, which accounts for roughly 20% of the honeycomb, is sliced with a knife and collected. Additionally, the remainder of the honeycomb is kept untouched for aesthetic purposes. The bees will fill the hole in the honeycomb in the next 15 to 20 days, allowing for another honey extraction (Nonaka K. Japan:2005). Gramsabha buys honey from the tribal people or sells it straight in the city.

2. Peacock(*Pavocristatus*)

Peacock is one of the attractive birds in a forest ecosystem. The tribal people especially Gond tribes have many myths and religious beliefs about this bird. These tribes are believed that peacock is a indicator of rainy season. Therefore, the peacock is considered as a symbol of the God "Varundevata" and bundles of peacock feathers are an attribute of many tribal deities (Grewal B. & Pfister O 2004).

3. King Cobra(*Najanaja*)

King cobra is neurotoxic poisonous snake. The tribes are believed that the snakes are interested in survival. If the people move in agitation, the snake perceive threat & can strike. However, the tribal peoples are used to perform worship for snake as they celebrate festival "Nagpanchami". They believed that the king cobra is a symbol of God "Mahadev".

4. Turtle (*Testudo spp.*)

Turtle shows significant role in the lifestyle of tribal people. The tribal people kept turtle in their water bodes like in the well or small tanks. A turtle is omnivorous as they feed on

phytoplanktons, zooplanktons, microorganism etc. Due to this water bodies purify very well. Tribal people considered Turtle as a purifier of water bodies(Praksh S Yadav 2020) . Moreover, Gond & Madiya tribes are believed turtle as symbol of Goddess "Laxmi".

5. Dog (*Canis lupus familiaris*)

Dog is an honest pet animal. The tribal people raise dog at home to protect from dangerous wildlife animal. They also believed that dog is a symbol of God "Khandoba".

6. Tiger (*Panthera tigris*)

The tiger and tiger are revered as the "Kings" of the forest ecosystem by the indigenous tribes. People believe that the tiger's spirit is linked to their own, and that they will soon die as a result of this connection. The specific location on the body of the deceased would be determined by the tiger's death reason and any injuries it sustained. Although the tribes kill the tigers because they are afraid of the tigers when they invade their territory.

Traditional knowledge of animal use by tribal people.

The tribal people have diversity of traditional knowledge on the basis of magic, decorative or myths purpose. For this reason, these ethnic people protect these animals by various method. The dogs are the domestic animals in many of the tribal people house. Besides this various livestock animals are culture by them. Wildlife animals hunted by tribes but never consume their flesh because they consider as an orchestra of ecosystem (Singh R. K. 2010). Some animals & their use are as follows.

Sr. No.	Scientific Name/ Common Name	Method of conservation	Part Used	Purpose & Traditional Use

1.	<i>Canis lupus fam</i> (Dog)	Raising dog at their home.		During pregnancy or before birth or for a healthy delivery a dog is taken to the forest and tied only to a Bunyan & sacrificed with continuous chanting
2.	Goat	Cattle Farming	Hair	Hair from the goat is used for making shoulder bands worn by men during festivals.
3.	Domestic Pig	Pig Culture	Liver	For performing predictions; fortune telling before harvest and cultivation.
4.	Porcupine(<i>Hystrix</i> sp)	Make a big whole for the burrowing purpose.	Spines	Spines are worn by women on their head for beautification and as hair accessories during festivals.
5.	Cow (<i>Bos indicus</i>)	Cattle Farming	Skin	The dried skin is used for making drums and carpets.
6.	Domestic chicken (<i>Gallus domesticus</i>)	Polutry	Whole body	Used during performing rituals to bring back a lost spirit considered to be the spirit taken away by a ghost. For fortune telling before harvest and cultivation".

RESULT AND DISCUSSION

People who live in tribal communities rarely slaughter animals that are not linked to their religious beliefs or myths and folk lore. They were able to preserve genetic strains for a long time because to the techniques outlined above. However, the genetic material that has been preserved by tribal peoples until now is under threat due to an increase in the population in tribal areas and interaction with people living in the plains who lead unsustainable lives. As a result of this genetic degradation, the traditional cultivars must be preserved through protection in order to use the genetic variability found in the traditional cultivars for further crop improvement. (Ravishankar, T. 1990, 1995, 1998).

Various faunal species like honeybee, peacock, snake etc are conserved by tribal people on the basis of spiritual, medicinal, food & myths purpose were also reported in Arunachal Pradesh state by Solanki & Chutia (2004). The tribal people have diversity of traditional knowledge on the basis of magic, decorative or myths purpose, in addition to these many wildlife & domestic animals are protected by tribal people as they considered as orchestra of ecosystem were reported in Tirap district of Arunachal Pradesh state by Ralongham M.(1990).

Tribal people who live in the region should be consulted before any policy choices that could disrupt the biological balance of biodiversity are made. Other than that, ethnic people are the

ones that suffer the most from environmental crises because they are at the very bottom of society's socioeconomic ladders. Knowledge about plants and animals' worth can only be learned through cultural diversity, which has been lost as a result of a loss of biodiversity (Mishra et. al. 2009 & Mayr et al. 2000.).

Animals are respected as sentient beings in many tribal cultures, and humans are forbidden from harming or hunting them. Animals are viewed as equals in many tribal societies around the world. When it comes to the origins of the universe, Earth, and humans, animals are frequently mentioned as having a significant part to play. For the majority of tribal people, the relationship between humans and animals is viewed as a spiritual one in which both parties benefit. Tribes have long preserved their lands and their ecosystem, and the rarest of native animals and plants might find sanctuary on tribal territories. Various animal species are better understood and protected thanks to tribal folklore. In today's world, rules prohibiting hunting and animal killing can help conserve animal species (Rao N.S. 2006).

The tribes' dedication to preserving their traditions, beliefs, and myths could serve as a safeguard for the conservation of numerous species and the prevention of senseless animal slaughter.

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