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## **Ecologies of Tradition and Transformation: An Anthropological Study on Hill Khadia women of Similipal**

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### **Abstract**

In the context of time and evident social change, gender inequality continues to haunt the paradigm of development across the world. As per various studies undertaken by researchers globally, reveals that women of the forest dependent indigenous communities continue to face multi faceted issues on the grounds of access and control of resources. The paper looks at the post-structural aspects of an ongoing process relating to social transformations with the community living around the forests, communities economy based on forest use and abuse, role of various reforms/policies relating to ownership of forests by the forest-dependent Hill Khadia communities living in Gudgudiya village in Similipal region of Mayurbhanj. The paper will attempt to portray the scenario of gender-lenses, the socio-cultural profile of Khadia women and their dependence on the forest. The study will also highlight the forest based policy implementation struggles and rights assertion by these women as a part of the Hill Khadia Community, a Particularly Vulnerable Tribal Group (PVTG) living in Similipal while highlighting some evident traditional knowledge with respect to their dependence and eco-sustainable management of forest. Along with this it will also highlight the various peripheral concerns in the form of conflicts surfacing time and again by the Hill Khadia women of Gudgudiya. However, no specific studies have been made up so far on this aspect, hence making it very crucial in the current context. The study is a part of the doctoral research that the author has carried out.

**Keywords:** Women, social conflicts, forest policies, decision making, tenurial rights, conservation, community forest resource

### **Introduction**

Similipal as a name is derived from *simili* (red silk cotton) trees found abundantly in its forests. Members of the royal family of the erstwhile Mayurbhanj princely state used these forests as the hunting grounds. In 1972 it was notified as a tiger reserve under the Wildlife Protection Act for in-situ conservation within the core area of 303 sq. km of the Similipal Reserve Forest. In 1980 the core area of the tiger reserve was transformed into a National Park & it was expanded to 845.75 sq. Km. Similipal Biosphere Reserves (SBR) is one among 18 such reserves in India. Similipal is yet to be recognized as a National Park. There are about 3000 species of other plants and 94 species of orchids out of which two species of orchids are endemic. There are 34 rare species of plants. Similipal also houses a rare black and melanistic tiger due to its conducive environment. The identified fauna includes 12 species of amphibians, 29 species of reptiles, 264 species of birds and 42 species of mammals. There are 61 villages located inside Similipal and about 1200 villages on its periphery with a sizable population who are dependent on the forest for sustenance and supplementary income through minor forest produces. The communities living in these villages include Hill Kharias (PVTG and semi-nomadic), Mankirdias (PVTG and nomadic). The other important tribes of the area are Bathudi, Bhumija, Kolha, Santal, Mahali, Saunti, Ho, Munda, Gonda, etc. These tribal communities live mainly on food gathering, hunting and collection of forest produces like roots, tubers, rhizomes, barks, leaves, fruits, medicinal plants, gums, resin etc and traditional farming / agriculture. The hill, forest, grassland and wetland ecosystems put together constitute the composite 'Similipal ecosystem' with

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indicator species like the tiger, elephant, giant squirrel, mugger crocodile and turtles. This composite ecosystem and the diverse species inhabiting it make Similipal a particularly valuable area for scientific and ecological studies.

Often forested landscapes are not presented as the source of food and nutritional provisioning for the forest dependent communities. In this context, women belonging to such forested communities remain in the frontline while catering to the needs of their families socially, culturally, nutritionally and economically. Eventually, across the world there is a rise recognition of the ways in which people command access to food, how this varies by season, and how the interpersonal dynamics and biases (especially due to gender) of intra-household food allocation result in differential nutritional outcomes within families <sup>[1]</sup>. As per the NFHS 4 Report of Mayurbhanj, about 33.3% of women remain highly undernourished and about 45% of the children below the age of 5 remained underweight. Hence, it can be well imagine the importance of using forest as food landscapes are more important than ever.

As per Saxena, almost 85% per cent of rural women in India still derive their livelihoods from land and water based activities <sup>[2]</sup>. Probably the first victims of any environmental degradation are the women among the poor. A fuel wood crisis as a result of deforestation, for example, forces village women to travel for miles in search of wood. This involves waste of energy and time, which the women could have devoted to more remunerative work <sup>[3]</sup>. They have to bring water for cooking and washing from great distances. Fodder scarcity also affects women first as the care for the livestock is their responsibility. This burden on women in turn has an

impact on girl children. When the mothers' time is spent on fetching fuel wood and drinking water, girl children are kept at home and discouraged from attending schools. They have to look after the younger children, sweep the house and do other household chores. Women are also the immediate victims of the smoke that fills the houses of those who cannot afford clean fuels like natural gas and electricity.

Vulnerability to environmental degradation induces women to become agents of eco restoration in organized efforts. Women have taken keen interest in planting fruit, fodder and fuel wood trees around their houses and on common lands. They have played an enthusiastic role in preventing overexploitation of forests by commercial interests. There have been instances of women taking part in struggles to protect grazing lands and forests from disruptive developments like displacement from protected areas, mining etc. Women's participation is valuable for improving productivity of common lands. Since women are so closely linked with natural resources, they represent a constructive and protective force for the environment. They can play a crucial role in turning vicious circles into virtuous ones.

### Methodology and Area

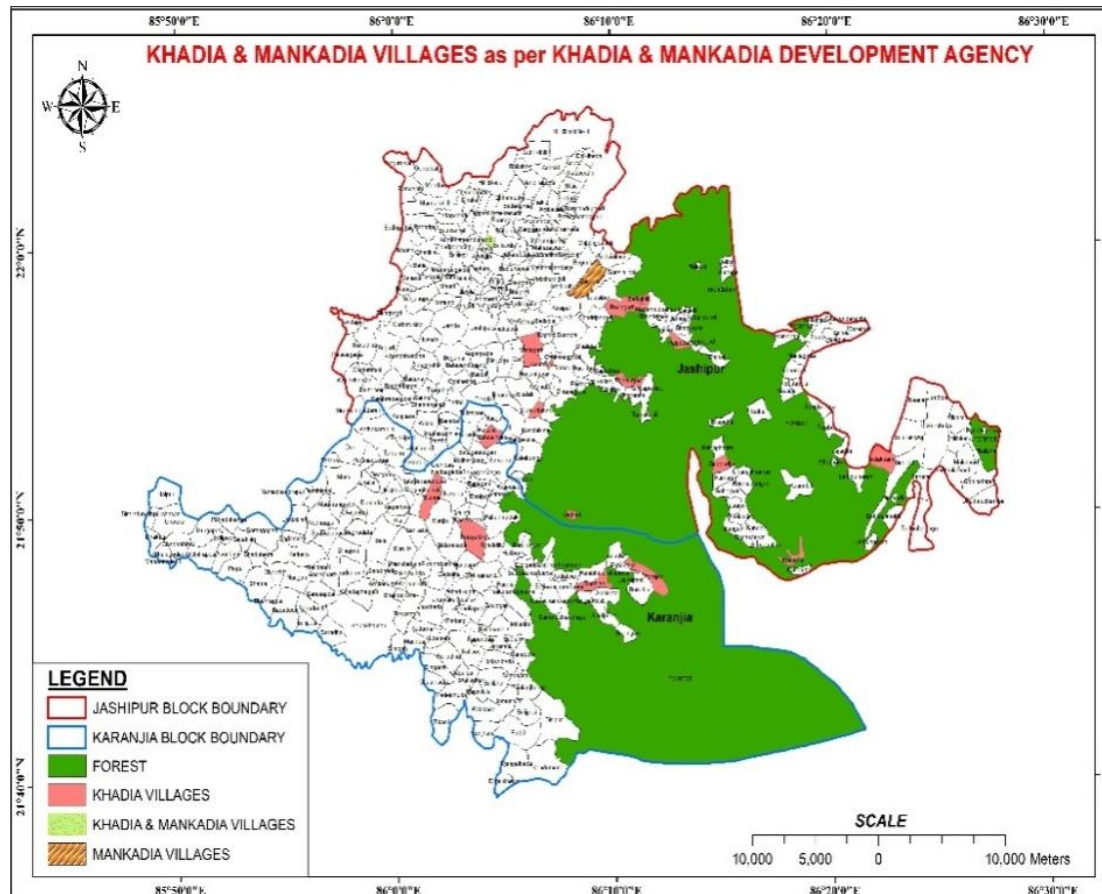
Gudgudiya is a heterogeneous village located in the buffer zone of Similipal. Gudgudiya is about 29km away from Jashipur and is a village of Gudgudiya gram panchayat which falls on the side of the road leading to the core area from Jashipur. Scheduled Tribes and Scheduled Castes comprise of 73% and Non Tribals are 27% of the population. Hill Kharias and Kohl together have a majority of households and remaining are Mahakud, Teli, Mahali and Kamar etc.

**Table 1:** Demography of the village

Category of Population	No. of Households	Total household %
Khadia	36	32.14
Kol	44	39.29
Bathudi	2	1.79
Mahali	3	2.68
Teli	3	2.69
Mahakud	12	10.71
Khamar	2	1.7
Others	10	8.93
Total	112	100

Odisha is home to 62 Scheduled tribal groups and 13 PVTGs. Hill Kharias are one among the 13 PVTGs found in Odisha. Hill Kharias are found in Mayurbhanj, Sundergarh and Sambalpur districts of Odisha with a total population of 18833 (as per SCSTRTI, Odisha). As a PVTG, the Hill Kharia depends on forest economy, use of primitive technology for agriculture low literacy and practice of hunting and gathering for their sustenance. They also have low population growth, extremely low level of literacy in comparison to the other tribal groups. Pahadi Kharias or Hill Kharias, the Dalki Kharias and the Dudh Kharias are

three main sub groups of Khadia Tribal group. Of these three sections of the tribe, the Hill Kharias (identified as the PVTG of Odisha) is a high land tribal group. They are the semi-nomadic group. Hill Kharias still are continuing with their tradition and culture leading a semi – nomadic life where they primarily depend on collection on minor forest produces and honey during the seasons. Due to deforestation and constraints from forest department and other forest related policies, hunting of wild animal has been entirely stopped in their area.



**Fig 1:** Map of Gudgudiya village within Simlipal Biosphere Reserve

For the study, participatory rural appraisal methods like social mapping and resource mapping were used. In order to collect data structured questionnaire was used for individual as well as open ended group discussions were also conducted with semi structured questions. The questions mostly included the important elements of women's life, forests and economy. The study was conducted around February 2016 - January 2017 as a part of the author's doctoral research. The secondary data as well as census of 2011 was used to refer the demography of the region. During this time, around 7 field visits were taken with duration of 8-10 days in each trip. The selection of village was based on surveyed data, geographical location whether adjacent to forest or valleys, dependence on forest products, market facility, its population size etc. A total of 36 Hill Khadia households of Gudgudiya were surveyed with 22 women who were the key informants were interviewed to get the underlying information. A clear expression of consent was obtained from the informants before the interview to provide information on elaborating the aim of the study as per the guidelines and ethics were followed. The ages of informants under household survey ranged from 20 to 70 years and were classified into five age groups with corresponding respondents' numbers within parentheses such as 20–30 (05), 31–40 (08), 41–50 (06), 51–60 (02) and 61–70 (01) with their calculated average age of 37.7 years.

## Discussions

### Decision Making Among Khadia women

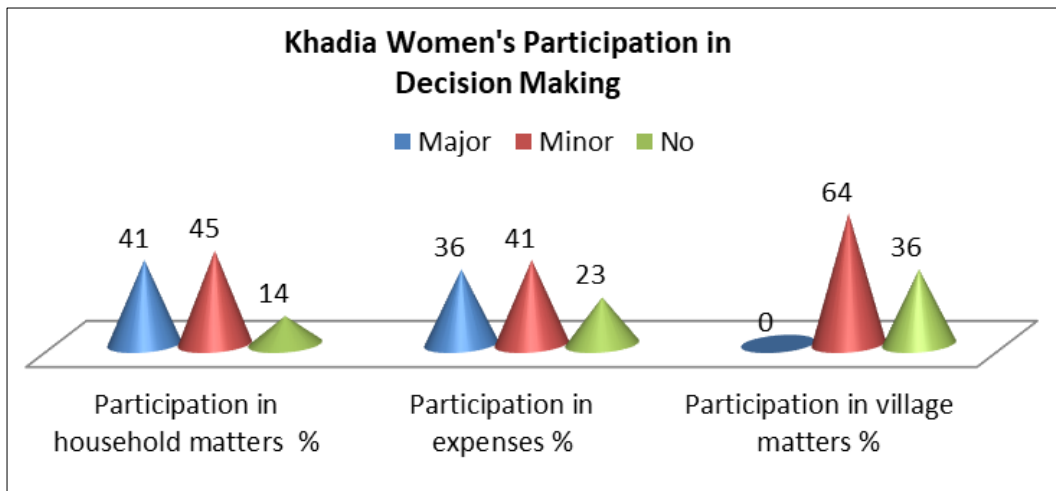
The Hill Khadias women who were interviewed on this domain were found to be very upfront and vocal. They expressed that, when it is about the household matters like conflicts within the family, marriage or child upbringing,

41% of the women have a voice and scope to express their desired opinions alongside the men of the house. And 45% of the women have little less vocal in addressing issues of the households in male dominated Hill Khadia community (Fig:2). As far as household expenses are concerned, the men members of the family control the money matters in the Khadia household. As women of the Hill Khadia households are in charge of the maintenance of the household and do all the cooking, 36% agreed that they actively look after the household expenses, whereas 41% women said that they do get some space to share their opinion as far as expenses are concerned (fig:2). While discussing the about the same with the older women during group discussions, they gave an entirely different picture. They were of the opinion that, in earlier days the scenario was completely different as men fully controlled the money matters and women barely could say anything. Gradually with time and inclusion of modern outlook in the traditional cultural setup of the Khadia community things have changed a lot. Most of the older women as well as mild aged women were of the opinion that, the socio-cultural scenario within the community has been changing due to influence from other groups and due to the impact of seeing modern outlook that the youngsters of the community are exposed to. In the present time, women are more vocal and are voicing their opinions without any inhibitions and at the same time, the older generation people are also gradually tending to accept the change that its occurring.

Both men and women of Hill Khadia community do not undermine intoxication or getting drunk and also oversee the expense done in this regards. Similarly earlier women do not participate in the matters of decision making pertaining to village. Yet with the development activities taken up by

various non-government organizations (NGOs), the women are asked to participate in the meetings organized in the villages along with the men. Still around 36% of the women in the village refrain themselves from taking part in the

affairs relating to their village (fig:2). Over the years, this kind of intervention has led men to accept women taking part in the decision making process of the village in a more passive manner.



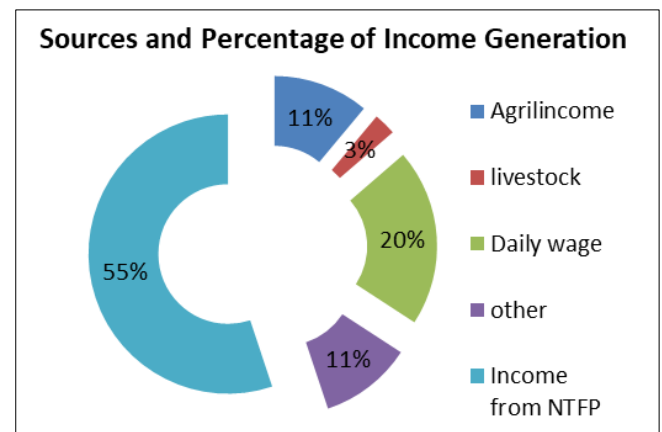
**Fig 2:** Participation in Decision Making at various levels among the Hill Khadia women

**Life around forests: Khadia Women**

Hill Khadias being recognized as PVTGs still withholds their traditional form of livelihood and some basic traditional knowledge of using and managing the forest. In words we can say that the Khadia community follows a payment of ecosystem services and gifts that they have been receiving from the forests throughout many generations. This is mostly done to secure the environmental conservations. Even though the Khadias primarily depend on the forests for their survival, yet they also foster a kind of conservation-oriented behavior when it comes to access and control over the natural resources.

The Hill Khadias as mostly known for their foraging way of living with very little cultivation, yet with time the community has also resorted to settled form of livelihood i.e, agriculture with introduction of many government plans and schemes for their economic growth. Many of the studies and researched undertaken by anthropologists have recorded Khadias to be hunters and foragers and primarily depending on the collection of firewood and various minor forest produces like resins, tubers, fruits, mushrooms, greens, as well honey and a bit of fishing for self-consumption or selling those in the market. Within a year, especially during the winters the Khadias women other than doing their household chores also are engaged in collection of tubers and other forest based greens leafy vegetables and the men are engaged in collection of sal resin and honey for selling in the markets. Following that, both men and women of the community are engaged in paddy harvesting as winter reaches its peak.

From the interview, it was concluded that, on an average, a Khadia woman who is mostly engaged in non-timber forest produce (NTFP) collection contributes approximately Rs. 11000 annually, which is about 55% of the total income earned in a year (fig:3). Rest income is generated from other activities like agriculture, daily wage, etc. Due to the prevalence and success of MGNREGA, approximately Rs. 4000 is contributed to the household income which is about 20% of the total annual income (fig:3).



**Fig 3:** The various sources and percentage of income contributed by women to Khadia household

According to Dash (1992) in the forest based groups particularly the Khadias of Similipal hills opt for selective exploitation of the natural resources done mostly for self-consumption, exchange or sale in the local market or other communities [4]. Particularly looking ahead to the “Makar” festival which falls in January both men and women gather along in the forests and stay there for over a month to collect and process tubers particularly arrowroots. The men collect and the women process it to a powder form. With the onset of the summer the Khadia men venture out for honey collection. It is during rainy seasons, the community suffers the most as people cannot venture into the forests for foraging activities as well as every other economic activities are hindered, which is when the community consumes the roots and tubers etc. The women also move around the outskirts of the village to collect green leafy vegetables. Yet during the initial phase of rainy season, men collect resin from sal trees after which forest becomes inaccessible. The above figure mentioned denotes that Khadia community to derive a major portion of their income from forest produces. (fig -3).

Nature, Culture, Communities, health is un-differentiatedly linked. The age old traditional knowledge has been

experimented with, observed and validated by the indigenous communities across the world for the social and cultural wellbeing. Living close to nature the tribal people eat a wide range of wild foods hence reducing the risk of life style related diseases such as heart attack, diabetes, and cancer which have begun to be assumed as epidemic, over the last two decades. Especially women members gather these wild food plants to meet the subsistence need of the family during availability and also food scarcity. Hence, ensuring the food security of the community at large owes to a perspective of ensuring ecological and cultural sustainability of the community forest resource area under the provision of Forest Rights Act 2006.

Wild edible plants are one of the important natural resources on which the forested communities rely especially during the lean periods. These plants play a crucial role in improving the quality of food while adding up to the nutritional supplements. In additions to being a supplementary food and an integral part of social rites, rituals, wild edible plants have medicinal value as well, which is also seen in the tribal communities across India. The women in the study areas are found to be very active in productive forest management and household activities. Khadia women mostly prefer leafy vegetables found in their backyard or forest fringed areas. They not only cook but also enjoy gathering or collecting these as these leafy vegetables constitute a major food source for their entire family as they are more conscious in these matters than the male members. It was evident during group discussions that the women have sound knowledge of seasonal availability of this food from forest and also has identified the exact location or patch within the forest to collect. During pregnancy the women consume more green leafy vegetables which have more iron content in them like sajana saga (*Moringa oleifera*), sunsunia saga (*Marsilea minuta*), kanta saga etc.

Especially, the Khadia women consume a fruit locally called as 'Rajada' (*Bacunia ramiflora*) and crabs from the local fresh water streams to mitigate the iron requirement during pregnancy. Further, mushrooms found in the areas are savored as delicacy in season and act as a meal supplement. Although everyone in the family eats the food, yet women are the ones who plan for cooking meals ahead not only everyday but also during special festivals and ritual occasions. The women contribute majority of the labor time and labor force. They spent more time in the forest as compared to the men members. They are also representing

the management practices and taking the decision and proposing their ideas in the gram *Sabha* or *Pallisabha*. Khadia people primarily rely on the consumption tuberous food on daily basis. Most preferred tubers are Pita alu (*Discorea bulbifera*), Bayan alu (*D. pentaphylla*), etc as mentioned by Misra *et al.* (2013) [5]. Many of the wild fruits are eaten raw just after collection and further peeling the outer skin for its good taste, while some of the wild fruits were eaten boiled/cooked and consumed during the food scarcity or lean periods. The species such as daucha (*Artocarpus lacucha*), asadhua (*Capparis zeylanica*), kantaphala (*Catunera spinosa*), chianar (*Garcinia xanthochymus*), rai (*Dillenia pentagyna*), gajapipali (*Scindapsus officinalis*), vegi baigana (*Solanum torvum*) and thelco (*Tamilnadia uliginosa*) were successively boiled and taken as vegetable or during the lean periods. The Khadia women choose to consume the unripe fruits of *Thladiantha cordifolia*, a wild bitter gourd (Buru kirla), as vegetable along with day meal (Sahoo *et al.*, 2016) [7]. Now a day's many of the tribal people have shifted to foot hill region and adjoining plain areas and influenced by modern dietary trends and accordingly added different form of sweets, spices, oil, chilly and sour to enhance taste of cooked/ boiled items. Some fruits were reported to be eaten burnt as such after washing and removing the skin. In this method, the fruit or seeds are burnt whole or part or roasted not only to facilitate in removing the outer hard layer but also to enhance the taste of the item and to remove the anti-nutritional factors. Few species such as seeds of siali (*Bauhinia vahlii*), mirgilendi (*Gnetum ula*), sunari (*Cassia fistula*) and fruit of belo (*Aegle marmelos*) were roasted/ burnt in the fire or embers and consumed as snacks which were preferred much by children. Some of the fruit yielding species found in wild have been domesticated by the local tribes due to their wider use as food. These are grown in backyards, homesteads, kitchen gardens or in fields using intensive farming that result in fruit yields to supplement the domestic use or as source of household income. These species are belo (*Aegle marmelos*), jamun (*Syzygium cumini*), ou (*Dillenia indica*), amba (*Mangifera indica*), ambada (*Spondias pinnata*), kanteikoli (*Ziziphus spp*), mahua (*Madhuca indica*), kusuma (*Schlechera oleosa*) etc. Based on their traditional knowledge of healing, the Hill Khadias also use some plants found in the forests for treating some come diseases found in their community as shared by the community members while moving in the forests like the skin disease, gynecological issues, anemia, rheumatism and malaria (table:2)

**Table 2:** Trees used for treating some common ailments among Hill Khadia

Name of the Disease	Age group	Affected Gender	Plants used (Local name)	Plants used (Scientific name)
Skin disease	Children, women, Men	Male and Female	Kuruma/ Kelikadamba, Debasana, Sahada	<i>Adina cordifolia</i> , <i>Pittosporum floribundum</i> , <i>Streblus asper</i>
Gynecological disease	Adolescent young girls and women	Female	Bhuin Korua, Apamarang, Kochila, Bahada	<i>Andrographis paniculatus</i> , <i>Achyranthes aspera</i> , <i>Strychnos nux-vomica</i> , <i>Terminalia bellirica</i>
Anemia	Children, young girls and pregnant women	Female	Kukuda Chatu	<i>Russula delica</i>
Rheumatism	Old men and women	Male and Female	Barun, Debadaru	<i>Crateva nurvala</i> , <i>Polyalthia longifolia</i>
Malaria fever	All	Male and Female	Gangasiuli	<i>Nyctanthes arbor-tristis</i>

### Khadia Women's Access and Control over Forested Landscapes

For the last few years, forest fringe communities were thought to be encroachers on the land that they have been living on since generations and have been facing grave threats towards their survival owing to the policies that favour the relocation or displacement of such communities from protected areas or diversion of forest lands for developmental projects. Such policies with implementing institutions liked forest department consider these communities to be direct threat towards the survival and conservation of the wild life and biodiversity all together. It has been reported across the many news reports that the forest dwellers were put behind bars for accessing the forests to collect minor forest produce that are the source of their livelihood despite restrictions imposed by the forest department and associated policies that protect wildlife and immediate environment.

Having said that, off late the forested communities have actively claimed their rights on community forest resource under Forest Right Act 2006. These communities have their own needs, capacities, perceptions and forest based livelihood strategies which they have been fostering as a separate worldview. Provisions under Section 3(1)(i) provides for the 'right to protect, regenerate or conserve or manage any community forest resource which they have been traditionally protecting and conserving for sustainable use' and Section 5 empowers the holders of forest rights, the gram sabha, and to protect forests, water catchment areas, biodiversity and the 'cultural and natural heritage of forest dwellers'. This provision is further strengthened in the Forest Rights Rules. Rule 4 (1) (e) and (f) of the Rules provide for "the constitution of a Committee for the protection of wildlife, forest and biodiversity" which shall function under the monitoring and control of the gram sabha, and prepare conservation and management plans for the community forest resources [8].

Khadias being a PVTG, recognizing the can claim their right under section 3 (1)(e) of the Forest Rights Act provides for recognition of "rights, including community tenures of habitat and habitation for primitive tribal groups and pre-agricultural communities" of FRA [9]. This provision is made to protect and preserve the culture, customs and territory of the PTGs as a distinct cultural category. The Act defines "habitat" as including the area comprising the customary habitat and such other habitat in reserve forests and protected forests of primitive tribal groups and pre

agricultural communities and other forest dwelling Scheduled Tribes. In 2015, local NGOs and then pro-active district administration took up the job of habitat rights claim making for Mankirdia and Hill Khadias living within Similpal, but after few attempts the work was shelved. This being a cumbersome process and lack of interest from the government side, the process was significantly delayed and denied due to the issue of them living within a biosphere reserve area.

During a group discussion, Khadia women narrated stories of restrictions and obstructions that they and previous generations had faced while venturing into the forests for collection of minor forest produce, particularly while they accompany their husbands during honey collection seasons. They spoke of how they are no longer allowed to collect timber that they require for their needs and also shared how hunting of animals has also stopped. During a group discussion few older women were of the opinion that, due to complete ban on hunting, which was a major source of food, has been changed and now the community members no more hunt the small game animals. Still the women fear of getting evicted everyday as they see other community members from nearby villages like villages like Jamunagarh, Kabataghai and Bakua that are within the ambit of Similpal getting displaced [10]. This fear looms large over threatening their survival as a semi-nomadic forested dependent community.

Yet, under section 4 of FRA, the Gudgudiya village as a unit has claimed and received their community rights and community forest resource rights over the forest which has been traditionally under the occupation of the people of Gudgudiya including the Hill Khadias. The Gram sabha [6] of Gudgudiya pass a resolution under Sec 3(1) (e) and section 5 which recognises community forest resource rights and empower the community under FRA. Secondly Gram sabha constitute a committee under rule 4(1) (e) to execute the decision made by Gram sabha. In addition to the above Gram sabha approves a set of rules and regulations with the simple thumb rules arising out of traditional or folk based knowledge of people interacting with ecosystems on a day to day basis. After getting community forest rights, people of Gudgudiya with support from local NGOs have started to manage the forest using their traditional knowledge of know-how of forest management. Few techniques are mentioned below (table: 3). Thereby conserving the forests, this has resulted in ensuring the unhindered flow of much required nutrients in the hearths of the Khadia women.

**Table 3:** Type of forest management existing within the studied village

Sl No	NTFP items	Methods of collection	Type of ecological sustainability practices
1	Honey	Fuming and collection of a portion of bee hive	Prevention of complete removal of bee hive
2	Resin	Scrapped from the tree barks	Prevention of stripping of barks
3	Arrowroot	Tubers are dug out	Only bigger tubers are collected leaving small tubers
4	Fruits	Fruits collected with a hook and a pouch	No hacking of branches
5	Hill broom	Selective branches are cut	Complete removal of all branches are prevented
6	Siali leaves	Only leaves are collected	Prevention of climber as a whole
7	Sal leaves	Only leaves are collected	Prevention of hacking twigs/branches
8	Timber	Dead timbers are collected	Prevention of green tree felling
9	Mushrooms	All mushrooms are collected	No ecological sustainable harvest is in practice
10	Leafy vegetables	Cut and collected	Prevention of uprooting of plants
11	Kendu fruits	Branches shaken	Prevention of cutting of branches
12	Mahula	Floor is swiped and fallen flowers collected	Prevention of putting fire below tree canopy
13	Tola (Mahua fruits)	Fallen fruits collected	Cutting of tree branches prevented
14	Bamboo shoots	Tender shoots collected	Selected shoots collected.

15	Potential medicinal plants (part used root)	Tubers are uprooted leaving a part of the tuber under ground	Tubers are uprooted leaving a part of the tuber under ground
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### Conclusion

The results of the study revealed that the Hill Khadia tribal groups living in Gudgudiya are highly dependent on the forest for their survival. Forest not only act as a source of living but also act as food landscapes for the women who derive nutrition not only for themselves but also for their entire family. Khadia women act as knowledge hub in themselves when it comes to the collection of food from forest. The forest derived leaves, tubers, fruits, etc acts as food supplement and contribute a lot during the periods of food scarcity, non-availability of adequate food, as the forested communities find it difficult to cultivated the hilly terrains of Similipal. Continuance in the pattern of the usage of the forest produces in traditional manner especially by children and poor households. As younger generation are no longer interested to consume them, there lies a threat to ensure the maintenance of traditional knowledge and passing of knowledge through generations which eventually may erode. It is evident from the study that with the introduction of food schemes by Government, adhering to the modern lifestyle and food habits by younger generation, coupled with migration from resource rich areas to other areas with lesser resources has resulted in gradual depletion of traditional knowledge which included identifying, locating, gathering, conserving and consumption of such plant species.

Additionally, because women hold the authority over the kitchen in the house, they not only look after the food requirements but also look after the income and expenses combined. Based on the information collected from the Khadia women, they agree that, there has been some transformation when it comes to participation decision making alongside their male counterparts. Owing to the interventions by the local NGOs at various levels, women have started to participate in village affairs; still a lot remains to be done in terms of gender sensitization. Then again, proper implementation of FRA or recognition of their habitat rights will also ensure that the entire community get secured their forest based livelihood and also gives an opportunity to the Government to further strengthen the income generation of such communities by providing adequate and desired market linkages for the minor forest produces. This in return will safeguard the livelihoods of the Hill Khadia people.

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