# The Implication of Food Security in Particularly Vulnerable Tribal Groups: Highlighting the Khond PVTG in Andhra Pradesh

## Pinisetti Raghu Veer 1\* and T. Sobhasri 2

<sup>1</sup>Ph. D. Research Scholar, Department of Social Work, Andhra University, Visakhapatnam – 530003, Andhra Pradesh, India.

<sup>2</sup>Professor, Department of Social Work and Principal, IASE, Andhra University, Visakhapatnam – 530003, Andhra Pradesh, India.

\*Corresponding Author

### <u>ABSTRACT</u>

The majority of the Indian tribal groups are suffering from poverty and food insecurity due to remoteness, depending upon the forest products and traditional agriculture patterns. The poverty and social exclusion face fear and uncertainty of not having access to basic amenities such as clean water, sanitation, healthcare, and education. The situation is very serious in Particularly Vulnerable Tribal Groups (PVTGs) areas, where a lack of basic infrastructure and low level of awareness on resource management and downtrodden culture and circumstances. They suffered sequences of poverty and social exclusion, regularly battling for survival as prospects to gain access to knowledge, resources, and essential services avoid them. The present paper on the framework of livelihoods and food security impacts the socio-economic conditions of Khond PVTGs. In this approach, the paper also includes the critical point of the Khond PVTG's right to food from the perspective of its availability, accessibility, adequacy, and affordability an area which is yet an ambiguous daydream.

Keywords: Poverty, social exclusion, survival, livelihoods, food security, daydream

# Implication of Food Security in Particularly Vulnerable Tribal Groups: Highlighting the Khond PVTG in Andhra Pradesh

#### Introduction

The Khonds rely on farming and forest resources for their livelihoods, and food security has become a major concern in the last few decades, due to changes in the environment and economic policies. This research article examines the status of food security among the Khonds of Andhra Pradesh and the factors affecting food security in the region. The land and forest resources have not been able to provide food and livelihood security for the Khond PVTG families of Andhra Pradesh in recent times. As a result, they rely on seasonal migration due to stress, hunger, and diseases, often without any means of survival in their habitats. Lots of development implementations pursue to decrease stress migration by offering chances to raise their family revenue from land and forest resources actions around profitable agriculture practices or through agricultural business. An inclusive method is required in dispensing with the livelihoods of vulnerable interior hilltop Khond tribal families. The livelihood implementations to be lucrative in the long term involve a viable application of natural resources and its feasibility strategies.

## **Background**

The Khonds are indigenous people living in various districts of Andhra Pradesh, including Visakhapatnam, Vizianagaram, Srikakulam, and East Godavari. The Khonds are considered one of the earliest groups to settle in the area and have a distinct culture and language. Historically, the Khonds sustained themselves through hunting, fishing, shifting cultivation, and collecting non-timber forest products. In recent years, the Khonds have become predominantly settled cultivators.

The Khonds face many challenges that impact their food security. One of the most significant challenges for the Khonds is environmental degradation. Rapid deforestation in the form of mining, industrial development, and other uses has led to a decline in natural resources, thereby reducing Khonds' ability to feed themselves. Additionally, there has been a shift away from sustainable traditional agriculture practices which has further undermined the Khonds food security status. The other major issue affecting Khonds' food security is access to markets. While the Khonds make significant efforts to be self-sufficient through subsistence agriculture, poor infrastructure and inadequate marketing systems prevent them from connecting with external markets. As a result, the Khonds often rely on cash crops, which can be impacted by low yields, perishing, or lack of access to profitable markets. These issues result in food insecurity, economic loss, and high poverty levels.

## **Need and Rationale of the Study**

The Khonds are an indigenous ethnic group living in the hilly regions of eastern India. This group has traditionally relied on subsistence agriculture as their main source of food. With changing agricultural practices and the impact of climate change, their food security is becoming increasingly compromised. The study will help to identify the current status of food security amongst the Khonds, soliciting information on the types of foods being consumed, the challenges of food supply, storage and availability, and nutritional deficiencies. This information is important for any policy aimed at improving their well-being in this regard.

The findings of the study will inform the policymakers, community leaders, and other stakeholders about the areas that require intervention. The study can support the development of policies aimed at enhancing the food security of the Khonds through implementing alternative livelihood resources and improving agricultural productivity. It will also benefit academic and practical researchers, stakeholders, and policy-makers who work together toward the highest goal of improving food and nutritional security among Khonds. The Khonds food security is a critical issue for the dignity, sustenance, and health of the Khonds ethnic group, and should be investigated so concrete and evidence-based intervention can take action to promote a long-term sustainable development for Khonds people.

## **Objective of the Study**

To analyze and assess the existing food security status of the Khonds community and identify food insecurity factors, and sources of availability

## **Study Area**

The Khonds predominantly inhabit in the Visakhapatnam district of Andhra Pradesh. The study area comprises 2 mandals and 10 villages in the Visakhapatnam district.

## Methodology

The present research paper is qualitative and based on empirical data collected from 100 households of Khond PVTGs. The secondary data on research was collected from books, journals, e-sources, and different government and non-governmental institutions.

## Sampling

The study used a simple random sampling method in Dumbriguda and Gudemkothaveedhi Mandals, selecting 10 villages by choosing five from each Mandal. Data was collected from 10 households in each village, creating a sample size of 100 households for the research study.

#### **Review of Literature**

The literature on the livelihood practices for the food security of tribals was reviewed for this paper and systematically summarized based on the descending year of publication of research work.

Basavarajaiah D. M, Narasimhamurthy B., Bharathi M, and Naik J (2020) in their research work on Tribal livelihood status in the Western Ghats analyzed the prevailing poverty, hunger, and deprivation situation of tribals. Their study reveals that despite many development plans and policies executed for tribals, no eye-catching growth is noticed in their socioeconomic status and livelihood patterns among tribals.

Tewari P, Singh R. D, Nagarkoti P, and Gumber S (2020) in their research article on the Van Raji primitive tribe from Uttarakhand, India, present the livelihood and land usage patterns. Their study reveals that temporal changes in livelihood practices along with land use patterns had forced them to acquire alternative livelihood means. Low educational status, poor technical skills, poverty, and small land holdings among the Van Raji tribe lead to low income and low nutritional status. The study also evidenced that livelihood in tribal areas has been vulnerable to factors like climate change, unemployment, and poor infrastructure.

The study by Dash D, Amardeep, and Mahra G. S. (2018) discusses generating livelihood for tribal youth through agricultural development. The authors explain that the tribal youth have a lot of potential but due to a lack of awareness and technical skills, they were unable to reap the benefits. Their study also suggests that only education can bring overall change and uplift livelihood among tribal youth.

Gadadhara M. (2012) in his research study on Dongria Kondh, Kutia Kondh, and Domb communities of Niyamgiri Hills discusses hunger and coping strategies. He reveals that the shifting cultivation, hunting, gathering, and collection of minor forest produce is the major means of livelihood for these communities. The author also submitted that due to the depletion of forest resources and aggressive mining activities in and around their inhabitants, their livelihood base had been shrinking and forcing them to rely upon the market for purchasing foods to meet their food deficiency. Government schemes had hardly any impact on their improvement of livelihood status.

#### **Results and Discussion**

Table No. 1: The Socio-demographic Profile of the Khond Respondents

Variable	Number	Percent age					
Age Group							
18-35	34	34%					
36-45	28	28%					
46-60	38	38%					
Gender							
Male	48	48%					
Female	52	52%					
Religion							
Hindu	88	88%					
Christian	22	22%					
Family Size							
4 Members	17	17%					
Above 4 Members	83	83%					
Education							
Illiterates	40	40%					
Primary	26	26%					
Secondary	19	19%					
Graduation and above	15	15%					
Occupation		1					
Agriculture	86	86%					
Daily wage labourer	11	11%					
Others	3	3%					
Type of House		1					
Kacha	8	8%					
Semi Pacca	74	74%					
Pacca	18	18%					
Landholding (in Acres)		1					
Marginal Farmer (<2.5)	44	44%					
Smallholder Farmer	39	39%					
(2.5-5)							
Large Farmer (>5)	17	17%					
<b>Economic Status</b>							
Above Poverty Line	8	8%					
Below Poverty Line	92	92%					
Monthly Income							
Below Rs. 10000/-	92	92%					
Above Rs. 10000/	8	8%					
MGNREGS Job Card							
Having Job Card	94	94%					
Not having a Job Card	6	6%					

The age group of the respondents ranged between 18 and 60 years. Around 34% of the study respondents were in the age group of 18–35 years, 28% were in the age of 36–45 years, and 38% weein 46–60 years of age. In the study population, 48% were male and 52% were female.

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The study population mainly follows two religions Hinduism and Christianity. The majority (88%) belong to the Hindu religion and 22% population belongs to Christianity. Type of family includes both nuclear and joint family, in which 17% and 83% of Householdshave family size of 4 and >4, respectively. About 40% were illiterates. Around 26% and 19% were educated up to primary and secondary school, respectively. Only 15% were educated up to graduation or above. The majority 86% rely on agriculture 11% depend upon daily labour and 3% of respondents are running autorickshaws.

Majority 74% of respondents have semi-Pacca houses. 83% of the respondents are small and marginal farmers. Out of 100 HHs, 92% were below the poverty line and only 8% were above the poverty line. The annual income of 8% of respondents ranged above Rs.10,000/- and INR below Rs. 10000/- of respondents are 92%. The majority 94% of respondents had MGNREGS job cards and only 6% did not have job cards due to their frequent migration to other places for jobs.

The Khonds traditionally practiced shifting cultivation (Podu), but due to population growth and land usage pressure, this practice has been reduced and shaped into permanent cultivation. One of the challenges faced by the Khond community is the monoculture of cash crops replacing food crops, resulting in inadequate food availability. Some NGOs have executed viable Agri-based enterprise models such as floriculture, apiculture, medicinal plants, fruits, and vegetable cultivation to address this issue. The article argues for the importance of food security and proposes value-added product preparation in organic and natural farming methods to create high demand. The majority of the Khond PVTG farmers practice rain-fed agriculture and podu cultivation, and most of the cultivation infringes and degradable lands nearer and at the hills.

Most of the Khond PVTG farmers are not able to assemble their food needs from soil and cultivation pursuits. Through the summer days, when there is no work in their native places except Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) or no work accessible in farming, a considerable number of farmers carry out migration for 3 to 6 months to towns in Andhra Pradesh, Telangana, Odisha, and Chennai. Summer migration has appeared as a vital livelihood approach for the Khond PVTG residing in draft-prone areas. Most of the Khond families are suffered from a lack of enough food which they have cultivated the produce for their lands. The 3 to 5 months is the lean period for the Khond families from summer to rainy season. The scale of food scarcity differs from household to household in a given year and from year to year for a given household. Hence, the Khond families in a common encounter with food and livelihood uncertainty. Food and livelihood security is a complicated perception that is the locale, independent and forceful.

Figure No. 1

Khond Period of Food Insecurity (Lean Period of the Year)



Source: ITDA Paderu Report, 2022

Government departments and various developmental social organisations are seeking to decrease the stress migration of tribal farmers through the implementation of sustainable agriculture crops and access to market linkages. Sainath (2007), states that "Seldom has policy been so forcefully implemented as in the 1990s. For ten years, governments have assaulted the livelihoods and food security of the poor. That security does not lie in mountains of grain but millions of jobs and workdays for people". Livelihood opportunities and food security are not reaching their optimum objective level in households for poor national farmers. The Agriculture Department is advising Khond farmers to grow profitable crops to increase their income. However, this overlooks the importance of food and livelihood crops for the farmers. Khond farmers need support for growing food crops such as millets, pulses, oilseeds, and vegetables for their consumption due to their rain-fed and small areas of land.

The present paper aims to discuss the importance and outline of Khonds food security and its contribution to progressive implementations for the support of the target group. Their continuous feeling of abandon, feeling of political and economic exclusion, strengthen an argument of violence primarily due to chronic poverty, and deprivation of entitlements for an infinite period. The sense of livelihoods and food security differs immensely. Khond PVTGs depend on various livelihoods such as food gathering, Non-Timber Forest Produce (NTFP) collection, hunting, livestock rearing, shifting cultivation., and artisan works. Most of their livelihoods depend on the forest. The forest is their life and livelihood. They collect various NTFP items such as honey, gum, amla, bamboo, shrubs, fuel wood, dry leaves, nuts, sprouts, wax, medicinal plants, roots, and tubers. Most of the NTFP items they gather are for consumption and they sell the remaining to middlemen. However, due to the shrinking forests, environmental changes, and new forest conservation policies, their NTFP collection is getting hampered. Because of the lack of awareness about the value of NTFP produce, Khond PVTGs have been exploited by the middlemen.

Table No. 2

Distribution of Season and Month-wise Availability of NTFP

Season	Month	Type of NTFP
	Mid-February to mid-April	Tamarind, Castor Seeds, Siali Leaves, Broomsticks Grass, Tendu Leaves, Tendu Fruit, Terminalia Billerica
Summer (Grishma)	Mid-April to mid- June	Siali Leaves, Mahua Flowers, Tamarind, Tendu Leaves, Tendu Fruit, Mango, Myrobalan, Terminalia, Billerica, Leafy Vegetables, Yam, Indian Blackberry, Dates

Monsoon (Varsha)	Mid-June to mid- August	Siali Leaves, Mahua Fruit, Leafy Vegetables, Myrobalan, Wild Mushroom, Bamboo Shoot, Bamboo Mushroom, Yam, Indian Blackberry, Dates		
Autumn (Sharath)	Mid-August to mid-October	Siali Leaves, Custard Apple, Wild Mushrooms, Guava		
Winter (Hemantha)	Mid-October to mid-December	Siali Leaves, Castor Seed, Guava, Citrus Fruit, Orange, Fuel Wood		
Winter (Seetha)	Mid-December to mid-February	Siali leaves, Tamarind, Citrus Fruit, Orange, Fuel Wood		

Source: ITDA Paderu report 2022

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## The Importance of Food Security for Khond Community

The Khond's primary source of livelihood is agriculture and forest-based activities. However, a lack of recognition of their ancestral lands as legal property and access to basic resources like land, water, and forests has led to their impoverishment. Also, due to low-income levels and lack of access to market information and credit facilities, they do not have many employment opportunities, leading to their marginalisation and undernourishment. The issue of the Khond PVTG's right to adequate food has been a longstanding concern, recognised globally under the Universal Declaration of Human Rights as a fundamental right. Despite the National Food Security Act of 2013 being introduced in India, which aimed to provide legal entitlement to food for the underprivileged, there are gaps, particularly in the provisioning of safe and diversified food to uphold minimum nutrition standards.

In hilltop and rural tribal semi-arid areas of Andhra Pradesh agricultural lands are not able to sustain the livelihoods of Khond PVTG tribal families due to insufficient water and less fertile lands. Approximately 80 per cent of families carry out seasonal migration for 3-6 months throughout the year. The amount and period of migration differ from household to household. This seasonal stress migration is an unavoidable effect of not being capable of meeting their household's foodstuff needs from their agricultural land and water sources. The majority of the youth of both genders are engaging in the migration period in the urban areas and the remaining old age people, women and children are dwelling in the villages. The three categories of family members are the heavy burden to the migrated persons to provide food and other expenses to meet their migration itself and raising their responsibility in double while they are not in the village. The customs cultural and social norms and the related activities versus expenses are very vital in the pursuit of the tribal life and livelihoods of tribal families. Still, their expenses are divided into social and family levels both at individual and community events collectively towards their lifetime whether

they are at village or migration. It is critically affecting the tribal farmers' capability to provide constructive savings in cultivation, and it poorly involves the achievement of food safety measures for farmers.

Still, if natural and financial contact with nutrition is ensured, natural aspects will ascertain the long-term sustainability of food security systems (Swaminathan, 2001). However, food security is habitually specified by outside players created on caloric considerations; but for the small and marginal tribal farmers, these specified outside ideas are of slight worth. Food security as deemed from farmers' experiences; is an exceedingly unique idea. Livelihood security is a complex concept that is location-specific, respondents, and dynamic Hogger (2004). Family-level food security the meaning of personal opinion of the farmers can earn and contribute to the household's food and other needs for an annual from all the available sources; they can earn, regulate, and accomplish. The farmers will meet their household food and other needs from the sources that are holding and managing offers an indicator of food security. It is independent as livelihood security is a person's opinion built on the inclusive concerns of their household's assets, prospects, and limitations. Livelihood security, on the other hand, is multidimensional encompassing, food, financial, social, cultural, and emotional securities, among other things. (Hiremath, B. N., K. V. Raju and Anil Patel 2004). Livelihood security must be assumed from the farmers' standpoint as their food and livelihood security experiences decide their decision-making deeds.

The Khond PVTG farmer families that confront obstacles in safeguarding their food supply and they are under food security tolerances, initially attempt to achieve this limit by escalating survival food harvesting crops. The families that have obtained the limit then spend further on commercial crops. Neither the machinery appears improper, nor it is the breakdown of the augmentation system. It indicates that smallholder farmers are not only relatively well concerned with the available machinery but also, they do not have severe bookings for implementing them. The vital discrepancy between acceptors and non-acceptors, without a limit, is that highly acceptors were beyond the food security limit while highly non-acceptors were beneath the food security limit. Only some, who were non-acceptors of traditional knowledge, but exceeded the food security stage, were not implementing technologies because their uncertainty occurs from different characteristics of livelihood security. When the tribal farmers were operational lowering the limit point of livelihood security, their style of agriculture was conventional with survival alignment. Its attempts are entirely to attain food security. The household looks to work with the reasoning to reduce the risk of inadequacy and prevent the problems connected with such breakdowns.

The work to attain food security is multiple by the lack of social security measures. In a condition similar to this, the agriculturalists who sense that they are under this beginning are observing for the fail-safe, minimum guarantee, less capital intensive and fewer risk walks than enamored by possibilities of extreme produce, maximum returns, etc., generally associated with additional risk and increase in capital intensity. For growers operational at the edge, market rates, revenues, etc., infrequently impact their conclusions. The rainfed tribal farmers are practicing acceptable agricultural practices such as mixed cropping, and treatment of conventional types of seeds, and their inclination in the direction of extensive agriculture rather than 'intensive agriculture' is additionally apparent. The same farmers after attaining livelihood security switched over to modern technologies with commercial orientation and yield-maximizing strategies (Hiremath, B. N., K. V. Raju and Anil Patel, 2004). Non-agriculture revenue from migration is a claiming element in the complete livelihood security

Table No. 3

Sources of Food Management through the Year

Month	Agriculture and Podu Crops	Forest Products for Food	Wages	Loan for Food	Loan Repayment
Jan-Feb	30 days	30 days	-	-	-
Feb-Mar	30 days	30 days	-	-	-
Mar-Apr	-	5-7 days	8-10 days in the shape of grain	15 days	-
Apr-May	-	20 days	-	10 days	-
May-June	-	20 days	-	10 days	December
June-July	-	20 days	-	10 days	-
July-Aug	-	5 days	10 days in the shape of the grain	15 days	-
Aug-Sep	20 days	-	5 days in grain	5 days	January
Sep-Oct	10 days	15 days	-	5 days	-
Nov-Dec	60 days+	10 days	-	-	March
Total	150 days	155-157 days	23-25 days	70 days	3 months

## Causes of Khond PVTG Farmers' Backwardness on Food Security

The research article discusses the food security issues faced by the Khond Particularly Vulnerable Tribal Group (PVTG) in Andhra Pradesh, India. It highlights the challenges of poverty,

social exclusion, and environmental degradation that impact their livelihoods and access to basic amenities. The Khonds rely on farming and forest resources for their survival, but factors such as rapid deforestation, lack of access to markets, and changing agricultural practices have led to food insecurity and high poverty levels. The study aims to emphasize the need for sustainable livelihood strategies to improve the food security and socio-economic conditions of the Khond PVTGs.

The check dams and lift irrigation led to farming expansion for Khond PVTG families, ensuring food security and reducing migration. They started growing cash crops independently and received government support for horticulture. The introduction of floriculture and vegetable farming provided a new income stream. The government also established collection centres for higher revenue and emphasized the importance of village organizations for project execution and improving the socioeconomic condition of the farmers in the Khond areas. The Khond farmers have implemented sustainable and cost-effective farming methods with the help of public associations. This has ensured food security for their families and provided them with a viable livelihood.

## Present Livelihood Practices and Services for Khond PVTGs of their Food Security

The Khond tribe's present livelihood practices are diverse and shaped by the local environment and climatic conditions. They primarily rely on agriculture and forestry, ranging from traditional farming to wage labor. The Khond tribe relies on farming, forestry, and livestock for their livelihood. They practice shifting cultivation and grow crops like paddy, millet, and oilseeds. They also collect forest produce and work as wage laborers in nearby towns and cities. The Khond tribe has embraced vocational training and entrepreneurship, with some members starting small businesses like shops and restaurants. They have diversified their livelihood practices while maintaining their traditional connection to their land and culture.

The Khond community in Andhra Pradesh faces challenges for their livelihood. Government and NGOs like Oxfam, Plan International, and Care India provide opportunities for economic growth through schemes, activities, and services. These include micro-finance, skill enhancement training, technology adoption for food production, and hygiene access. These efforts have improved the community's socio-economic conditions.

## **Civil Supply Ration Cards – Public Distribution System (PDS)**

The Government of India provided the Anthyodaya ration card for the poorest of the poor in India, Supreme Court Judgement on 2<sup>nd</sup> May 2003 declared that all the PVTG communities are sanctioned Anthyodaya Ration Cards because they are in poor condition. The PVTG families get

35 kilograms of rice for a month at the price of Rs. 1/- per kilogram from the civil supply store. It is one of the major food sources for the Khond PVTGs for food security. It is observed that the Government of Andhra Pradesh provided NTR ration cards to the PVTGs' new households in 2014. The NTR card holder gets 5 kilograms of rice per person per month and 20 kilograms are maximum for a family. They provide rice, oil, dal, and other food provisions will be provided with subsidised costs. A ration card is very important to access any subsidised material from the civil supply distribution point.

## Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) Job Card

The MGNREG Act was passed on 7th September 2005 to provide 100 days of guaranteed wage employment. Jobs are provided when a person applies for a job card, which serves as identification for demanding employment. The card must be issued within 15 days of registration with a unique Identification number (UID). Adult members of tribal households willing to do unskilled manual work must register with the local Gram Panchayat. The objective of MGNREGS is to enhance the livelihood security of the rural poor by generating productive assets, empowering women, reducing distress migration, and promoting sustainable development.

In this context, the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) plays a crucial role in addressing the livelihood and food security concerns of the Khonds. MGNREGS aims to enhance the livelihood security of people in rural areas by guaranteeing at least 100 days of wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work. By providing opportunities for employment and income generation, MGNREGS can contribute to improving the food security and overall well-being of the Khond tribal community.

## Measures to be Taken to Ensure Food Security of Khond PVTGs

Ensuring food security for Khond PVTGs families is crucial for their well-being. Implementing measures such as providing access to agricultural resources, promoting sustainable farming practices, offering nutritional support, and creating income-generating opportunities can significantly contribute to improving their food security. Additionally, enhancing their access to education and healthcare can further strengthen their overall resilience and well-being

- Increase reservation quota in government jobs and higher education institutions.
- Design welfare schemes based on real statistics and link with private sector job opportunities.
- Decrease globalization activities in their residing areas.

- Transfer tribal habitations to Panchayat Raj Institutions.
- Strengthen local governance among tribal farmers during scheme implementation.
- Leverage applicable cultivation methods and tribal empowerment strategies.
- Support small and marginal poor tribal farmers and involve women tribal farmers as leaders in FPOs.
- Implement technology and farm mechanization to empower women farmers.
- Provide financial literacy and leadership training to tribal farmers.
- Utilize training and capacity-building budgets effectively.
- Provide information, knowledge, resources, and technologies to tribal farmers.
- Ensure leadership pattern is methodically re-scheduled for gender mainstreaming.
- Enhance the financial development of tribal farmers through access to natural resources, credit facilities, and technology adoption.
- Build tribal farmers' institutions and provide exposure visits for learning and adoption of innovative approaches.
- Conduct a feasibility study to identify potential areas for small-scale enterprise development.
- Encourage the use of locally available and biodiversity-friendly crops in cultivation.
- Encourage market-driven production and collective marketing arrangements for better price realization.
- Sustain conversation around preserving age-old livelihood assets.
- Conduct periodic awareness campaigns to help Khond PVTG farmers stand against external issues.

## Conclusion

The Khond PVTG's livelihood is mainly focused on natural resources, including shifting cultivation, horticulture, and gathering non-timber forest produce. Government support for horticulture and challenges such as low rainfall and lack of education have pushed them to adopt different livelihood practices.

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