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## **Factors Affecting the Involvement of Tribal Youth in Agricultural Livelihood Activities in Dindori District of Madhya Pradesh, India**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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### **ABSTRACT**

In tribal areas mode of livelihood is different among different population but all category of people is dependent on agriculture for their livelihood directly or indirectly, fully or partially,. There are some groups of people who could not reached at the stage of agriculture, they are still miles away from agriculture and pastoralism. The Baigas of Central India are recently forced to practice settled mode of agriculture. Before they were practicing shifting cultivation, they had various mode of livelihood. They still enjoy their traditional mode of livelihood, i.e. hunting and food gathering in the deep forest. They are also fond of fishing. Many tribal youths are faced with difficulty of maintaining livelihoods and consequently, poverty remains exist among them. The importance of income generating activities to tribal livelihood cannot be over-emphasized. This paper examines the factors influencing involvement of tribal youth in agricultural income generating livelihood activities in Dindori district of Madhya Pradesh, India. Purposive multistage random sampling was used to

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collect data from 250 respondents, majority of respondents had medium mass media exposure with medium urban contact for income generating activities. There was significant relationship between involvement in agricultural income generating activities and socio-personal-economic, psychological and communicational attributes of the respondents. Therefore, it is recommended that when developing and planning programmes aimed at enhancing tribal youths' livelihoods, the government and NGOs should take into account all agricultural income-generating activities that tribal youths engage in as well as the aforementioned factors influencing their involvement.

*Keywords: Tribal youth; livelihood; agricultural income generating activities; socio-economic; forest.*

## 1. INTRODUCTION

Rural areas are the economic backbone of the most developing countries and contribute to their overall economic growth through creation of jobs and supply of food and raw materials to other growing sectors of the economy. There are over one billion youth (Aged 15-24 years) in the world, 85 per cent of these youth live in the developing countries and about 50 per cent of youth population in developing countries live in rural areas. India has world's largest youth population [1]. Through rural youth constitute responsible force propelling rural economy, non the less, poverty still pervasive among rural youth, who face numerous challenges in order to achieve and maintain their livelihoods. Additionally, youth have difficulties in assessing livelihood opportunities globally [2]. "In societies governed by principles of age and where control of resources is in the hands of older people, young people have little opportunity to express their interest and needs. The demand for youth labour would not rise without a dynamic rural economy in agricultural and non-agricultural sectors. The role of agriculture in economic development can-not be over emphasized. In developing countries agriculture provides the basis for the major shares of employment and constitute the main source of livelihood for a large portion of the population" [3]. Similarly, according to Bhandari [4], "about three-quarters of poor people in developing countries directly or indirectly depends on subsistence agriculture for their livelihood. Small-scale farmers, women, youth and vulnerable groups who have little access to formal occupational employment depend on agriculture for employment, food security and social stability".

According to NSSO [5], more than forty percent of farmers expressed their bitterness with the occupation saying that if given a chance they would like to quit farming. There is wide-spread speculation on the regions behind the

accelerated withdrawal. CTA [6] found that "the low level of production and entrepreneurship as well as decreasing involvement of youth in agriculture to be resulted from low level of agricultural skills and limited access to financial resources". "In addition, for any given youth, the low income, high risk and insufficient gains compared to the effort required make agriculture a very poor proposition" [7]. "In the coming years, one of the biggest challenges for Indian agriculture would be retaining its youth in agriculture. Unless farming becomes both intellectually stimulating and economically rewarding, it will be difficult to attract or retain rural youth in farming" (Sharma, 2007). Therefore the study aims at identifying the agricultural livelihood activities engaged by tribal youth as well as to determine factors influencing their involvement in these livelihoods. This would possibly enhance an understanding that helps to create opportunities that stimulate their interest as well as entrepreneurial skills in a way that increases innovation, production, productivity and by extension assist in developing policies and services aimed at reducing tribal poverty.

## 2. METHODOLOGY

### 2.1 Description of the Study Area

Dindori is a district of Madhya Pradesh state of central India. The town of Dindori is the district headquarters. It was created on 25 May, 1998 with total 927 villages. The district is a part of Jabalpur Division. The district covers an area of 7,470 sq.km. and is located on the eastern part of Madhya Pradesh, bordering the state of Chhattisgarh. It is surrounded by Shahdol in the east, Mandla in the west, Umaria in the North, and Bilaspur district of the state of Chhattisgarh in south.

Dindori district situated between the latitudes 22°17' and 23°22' North and longitudes 80°35' and 81°58' East. It is divided into seven blocks

namely- Dindori, Shahpura, Mehandwani, Amarpur, Bajag, Karanjiya and Samnapur. According to the 2011 census, Dindori district has a population of 704,524 including male 3,51,913 and female 3,52,611. The Baiga tribe is a very pre-dominant tribe in the district. They are very vulnerable tribal groups which can only be found in the district. The Baigas are also known as the "National Human".

## 2.2 Sampling Technique and Sample Size

Dindori district comprises seven blocks. Out of seven blocks three blocks namely Samnapur, Bajag and Karanjiya were selected purposively because maximum Baigas are residing in these blocks. From the selected blocks, list of villages was prepared those comes under Baiga chak belt. Out of fifty-two villages, fifty per cent village were selected randomly from each block on the basis of proportionate method. In this way, total 26 villages were selected for the study. In next stage, seven per cent of the total household from the twenty six villages were selected and one youth from each household was interviewed bringing the sample size to two hundred and fifty (250) for the research study.

## 2.3 Method of Data Collection

Interview schedule was used to collect data on socio-personal-economic, psychological and communication attributes as well as income generating activities.

## 2.4 Measurement of Variables

According to Sheheli [8], when different dimensions of the livelihood issue are considered, the incidence of income is the most important. Living standard of the tribal poor would only be uplifted when they receive income from the economic activities [9-12]. Income generating activities change the livelihood of the tribal poor in the terms of living condition, housing, nutrition, savings, clothing, medical treatment, health, sanitation, liberalization and education [13]. The dependent variable for the study is involvement in income generating activities and was measured using a 3 point Likert scale of fully involved, partially involved and not involved (2,1,0). The cumulative scores obtained for other variables were categorized as low, medium and high using the formula: Low  $<(x - sd)$ , Medium  $(x \pm sd)$  High  $>(x + sd)$ .

## 3. RESULTS AND DISCUSSION

Table 1 shows that majority 59.60 per cent of the respondents were not married while (40.40 %) were married. Majority (61.60 %) of the tribal youth belonged to farming households, 18.00 per cent and 4.40 per cent belonged to trading and civil services households respectively, while 16.00 per cent belonged to family with occupation in wage labour. It is evident that more than 50 per cent of tribal youth belonged to farming family. There were 4.80 per cent illiterate respondents however, 2.40 per cent respondents were functionally literate, 8.00 per cent and 28.00 per cent of the respondents had primary and middle school education respectively, 25.60 per cent respondents educated up-to high school, 22.00 per cent respondents educated up-to higher secondary and only 9.20 per cent respondents educated up-to graduate level and above. It is instructive to note that about 86.00 per cent of tribal youth in the study area were educated up to higher secondary while the approximately 10.00 per cent respondents educated at graduate and above.

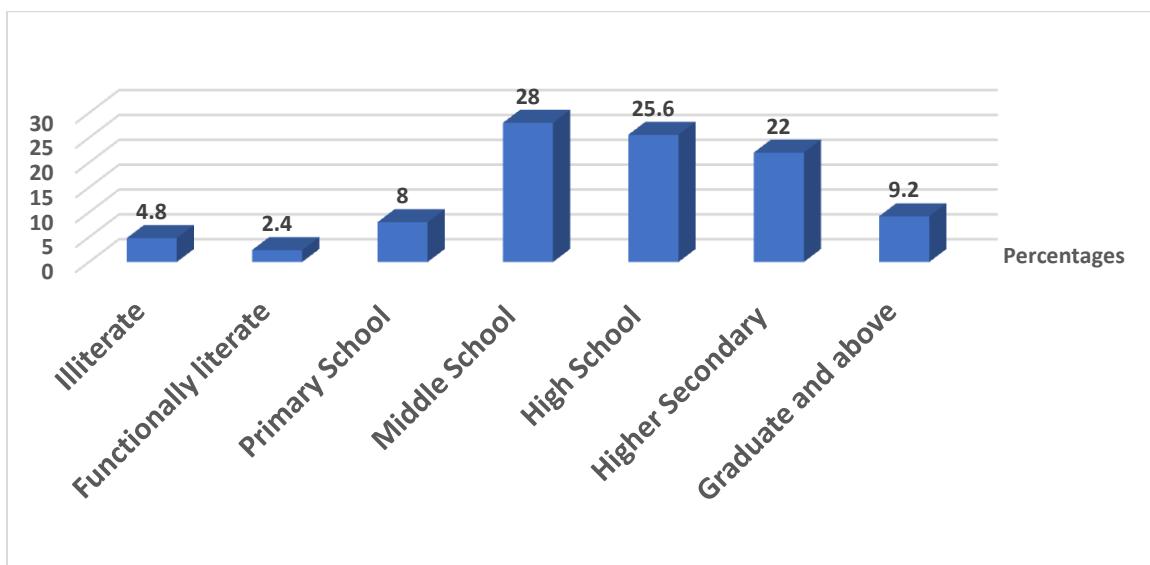
The presented in Table 1 reveals that majority (63.00 %) of the respondents had medium family size followed by, 32.80 per cent had small and 4.40 per cent had large size family. More than half of the tribal youth in the study area had medium (62.80%) size family. Similar finding reported by Umunnakwe [14].

Table 1 shows that majority (64.40%) of the respondents belonged to joint family while 35.60 per cent belonged to nuclear family, majority of the respondents (41.60 %) had medium social participation followed by low and high social participation respectively. In respect of size of land holding majority of the respondents had marginal land holding (82.00 %) followed by small and medium. In accordance of family income majority of respondents belongs to medium income group (63.60 %) Higher percentage (40.40%) of the respondents had medium rural life preference where as 26.60 per cent and 33.20 per cent of them had low and high rural life preference respectively. Majority of the respondents occupationally aspired for business (48.00 %) Table 1 also reveals that the majority (82.40%) of respondents had a trend towards conservatism whereas, 17.60 per cent of them had a trend towards liberalism.

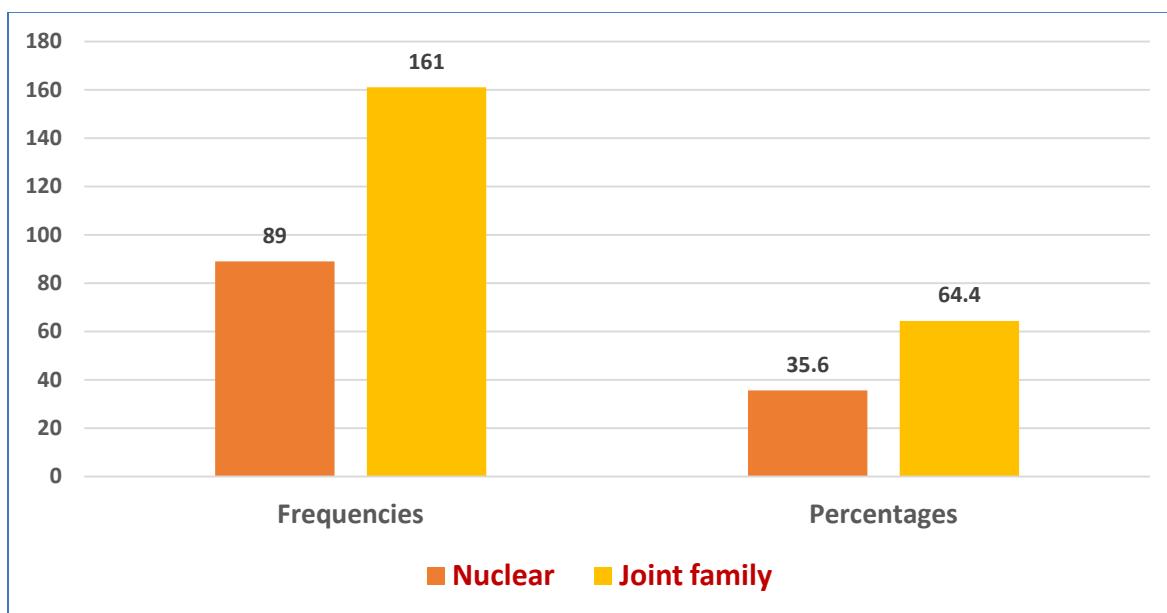
**Table 1. Frequency distribution and categorization of respondents according to socio-personal, socio-economic, psychological and communicational attributes**

Variable	Frequency	Percentage
<b>Marital Status</b>		
Unmarried	149	59.60
Married	101	40.40
<b>Family occupation</b>		
Farming	154	61.60
Trading	45	18.00
Govt/organized private sector service	11	4.40
Wage labour	40	16.00
<b>Respondents Educational Attainment</b>		
Illiterate	12	4.80
Functionally literate (No formal education but can read and write)	06	2.40
Primary School(1-5 class)	20	8.00
Middle School(6-8 class)	70	28.00
High School (9-10 class)	64	25.60
Higher Secondary (12 class)	55	22.00
Graduate and above	23	9.20
<b>Family Size</b>		
Small Family (upto 4 members)	82	32.80
Medium Family (5-8 members)	157	62.80
Large family (above 8 members)	11	4.40
<b>Family Type</b>		
Nuclear	89	35.60
Joint family	161	64.40
<b>Social Participation</b>		
Low <(4.10)	93	37.20
Medium (4.10-11.73)	104	41.60
High> (11.73)	53	21.20
<b>Land Holding</b>		
Marginal (below 1 ha)	205	82.00
Small (1-2 ha)	37	14.80
Medium (2-4 ha)	08	3.20
<b>Family Income</b>		
Low (upto 50,000 Rs.)	69	27.60
Medium (Upto 1,00000 Rs)	159	63.60
High (more than 1,000000 Rs)	22	8.80
<b>Rural Life Preference</b>		
Low <(3.71)	66	26.40
Medium (3.71-8.07)	101	40.40
High> (8.07)	83	33.20
<b>Occupational Aspiration</b>		
Farming	74	29.60
Factory work	14	5.60
Office work	42	16.80
Business	120	48.00
<b>Conservatism-liberalism</b>		
Conservatism (above 15.60)	206	82.40
Liberalism (below 15.60)	44	17.60
<b>Urban Contact</b>		
Low < (1.45)	05	2.00
Medium( between (1.45-4.89)	191	76.40
High> ( 4.89)	56	22.40
<b>Purpose of urban contact</b>		
Income generating	167	66.80
Other	83	33.20
<b>Mass Media Exposure</b>		
Low < (7.40)	10	4.00
Medium between(7.4-18.6)	185	74.00
High> (18.6)	55	22.00

N=250



**Fig. 1. Percentage distribution of the respondent according to their educational attainment**



**Fig. 2. Categorization of respondents according to type of family**

### 3.1 Percentage Distribution of Respondents According to Type of Family

Table 1 also shows that (76.40 %) of the respondents had medium urban contact whereas .22.40 per cent and 2.00 per cent of the respondents had high and low urban contact respectively. It can be observed from table majority (66.80 %) of the respondents visited urban center for the purpose of income generation while the remaining 33.20 per cent visited to other purposes. Majority of the

respondents comes under medium mass media exposure (74.00%) followed by high and low category.

Almost similar findings reported by Umunnakwe [14].

From Table 2, majority of the respondents were involved in crop production (Cereal/Pulse/Oil seed) ranked first, while tuber crop production ranked second and third agricultural income generating activities engaged by the respondents was fishing and poultry , mushroom

cultivation milk production ranked fourth, fifth and sixth rank respectively, raising plants for vegetable & fruits, goat rearing, medicinal plant collection ranked seventh, eighth and ninth. Whereas vegetable production, floriculture and fruit production ranked tenth, eleventh and twelfth respectively. cash crop production sericulture, lakh and bee keeping ranked thirteenth, fourteenth, fifteenth and sixteenth respectively among agricultural income generating activities engaged by respondents.

It is clear that from Table 3, to update skills, explore an area of interest and for future employment opportunity were the most ranked

reasons for educational and vocational training among the respondents in that order. To move into higher salaried job, make a career change and earn degree were ranked fourth, fifth and sixth respectively among reasons for educational and vocational training.

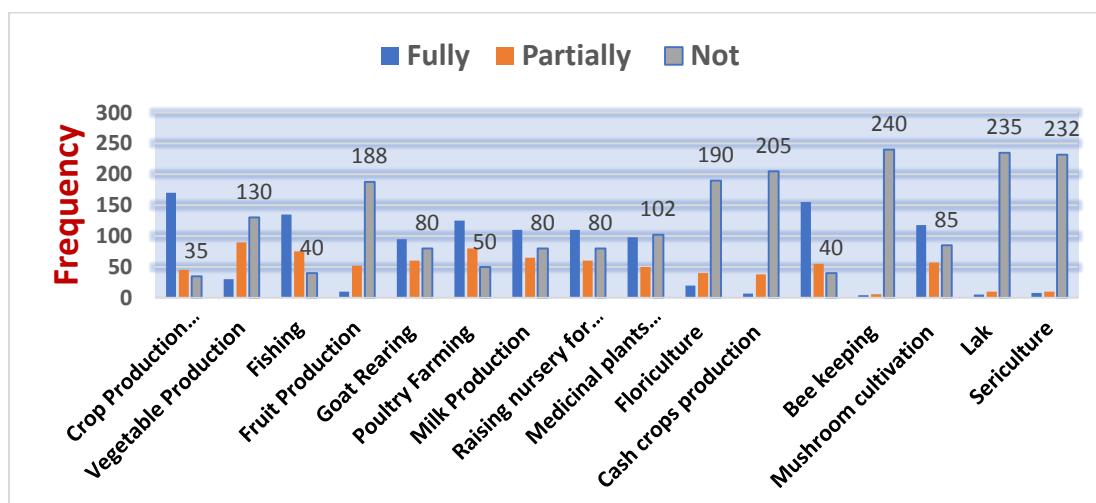
### 3.2 Relationship between Independent Variables and Dependent Variables

Pearson product moment correlation (PPMC) was applied to test the relationship between independent and dependent variables. The result of analysis is presented in Table 4.

**Table 2. Ranking by mean of respondents according to extent of involvement in agricultural income generating activities**

S.No.	Agri. Income generating activities	Fully Involved	Partially Involved	Not Involved	Mean	Rank
1.	Crop Production (Cereal/Pulse/Oil )	170	45	35	1.54	1 <sup>st</sup>
2.	Vegetable Production	30	90	130	0.6	10 <sup>th</sup>
3.	Fishing	135	75	40	1.38	3 <sup>rd</sup>
4.	Fruit Production	10	52	188	0.28	12 <sup>th</sup>
5.	Goat Rearing	95	60	80	1	8 <sup>th</sup>
6.	Poultry Farming	125	80	50	1.32	4 <sup>th</sup>
7.	Milk Production	110	65	80	1.14	6 <sup>th</sup>
8.	Raising nursery for vegetable & fruits	110	60	80	1.12	7 <sup>th</sup>
9.	Medicinal plants collection	98	50	102	0.98	9 <sup>th</sup>
10.	Floriculture	20	40	190	0.32	11 <sup>th</sup>
11.	Cash crops production	7	38	205	0.2	13 <sup>th</sup>
12.	Tuber/root crops production	155	55	40	1.46	2 <sup>nd</sup>
13.	Bee keeping	4	6	240	0.056	16 <sup>th</sup>
14.	Mushroom cultivation	118	57	85	1.17	5 <sup>th</sup>
15.	Lak	5	10	235	0.08	15 <sup>th</sup>
16.	Sericulture	8	10	232	0.104	14 <sup>th</sup>

Percentages in parentheses



**Fig. 3. Frequency distribution of respondents according to involvement in agricultural income generating activities**

**Table 3. Ranking by mean of reasons for need of educational and vocational training among respondents**

Reasons	Mean	Rank
To earn degree, certificate and licence	1.48	6 <sup>th</sup>
To make a career change	1.69	5 <sup>th</sup>
To move into higher salaried job(carrier)	1.92	4 <sup>th</sup>
To explore an area of interest	1.98	2 <sup>nd</sup>
For future employment opportunity	1.96	3 <sup>rd</sup>
To update skills	2.02	1 <sup>st</sup>

**Table 4. Relationship between independent and dependent variables (Agricultural income generating activities)**

S.No.	Independent Variables	Agri. income gen. activities
(A)	<b>Socio-personal-economic variables</b>	
X1	Marital status	0.203**
X2	Family occupation	-0.080 NS
X3	Respondent's education	0.030 NS
X4	Family size	0.120 NS
X5	Family type	0.210**
X6	Social participation	0.274**
X7	Land holding	0.220**
X8	Family income	0.278**
X9	Occupational aspiration	0.042 NS
(B)	<b>Psychological Variables</b>	
X10	Rural life preference	0.220**
X11	Conservatism-liberalism	-0.300**
(C)	<b>Communicational Variables</b>	
X12	Urban contact	0.250**
X13	Mass media exposure	0.458**
X14	Reasons for educational and vocational training	0.257**

NS= Non significant \*Significant at 0.05 level(2-tailed) \*\*Significant at 0.01 level(2-tailed)

Table 4 shows that independent variable like family occupation, family size, respondent's education, occupational aspiration had no significant relationship with agricultural income generating activities (dependent variable). However independent variable like marital status, family type, social participation, size of land holding, family income, rural life preference, urban contact, mass media exposure, reasons for educational and vocational training had significant positive relation with agricultural income generating activities (dependent variable) on the other hand, independent variables like conservatism-liberalism had significant negative relationship with agricultural income generating activities (dependent variable).

#### 4. CONCLUSION AND RECOMMENDATION

The study makes clear that tribal youth in Madhya Pradesh, India's Dindori area, were engaged in a variety of agricultural income-generating activities. The study revealed a linear

relationship between respondents' socio-personal, socio-economic, psychological, and communicational traits and their participation in agricultural income-generating activities. Factors such as marital status, respondents education, family occupation, family size, family type, experience of farming, social participation, size of land holding, family income, rural life preference, conservatism-liberalism, urban contact and mass media exposure of tribal youth. The study concludes that the main factors affecting livelihood pattern among tribal youth in Dindori district of Madhya Pradesh are; marital status, family type, social participation, land holding, family income, rural life preference, urban contact, mass media exposure and reasons for educational and vocational training. Therefore, before launching any new programme relating to tribal youth development through agricultural income generating activities, development agencies working on the issue regarding tribal youth in the study region, both in the public and private sectors, should give proper emphasis to the selected variables of the present research. It is also recommended that

tribal youngsters receive extensive training to strengthen their skills and use this specialised labour for other agricultural income-generating enterprises.

## CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

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## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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