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Socio-Economic Determinants of the Tribal Children of School Dropout in Purulia and Bankura Districts of West Bengal

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Abstract: At present school dropout, child marriage and child labour are interrelated and burning issues in India. It has far reached social and economic consequences in the society. Purulia and Bankura districts are drought prone and backward one where a large portion of people are marginalized and they belonging to ST-SC. The dropout rate of the children, particularly tribal children is severe there. Objectives of the study are to analyze the dropout rate of tribal children in Purulia and Bankura districts of West Bengal and to identify the reasons for dropout of them. Age of children, education of children, education of mothers and lack of girls' toilet facilities are the significant factors responsible for dropout of tribal children in the two districts.

Key words: Tribal, non-tribal, dropout, mothers' education, toilet facilities

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1. Introduction

In Indiaschool dropout, child marriage and child labour are burning issues in recent times and they are interrelated.As soon as a school dropout occurs it inevitably invites other problems like child marriage and child labour that are complementary to dropout problem. **These issues might be severe in the tribal society and it is the focal point of the study**.There is a risk of a 'lost generation of children' due to

school dropout in the sense that they will never come back to school and this picture of female students is disproportionately worse (Yasumasa Kimura, UNICEF India Representative). School dropout is not the end of the story. It has far reached social and economic consequences in the society. According to 2011 Census, 8.6% of the total population is tribal people in India while they are 5.8% in West Bengal,10.25% in Bankura and 18.45%in Purulia in respect of their total population. So, Purulia and Bankura districts draw special attention. Of course, there are a number of reasons for backwardness of these two districts but among them **one must be thatthe tribal people of these districts are not uplifted to the expected level**. Though the school dropout rate in West Bengal is the lowest in the country t**he picture of dropoutof the tribal children might be worse in Purulia and Bankura districts.** The study focuses on the socio-economic determinants of the problems of tribal children of the age group of 6-14 years in both the districts.

2. Review of existing literature

It was observed that the dropout rate of tribal boys was higher compared to that of general categories in 2003-04 (Sedwal and Kamat, 2008). In this context Dreze (2003) observed that high poverty rates and pre-dominance of agricultural sector of the tribal community were the reasons for dropout rate compared to non-tribal population.Besides, Kotwal, et al. (2007) found that children did not go to school due to delinquency, and low-school achievements and girls children dropped out from school due to their daunting circumstances for adolescence. This is the fact that the girls' dropout from schools occurred due to the question of taking care of their younger siblings (Dutta, 2014; Patel and Gandhi, 2016). Moreover, tribal woman faced a number of challenges like child marriage, mental torture and physical harassment in the society (Tharu and Yadav, 2018). Ghosh and Choudhuri (2022) observed that rural tribal women generally face the excessive hardships, poverty and unemployment in their lives in Tripura. They further observed that the gender disparity is hardly found in the traditional subsistence economy of the tribes. Again, environmental factors are the important reasons for school dropout of the children i.e., tradition, medium of instruction, the impact of television or mass media, drought and famine and migration of the family are the environmental factors which are important for dropout of the children (Govindaraju and Venkatesan, 2010).

This study is different from the above discussion and the **objectives of the research study** are to analyze the dropout rate and to identify the reasons for dropout among tribal children in Purulia and Bankura districts of West Bengal.

3. Sources of data

Our study is based on primary data. Purulia and Bankura districts have been selected for the purpose of our study. Again, four blocks have been chosen from each district. Therefore, total numbers of selected blocks are 8 which are dominated by tribal population. These are Purulia-I, Raghunathpur-I, Kashipur, Bagmundi, Onda, Bankura-I, Saltora, and Khatra. Again, 4 villages have been chosen randomly based on the concentration of tribal population. Thus, total 32 villages are selected. These 32 villages have been selected on the basis of percentage of tribal population. Again, all villages concentrated on tribal population are converted into cent per cent. Then we divide the total percentage of tribal concentrated villages into the four strata i.e., it ranges from 1%-25%, 26%-50%, 51%-75% and 76%-100%. However, neither we take up the villages having cent per cent tribal population nor we consider the villages with no tribal population since non-tribal population is taken as control group. Thus, 960 households are our sample size. From each village 20 tribal households and 10 non-tribal households have been surveyed. So, we surveyed 640 tribal households and 320 non-tribal households for our study. Total number of tribal children are 912 and non-tribal are 501.

4. Methodology

In this research study, simple bar diagram and pie chart are used to analyse the data. Again, we use logistic regression model to examine the factors associated with dropout of the children in Purulia and Bankura districts of West Bengal.To examine the factors responsible for dropout of tribal children, we used this model (raiaretnam and Hallad, 2000, Das et al., 2008, Kumar and Mohanty, 2011). The model can be explained below.

$log\frac{P_i}{1-P_i} = a + b_1x_{i1} + b_2x_{i2} \dots\dots\dots\dots + b_kx_{ik}$, Where i=individual, $a = intercept$, b=regression coefficient, x=explanatory variables, P_i denotes the probability of occurrence of an event and $1 - P_i$ denotes the probability of non-occurrence of an event. $\frac{P_i}{1-P_i}$ represents the odds ratio and $log\frac{P_i}{1-P_i}$ indicates log of odds ratio i.e., logit.

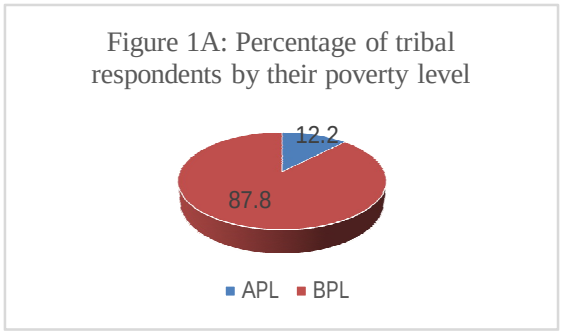
5. Analysis of the study

In this section we analyse the socio-economic status of the sample respondents according to their poverty level, education of the respondents and occupation status of the respondents.

Poverty level

Most of the respondents (more than 80%) among tribal and non-tribal are below poverty level. Thus,

sample tribals are poorer compared to non-tribals. This is shown in figure below (Figure 1A and 1B).



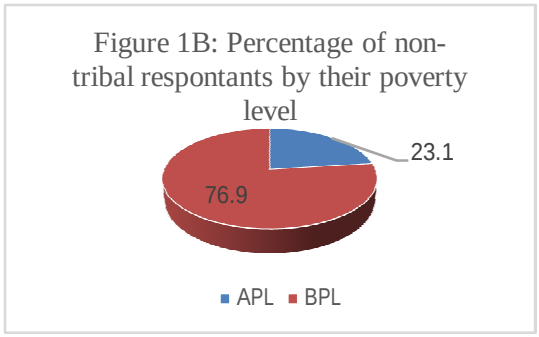


Figure 1A & 1B: Source: Field Survey (2023-24)

Level of education

Level of education of the parents is the important factor of the children education, their enrolment in school and the issue of dropout from school. It is found that 47.3 percent of tribal respondents and 37.9 percent non-tribal respondents are illiterate. On the other hand, more than 12 percent of tribal respondents have passed higher secondary and above level of education. But, more than 20 percent of non-tribal respondents have achieved higher secondary and above level of education. Thus, non-tribal respondents are more educated compared to tribal respondents. This is shown in figure 2.

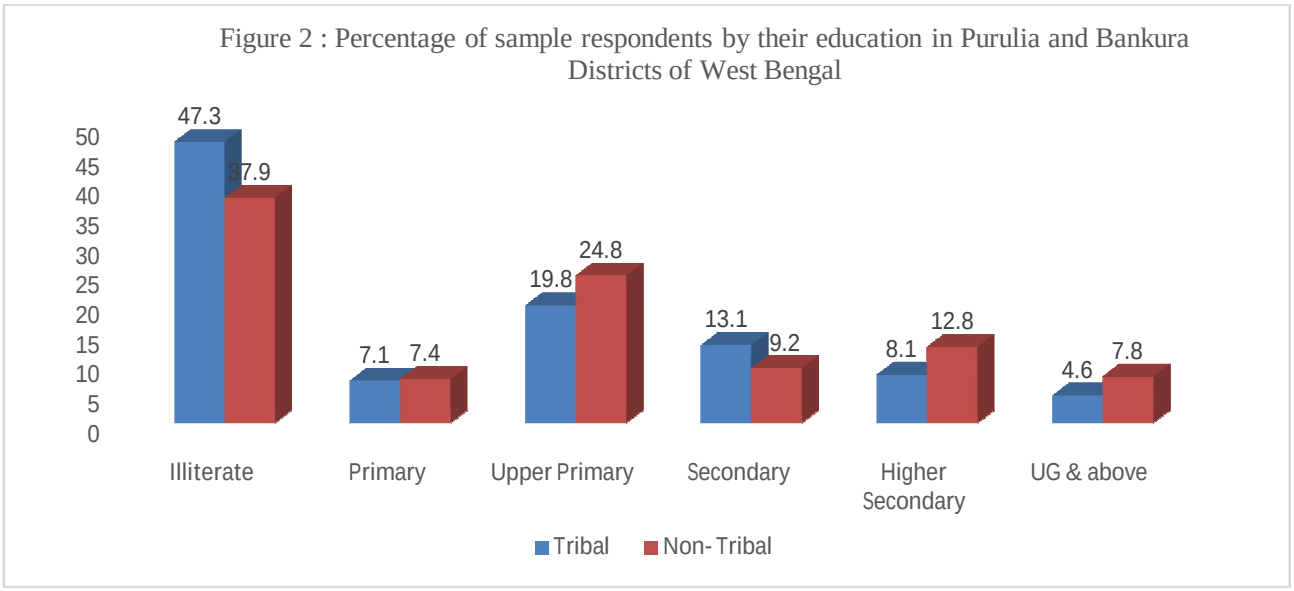


Figure 2: Source: Field Survey (2023-24)

Occupational status

The present study has shown the occupational status of the sample tribal and non-tribal respondents. Their occupational status is classified as cultivator, agricultural labour, household manufacturer, small business, service and daily labour. It is found that 63.6 percent of tribal and 55.6 percent of non-tribal respondents are engaged as daily labour. Again, a little percentage of tribal and non-tribal respondents are engaged in

household manufacturing and more than 60 percent of respondents from both categories are engaged as cultivator. Thus, most of the respondents are daily labour which also affect the nature of education of their children. This is shown in figure below (Figure 3).

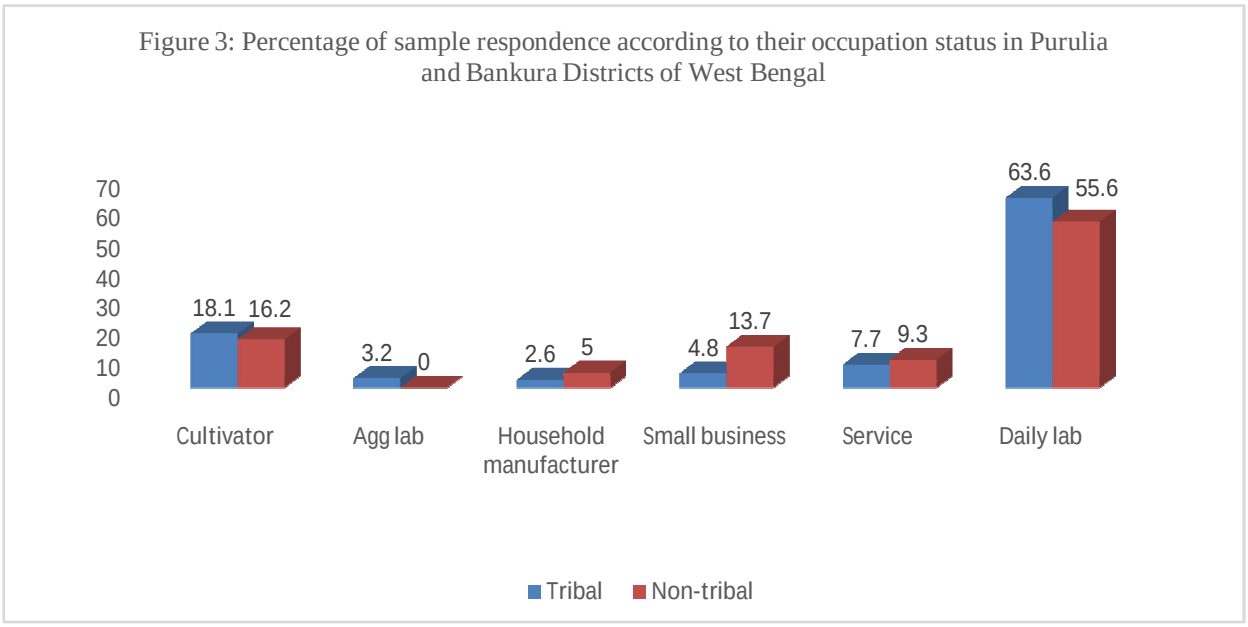


Figure 3: Source: Field Survey (2023-24)

6. Result of the logistic Regression Model

In this model factors for dropout among children are examined. The study considers eight independent variables, including the age, gender and category of the child, the children and mother's education, the per capita monthly income (PCMI), source of drinking water and toilet facilities. The study finds that the variables of age of the children, gender, children education and mother's education, source of drinking water and toilet facilities in the schools are significant factors related to drop out of the children while category of the children and per capita monthly income are not significant. The result of the logistic regression model is shown in the table below (Table 1).

The notation and specifications of variables of logistics regression model and the mean and standard deviation of eight explanatory variables are shown in table below (Table 1).

	Notation	Specification	Mean	Standard deviation
Dependent dummy Variables				
	Dropout (Y1)	Whether child is dropped out from school, yes = 1, otherwise = 0	0.173	0.378
Independent Variable				
Demographic factors	Age of the Children (X_1)	Age is measured in months (6-15 years)	14.796	4.225
	Gender of the children (X_2)	Whether child is male, yes= 1, otherwise = 0	0.511	0.500
	Category (X_3)	Whether the child is tribal, Yes =1, No = 0	0.645	0.479
Cultural factor	Children education (X_4)	Children education is measured by the year when they exclusively left the school	7.608	3.546
	Mothers' education (X_5)	Mothers' education is measured by the year of completion	3.736	4.428
Economic Factors	PCMI (X_6)	Per capita monthly income of the household	1398.19	1036.24
Non-Economic Factors	Sources of drinking water (X_7)	Sources of drinking water is shown as public source 0, private source 1	0.844413	0.381611
	Toilet facilities (X_8)	Whether there are toilet facilities, Yes ==1, No = 0	0.214	0.410

Table 1: Notations and Specifications of Variables of Logistic Regression Model

[*Source: Computed by authors from Primary field survey (2023-24)]*

The logistic regression model is written as follows.

In the model we have taken dummy variable (Y_1), Dropout as '1'= children are dropout, '0' = otherwise.

The nine explanatory variables are as follows:

X_1 =Age of the children

X_2 = Gender of the children, 1= male child, 0= otherwise

X_3 = Category of the children, 1= child is tribal, 0 = otherwise

X_4= Children education is measured by the year when they exclusively left the school

X_5 = Mothers' education is measured by the year of completion

X_6 =Per capita monthly income

X_7= Sources of drinking water

X_8= Whether there are toilet facilities, Yes = 1, No = 0

Note: *** indicates 0.001 level of significance,** indicates 0.005 level of significance and * indicates 0.010 level of significance

	Coefficients	Standard Error	z	P-Value
Age	.6016199	.0407263	14.85***	0.000
Gender	.6280995	.1922562	3.35***	0.001
Category	-.1896673	.2027911	-0.66	0.509
Children education	-.3582293	.0376437	-9.40***	0.000
Mothers' education	-.1728918	.0319016	-5.50***	0.000
Source of drinking water	-.1615969	.0563992	-2.18**	0.029
Toilet facilities	-.9474335	.2901998	-3.52***	0.001
PCI	-.0001068	.0001072	-1.16	0.248
Constant	-6.569685	.7306232	-11.66***	0.000
Number of observations = 1413LR chi2(9) = 548.30Pseudo R^2 = 0.4217 Log likelihood = -375.99285Prob. > chi^2 = 0 .0000				

Table 2: Binary logistic regression model: factors fordropout of children in Purulia and Bankura districts of West Bengal

7. Interpretation of the Results

Age of the children

In this model, the coefficient for the age of the children is positive and significant at 1% level. This indicates that dropout of the children increases as their age (6- 21 years) increases. However, we find the same result in the study of Müller and Schneider (2013) where they observed that dropout was more likely in older students.

Gender of the children

The gender of the children is statistically significant at the 0.01 level (p-value = 0.000). This implies that male children are more likely to be dropping out from school than that of female children. This is the fact that the prevalence of dropout rate for female students was higher compared to male students in Maharashtra (x^2= 60.50, D.F = 1, P < 0.00001). They also observed that dropout rate of female students increased with low socio-economic status.

Education of the children

The coefficient of children education is negative. That indicates that children are dropped out from school and dropout cases decrease with the increase of their level of education. That means children are dropped out at initial level that is primary and upper primary level.

Education of mothers

The coefficient of mother's education is negative and significant at 1% level. It means that dropout of the children decreases with the increase of the education level of the mother. In other words, mothers are aware about their children education as their level of education is higher compared to other women who did not possess this level of education. The same result is found from the study of Dutta (2014). He also found that parental education isan important component which is more likely to affect the children education in India (Patel and Gandhi, 2016). The similar result was found in the study of Kumar et al. (2023) where they found school dropout was significantly higher likely among adolescents whose mothers had no education as compared to mothers who were educated.

Source of drinking water

The coefficient of source of drinking water is negative and significant at 5% level of significant. It implies that if the sources of drinking water are far away from their house, then due to fetch the water children particularly, girls spend more time and thus they will not be continuing their school. In other words, when the sources of drinking water then that time to fetch water is very less, thus dropout will fall.

Toilet facilities

Toilet facilities in relation to dropout is significant at 1% level of significance. That means if the school institutes with toilet facilities of the girls, then dropout of the female children will fall. In the contest of toilet facilities in the girls' school, a report has been published in 2017 where 23 per cent of girls' students were dropped out from school due to lack of toilet facilities. In other words, women are worst sufferers due to lack of sanitation facilities in India.

8. Conclusion

We find a number of reasons are important for the dropout of the tribal children. Out of many reasons, mother's education is very important factor. Again, it is observed that the dropout rate of girl students increases with increase their level of education. Toilet facility is also an important cause for dropout of the girl students. We do not find any difference with respect to category regarding dropout, though we observe the dropout rate of non-tribal children are lower than that of tribal children. Therefore, if mother education, particularly from illiterate to literate is become possible, then dropout of their children will decrease. Besides, toilet facility in girls' school is necessary to stop this dropout from school.

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