Educational Participation of Scheduled Tribes in Orissa:
Analysis of the Demand and Supply side Constraints

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C O N T E N T S

Field Instruments

iv. School Schedule
v. Parent Schedule
vi. Child Schedule
vii. BEO/BRP Schedule
viii. Teacher Schedule

Preface

The Universalisation of Primary education has been the goal of our country since Independence. Concerted efforts have also been made during all the plans by the Government, Private and local bodies etc. The Primary education is made free and compulsory for all the children in the age group of 6-11 years. But we are not yet able to achieve the goal of Universalisation of primary education. The educational achievement for different regions and within a region between different groups of population differs significantly. The educational achievement among the Scheduled tribes is found to be the lowest. Now the question, which keeps on bothering us, is: " Why is there inequality in respect of educational achievement among different groups of population, particularly among the scheduled tribes?" What are the constraints of their low achievement? Are the constraints demand related or supply related or both? In order to probe this question in detail we under took the present study in a less developed state of Orissa which has pocketed one fifth of its total population as Scheduled tribes. The present study ' Educational Participation of Scheduled Tribes in Orissa: *Analysis of the Demand and Supply side Constraints'* is an attempt to explore the demand and supply side constraints of educational participation of scheduled tribes in Orissa. The study has also estimated the disparity in education between scheduled tribes and non scheduled tribes. The effect of the demand and supply side factors on educational participation of ST are examined in the study. The findings of the present study, is expected to be most helpful to the policy makers particularly when the education sector is facing financial crisis in various aspects.

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Chapter -I
INTRODUCTION

1.1 The Background and the context

The importance of education in the process of economic, political and social change has been widely recognized and well documented all over the world. Education is considered as one of the crucial inputs to human capital formation. Improvement in the quality of education means improving the quality of human resources or human capital. Improving the quality of human resources in a country entails making people physically healthy and strong, intellectually competent, emotionally motivated, morally honest and committed to the large social welfare. According to Adam Smith all these acquired and useful abilities of the people of a country are capital. In addition to the innate natural abilities, the acquired skill and capabilities of a man are considered as human capital by economists like Irving Fisher. T.W. Schultz (1961) considered these activities as a process of capital accumulation to be drawn on in the process of capital accumulation in future and this is more evident in the case of education and training. Marshall stated that human capital exhibits 'a tendency to increasing returns' in the process of production, while natural resources ultimately end up with decreasing returns. Paul Streeten (1983) expressed that investment in human resources, that is human capital helps the development process both by raising productivity and lowering productivity. Several economists expressed different opinions about the linkages between human capital and economic development and could not come up with definite conclusions. Also economic theory could not offer any definite analysis in respect of the functional relationship between human capital and economic development. However, researchers with empirical studies, have arrived at some definite linkages between human capital particularly education and economic development. With publication of Human Development Report (1990) by UNDP, people have been conceived to be both the end as well as means of economic development and human development, not human capital, has been central to all developmental initiatives. Economic development is essential but it is not sufficient for human development. The Human Development Report, therefore, lays emphasis on enriching people's lives.

Development efforts could aim at increasing peoples' capabilities to lead a full, productive and satisfying life so that economic development becomes meaningful. "High levels of human development promote economic growth, which in turn can promote human development. Conversely, weak human development is likely to result in low growth, further undermining the prospect of future human development" (UNDP, 1996). A full proof human development may be made only through the development of proper education, training and health care. The relevance of education in Indian Planning was articulated as part of its policy framework as follows: "only education can imbue people with the knowledge, sense of purpose and the confidence essential for building a dynamic, vibrant and cohesive nation, capable of providing its people with the wherewithal for creating better, fuller and more purposeful life" (Challenges of Education: A Policy Perspective, Government of India, 1985). History has established that education is a very important factor behind human development. It enables a person to sharpen and realize his innate abilities and talents. It develops the correct attitude towards society for overall development. It may be noteworthy that economic development can not be sustained without societal development. In India, after more than 5 decades of its planning, much more is expected than what has been achieved so far. The achievements in educational development have been significant over the decades. But the Universalisation of Primary education seems to be a distant goal. The literacy rate is still less than 66 percent with a wide gap between male and female and between different social groups. The low allocation to education in general and primary education in particular is an important constraint. The country spends much less than 6 percent of its GDP (as suggested by Kothari Commission in 1966) and primary education now receives less than 50 percent of the total allocation which is declining year after year.

Education helps in increasing the earning capacity of the individuals, reduces the inequality and poverty. It is noticed that the Scheduled Caste and Scheduled Tribe population suffer from high incidence of illiteracy, low enrolment rate and attendance rate, high dropout rate, low performance level in almost all the levels of education. If one compares between SC and ST category of population, it is observed that STs are behind the SCs. The inequalities in educational opportunities of ST are widening mainly due to

the reason that the progress of education of STs is relatively slow while the progress of education among other forward castes and even SCs is faster than that of STs. This has resulted in widening the inequalities rather than narrowing it down. It is widely recognized that education plays a significant role in the development process in general and the over all development of the human beings in particular. The significant effect of education on reduction of poverty, improvement in income distribution, improvement in health and nutritional status of the population, its negative relationship with fertility and population growth and positive relationship with adoption of family planning methods and general social, social political and economic development and overall quality of life are well recognized by the researchers all over the world. The higher the levels of education of the population, the higher are the rates of economic growth, the lower is the poverty, the lower is malnutrition and ill health etc (Tilak, 1994). In this connection a detailed analysis of the educational development of STs merits great significance, as education is one of the important components of human capital. The development of education helps in the development of human capital in general and the development human of capital of STs in particular. The scheduled tribes are not a *homogeneous group* among themselves. There are many types of tribes and there are cultural diversities among them also. This cultural diversity seems to be responsible for the regional disparities too.

Article 46 of the Indian Constitution lays down a directive principle of the state policy which provides that "The state shall promote with special care the educational and economic interest of the people and in particular of the scheduled castes and scheduled tribes and shall protect them from social injustice and all forms of exploitation". The National Policy of Education, 1986 emphasized on the equalization of scheduled castes and scheduled tribes with non scheduled castes and non scheduled tribe population at all stages and levels of education. In order to achieve this objective various steps have been suggested in the programme of action, 1992. Many research studies have also covered the problems of education of scheduled castes and scheduled tribes. The government has also made concerted efforts through various incentive schemes to raise the level of educational status of scheduled tribes. Despite all these efforts, the scheduled tribes are

far behind the non scheduled tribes in so far as the educational status is concerned. The education of STs in urban areas is different than that in rural areas. Within the rural and urban areas there are gender differences in educational participation. There are also differences between SC and ST within a particular region. Unless we take proper care of the development of these populations, it will add to the underdevelopment rather than the overall development of a particular region. All the unprivileged section of the population – the poor, women, SCs and STs are voiceless and helpless for which they have been at the receiving end. The backwardness of education among the STs is also attributed to acute poverty and unemployment among this population. As observed by Sundaram and Tendulkar (2003), in 1990s, among all socio economic groups in India, it was only the STs who showed an actual rise in poverty ratio. Mukhopadhaya and Rajaraman (2007) found that among the social groups, the highest incremental unemployment in the early 21st century was faced by the Adivasis[1].

In view of all these, the present study examined the educational status of scheduled tribes in respect of their literacy rate, enrolment, dropout etc and the constraints of the educational participation of this group of population in the context of a less developed state i.e. Orissa. The main purpose of selecting Orissa for the present study is that: (i) more than one fifth of its population is tribals, (ii) it is considered as a scheduled state, (iii) the state is an educationally backward state. The study would find out (i) the extent of participation of STs in education in the context of a backward state with dominated tribal population and (ii) what are the constraints of education particularly the STs face? The constraints of education are mainly the demand side and supply side constraints. The demand side factors are home related, child related, socio cultural factors etc. and the supply side factors include all the school related factors and other geographical factors, like type of villages, infrastructure facilities available in the village etc.

The study covered the primary education only as free and compulsory primary education is the fundamental right of every child and it is the responsibility of the state to

[1] The colloquial word/name used for the scheduled tribes in Indian context is widely known as Adivasis.

provide it to all children. Of the different levels of education primary education is considered to be the corner stone in the social and economic development of a country. Primary education helps in developing the reasoning skill of the recipients of education and brings about changes in his attitudes towards his self and society as a whole. The benefits of primary education are in terms of both cognitive and non cognitive skills it imparts to the recipients of education. It enhances the literacy level and enables the individual to think critically and take rational decisions.

1.2. Brief Review of literature

Education promotes economic growth and equality in income distribution, ameliorates poverty and consequential health and nutritional problems. Thus education reduces inequality, improves the quality of life and helps increase income levels. Empirical studies have established close association between education and productivity reflected by earnings not only in the organized sector, but also in case of farmers (Chaudhuri,1974). Barro (2001) assessed the impact of education on economic growth using direct measures of the quality of schooling in a country. By using panel data through regression models he found that the quality of education was strongly significant compared to the quantity in explaining a country's rate of economic growth. Some of the 0studies also show that female education contributes to economic growth to a significant extent. Dollar and Gatti (1999) found that there is convex relationship between women's education and income. This implies that when the developing country is developing and extremely poor, education has little impact on the development, but in middle – income country, women's education women's education promotes growth when the country becomes a developed one. Countries like Japan and South Korea which committed themselves to education and training made great strides in both human development and economic growth. But the developing countries have earmarked a small proportion of their GDP for education. India is no way exception to this.

The recommendation of Kothari Commission in 1964-66 for investing 6 % of GDP is yet to be fulfilled. The allocation of resources in education and between different

types and levels of education seems to be based on non economic consideration rather than economic consideration.

Papageorgiou (2003) conducted an empirical investigation into the impact of primary and post primary education on economic growth. He found that primary education is very helpful to the production of final goods, while post primary education causes furtherance of knowledge by facilitating adoption of innovation and new technology.

Psacharopoulos and Patrinos (2002) through a micro level study found that the global private return on primary education is as much as 27 % on an average. The impact of primary education is quite extensive and far reaching. Amartya Sen pointed out that education enlarges human capabilities and enables a person to reflect, make better choices, articulate his views and enjoys a better life. Primary education for girls is particularly significant in reducing fertility (Smith and Haddad, 2000; World Bank, 2001) and promoting health and nutrition awareness among people.

Premi (1989) in a study of SC and ST students in ITI for five states raised certain basic questions in respect of effectiveness of ITI training, its improvement and employment potential of ITI. The study covered at least one ITI for the scheduled tribes in each state. The study was basically exploratory in nature and raised certain issues i) relating to the linkage of ITI and the placement of students in different industries and ii)the suitability of the contents to promote self employment.

K.C.Nautial and Y.D Sharma (1978) , Mishra (2001), Shah (1982), Chitnis (1974 and 1977), Mehta (1990), Singh(1989) and many others have attempted to examine the researchable issues relating different aspects of education of Scheduled castes and very few have touched the issues in detail in respect of tribal education. All the studies mentioned here are related to different problems pertaining mostly to Scheduled caste education. Here after we present some of the studies relating to the education of scheduled tribes.

Madan (1952) on the basis of a study on the education of tribals in India suggested that : (i) economic improvement should be given first priority because no educational experiment could be successfully conducted on the people who were suffering from economic backwardness ; (ii) all the existing modes of education must be studies and utilized; (iii) basic type of education should be given preference; (iv) vocational set up; (v) there should be some provision for adult education also, and (vi) three main points namely, local teachers, local methods of instruction and local dialects were essential in order to make literacy digestible to the tribals.

Koppikar (1956)In his report "The Education and Adivasis in Thana District", Koppikar enlisted a number of difficulties of parents in sending their children to schools, like (i) older children and especially girls are required to look after the younger ones in the crèche when they are out of work; (ii) the children should supplement the family income by doing domestic work, grazing the cattle etc. (iii) they help cultivation work, (iv) they collect dry leaves and fuel from the forests, and (iv) children need training in manual work. The parents also desire that their children should learn the family occupation and be trained for the hard life while they are young.

Das Gupta(1963) in his study of Tribal Education and Santals, found out that the most uncongenial home environment affected the education of Santals. They remained absent in school because they were to spend long hours on domestic or outdoor work that brought some economic relief to the family. Economic causes, than any other, were found to be coming in their way of education. He further highlighted the following difficulties encountered by the tribal children: (i) inadequacy of schools, (ii) Single teacher schools, (iii) distances from home, (iv) lack of enthusiasm in parents for opening schools in their villages. Another potent factor he has studied was about the low percentage of trained teachers. The low qualification of teachers along with low emoluments, low incentives etc naturally affect the standard of education.

Srivastava (1967) clearly stated that the facilities provided by the Government for facilitating education of tribals may create conducive conditions to education but certainly none of them or all of them jointly could be called education.

Sachidananda (1967) in a study on socio-economic aspect of the tribal education observed that there was a major link between education and economy. It was found that tribal parents did not send their children to schools because the children are engaged in wage income to increase their family income. He was of the opinion that the principal reasons for the failure and drop out of tribal students are a poor socio-economic environment, a weak foundation, the inability to afford the necessities of education, an irregular attendance, and education in an alien tongue, heavy curricula, and the irregular payment of government scholarships.

Ambasht (1970) critically examined education of tribal children of Ranchi district and pointed out many significant bottlenecks. The main bottlenecks are (i)the schools remained closed because of the absence of teachers, (ii) the teachers often went home for personal work and were engaged in their own cultivation, (iii) less number of non-tribal teachers, (iv) bad conditions of school building, inadequate number of rooms, and no furniture etc.

Khurana (1978) observed that after Africa, India had the largest concentration of tribals. Though the Indian Constitution had given the special responsibility to the state and central governments for the development of these weaker sections, yet the progress was not unto the mark. The tribals are lagging behind their non tribal counterparts in respect of education. The number of enrollment was less and there was a huge wastage and stagnation among the tribals. The author suggested that problem of tribal education should be tackled in two stages. Firstly, the tribal children needed to be brought to the school; and secondly, they were to be retained in the school until they completed at least the elementary level of education, say up to class VIII. The author has suggested various effective measures to implement these programmes.

Shah and Patel (1985) conducted a study on tribal educational attainment and found that there is a negative relationship between the proportion of the non-tribal population and the educational development of the tribals. The proportion of the non tribals in the various categories of village community was positively related the proportion of high-caste Hindus, the proportion of household heads holding white collar jobs, and the educational development of the community as a whole.

Shah (1985) pointed out that like any other benefits education has not been evenly distributed among all social and economic strata of the tribal society. The middle and rich farmers have taken greater advantages of the educational facilities than the poor cultivators and labourers.

Heyneman and Luxley (1983) and Fuller(1986) found that school characteristics are more important to levels of educational achievements than were factors related to socio economic and home-related factors. The schooling factors viz; the type of school (boys/girls) and quality of schools with all necessary infrastructures, distance to school, female teachers, tribal teachers, cost of schooling etc influence the parental decision to send their wards to school.

Kailash(1993) made an attempt to study the impact of education on the occupational changes of the Bhil tribes in Jhabua district, a predominantly tribal district in MP where there is wide spread educated unemployment. It was found that traditional occupations occupy the dominant position particularly among females and marginal workers. The district is characterized by low rate of urbanization and limited industrialization which may by considered as an important barrier for more employment opportunities. The forestry that provides ample avenues of employment to the tribals is gradually depleting. Despite all these the author observed that there is no significant shift of tribals from the traditional occupation. Finally, it was pointed out that education could not make much dent on the occupational pattern of the Bhils in Jhabua district. This is largely due to the poor quality of teaching in the Government Schools.

Kundu (1994) has highlighted the problems of tribal education with some solutions. The problems according to the author are broadly classified as socio-economic, cultural and ethnic problems in education of tribals, which should be taken by the existing educational system of the country. Linguistic problems which include problems of learning in regional languages and English language and absence of adequate tribal teachers biased in writing of text books etc. stand as major barriers to learning for tribals. These problems in tribal education are responsible for the large scale drop outs among tribal pupils, their poor performance in school and colleges and ultimately for the slow growth of tribal education. The author has suggested various concrete measures to solve the problems of tribal education without sacrificing the cultural heritage of tribals.

Sujatha (1994) undertook a micro level study to find out the underlying causes of absenteeism, stagnation and waste among Yenadi tribe in Andhra Pradesh. The study was based on primary and secondary data. She found that absenteeism was more among Yanadi girls both in mixed villages and tribal colonies where as the difference between girls and boys in tribal colonies were negligible.

Nagi (2000) has made an attempt to examine the efficacy of ashram schools to meet the educational needs of tribals using the data collected from eight states with largest concentration of tribal population. The author found that ashram schools are largely responsible for enhancing the enrolment of tribal children as compared to the general schools.

Vaidyanathan and Nair (2001) while discussing the problems of tribal education in rural areas of different states in the country observed that the presence of tribal teachers, especially from the same community, has shown improvement in school participation of ST children. Coming from the same community, it is believed that the teachers would understand and respect the culture and the ethos with much greater sensitivity. Studies suggest that teacher motivation contributes more to teaching - learning process than teacher competence. It was documented that the dropout of students is less in the schools where the language of tribals is used for medium of instructions at

the primary level. The backwardness of Scheduled tribes is more conspicuous in the districts in which their population constitutes a sizeable proportion. Also the disparity between scheduled tribes and non scheduled tribes is more pronounced in the educationally more advanced districts.

Pande (2001) in a study in hilly areas of Uttarakhand region found that the non enrolment and dropout among the children in the age group of 5-14 years is positively related to the number of grazing animals and distance from home to the forest and drinking water sources. Father's education is positively related to the enrolment of children. Households economic status is positively but loosely related to enrolment. Girls enrolment is affected mostly on account of traditional attitude and lack of physical access to schools. The author observed that present of more female teachers and regular attendance of teachers matter much in strengthening the attendance of children in the school.

Debi (2001) examined the determinants of 13 villages in rural Orissa using both census data and household data. Of the determinants of enrolment economic status, parental education and caste have a significant and positive effect on enrolment. The distance to forest and distance to school from home have negative impact on enrolment.

Jayachandran(2003) investigated the socio economic determinants of school attendance in India in the age group for boys and girls. She attempted to find out the possible causes of disadvantage faced by the girl child based on census data for 1981 and 1991. By using panel data for the major district of India, the author explored the determinants of school attendance and also analysed the gender bias in school attendance. The results indicated that the school attendance is related to school accessibility and parental education positively while it is negatively related to poverty and household size. The gender bias in school attendance declines with school accessibility and parental education while it rises with household size

Kumar(2004) attempted to explore the issues relating to access, enrolment, retention and quality of education in tribal areas of Gujrat by using school and household data collected from an integrated tribal development project area. It was noteworthy that schools in predominantly tribal villages have better access but the functioning of schools was poor due to absence and irregular attendance of teachers. Lack of minimum infrastructure and multi- grade teaching affect the quality of teaching to a great extent. However, the author observed that ashram schools envisaged as an ideal alternative for tribal education. Further it was pointed out that a large number of tribal children are out of school mainly because of socio-economic reasons. It was suggested that effective implementation of incentive schemes and community participation may yield better results.

Kumar (2004) has provided a comprehensive review of the working of various incentive schemes using the survey data of 885 tribal households in 90 villages of four tribal districts in Gujarat state. An evaluation of incentive schemes revealed that the benefits of most of the schemes do not reach to the poorest of the poor among the tribals. The study suggested that proper planning and identification of deserving beneficiaries in tribal areas need immediate attention of the planners and policy makers.

Venkatanarayana (2006) in a study of scheduled tribes (Lambada community) in rural Andhra Pradesh made an attempt to explore the catalytic factors that facilitate the increasing demand for schooling in the context of an agrarian economy. It was demonstrated that the agricultural development through infrastructure facilities like irrigation, commercialization and rural development activities along with infrastructure like roads and access to markets, could play important role in raising demand for child schooling even in a socially backward community. The author observed that despite social backwardness, developmental mediation operates through perceptive changes even among the most backward social groups like STs and translates into educational development.

Chkraborty (2006) in study conducted in Jalpaiguri district of West Bengal covering 2392 children identified several household factors on the demand side of schooling participation. Using a logit model he found parental educational exposure and neo literacy of parents particularly mother's education influenced children's schooling to a great extent. Other important factors which influence the education of children include poverty, child labour, caste based dis advantages are the formidable barriers to children's schooling. The author has suggested that the initiation and continuation of adult literacy programme, more thrust on anti poverty programmes and stipends as incentives for the poor and socially disadvantaged children may improve the children's schooling to a significant extent.

The problems of education of tribals are so varied and multi faceted that many more issues still need to be researched intensively. The present study is an attempt to examine some of the aspects of constraints of participation of tribals in education.

1.3. **Objectives of the study:**

The objectives of ht study are:

i) To take the stock of the educational participation of scheduled tribes as compared to the non scheduled tribes.

First, the educational participation of ST and Non ST is anaysed in terms of literacy rate for 1991 and 2001 census as literacy is considered as the foundation of educational participation. Secondly, the growth of enrolment by gender from 1993-94 to 2006-7 for the districts and for the state is presented. District wise dropout rate for scheduled tribes is analysed.

In addition to the literacy, enrolment, dropout etc, we have also presented the growth of schools, teachers, teacher pupil ratio etc. for different districts and for the state as whole over a period of time.

ii) To examine the regional disparities in educational participation of ST and non STs.

The regional disparities in educational participation in respect of literacy rate and enrolment are presented between different districts for ST and Non ST based on the census data and secondary data collected form different official sources.

The disparities in enrolment status of ST and non ST for sample blocks and villages in the selected sample districts are presented and anlysed based on the household data collected through sample survey.

iii) To identify the demand side and supply side constraints of the educational participation of STs and non STs;

We have discussed various demand side and supply side determinants of educational participation in general and Scheduled tribes in particular.

iv) To evaluate the effect of demand side and supply side factors on the educational participation of STs and non STs ;

v) To suggest the strategies for the improvement of educational participation of scheduled tribe children.

1.4. Research Questions

- Is there gender gap in literacy rate among scheduled tribes and non Scheduled tribes?
- Is there wide gender gap in enrolment between STs and non STs in terms of gender parity index?
- Are there wide disparities in literacy and enrolment between districts and between different blocks within the selected districts?

- What are the constraints for low enrolment or non enrolment or dropout of students among ST children?

  - *Demand side factors*: Is it due to the higher opportunity cost of the children among these groups of population? Is it due to economic burden of the family or costliness of education or inadequate schooling facilities, these children are withdrawn from the school? Is it due to the high incidence of illiteracy among the parents to understand the rationale of education? Is it due to the participation of children in wage earning activities? Is it due to the sickness of the child not enabling the child to attend the school?

  - *Supply side factors:* Is it due to the distance of the schools (schools far away)? Is it due to the absence of adequate number of tribal teachers and female teachers in the schools? Is it on account of absence of teachers in the schools? Is language a problem in understanding the curriculum in the class for the tribal children? Are there sufficient incentive schemes for promoting the education of STs? Are the parents and teachers aware of the existing incentive schemes? Is it due to poor infrastructure (toilet, drinking water, separate toilet for girls etc) ?

- What are the strategies to improve the participation of ST children in education?

These are some of the researchable issues which we propose to examine in the context of tribal education in Orissa.

1.5. Design and Plan of the Study

1.5.1 The Data

The study collected both primary and secondary data. Primary data was collected from the selected students with regard to the demand side factors which affect the education of students. The secondary data was collected mainly from the schools and teachers and stake holders and from the office records.

***Demand side factors*:** These are mainly: (i) home related, (ii) child related and (iii) cultural factors. The home related factors are education and occupation of parents, income of the households etc. The child related factors are; age of the child, birth order of the child, class of study, participation of the child in labour market, generation of the child studying at present, number of siblings in the family etc. The cultural factors include the caste, ethnicity, age of marriage, parda system for girls to go out after puberty etc. These factors affect the education of children to a great extent particularly the tribal children. All these information were collected from the households/ students/parents through primary survey to be conducted.

***Supply side factors**:* The supply side factors include the school related and teacher related factors. These factors include the availability of schools (by habitation), availability of minimum infrastructure in the school (toilet, drinking water, separate toilet for girls etc), and incentive schemes for children etc. students' attendance, type of curriculum, language of teaching for the children, teacher's position and qualification, selection and transfer policies of teachers, percentage of female teachers, teacher absenteeism, attitude of teachers towards children in the school etc. All these information were collected from the school records, surprise visits, and concerned government departments.

The study covered the tribal education at the primary and upper primary level in Orissa.

1.5.2 The Sample

1.5.2.1 The Universe: The universe of the study constitutes the state of Orissa. Orissa got the status of a separate state in April, 1936. The state of Orissa is located in the eastern coast of India and lies between 17^0 49' and 22^0 34' N latitudes and 81^0 29' and 87^0 29' E longitudes. It covers total geographical area of 15, 57,507 sq. km. which is about 4.7 % of the national geographical area. As per the administrative structure of Orissa, the state has been divided into 30 districts, 58 sub-divisions, 171 talukas and 314 CD blocks. Bhubaneswar is the capital of Orissa. The state has a population of 36.80 million which accounts for about 3.6 % of the India's population. The 2001 Census has revealed a decline in the decennial growth of population from 20.06 % during 1981-91 to 16 % in the period 1991-2001. The density of population is 236 as against 313 for All India as per 2001 census. The urban population constitutes 14.9 % in the state. Orissa is considered as one of the most backward states of the country despite its abundant natural resources and rich cultural heritage. The literacy rate of the state was 63.08 % in 2001 census. The State ranks 24^{th} in respect of literacy rate among the 35 States and Union Territories, with the mean years of schooling for males and females estimated to be 5 years and 3 years, respectively. The incidence of poverty, illiteracy and other indicators of socio-economic backwardness is particularly high among the population groups belonging to the scheduled caste (SC) and scheduled tribe (ST) categories, which constitute nearly 39% of the total population of the State and one-third of the population living below poverty line.

The real per capita income of the State has been much lower than the national average over the past several decades and was Rs. 5665 as against the national average of Rs 10964 in 2002-03. With about 47% of its population estimated to be living below poverty line, incidence of poverty in Orissa is the highest in the country and much higher than the corresponding all-India average of 26.10 %. Orissa ranks 11^{th} among the 15 major states in 2001 for which it was constructed between 1981 and 2001, the states relative rank did not change. The level of social and economic development of the state as a whole is very low.

In such a socio-economic scenario as above, it is perhaps not surprising that many of the pre-conditions required for effective implementation of any programme continue to remain unfulfilled even more than 5 decades after the planned economic development.

The details of Demographic characteristics are presented in Table 1.1.

Table 1.1: Demographic Characteristics of Orissa (2001 census)

Population	• The population of Orissa is 36.80 million and the decadal growth rate has declined to 16 % in 2001 from 20.06 % in 1991. • Ganjam district with more 3 million populations has occupied the highest position and Deogarh has occupied the lowest position with o.27 million populations among the districts in the state.
Density of population	• The density of population was 203 per sq.km in 1991 and it increased to 236 per sq.km in 2001. • Khurda district has the highest density (667 per sq.km) and Kandhamal has the lowest (81 sq.km) density of population among the districts in the state.
Rural-Urban Distribution	• The rural –urban breakup of population for the country is in the ratio of 2.6:1 and in Orissa it is 5.7:1 according to 2001 census. • The decadal growth rate population declined from 20 % in 1991 to 16 % in 2001. • The state has larger proportion of population living in rural areas (85%) than the country as whole (76 %). • The concentration of urban population in the district of Khurda is the highest and lowest in the district of Boudh.
Sex Ratio	• The sex ratio for total, rural and urban population of Orissa is 972, 987 and 894 respectively and the corresponding figures for India are 933, 946 and 901. • There is no improvement in the sex ratio between 1991 and 2001 census • The population in Nine rural districts in the state have sex ratio of exceeding 1000 showing in fovour of females but no such case is found in urban areas.
Literacy Rate	• The literacy rate of Orissa has gone up from 49.09 per cent in 1991 to 63.61 percent in 2001. • The highest literacy rate in respect of male female and total is found in Khurda district (80.19%) while the lowest literacy rate for male and total population is found in Malkanagiri district (31.26%). Nawarangapur has the lowest female literacy rate among the districts of the state. • The literacy rate of rural areas has gone up from45.46 % in 1991 to 59.84 % in 2001 and that of urban increased 71.99 % to 80.84%. • The literacy rate of males is always found to be higher than that of females in rural and urban areas of the state.

Source: Census of Orissa, 2001.

Adequate and representative sample were taken from the selected districts/ blocks/ schools/ and other stake holders.

1.5.2.2 The sampling procedure

Selection of Districts and Blocks:

The first stage of the sample was the state. The state proposed to be covered in this study was Orissa - a scheduled state (under PESA). The proportion of scheduled tribe population is slightly higher than 22 percent in Orissa. In the second stage, three districts from the state were covered following the same criteria of ST population (Lowest, Average and Highest ST population). In the next stage 3 blocks from each district and thus a total of **9 blocks** were selected. Table -1.2 presents the sampling of the districts and blocks.

Table 1.2: Sampling of Districts/Blocks and HHs covered under the study

Districts/ Blocks	**Status of TP**	**HH surveyed**
High TP		
Sundargarh		**550**
Gurundia	H	240
Rajgangpur	A	190
Bisra	L	120
Average TP		
Bolangir		**400**
Khaprakhol	H	180
Titlagarh	A	120
Loisinga(P)	L	100
Low TP		
Puri		**250**
Brhamgiri	H	120
Puri Sadar	A	75
Gop	L	55
All districts		**1200**

TP=Tribal Population
H=Highest, L=Lowest, A=Average

Selection of Villages and Households

After the selection of blocks we arranged the villages as per the ST population and selected 3 villages from each block. Thus a total of **27 villages** were selected for the purpose. Of the 3 villages one was road side village (2 km) and one was within 100 km

and the other one was more than 100km. This was done in order to balance the average of each of the category of villages.

House Listing: The next step was listing of the households with 6-18 years of children. It was verified with SSA unit of the respective districts**.** We covered all the households which had the children in the above said age group. The following table provides the number of Parents contacted for the purpose of eliciting the required detailed information. Table 1.3 presents the summary of household/parents covered under the survey in each district.

Table 1.3: Number of Households/ Parents covered under the Survey

Districts	**Households/ Parents**		
	ST	**Non - ST**	**Total**
• Sundergarh:	500	50	550
• Bolangir :	320	80	400
• Puri	150	100	250
• Total	970	230	1200

Sampling of Sundergarh District (Households)

The details of villages and households from Sundergarh district are given in Table 1.4

Table 1.4: Sampling of Blocks/Villages/ Households in SUNDERGARH District covered under the study				
Blocks	**Villages**	**HHS**	**% ST pop**	**HHs surveyed**
Gurundia Block High ST				
Low ST	Kendrikala	248	7.0	60
Average ST	Kantasara	342	51.5	75
High ST	Dhokamunda	174	99.1	105
	Total			**240**
Rajgangpur AV ST				
Low ST	Dheluan	523	26.3	30
Average ST	Talkudar	132	69.1	65
High ST	Baipur	113	100.0	95
	Total			**190**
Bisra LOW ST				
Low ST	Bisra	361	6.6	30
Average ST	Badjojada	192	48.6	30
High ST	Sanpokhari	60	100.0	60
	Total			**120**
Sundergarh District				**550**

Sampling of Bolangir District (Households)

Table 1.5 presents the details of sampling covered under the study for Bolangir district which has the average Scheduled tribe population.

Table 1.5: Sampling of Blocks/Villages/ Households in BOLANGIR District covered under the study

Blocks	Villages	Total HHs	% of ST Pop	HH surveyed
Khapakhol: High ST				
Low ST	Bandepadar	145	1.3	36
Average ST	Turla	192	47.7	50
High ST	Buromal	233	77.0	94
	Total			**180**
Titlagarh: AV ST				
Low ST	Sargunamunda	129	1.1	30
Average ST	Jugirata	127	46.8	40
High ST	Karlapita	88	83.0	50
	Total			**120**
Loisinga: Low ST				
Low ST	Harabhanga	238	0.5	30
Average ST	Samalmunda	133	52.0	30
High ST	Laxanpali	65	90.0	25
	Total			**100**
BOLANGIR DISTRICT				**400**

Sampling of Puri District (Households)

Table 1.6 presents the details of sampling covered under the study for Puri district which has the lowest Scheduled tribe population.

Table 1.6: Sampling of Blocks/Villages/ Households in PURI District covered under the study

Blocks	Villages	HHS	% ST pop	HHs surveyed
Brahmagiri block: High ST				
Low ST	Satapada	314	0.1	31
Average ST	Gokhara	115	1.9	33
High ST	Duani	56	35.0	56
	Total			**120**
Sadar Block: Av. ST				
Low ST	Balukhanda	660	0.5	15
Average ST	Atharanala	136	2.6	20
High ST	Chakrabarti	108	23.5	40
	Total			**75**
Gop Block: Low ST				
Low ST	Erabanga	1004	0.18	15
Average ST	Nagapur	716	0.60	15
High ST	Redhua	64	1.29	25
	Total			**55**
PURI DISTRICT				**250**

Sampling of children surveyed

Details of sampling of Children covered under survey are presented in Table 1.7.

Table 1.7: Details of sample children by enrolment status covered under the study

Districts	ST				Non-ST				All
	Enrolled	Dropout	Never enrolled	Total	Enrolled	Dropout	Never enrolled	Total	
Sundergarh	**494**	**65**	**21**	**580**	**118**	**8**	**4**	**130**	**710**
%	85.2	11.2	3.6	100.0	90.8	6.2	3.1	100.0	
Bolangir	**383**	**89**	**47**	**519**	**89**	**7**	**5**	**101**	**620**
%	74	17	9	100	88	7	5	100	
Puri	**118**	**8**	**4**	**130**	**333**	**4**	**3**	**340**	**470**
%	90.8	6.2	3.1	100.0	97.9	1.2	0.9	100.0	
Total				**1229**				**571**	**1800**
%				**68.3**				**31.7**	**100.00**

Sampling of schools, Community leaders, BEO and Teacherss

We selected 10 schools from each district and thus 30 schools from the three districts were covered. Similarly 30 community leaders (10 from each district), 9 BEOs (3 from each district) and 77 teachers were contacted to collect relevant information. The details of the sampling design are shown in Table -1.7.

Table 1.8: Sampling details of Schools, Community leaders ,Teachers and BEOs

Districts	Schools	Community leaders	Teachers	BEO
Bolangir	10	10	21	3
Sundargarh	10	10	26	3
Puri	10	10	30	3
Total	**30**	**30**	**77**	**9**

1.5.2.3 Profile of the Sample districts

Sundargarh District

Sundargarh district is one of the undivided districts of the state. The district lies between 21 degrees 35' N and 22 degrees 32' N latitudes and between 83 degrees 32' E and 85 degrees 22' E longitudes. The district does not form a complete geographical unit and is extremely irregular in shape. Area of the district is 9712 sq. kms. The district headquarters is located at Sundargarh. Geographically, the district is not a compact unit and consists of widely, dissimilar tracts of expansive and fairly open country, dotted with isolated peaks, inaccessible forests, river valley and mountainous terrain. Broadly speaking it is an undulating table-land of different elevations broken up by rugged hill ranges and cut off by torrential hill streams and the river lb and Brahmani. The general slope of the district is from north to south. There is an open well-cultivated plain country along the valley of the *lb river* particularly in the south. There million of tonnes of iron-ore for use in Rourkela steel plant.

The forest of the district is of northern tropical dry deciduous type, mainly containing Sal, Assan and Kurum. The forest area is mostly studded with rich mineral deposits, like iron ore, manganese, limestone, lead; also forest products like bamboo,

timber and tendu leaves which are export-oriented. The district was a very inaccessible tract having no proper communication. The tribal people living in the area used to subsist for the most part of shifting cultivation which resulted in denudation of forest. The forests occupy an area of 3534.92 sq.kms which includes 2664.64 sq. kms. The principal forest produce are timber, tendu-leaf and bamboo besides minor product like sabai grass. lac, tassar, myrabolan, mahua, kusuma seed, resin, tamarind, gum and sal seed which provides substantial revenue to the State Government. The density of population of the district was 188 per sq.km which is much below the state density of 236 per sq Km. The sex ratio of the district was 957, less than the state average of 972. The composition of SC and ST population of the district shows that 50.19 per cent of the population constitutes scheduled tribes and 8.62 per cent of the total population is scheduled caste population. The literacy rate of the district was 64.86 percent with 75.34 percent for males and 53.88 percent for females. The literacy rate for ST and SC was 52.75 and 61.54 percent respectively. The number of primary, middle and secondary schools was 2207, 818 and 321 respectively in 2006-07. The enrolments in the corresponding schools were 225000, 91000 and 65000 during the same year. The number of teachers in primary, middle and secondary schools was 4798, 1766 and 4080 respectively.

There are 17 blocks in Sundergarh district. We have selected three blocks based on the tribal population i.e high ST, Medium ST and low ST population blocks. These are Gurundia, Rajgang pur and Bisra representing high, average and low ST population respectively (Table 1.3).The geographical area of Gurundia is 585.69 sq.km, Rajgangpur – 375.42 sq.km and Bisra occupies the area of 176.05 sq.km. The sex ratio is 1000.9, 999.7 and 965.2 respectively for Gurundia, Rajgangpur and Bisra. The number of primary schools was 70, 103 and111 in Bisra, Rajgnagpur and Gurundia respectively in the year 2001. The corresponding number of middle schools was 22, 21 and 26 in Bisra, Rajgangpur and Gurundia during the same year.

Bolangir District

The district was formed on 1st Nov,1949. Sonepur was carved out as a separate district on 1.4.1993. The district is bounded by Sonepur in the east,Nuapara in the west,

Kalahandi in the south and Bargarh in the north. The district of Balangir lies between 20º11'40" - 21º05'08" North latitude and 82º41'15" - 83º40'22" East latitude. The district has total geographical area of 6575 sq km 6 tahsils and 14 blocks. The density of population of the district was 203 per sq.km. This is less than that of the state density of 236. The sex ratio of the district is 984, as against the state ratio of 972. The district contributes 20.63 percent ST and 16.92 percent SC to the total population of the district. The district was considered as an average district in respect of ST population in our study. The working population of district constitutes 41.86 percent of the total population. The cultivators and agricultural labourers constituted 31.03 percent and 40.06 percent respectively. The literacy of the district was 55.70 percent for all population and 71.67 percent for males, 39.51 percent for females in 2001 census. The literacy rate of ST population, ST males and females constitute 43.64 percent, 61.96 percent and 25.52 percent respectively. The literacy rate of scheduled caste population was 53.54 %, 69.50 % and 37.25 percent for all population, males and females respectively. By 2006-7 the district had 2071, 619 and 277 primary, middle and secondary schools respectively. The enrolment in primary, middle and secondary schools was 147000, 59000 and 47000 respectively.

The district has 14 blocks and we have selected three blocks on the basis of Scheduled tribe population. These are Khperkhol – High ST population, Titlagarh – Average ST population and Loisinga – low ST population. From each of the blocks we have selected three villages following the same criteria of ST population. The details of name of the villages, population etc are given in Table 1.4.

Puri district

The district Puri lies between 19 degrees 28' N and 26 degrees 35' N latitudes and between 84 degrees 29' E and 86 degrees 25' E longitudes. The geographical area of the district is 3479 sq. kms. The district has 11 blocks and 7 Tahsils with cultivated area of 1887445 hectares. The irrigated area and forest area constitute 105106 hect and constitutes 18175 hect. respectively. Then district head qrs is located in Puri. The population density of the district is 432 per sq kms in 2001 census and the sex ratio of the

district was 968. The main and marginal workers constitute 29.98 percent while the cultivators of the district are 35.06 percent of the total workers. The agricultural labourers of the district are little higher than 25 percent and the workers engaged in household industry constitute 3 percent of the total workers. The SC and ST population of the district are 18.23 and 0.30 percent respectively. The literacy rate of the district was 77.96, 88.08 and 67.57 percent respectively for all persons, male and female population. In respect of literacy rate the district is much above the state literacy rate as per 2001 census. In so far as ST literacy rate is concerned it was found that the literacy rate of scheduled tribe population was 58.72 while it was 42.11 and 73.37 percent respectively for female and male population. The literacy rate of SC is higher than that of ST. The literacy rate for total SC population was 64.05 percent, 78.51 percent for males and 49.30 percent for females. In 2006-07 the number of primary schools in the district was 1690 with 3814 teachers. The students enrolled at the primary school were 172 thousand constituting 89000 boys and 83000 girls. The number of middle schools in Puri district was 726 with1386 teachers. The enrolment at the middle schools was 91000, 48000 and 43000 respectively for total, boys and girls in 2006-07.

We have taken three blocks for undertaking the primary survey. These are Brahmagiri, Puri sadar and Gop representing high ST, average ST and low ST population respectively. Puri district is having the lowest ST population in the state. This district was selected to examine the education of ST in the context of lowest ST population and high economic development.

1.5.3. Profile of the sample Blocks of the selected districts

The details of infrastructure facilities available in the blocks are summarised in Table 1.9. There is still one block in Bolangir district without electricity. Almost all villages under all the blocks are provided with drinking water facilities either through tube well or through well. All the blocks have primary schools and Anganwadis. Only three of the blocks have pucca roads.

Table 1.9: Infrastructure facilities in the study Area

Districts/ Blocks	Av. Proximity to town(km)	Distance to (Km)		Type of road	Electricity	Drinking water	PO/ Bank	Schooling facilities	Local market
		Bus stop	Rly station	P/PP/K				A/P/M/HS/C	
Bolangir									
HT Block	75	20	75	PP/K	N	Tube well	PO	A/P	N
AT Block	51	15	20	PP/K	Y	Tube well	PO/Bank	A/P/M	Y
LT Block	35	12	14	PP	Y	Tube well	PO/Bank	A/P/M/HS/C	Y
Sundergarh									
HT Block	69	20	52	PP/K	Y	Tube well	PO	A/P	Y
AT Block	53	13	38	PP	Y	Tube well	PO/Bank	A/P/M/HS	Y
LT Block	29	10	12	P	Y	Tube well/ Well	PO/Bank	A/P/M/HS/C	Y
Puri									
HT Block	51	12	42	PP	Y	Tube well/ Well	PO/Bank	A/P/M	N
AT Block	35	8	31	P	Y	Tube well/ Well	PO/Bank	A/P/M/HS/C	Y
LT Block	21	5	15	P	Y	Tube well/ Well	PO/Bank	A/P/M/HS/C	Y

Note: HT=High tribal Population, AT=Average tribal popn; LT= Low tribal popn
Y=yes, N=No; A=Anganwadi, P=Primary, M=Middle; HS=High school; C=College
Source: Own Survey

1.5.4 Statistical techniques used

i. The gender disparity index in literacy

The gender disparity index in literacy is calculated by using Sophers' Disparity Index with the help of the following formula:

Disparity Index = $\text{Log}(X_2/X_1) + \text{Log}[(Q-X_1)/(Q-X_2)]$,
Where, $X_2 > X_1$ and $Q = 200$
X_2 = Male Literacy Rate
X_1 = Female Literacy Rate

The higher the value of the index higher is the extent of gender disparity.

ii. Gender Parity Index in Enrolment (GPI)

$GPI = (ENR_G / ENR_B) * 100$

Where ENR_G = Enrolment of girls

ENR_B = Enrolment of Boys

If the value of GPI for example is 86, it implies that there are 86 girls per 100 boys.

iii. Coefficient of Variation in literacy rate

Inter district disparity in literacy rate is estimated by using coefficient of variation (CV). The formula used for estimating CV is as follows:

$CV = (\sigma / \mu) * 100$

Where σ = Standard Deviation of literacy rate

μ = Mean of literacy rate

The higher the value of CV, the higher is the disparity between districts in terms of percentages. If the value of CV for instance is 90 percent, it implies that the variation in literacy rate between different districts is to the extent of 90 percent.

iv. Maximum Likelihood Probit Model

In order to examine the impact of demand and supply side constraints on the educational participation of Scheduled tribes, we have used Probit model taking the enrolment as the dependent variable and the independent variables are demand and supply side variables affecting the enrolment status of children. We could not incorporate all the factors both demand and supply as discussed above. Some important factors for which the data was available were used in the model.

The dependent variable was probability of enrolment (which used 1, if the child is enrolled and 0 if the child is not enrolled). The independent variables are: age of the child, sex of the child, Parent's education, caste, Village dummy, Per capita income, Distance to school, Infrastructure of the school, pupil teacher ratio. The details are discussed in Chapter-3.

$$P_i/(1-P_i) = \beta_0 + \beta_1 AGE + \beta_2 AGESQUARE + \beta_3 SEX + \beta_4 FATHEEDU + \beta_4 MOTHEDU + \beta_6 PCI + \beta_7 SC/ST + \beta_8 VILLAGETYPE + \beta_9 DISTFOREST + \beta_{10} DISTANCE SCHOOL + \beta_{11} INFRASCHOOl + \beta_{12} PTR + U_i$$

Where P_i = the probability that 'i'th child participates in school

$1- P_i$ = the probability that 'i'th child does not participate in school

AGE	Age in years
SEX	Dummy, 1 if male, 0 otherwise
FATHEDU	Father's Education in years of schooling
MOTHEDU	Mother's education in years of schooling
PCI	Percapita income of the household
SC/ST	Dummy, 1 if ST, 0 otherwise
VILLAGETYPE	Dummy, 1 if village is high ST, 0 otherwise Dummy, 1 if village is medium ST, 0 otherwise
DISTFOREST	Distance to forests in actual kms
DISTANCE SCHOOL	Distance to school in kms
INFRASCHOOL	Infrastructure of the school (Index of infrastructure)
PTR	Pupil teacher ratio

1.5.5 Tools and Techniques for data collection

i. *Interview schedule*s

ii. *Checklists*

iii. *Surprise visit* to schools (to check what do the teachers do during the schooling hours, the actual % of students attended, teacher absenteeism etc).

The interview schedules were constructed keeping in view the objectives of the study. Before the initiation of data collection 2 days intensive training to the investigators on the techniques of data collection using the interview schedules was imparted. After training the investigators were asked to fill up the schedule and it was verified by the Principal investigator. Investigators were guided if there was any problem in understanding and filling up the interview schedule. When it was felt by the Principal Investigator that the investigators were fully understood the objectives of the study and

capable of entering the responses correctly they were sent to the field for pilot testing of the interview schedule. After pilot testing, appropriate corrections were made in the schedule. Any doubt raised by the investigators was clarified. Finally the data collection was initiated after all the corrections made in the schedule.

The Principal Investigator and the project fellow supervised and monitored the data collection work regularly. The data collection work was carried out with the help of 9 investigators and one project fellow. Three investigators per district were employed for data collection work.

The checklists were filled in mainly by the Project fellow. The check list was made for the BEOs, Community leaders, Schools, Teachers and for the villages where the data collection work was undertaken.

The surprise visits to the school was made by all the investigators, project fellow and also by the Principal Investigator. The visit was made to observe the attendance rate of the children and teachers, the quality of mid day meal served etc.

The Principal Investigator also participated in the discussion meetings with some the officials, teachers, BEOs etc.

The data collection work took 6 months from December 2006 to April, 2007. The data collection work was delayed on account of flood situation in Orissa.

1.5.6 Few words about fieldwork experience

Since field work involved extensive travel to the remote tribal areas of Orissa, it was really a unique experience on the part of the Principal Investigator and all the other field staffs to participate in the data collection work particularly with the tribal people. It is believed that tribal people are shy and mostly hesitate to provide any information. But to our utter surprise we found that the tribals are more cooperative and cordial to provide the information than the non triblas. The tribals are very frank and straight forward in their statements. Sometimes it was difficult to understand their responses as they were using mixed language which was dominated by their own spoken language. In order to overcome this difficulty we were taking the help of the school teachers and local youth of

the village. They helped us to a great extent in getting clarified in case of any doubt/ambiguous responses. Except the difficulty in traveling to the tribal areas, we enjoyed the data collection work in these areas. We greatly appreciate the help and cooperation extended to us by the school teachers, BEOs, village leaders, children and parents for completing the present exercise.

1.5.7 Chapter plan of the study

The study consists of five chapters. The first chapter discussed the conceptual framework, background, review of literature, objectives, research questions, and methodology of the study. In the second chapter we have presented the growth of education in the state in general and ST education in particular. The analysis of educational participation of scheduled tribes is presented in terms of their literacy rate, enrolment, dropout rate etc in this chapter. The disparities in education across districts and within the district are also discussed here. Chapter – 3 presents the analysis of household data in respect of socio economic characteristics of the households covered under the study. In Chapter -4, the demand side and supply side factors affecting the education of Scheduled tribes and non scheduled tribes are identified. The effect of these factors on their education is examined with the help of probit model using the household level data. Chapter -5 summarises the main findings and suggests some strategies to overcome the constraints of tribal education.

Chapter -II
EDUCATION OF SCHEDULED TRIBES IN ORISSA
Growth and Regional Disparity

2.1 Despite the sincere and concerted efforts by the government for the overall development of the scheduled tribes, they are still far behind in almost all the standard parameters of development. They are not able to participate in the process of development, as they are not aware of most of the progrmmes and policies made for their upliftment. This is mainly due to the high incidence of illiteracy and very low level of education among the tribal people. Hence, the educational status of the scheduled tribes merits discussion. The chapter is divided into sections. The analysis of the present chapter is based mainly on secondary data collected from Economic Survey of Orissa, Statistical Abstract, Orissa Development Report (2002), Orissa Human Development Report (2004), Office of the Directorate of Public Instruction (DPI), Government of Orissa, Census of India, New Delhi etc. The analyses of this section concentrate to the literacy level and the primary education only.

2.2. Educational Development of Scheduled Tribes in Orissa

It is well documented that there is a positive impact of literacy and basic education on economic productivity of the recipients of education. Many empirical research on this topic from a handful of studies found that the number of years of schooling (mostly primary schooling) is closely related with income or job productivity. For example in the agriculture sector, studies have supported the notion that an additional year of primary schooling can directly affect wages and farm output. Studies also suggest that an additional years of schooling lead to economic returns that are greater than the cost of education itself (Haddad et.al, 1990). In view of the contribution of education in general and primary education in particular to the overall development of the recipients of education we have made an attempt to examine the educational achievement of the scheduled tribe population in the state of Orissa (a scheduled state).

According to the provision of the Indian Constitution there are 62 communities listed as STs in Orissa. More than 80 percent of them live in designated scheduled areas. There are 13 sections of these tribes in the state identified as Primitive Tribes, who are very primitive in nature from the cultural and technological standpoints. (Orissa Development Report, 2002). Tribal communities in Orissa, like their counterparts in other parts of India, live under a subsistence economy. Agriculture is their main occupation and most of the tribes have subsidiary occupations such as collection of minor forest produce, forest labour and other non-agricultural labour, primary government work, apart from the main occupations. There is considerable divergence, differentiations among various tribal groups in terms of rites, rituals and functions. Since Independence, there has been a growing realisation that development would never become self-sustaining unless it is accompanied by corresponding changes in the attitudes, values, knowledge and skills of the people in general and scheduled tribes in particular. The only way of accomplishing this change is through education. In this background the analysis of education of tribals in Orissa assumes great significance.

2.2.1 Literacy

Overall literacy rate

Literacy is considered as one of the crucial indictors of education. There is a significant difference between a literate and an illiterate person in respect of overall attitude of the concerned individuals. The overall literacy rate in Orissa has increased by about 15 percent, between 1991 and 2001 from 49.09 percent to 63.61 percent. This increase is roughly the same as for all-India and for states with comparable levels of literacy in 1991. However, as per the 2001 Census, Orissa still ranks 24th among 35 states/Union Territories. The state is slightly below the national literacy rate **(**65.38percent) in 2001 census in respect of overall literacy rate. The male literacy rate (75.85percent) of India is marginally higher than that of Orissa (73.34 percent) while the female literacy rate of India was 54.16 percent and that of Orissa was 50.5 percent.

Across districts, as per 2001 census, the overall literacy rate is the highest in Khurda district at 80.19 percent and lowest in Malkangiri District at 31.26 percent. While

male literacy rate is the highest (88.96 percent) in Jagatsinghpur district and the lowest (41.21 percent) in Malkangiri district, the female literacy rate is the highest (71.06 percent) in Khurda district and the lowest (21.02 percent) in Nabarangpur district. The details of district wise literacy rate are presented in Table 2A-1.

Scheduled tribe literacy rate

As expected, the level of literacy among scheduled tribes has always been a matter of concern. In the case of Scheduled Tribes in Orissa, it is in fact much lower than for the rest of the population. As per the Census 2001, around 39.60 percent of the tribal population in the state was literate as against the State average of 63.61 percent. There exist significant regional disparities in the state across districts. The overall literacy rate in high tribal population districts varied from the lowest of 31.26 percent to the highest of 65.22 percent in 2001 for all population. The corresponding literacy for ST population was 14.69 percent and 52.75 percent. In low tribal population districts, the literacy rate for all population varies from a low of 42.29 percent to a high of 80.19 percent while the same for ST population is 27.44 percent to 58.72 percent. This indicates that the literacy rate of Scheduled tribes in the low tribal population districts is higher than those in high tribal population districts.

Moreover, literacy among tribal females is depressingly low. Three out of four tribal females are still illiterate (average literacy rate for tribal women as per the 2001 Census is 27.38 percent) even after more than 5 decades of planning and development. Female Literacy was extremely low in most of the low tribal population Districts. The lowest female literacy rate is found to be less than 7.5 percent in Malkangiri district, which is really a matter of serious concern.

Disparity in Literacy: Inter and Intra District disparity/Variation in Literacy Rate

There is variation in literacy rate between different districts of the state and within different groups of districts there is variation in literacy rate between ST and all population. Within each group of population the variation is found between male and females. The inter and intra district variations in literacy rate are reflected through

coefficient of variation and is presented in Table 2.1 and Table 2.2 for 1991 and 2001 respectively. It is found that the coefficient of variation in literacy rate for the ST population is higher than that of the general group of population. Within each category of population the coefficient of variation of females is much higher than that of males.

Table 2.1: Variation in Literacy rate in Orissa,1991

Districts/state	Literacy rate					
	All Population			Scheduled tribes		
	Total	Male	Female	Total	Male	Female
Mean	46.03	59.92	32.64	22.87	35.41	10.05
SD	14.46	15.02	13.64	8.49	11.60	5.69
C.V.(%)	31.41	25.07	42.59	37.12	32.75	56.64

Table 2. 2: Variation in Literacy rate in Orissa,2001

Districts/state	Literacy rate					
	All Population			Scheduled tribes		
	Total	Male	Female	Total	Male	Female
Mean	60.72	73.33	47.89	39.60	54.13	24.85
SD	14.79	13.90	15.83	11.57	13.25	10.08
C.V (%)	24.36	18.96	33.06	29.22	24.49	40.45

Disparity in literacy rate by Gender

The literacy rate of females is always found to be lower than their male counter parts. As stated earlier, the literacy rate of ST females is extremely low which ultimately leads to a higher gender disparity in literacy rate. We have estimated the gender disparity rate by using Sopher's Disparity index formula given earlier. The gender disparity has declined over the years for both all population and for scheduled tribes. But the disparity is much higher for ST than that of all population in both the census years. The details of gender disparity index are provided in Table 2A-2 for all districts. Across districts, as per 2001 Census the disparity index is the highest (0.59) in Nuapada and the lowest disparity index (0.29) is found in Sundergarh district. The lowest disparity in Sundergarh may be largely due to the fast growing urbanization and the industrialization (steel plant in Rourkela). Table 2.3 presents the disparity index of the sample districts.

Table 2.3 : Gender disparity Index in Literacy

Districts	All Population		ST Population	
	2001	1991	1991	2001
Sundargarh	0.21	0.29	0.38	0.27
Bolangir	0.35	0.51	0.76	0.49
Puri	0.19	0.28	0.44	0.34
State	**0.28**	**0.38**	**0.66**	**0.42**

Bolangir has the highest disparity and Puri has the lowest disparity for ST. But Sundergarh being the highest ST population dist, has the disparity much below the state disparity index.

From the above analysis it is very clear that the extremely low level of literacy rate among the tribals in general and females in particular may be one of the most important reasons for their overall backwardness as they are not able to participate in the process of development.

2.2.2 Primary Education

Article 45 of the Indian Constitution requiring the state to provide within a period of 10 years from the commencement of the Constitution and the Supreme Court ruling in 1994 that 'a child has a fundamental right (Article 21A states education as fundamental right) to free education up to age of 14 years' clearly enjoin the state government about its responsibility in this connection.

Growth of Primary schools

After Independence, there has been a substantial growth in the number of schools in the state. In 1947-48, the primary schools numbered 6814 and it increased to 42824 in 2002-03, showing a compound growth rate of 3.5 percent per annum. However, the number of primary schools by habitation is a better indicator than the mere growth and number of schools.

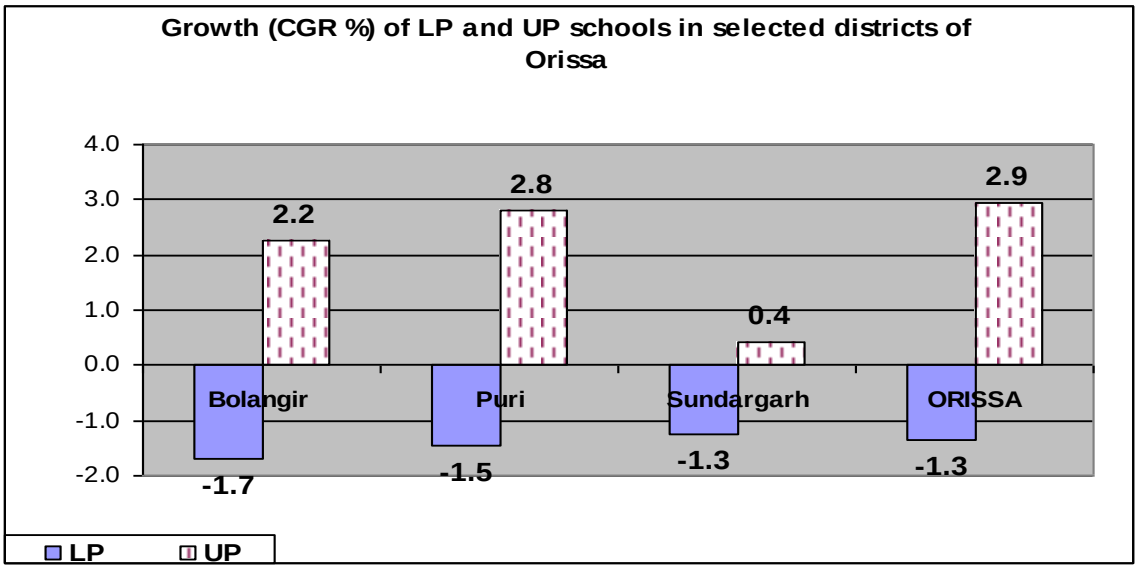
According to the Sixth All-India Educational Survey (1993), there was 73,148 habitations in the state of which 60,289 (82.42 percent) had primary schooling facility within one kilometer of walking distance from the home of a child. It may also be noted that 27 percent of the habitations with predominantly Scheduled Tribe population did not have a school within a distance of one kilometer.

We have estimated the number of primary schools per 1 lakh population for different districts of the state and presented in Table 2A-3. Across districts the highest number of schools (234) is found in Kandhamal district while the lowest number of schools (67) per one lakh population is found in Khurda district. The growth of primary schools in the selected districts are presented in Table-2.4 and Chart- 2.1

Table-2.4 : Growth of Primary and Upper Primary Schools in selected districts of Orissa

Dist	LP Schools			UP Schools			Ratio of
	1993-94	2006-2007	CGR (%)	1993-94	2006-2007	CGR(%)	Prim/UP
Bolangir	2001	1606	-1.7	367	490	2.2	5
Puri	1432	1181	-1.5	485	695	2.8	3
Sundargarh	2021	1716	-1.3	550	580	0.4	4
ORISSA	**41604**	**34895**	**-1.3**	**10920**	**15917**	**2.9**	**4**

Chart- 2.1



Here one may raise a question that in spite of the larger number of schools in the scheduled districts why are these districts behind the non scheduled districts in respect of development of education? It is generally believed that the supply of schools to the scheduled tribes may enhance their enrolment and overall quality of education. But contrary to this belief it is found that despite the existence of very large number of schools in the scheduled districts they are lagging behind their counterparts in respect of education. Mere existence of schools may not enhance the standard of education unless (i) it is properly equipped with the teaching and other inputs and (ii) the children should come and attend the school. It is noticed that in the remote tribal areas the teacher absenteeism is a regular phenomena and this affects largely the quality of education. Lack of basic infrastructure (roads, electricity and other communications) in the area as well as in the schools also is responsible for poor attendance in the schools by the teachers and students. Most of these schools have become dysfunctional in tribal areas.

For promoting the education of the backward population (SC and ST) in the state the government of Orissa has established special schools for them like Sevashramas, Kanyashramas etc. As revealed from Table 6 that there is not much improvement in the number of schools in recent years. The number of schools on the other hand either remains stagnant or increased marginally as in case of Sevashramas, for example there was a hike in the Sevashramas from 951 in 1995-96 to 1013 in 2006-07. The number of Ashramas have become stagnant from 1998-99 onwards.

Table 2.5 : Special Schools for ST and SC in Orissa

Year	No. of Schools		
	Sevashrams	**Ashrams**	**Kanyashrams**
1995-96	951	109	34
1996-97	940	110	35
1997-98	929	110	37
1998-99	919	112	37
1999-00	919	112	37
2002-03	919	112	37
2003-04	919	112	37
2006-07	1013	112	37

Source: Economic Survey, Government of Orissa.

Growth of Enrolment

In Orissa, the number of students in primary education increased by 19 times between 1947-48 and 2003-04 (Human Development Report, Orissa 2004). In 2006-07, there are 44.9 lakh children enrolled in lower primary schools and 18.33 lakh in upper primary schools. However, when we compare the decade of the 1980s to that of 1990s, there has been a virtual stagnation in the average annual rate of growth of enrollment i.e 2.7 percent and it increased to 2.8 percent during the period 1990-91 to 2003-04.

Before analyzing the enrolment of ST in Orissa it would be interesting to observe the enrolment of ST in BIMARU states vis-à-vis Orissa and at the national level. While comparing the GER of Orissa with national GER of ST it is found that Orissa is lagging behind the National average in all the levels of education in respect of GER of ST. Not only that the GER of ST in Orissa is less than the other BIMARU states with exception to Bihar. The states like Madhya Pradesh fares well in this respect and Orissa can learn from the experiences of MP. The GER of ST in Bihar is less than that in Orissa. Table 2.6 gives the GER of ST for Orissa and other BIMARU states.

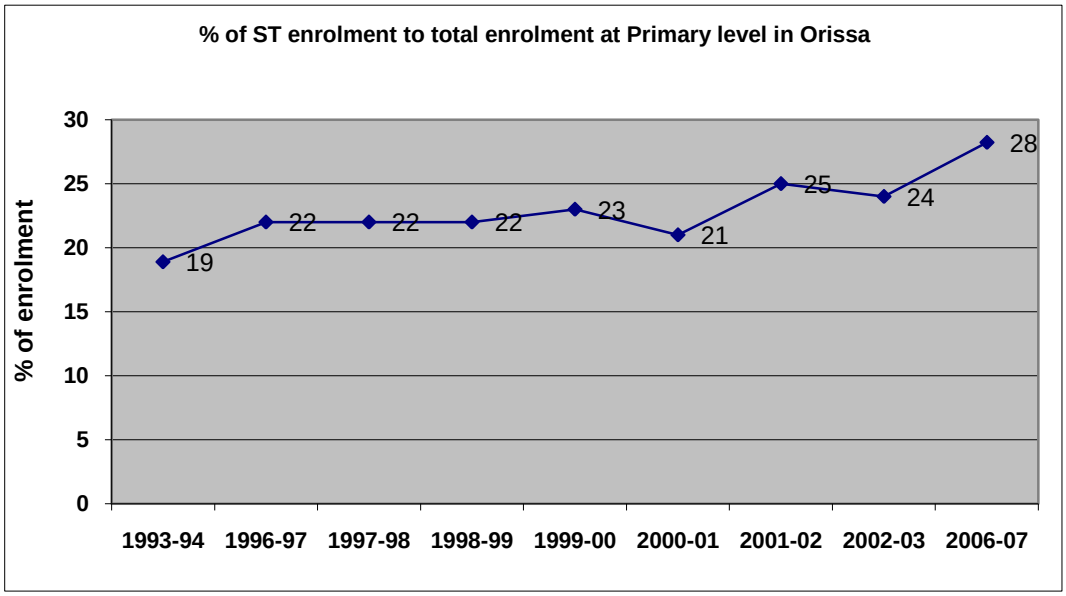
Table 2.6: The GER of Scheduled Tribes in BIMARU states and ORISSA, 2004-05

States	GROSS ENROLMENT RATIO								
	I-V			VI-VIII			I-VIII		
	Boys	Girls	Toal	Boys	Girls	Toal	Boys	Girls	Toal
Bihar	87.24	55.9	72.23	26.26	14.72	21.13	65.23	42.34	54.54
Madhya Pradesh	155.58	139.8	147.85	82.1	62.53	72.57	129.27	112.2	120.95
Rajsthan	114.03	100.6	107.57	86.67	51.01	70.01	105.68	86.1	96.33
Uttar Pradesh	172.78	121.7	148.35	75.46	36.3	57.66	124.12	81.03	104.01
Orissa	125.38	114.1	119.93	47.92	34.07	41.19	98.58	86.41	92.67
India	128.06	115.5	121.91	73.88	59.49	66.98	108.53	95.82	102.36

During the period 1993-94 to 2006-07, the growth of enrolment was 4.5 and 3.7 percent respectively at the lower and upper primary levels in Orissa. The scheduled tribe enrolment is always lower than the enrolment of other communities. There was very negligible increase in the enrolment of ST over the years.

The chart 2.2 presents the trend in ST enrolment in primary education.

Chart -2.2



Regional Disparity in Enrolment: Inter and Intra district Disparity/Variation in Enrolment

The enrolment in all the districts and within the district between different social groups and between genders has not grown equally over the period of time. The inter district variation in enrolment in lower primary level is presented in Table 2.7. Most interestingly it is found that over the period the variation in enrolment has declined in general but for the scheduled tribe children it has increased over the same period. The variation for girl's enrolment is either equal or slightly lower than their boy counterparts among all community and STs.

Table 2.7 : Regional Disparity/ Variation in enrolment in Lower primary education in Orissa (Inter district Disparity)

Year	Social groups	Sex	CV (%)	Increase/decrease in Variation
1993-94	All Community	Boys	57.1	-
		Girls	57.1	-
		Total	56.6	-
	Scheduled tribes	Boys	99.2	-
		Girls	97.0	-
		Total	97.4	-
2006-07	All community	Boys	52.7	-4.4
		Girls	52.0	-5.1
		Total	52.3	-4.3
	Scheduled tribes	Boys	99.5	0.3
		Girls	99.7	2.7
		Total	99.5	2.1

On the contrary the variation in enrolment for upper primary level has shown some interesting results. Table 2.8 presents the variation in upper primary level. The inter district variation in enrolment is found to be very high in case of scheduled tribes despite the decline in variation. Over the period there is a decline in the variation for all enrolment but the decline in variation for ST enrolment is more than the variation in general enrolment. The high variation in ST enrolment at the upper primary level may be attributed to high dropout rate of these children in the backward districts more particularly for the girl children.

Table 2.8 : Regional Disparity /Variation in Enrolment at the Upper Primary level in Orissa (Inter district disparity)

Year	Social groups	Sex	CV (%)	Increase/Decrease in variation
1993-94	All community	Boys	58.8	-
		Girls	67.7	-
		Total	61.5	-
	Scheduled Tribe	Boys	148.9	-
		Girls	169.0	-
		Total	154.8	-
2006-07	All community	Boys	53.3	-5.5
		Girls	56.7	-11.0
		Total	54.8	-6.7
	Scheduled Tribe	Boys	108.5	-40.4
		Girls	117.1	-51.9
		Total	111.7	-43.1

Gender parity Index in Enrolment

The enrolment of boys is always found to be higher than that of girls. We have estimated the gender parity index in enrolment, which shows the ratio of girl's enrolment to boy's enrolment. District wise estimates of gender parity index indicate that the index is always lower for ST than that of all community. Across the selected districts, the gender pariy index of Sundergarh got the highest GPI for ST and Puri had got the highest GPI for all community. Over the years there is considerable improvement in the GPI for both tribals and non tribals. But the tribals are still behind the general population in respect of girls' education. The lower enrolment of girls than boys among the scheduled tribes is attributed mainly to (i) extremely low female literacy rate (among tribal females), (ii) low percentage of female teachers and (iii) low percentage of tribal teachers. Many studies have documented that the girl's education is significantly influenced by mother's education. The details of district wise GPI is given in Table 2A-5. *The low female literacy among the tribal females may be one of the significant factors for low enrolment of ST girls.*

Table 2.9 : GPI of Enrolment of children in the selected districts of Orissa					
Level of education	**Sex/ Community**	**Bolangir**	**Puri**	**Sundargarh**	**ORISSA**
Lower Primary					
1993-94	**AC**	77.1	63.6	84.3	70.9
	ST	66.7	33.3	78.3	64.3
2006-07	**AC**	93.7	93.2	92.2	91.2
	ST	93.5	70.3	93.8	89.7
Upper Primary					
1993-94	**AC**	62.5	46.3	59.1	61.2
	ST	40.0	40.0	71.4	56.0
2006-07	**AC**	82.2	90.3	88.5	86.3
	ST	75.2	75.3	87.8	73.6
Note: CGR: Compoubd growth rate in % *GPR: Gender parity Ratio(% of girls to boys)* *AC: All Community* *ST: Scheduled Tribes*					

Dropout Rate of ST and Non-ST

The dropout rate is one of the negative indicators of educational development. It is found to be very high among the backward population. There is substantial improvement in the dropout rate among all the groups of population over the years. It has declined from 52 percent in 1995-96 to 11 percent in 2006-07 for all children at the primary level. This implies that 89 children in 100 children are able to reach the last year of primary education. Across Social groups, the dropout rates is the highest among the ST children i.e. 23 percent in 2006-07 which means 23 percent of the children enrolled in class – I dropout before completing class – V. The details of dropout are given in Table 2.10.

Table 2.10

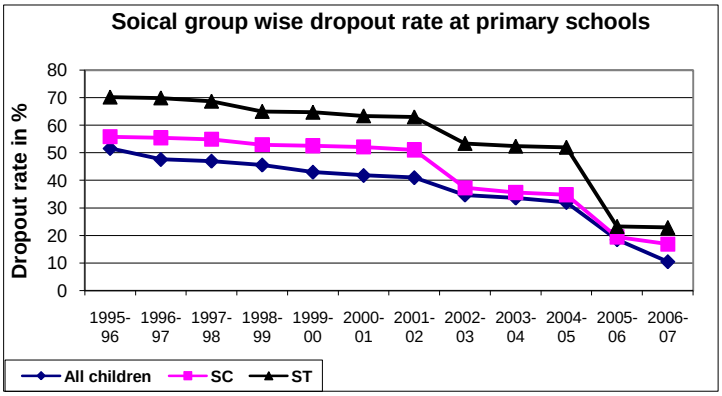
Dropout rate at Primary level in Orissa

Year	All children	SC	ST
1995-96	51.6	55.8	70.2
1996-97	47.6	55.4	69.9
1997-98	47.0	54.9	68.7
1998-99	45.6	52.9	65.0
1999-00	43.0	52.5	64.7
2000-01	41.8	52.1	63.4
2001-02	41.0	51.0	63.0
2002-03	34.7	37.3	53.4
2003-04	33.6	35.6	52.4
2004-05	32.0	34.8	52.0
2005-06	18.5	19.5	23.3
2006-07	10.5	16.9	22.9

Source: Directorate of Public Instruction office, Orissa

Chart. 2.3 show the dropout rate in primary education.

Chart 2.3



Teachers

Among the various factors that influence the quality of education and determine its contribution to national development, the quality and character of teachers are undoubtedly the most significant (Education Commission 1968). Thus, teachers occupy a vital role in the education system.

Most of the tribal children may be slower learners due to the fact that majority of the tribal children are the **first generation learners** and have least scope of support and help from parents and relatives who are illiterate. Hence the role of teachers assumes significance towards these children.

During the period 1947-48 to 2000-01, there has been a significant increase in the number of teachers in primary schools. The number teachers in primary schools were 114,791 in 2000-01 as against 16,520 in 1947-48. (Human Development Report, Orissa 2004). However, the distribution of number of teachers varies considerably from one Region to other Region. The percentage of ST teachers in the selected districts shows that Puri has got only 2% of ST teachers while Sundergarh has got more than 28 % of ST teachers. One interesting aspect is noticed in case of Sunnderagrh that the % of ST teachers over the period has declined from 40 % in 1993-94 to 28 % in 2006-06. Since the presence of ST teachers is one of the important components of tribal education for attracting more tribal children, the decline in tribal teachers is a matter of great concern. District wise ST teachers are presented in Table 2A-6.

Table 2.11 : District wise % of ST Teachers in 1993-94 and 2006-7

Districts	1993-94			2006-07		
	Total teachers	ST teachers	% of ST teachers	Total teachers	ST teachers	% of ST teachers
Bolangir	**5087**	**425**	**8.4**	**3730**	**341**	**9.1**
Puri	**2556**	**7**	**0.3**	**3814**	**77**	**2.0**
Sundargarh	**5166**	**2080**	**40.3**	**4798**	**1357**	**28.3**
ORISSA	**105340**	**9563**	**9.1**	**114095**	**15716**	**13.8**

Pupil-Teacher Ratio

In 2006-07 the overall pupil teacher ratio is 39 in the state of Orissa, indicating that the state has not yet fulfilled the national norm of 35 students per teacher at the primary level. Most of the districts are found not to fulfill this norm. At the upper primary level the ratio shows no improvement while in case of LP, the ratio shows improvement. Despite this, n0one of the districts selected for the present study are operating within the norm. Table 2.12presents the pupil teacher ratio in these three districts. Table 2A-7 presents the district wise pupil teacher ratio.

Table. 2.12

Pupil Teacher Ratio in Lower and Upper Primary Schools in Orissa

Name of districts	PTR			
	UP		LP	
	1993-94	2006-07	1993-94	2006-07
Bolangir	**24.8**	**57.7**	**28.9**	**39.2**
Puri	**41.0**	**65.6**	**68.5**	**45.1**
Sundargarh	**31.1**	**51.8**	**38.5**	**46.8**
ORISSA	**22.4**	**47.8**	**35.7**	**39.0**

The Government of Orissa have initiated many innovative plans to encourage the education of scheduled tribe children at the primary level. The Sevashrams and Residential Sevashrams are opened widely in different parts of the state to impart primary education to both boys and girls which enabled 0.93 lakh ST students to enroll themselves. During 2006-7, 1548 primary school hostels in Tribal Sub Plan areas and 400 ST girls hostels (40 seated) in KBK districts were functioning. Besides Government have decided to set up 1000 girl's hostels, with intake capacity of 100 boarders, exclusively for scheduled tribes. In 2006-07 nearly 550 hostels have been opened.

2.3. Summary and Concluding observations

The main findings of the study are: i) The literacy rate of male, female and total population of scheduled tribes in the scheduled districts are lower than the non scheduled districts with an exception to the district of Sundergarh. The lowest female literacy rate is found to be less than 8 percent in Malkangiri district, which is really a matter of serious concern. ii) About 27 percent of the habitations with predominantly scheduled tribe

population do not have a primary school within a radius of one kilometer. iii) The enrolment in primary schools indicates that girls are generally behind the boys. The dropout rate of ST children is the highest as only 77 percent of children continue till class-V among ST while the same is 90 percent among others. (iv)There is sharp inter district variation in enrolment in general and more for scheduled tribe children. This variation is found to be very high for upper primary school children than that of lower primary children. v) The percentage of female teachers in the state is much below the required norm. Across region the same pattern is observed as it is much below than the state as a whole. vi) The percentage of tribal teachers is only 14 percent in the state which may be one of the important constraints for tribal education.

Table 2A-1
District wise Literacy Rate by social groups in Orissa

Sl.Nos	Districts	Literacy rate of all population						Literacy rate of ST					
		All Persons		Males		Females		All persons		Male		Female	
		1991	2001	1991	2001	1991	2001	1991	2001	1991	2001	1991	2001
1	Gajapati	29.37	41.73	41.76	55.14	17.44	28.91	15.88	27.77	25.66	41.60	6.75	14.83
2	Koraput	24.64	36.20	33.98	47.58	15.15	24.81	8.34	18.68	14.61	29.25	2.14	8.38
3	Kandhamal	37.23	52.95	54.68	69.98	19.82	36.19	27.49	44.47	43.93	62.72	11.56	26.87
4	Malkangiri	20.04	31.26	28.24	41.21	18.69	21.28	6.77	14.69	11.21	22.05	2.32	7.50
5	Mayurbhanj	37.88	52.43	51.84	66.38	23.68	38.28	24.10	38.80	37.72	54.11	10.50	23.51
6	Nabarangpur	18.62	34.26	28.10	**47.37**	9.01	21.02	9.66	24.00	17.50	36.86	1.80	11.12
7	Rayagada	26.01	35.61	36.53	47.35	15.63	24.31	10.39	20.23	17.73	31.16	3.40	10.07
8	Sundargarh	52.97	65.22	65.41	75.69	39.60	54.25	37.34	52.75	50.13	64.66	24.52	40.90
9	Deogarh	44.45	60.78	59.43	73.79	29.26	47.56	27.47	45.26	41.25	59.41	13.73	31.23
10	Jharsuguda	52.64	71.47	67.29	83.04	37.11	59.23	34.87	57.23	50.95	71.86	18.37	42.27
11	Kendujhar	44.73	59.75	59.04	72.53	30.01	46.71	24.89	40.30	38.01	54.63	11.74	25.97
12	Kalahandi	31.08	46.20	46.85	62.88	18.28	29.56	18.54	34.17	32.00	51.70	5.48	17.15
13	Nuapada	27.52	42.29	42.31	58.78	12.78	26.01	18.49	33.12	32.00	50.69	5.18	16.18
14	Sambalpur	51.56	67.01	65.90	78.87	36.43	54.79	32.06	52.67	47.10	66.92	16.83	38.40
15	Angul	51.53	69.40	67.66	82.02	34.32	56.01	25.77	45.35	40.01	60.25	11.13	30.05
16	Baleswar	57.64	70.94	71.23	81.75	43.40	59.57	18.91	31.88	30.08	45.63	7.37	17.69
17	Baragarh	47.65	64.13	63.78	77.93	31.21	50.03	30.85	50.21	47.08	65.87	14.61	34.44
18	Bhadrak	60.54	74.64	74.62	85.44	46.35	63.62	12.87	27.44	20.25	38.00	4.91	16.43
19	Bolangir	38.63	54.93	55.64	70.36	21.30	39.27	24.86	43.64	41.17	61.96	8.65	25.52
20	Boudh	40.98	58.43	60.61	76.86	21.01	39.78	28.88	46.65	48.41	68.29	9.30	25.18
21	Cuttack	65.44	76.13	77.41	85.46	52.44	66.19	21.03	35.75	32.83	50.49	8.24	20.14
22	Dhenkanal	54.91	70.11	68.80	81.31	40.33	58.55	22.40	39.41	35.01	53.69	9.28	24.66
23	Ganjam	46.72	62.94	63.88	78.39	29.87	47.70	19.98	35.54	32.69	50.22	7.02	20.65
24	Jagatsinhpur	65.78	79.61	75.27	88.96	53.05	69.94	24.87	48.62	35.35	59.87	13.33	35.91
25	Jaipur	58.00	72.19	70.50	82.69	45.29	61.45	16.04	31.41	26.05	45.48	5.60	16.93
26	Kendrapara	63.61	77.33	76.82	87.62	50.67	67.29	16.86	40.07	26.02	53.52	6.25	25.21
27	Khurda	67.72	80.19	78.74	88.38	55.39	71.06	28.11	49.91	41.66	65.43	13.41	33.07
28	Nayagarh	57.20	71.02	73.00	83.23	40.74	58.10	32.05	47.09	50.14	64.81	13.88	28.83
29	Puri	63.30	78.40	76.83	88.73	49.41	67.80	38.94	58.72	52.45	73.37	22.77	42.11
30	Sonepur	42.62	64.07	61.48	80.30	23.38	47.28	27.42	52.16	43.42	69.53	11.38	34.29
	Mean	46.03	60.72	59.92	73.33	32.04	47.89	22.87	39.60	35.41	54.13	10.05	24.85
	SD	14.46	14.79	15.02	13.90	13.64	15.83	8.49	11.57	11.60	13.25	5.69	10.08
	C.V.	31.41	24.36	25.07	18.96	42.59	33.06	37.12	29.22	32.75	24.49	56.64	40.55
	Max	67.72	80.19	78.74	88.96	55.39	71.06	38.94	58.72	52.45	73.37	24.52	42.27
	Min	18.62	31.26	28.10	41.21	9.01	21.02	6.77	14.69	11.21	22.05	1.80	7.50

Source: Census of India (2001), Statistical Abstract of Orissa (2002)

Table 2A-2
Gender Disparity Index in Literacy Rate in different Regions of Orissa

Sl.No.	Districts	All Population		ST Population	
		2001	1991	1991	2001
1	Gajapathi	0.35	0.44	0.62	0.52
2	Koraput	0.34	0.40	0.86	0.58
3	Kandhamal	0.39	0.53	0.66	0.47
4	Malkangiri	0.34	0.20	0.70	0.50
5	Mayurbhanj	0.32	0.42	0.62	0.44
6	Nabarangpur	0.42	0.54	1.02	0.58
7	Rayagada	0.35	0.42	0.75	0.54
8	**Sundargarh**	**0.21**	**0.29**	**0.38**	**0.27**
9	Deogarh	0.27	0.39	0.55	0.36
10	Jharsuguda	0.23	0.35	0.53	0.32
11	Kendujhar	0.27	0.38	0.58	0.40
12	Kalahandi	0.42	0.48	0.83	0.57
13	Nuapada	0.44	0.59	0.86	0.59
14	Sambalpur	0.24	0.34	0.53	0.33
15	Angul	0.25	0.39	0.63	0.39
16	Baleswar	0.21	0.30	0.67	0.48
17	Baragarh	0.28	0.40	0.59	0.37
18	Bhadrak	0.20	0.30	0.65	0.42
19	**Bolangir**	**0.35**	**0.51**	**0.76**	**0.49**
20	Boudh	0.40	0.57	0.82	0.56
21	Cuttack	0.18	0.25	0.66	0.48
22	Dhenkanal	0.22	0.32	0.64	0.42
23	Ganjam	0.31	0.43	0.73	0.46
24	Jagatsinhpur	0.17	0.22	0.48	0.29
25	Jaipur	0.20	0.27	0.72	0.50
26	Kendrapara	0.19	0.26	0.67	0.40
27	Khurda	0.16	0.23	0.56	0.39
28	Nayagarh	0.24	0.35	0.65	0.45
29	**Puri**	**0.19**	**0.28**	**0.44**	**0.34**
30	Sonepur	0.34	0.53	0.66	0.41
	State	**0.28**	**0.38**	**0.66**	**0.42**

Note: letters in bold are the selected districts

Table 2A-3

District Wise Primary Schools per one lakh of population in Orissa, 2000-01

Sl.No.	Districts	School per 1 lakh Population
1	Gajapati	181
2	Koraput	157
3	Kandhamal	234
4	Malkangiri	178
5	Mayurbhanj	132
6	Nabarangpur	122
7	Rayagada	178
8	**Sundargarh**	**113**
9	Deogarh	154
10	Jharsuguda	120
11	Kalahandi	128
12	Kendujhar	116
13	Nuapada	138
14	Sambalpur	108
15	Angul	108
16	Balasore	90
17	Baragarh	106
18	Bhadrak	93
19	**Bolangir**	**145**
20	Boudh	158
21	Cuttack	93
22	Dhenkanal	105
23	Ganjam	93
24	Jagatssinghpur	111
25	Jaipur	93
26	Kendrapara	110
27	Khurda	67
28	Nayagarh	96
29	**Puri**	**95**
30	Sonepur	140
	State total	128

Note: letters in bold are the selected districts

Table 2A-4: Growth of Enrolment at Lower and Upper Primary level in Orissa from 1993-94 to 2006-07(compound growth rate in %)

	Lower primary						Upper Primary					
	ST			ALL			ST			ALL		
Name of districts	**Boys**	**girls**	**total**	**boys**	**girls**	**total**	**boys**	**girls**	**total**	**boys**	**girls**	**total**
Gajapati	4.8	5.1	4.9	2.5	3.0	2.7	8.3	9.6	8.8	-1.4	1.5	-0.3
Kandhamala	1.6	4.4	2.8	2.3	3.9	3.0	8.0	7.2	7.6	2.6	4.9	3.5
Koraput	6.2	9.6	7.6	1.7	7.2	3.9	3.7	2.5	3.2	-1.0	5.1	0.9
Malkangiri	5.4	8.5	6.7	3.5	6.1	4.6	8.6	9.2	8.8	3.6	4.7	4.0
Mayurbhanja	3.3	8.2	5.2	1.3	3.3	2.2	4.4	8.5	5.9	2.3	4.6	3.3
Nawarangpur	6.0	9.3	7.3	3.2	6.6	4.6	18.1	21.1	19.1	8.8	10.3	9.4
Rayagada	6.5	10.9	8.3	2.6	5.6	3.9	23.6	24.4	23.9	12.0	11.9	11.9
Sundargarh	**3.2**	**4.7**	**3.9**	**0.6**	**1.3**	**0.9**	**1.7**	**3.3**	**2.4**	**0.8**	**3.9**	**2.1**
Angul	2.2	4.3	3.1	0.0	1.0	0.4	10.8	14.3	12.1	3.7	5.2	4.4
Balasore	3.8	5.4	4.5	-0.6	1.7	0.4	7.3	5.4	6.5	1.7	3.7	2.6
Baragarh	-0.3	0.7	0.2	-1.8	-0.8	-1.4	10.9	12.3	11.5	3.1	7.8	5.0
Bhadrak	1.7	8.9	4.1	2.7	5.1	3.8	-5.5	-1.8	-4.4	4.3	7.9	5.8
Bolangir	**-0.7**	**2.0**	**0.5**	**-0.7**	**0.8**	**0.0**	**7.6**	**12.9**	**9.5**	**2.3**	**4.4**	**3.2**
Boudh	1.2	3.5	2.2	1.6	2.8	2.2	-0.9	3.2	0.7	7.4	12.1	9.3
Cuttack	7.4	9.4	8.3	-0.2	2.5	0.9	5.3	7.0	5.9	2.9	4.0	3.4
Deogarh	4.5	8.2	6.1	2.2	4.2	3.1	6.2	11.5	8.3	4.4	6.1	5.2
Dhenkana	4.6	6.5	5.4	0.0	0.9	0.4	7.8	9.3	8.4	2.3	4.8	3.4
Ganjam	6.2	8.8	7.2	0.2	2.5	1.2	-0.8	0.5	-0.4	3.8	4.6	4.2
Jagatsinghpur	-0.2	3.5	1.2	-2.8	-1.3	-2.1	-2.2	-0.9	-1.7	-1.4	0.4	-0.6
Jajapur	6.2	10.2	7.7	-0.6	0.2	-0.2	8.8	18.1	11.2	2.0	5.1	3.3
Jharasuguda	1.0	2.4	1.6	0.0	1.2	0.6	8.6	13.4	10.5	3.9	5.8	4.8
Kalahandi	5.9	9.4	7.4	2.1	5.9	3.7	4.7	4.9	4.8	5.2	9.5	6.7
Kendrapara	2.5	-0.8	1.0	0.8	2.2	1.5	-1.7	0.6	-0.7	1.8	4.2	2.8
Keonjhar	4.8	6.5	5.5	0.9	1.7	1.3	6.3	10.9	7.9	0.0	3.7	1.5
Khurda	8.2	10.1	9.0	2.6	4.2	3.3	3.1	4.9	3.7	5.9	8.0	6.8
Nayagarh	-0.5	2.6	0.8	-3.0	1.5	-1.3	6.3	5.7	6.0	3.3	8.6	5.4
Nuapada	3.6	7.0	5.1	2.4	5.0	3.5	2.8	9.0	4.8	2.7	5.9	3.9
Puri	**-4.7**	**1.0**	**-2.9**	**-1.4**	**1.5**	**-0.1**	**-3.3**	**1.5**	**-1.6**	**1.2**	**6.5**	**3.3**
Sambalpur	-2.5	-1.0	-1.8	0.7	1.9	1.3	10.3	15.0	12.1	-0.8	2.4	0.5
Sonepur	-1.5	3.6	0.6	-0.9	0.5	-0.3	4.9	10.1	7.0	5.0	10.0	7.0
ORISSA	**3.5**	**6.1**	**4.6**	**0.5**	**2.5**	**1.4**	**5.7**	**7.9**	**6.6**	**2.5**	**5.2**	**3.6**

Note: letters in bold are the selected districts

Table 2A-5

Gender Parity Index* in enrolment in Primary Education, 2006-07

Sl.No.	Districts	Gender Parity Index		
		All	Non ST	ST
1	Gajapati	0.86	0.95	0.77
2	Koraput	0.73	0.79	0.67
3	Kandhamal	0.84	0.84	0.83
4	Malkangiri	0.71	0.76	0.67
5	Mayurbhanj	0.77	0.83	0.73
6	Nabarangpur	0.70	0.74	0.65
7	Rayagada	0.73	0.75	0.70
8	**Sundargarh**	**0.86**	**0.88**	**0.83**
9	Deogarh	0.89	1.00	0.71
10	Jharsuguda	0.94	0.95	0.92
11	Kalahandi	0.86	0.90	0.77
12	Kendujhar	0.87	0.90	0.84
13	Nuapada	0.75	0.74	0.79
14	Sambalpur	0.92	0.93	0.90
15	Angul	0.88	0.90	0.82
16	Baleswar	0.84	0.85	0.74
17	Baragarh	0.92	0.92	0.89
18	Bhadrak	0.76	0.76	0.75
19	**Bolangir**	**0.83**	**0.82**	**0.86**
20	Boudh	0.85	0.83	1.00
21	Cuttack	0.87	0.88	0.67
22	Dhenkanal	0.92	0.95	0.73
23	Ganjam	0.87	0.87	0.71
24	Jagatsinhpu	0.82	0.81	NA
25	Jaipur	0.77	0.78	0.63
26	Kendrapara	0.85	0.86	NA
27	Khurda	0.90	0.89	1.00
28	Nayagarh	0.68	0.71	0.50
29	**Puri**	**0.91**	**0.92**	**NA**
30	Sonepur	0.92	0.94	0.80
	State Total	0.83	0.85	0.77

*. Gender Parity Index in enrolment is estimated by taking the ratio of girls to boys enrolment

Table 2A-6

District Wise % of ST teachers in Orissa

Districts	UP		LP	
	1993-94	2006-07	1993-94	2006-07
Angul	2.3	5.7	5.1	12.4
Balasore	1.9	3.8	5.3	9.0
Baragarh	7.0	10.2	10.5	20.8
Bhadrak	0.4	2.2	1.7	5.2
Bolangir	**3.9**	**10.9**	**8.4**	**9.1**
Boudh	4.0	12.6	4.3	12.6
Cuttack	1.0	3.1	1.3	7.5
Deogarh	3.8	12.5	6.9	5.4
Dhenkana	1.6	3.7	2.6	10.4
Gajapati	13.3	22.2	13.9	35.9
Ganjam	1.1	3.9	2.2	11.0
Jagatsinghpur	0.1	1.3	0.3	2.0
Jajapur	0.8	2.6	1.9	7.6
Jharasuguda	8.4	13.5	19.1	14.7
Kalahandi	8.5	7.9	14.3	11.1
Kandhamala	18.5	17.0	22.5	31.1
Kendrapara	0.2	5.8	0.1	7.5
Keonjhar	8.7	10.9	11.6	19.8
Khurda	0.2	2.5	0.3	6.6
Koraput	2.9	13.7	4.4	18.2
Malkangiri	23.4	8.7	6.7	18.4
Mayurbhanja	16.9	14.6	25.5	21.6
Nuapada	8.4	15.3	10.2	27.8
Nayagarh	0.0	6.0	0.5	2.3
Nawarangpur	5.1	14.6	16.9	23.8
Puri	**0.3**	**0.7**	**0.3**	**2.0**
Rayagada	9.3	13.0	13.9	19.3
Sambalpur	11.4	13.6	14.9	11.2
Sonepur	2.2	5.8	1.5	5.9
Sundargarh	**35.2**	**20.9**	**40.3**	**28.3**
ORISSA	6.4	8.1	9.1	13.8

Note: letters in bold are the selected districts

Table 2A-7
Pupil Teacher Ratio in Lower and Upper Primary Schools in Orissa

Name of districts	PTR			
	UP		LP	
	1993-94	2006-07	1993-94	2006-07
Angul	43.0	27.1	35.2	18.1
Balasore	35.6	29.4	54.2	32.1
Baragarh	24.2	67.8	43.9	32.0
Bhadrak	21.2	60.5	47.5	59.0
Bolangir	**24.8**	**57.7**	**28.9**	**39.2**
Boudh	20.2	36.2	26.8	31.1
Cuttack	39.0	57.5	28.5	45.8
Deogarh	24.2	42.5	27.4	39.0
Dhenkanal	26.0	66.8	35.9	36.6
Gajapati	54.7	30.8	21.0	39.6
Ganjam	34.0	59.5	36.5	47.5
Jagatsinghpur	32.3	54.0	50.3	38.8
Jajapur	31.5	57.3	49.0	51.1
Jharasuguda	21.6	56.1	35.5	41.8
Kalahandi	20.0	60.2	31.6	48.6
Kendrapara	33.7	30.2	30.9	32.7
Kaeonjhar	3.8	34.2	32.7	25.3
Khurda	23.6	47.7	34.7	40.5
Koraput	43.6	69.3	21.8	57.8
Malkangiri	30.2	33.4	25.5	32.0
Mayurbhanja	25.2	27.7	39.7	44.0
Nuapada	34.8	37.5	34.6	38.4
Nayagarh	22.9	49.6	44.1	51.1
Nabarangapur	13.0	50.3	29.5	42.4
Phulbani	25.9	42.7	22.9	40.6
Puri	**41.0**	**65.6**	**68.5**	**45.1**
Rayagada	12.1	39.6	23.3	23.4
Sambalpur	62.3	54.0	28.6	36.6
Sonepur	**32.5**	**75.0**	**31.8**	**33.8**
Sundargarh	**31.1**	**51.8**	**38.5**	**46.8**
ORISSA	22.4	47.8	35.7	39.0

Source: DPI office , Orissa. , *Note: letters in bold are the selected districts*

Chapter – III

SOCIO-ECONOMIC CHARACTERISTICS OF SAMPLE HOUSEHOLDS

3.1 Before analyzing the constraints of tribal education using the primary data, it is necessary to know the details of socio economic back ground of these populations. This chapter attempts to outline the basic characteristics of ST households and school going children. It deals with the chrematistics of the households in terms of their demographic composition, educational backgrounds, economic background, perception of the parents about their children's education, regarding benefits available for the children in school, teacher's attitude towards the children etc. The chapter is divided into five sections. The second section presents the brief profile of the blocks selected for the study. The details of socio economic profile of the households are discussed in section -3. The profile of children in the age group of 6-14 is presented in section -4. The perception of parents about the characteristics of the schools and other such related matters of schooling are discussed in section -5.

3.2 Brief Profile of the Selected Blocks/Villages

Infrastructure facilities of the selected Blocks: Before analyzing the characteristics of the households it is necessary to briefly describe the basic infrastructure facilities of the blocks covered under the study. Table 3.1 presents the basic infrastructure available in the study area. It is found that on an average the blocks with high tribal population are lacking some of the basic infrastructure like access road and schooling facilities. Also these places are very far off from the railway station and bus stop. The minimum distance one has to cover is 12 km and the maximum distance is as high as 75 kms to reach the nearest rail connection. All the blocks have electricity connection. Almost all the blocks have Anganwadi centre and primary schools.

Table 3.1: Infrastructure facilities in the study Area

Districts/ Blocks	Av. Proximity to town(km)	Distance to (Km)		Type of road	Electricity	Drinking water	PO/ Bank	Schooling facilities	Local market
		Bus stop	Rly station	P/PP/K				A/P/M/HS/ C	
Bolangir									
HT block	75	20	75	PP/K	Y	Tube well	PO	A/P	N
AT block	51	15	20	PP/K	Y	Tube well	PO/Bank	A/P/M	Y
LT block	35	12	14	PP	Y	Tube well	PO/Bank	A/P/M/HS/ C	Y
Sundergarh									
HT block	69	20	52	PP/K	Y	Tube well	PO	A/P	Y
AT block	53	13	38	PP	Y	Tube well	PO/Bank	A/P/M/HS	Y
LT block	29	10	12	P	Y	Tube well/ Well	PO/Bank	A/P/M/HS/ C	Y
Puri									
HT block	51	12	42	PP	Y	Tube well/ Well	PO/Bank	A/P/M	N
AT block	35	8	31	P	Y	Tube well/ Well	PO/Bank	A/P/M/HS/ C	Y
LT block	21	5	15	P	Y	Tube well/ Well	PO/Bank	A/P/M/HS/ C	Y

Note: HT=High tribal Population, AT=Average tribal popn; LT= Low tribal popn
Y=yes, N=No; A=Anganwadi, P=Primary, M=Middle; HS=High school; C=College
Source: Own Survey

But the developed blocks have all types of schools which is not the case with highly concentrated tribal blocks.

3.3 Profile of the households

3.3.1 Social category of Households

The distribution of households by social category shows that the highest (88%) proportion of Scheduled tribes (ST) is found in Sundergarh and the highest proportion of Scheduled Castes are in Puri district. In Bolangir more than 3/4th of the households belong to STs. The district Puri has the least proportion of tribal population and higher proportion of population belonging to the general category. We have selected Puri as the least tribal population district. Table 3.2 presents the summary of households by social category in the selected districts. Table 3A.1 provides the detail breakup of social category of households in different blocks of the selected in the selected districts.

Table 3.2: HHs by Social groups in selected districts

District	Social group	HHs
Bolangir	SC	7.1
	ST	75.3
	OBC	16.7
	General	0.9
	Total	100.0
Puri	SC	26.4
	ST	10.4
	OBC	21.2
	General	42.0
	Total	100.0
Sundargarh	SC	5.5
	ST	87.8
	OBC	3.5
	General	3.3
	Total	100.0

Source: Own Survey

3.3.2 Age Sex profile of the population

In each social category the males are outnumbered the females. The concentration of population is found to be much higher in the age group of 34 - 45 in all the districts. The proportion of population in the age group of above 55 and below 25 is found to be very low in all the blocks as well as in all the districts. Table 3A .2 shows such distribution of the population in different blocks.

3.3.3 Economics status of the households:

The household's economic status is reflected through their poverty level and income level. In so far as poverty level is concerned it was found that in both the districts of Bollinger and Undergrad the households living below poverty line are almost the same while the same is much lower in the district of Purim. This indicates that the tribal are economically very backward in terms of poverty ratio. Table 3.3 presents the households in the selected districts as per the poverty status. Details of block wise BPL and APL households are given in Table 3A -3.

Table 3.3: **District wise BPL and APL Households**

Districts	BPL		APL	
	ST	**N-ST**	**ST**	**N-ST**
Bollinger	61.8	20	8.1	10.1
Purim	34.2	14	10.1	40.7
Sundargarh	58.2	20.2	9.5	12.1

Source: Own Survey

The economic status of the household is not only reflected through the Poverty status but also through the occupational structure and per capita income of the households. Table 3.4 presents the occupational structure and the per capita income of the households. It is noticed that highest number of households in Bolangir are engaged in labour while it is the lowest in the district of Puri. It was further observed that highest proportion of households in the district of Puri is engaged in service while the same is the lowest in the district of Bolangir. It provides a clear indication that the economic status of the district Puri is found to be better than that of other two districts. The per capita income of the district of Puri is found to be the highest followed by Sundergarh and Bolangir. Block wise distribution of households according to occupation and caste is presented in Table 3A-4.

Table 3.4: Distribution of HHs as per Occupation and Income				
District	**Occupation**	**No. of HHs**	**% of HH**	**PCI in Rs**
Bolangir	Labour	277	50.4	9604.69
	Cultivator	217	39.5	15389.86
	Business	19	3.5	24631.58
	Service	27	4.9	49481.48
	NTFP	7	1.3	4642.86
	Other	3	0.5	0.00
	Total	**550**	**100**	**14248.36**
Puri	Labour	76	30.2	11663.72
	Cultivator	74	29.6	12898.65
	Business	45	18	18777.78
	Service	52	21	51366.67
	NTFP	0	0	0.00
	Other	3	1.2	8000.00
	Total	**250**	**100**	**22458.12**
Sundargarh	Labour	150	37.5	13938.00
	Cultivator	184	46	12695.11
	Business	19	4.75	40357.89
	Service	42	10.5	49942.86
	NTFP	2	0.5	7250.00
	Other	3	0.75	0.00
	Total	**400**	**100**	**18263.75**

Source: Own Survey

3.3.4 Educational status of the Parents

The educational level of the parents particularly education of mothers influences the schooling of children to a great extent. The educational level of parents by social groups in different districts is presented in Table 3.5. It is found that the rate of illiteracy among females is much higher than that of males in all the districts. The illiteracy is found to be the highest in the district of Bolangir and it is the lowest in the district of Puri. Across social groups, the Scheduled tribe illiteracy rate is higher as compared to other caste groups.

Table 3.5:Illiterate Parents (%) in the Selected Districts

District	Social group	Male	Female
Bolangir	SC	59	69
	ST	62	86
	OBC	47	52
	General	35	49
	Total	51	72
Puri	SC	42	53
	ST	50	61
	OBC	41	44
	General	25	29
	Total	26	30
Sundargarh	SC	55	61
	ST	57	71
	OBC	45	50
	General	35	39
	Total	37	49

Source: Own survey

3.4 Profile of Children

Before discussing the constraints of education of children, we present briefly the profile of the children in the selected districts.

3.4.1 Children by Economic status

It was observed that the number of children in 6-14 age groups was much higher in the households living below poverty line in all the blocks and in all the districts. All the children in the age group of 6-14 years are not attending school. It varies across districts and blocks. Lowest proportion of children actually attending school was found in Sundergarh district and highest proportion was found in Puri district. It was interesting to note that the attendance of children was related directly with the development status of the district but inversely to the economic status of the household. The more developed a district and block, the more is the attendance rate while the attendance rate was less when the household was under BPL category. Table 3A.5 presents the details of children by economic status for different blocks.

3.4.2 Age- Sex wise enrolment of children

The prescribed age group for primary education is 6-10 years and that for the middle level is 11-14 years. It is observed from Table 3.6 that there are some over aged (11-14) children still continuing at the primary level. This proportion is found to be the highest in Bolangir district and lowest in Puri district. More interestingly it is observed that the over aged children among girls are found to be less than their boy counterparts. This implies that girls are performing better than the boys in their respective educational levels. Table 3A.6 presents the block wise distribution of children by age group.

Table 3.6: Educational status of school age children

Districts	Level of edn	6-10 yrs		11-14 yrs		Total
		Male	Female	Male	Female	
Bolangir	Primary	41.7	35.9	13.5	8.9	100
	Middle	0.0	0.0	51.7	48.3	100
Puri	Primary	49.6	46.3	0.7	3.3	100
	Middle	0.0	0.0	47.7	52.3	100
Sundaragarh	Primary	42.6	40.9	11.2	5.3	100
	Middle	0.0	0.0	54.3	45.7	100

Source: Own Survey

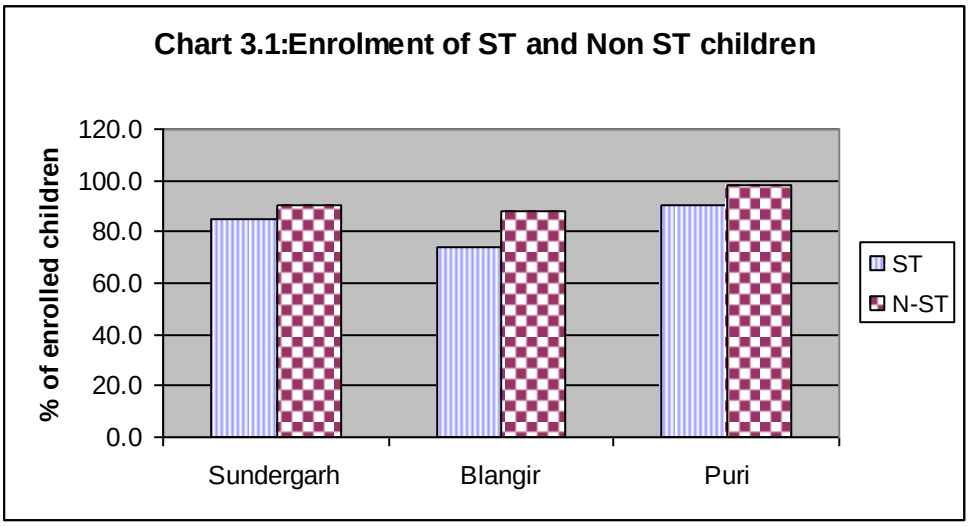
3.4.3 Enrolment/ dropout/never enrolled children by caste group

The educational status as discussed above may not provide the overall picture of enrolment status of children. Puri district has shown highest enrolment followed by Sundergarh. The tribal enrolment is found to be lower than that of non tribals in all the districts. Similarly the dropout and never enrolment rates are the lowest in Puri and highest in Bolangir district. Table 3.7 presents the enrolment status of children.

Table 3.7: Enrolment Staus of Children in the Selected districts

	ST				Non-ST			
Districts	Enrolled	Dropout	Never enrolled	Total	Enrolled	Dropout	Never enrolled	Total
Sundergarh	85.2	11.2	3.6	100.0	90.8	6.2	3.1	100.0
Blangir	73.8	17.1	9.1	100.0	88.1	6.9	5.0	100.0
Puri	90.8	6.2	3.1	100.0	97.9	1.2	0.9	100.0

The enrolment of ST and Non ST children is presented in chart 3.1



3.4.4 Attendance of children

The difference in enrolment of children and actual attendance of children was traced during the survey and it was observed that there was a large gap between the enrolment and actual attendance of children. The attendance falls short of the enrolment. Most interestingly, the attendance of girls was found to be higher than that of boys. Given the opportunity, girls are really interested in attending the schools than their boy counterparts. Table 3.8 presents the attendance of children by sex and caste.

Table 3.8: Children attending School in selected districts

District	% children going to school (6-14 yrs)			
	N-ST		ST	
	Boys	**Girls**	**Boys**	**Girls**
Bolangir	69.3	71.5	51.6	59.8
Puri	87.7	86.5	86.5	91.1
Sundargarh	76.6	77.2	59	69.9

3.4.5 Grade attainment of Children by caste group

Enrolment figures provide a partial picture of educational status. The number of years of schooling completed by enrolled children (which is equal to the present age of the child minus the age of entry into school) would be a good proxy for the achievement

level of the child. Here again, there are significant differences between social groups and across regions. The mean grade attainment of all currently enrolled children is higher for males than for females in all the districts and in all social groups. It is invariably the highest among children of the high castes than SCs or STs. The difference in grade attainment across regions is much greater in the 6-10 age groups than in the 11-14 age groups. Table 3.9 presents the grade attainment of children.

Table 3.9: Grade attainment of Currently enrolled children

Districts	GC		SC		ST	
	Boys	Girls	Boys	Girls	Boys	Girls
Bolangir						
6-10	2.11	2.01	1.42	1.22	1.21	1.05
11-14	2.58	1.96	2.21	1.79	1.24	1.01
Puri						
6-10	3.01	2.96	2.85	2.11	1.37	1.21
11-14	3.99	3.66	2.98	2.56	1.98	1.22
Sundergarh						
6-10	2.56	2.28	2.01	1.96	1.25	1.15
11-14	2.85	2.11	2.15	1.99	1.98	1.02

Source: Computed from survey data

3.4.6 Dropout of children

Less than 20 percent of the children dropped out and it is more among the tribal children than their non tribal counterparts (Table 3.10)

Table 3.10: % of children (dropped out) among ST and Non ST children

Districts	ST	Non-ST
Bolangir	17.1	6.93
Puri	6.15	1.18
Sundaragarh	11.21	6.15

We asked reasons for dropout of these children and the reasons are listed in Table 3.11**.** The reasons for dropping out from school are home related, school related and due to social and cultural factors. Most of the parents emphasized home related problems as most crucial ones even though school related or socio-cultural factors were also mentioned during our interaction with the parents. Financial constraints were described

as the most formidable barrier to schooling of children in all the districts and more particularly in the districts with tribal dominance have stated that due to costliness of education the children dropped out from the school. It may be mentioned here that free and compulsory primary education is the constitutional commitment of the govt. Despite this highest proportion of responses are attributed to the reason that education is expensive. This was mentioned by all the caste groups and in all the districts under study. Child's lack of interest for learning was one of the important barriers for education. But this again may be due to the acute poverty of the households which compelled the Parents and children not to take up education which is not exactly free for them. Among the tribal and backward regions education is not thought as basic necessity like food and clothing. Further more, the school related factors were reported to be important for constraining the children from schooling. Among the school related factors, distance of school, teacher's attitude, school curriculum, medium of instruction, were found to be dominant factors as expressed by the parents. The divergence between ST and non ST for stating the reasons for dropout are very clearly brought out.

Table 3.11: Reasons for Dropout of Children

Districts	Reasons	% stated	
		ST	N-ST
Bolangir	Poverty	85	59
	Not interested in studies	18.3	12.9
	Sick ness	7.0	5.2
	School far away	18.2	5.6
	Absence of teacher/ female teacher	1.9	1.0
	Involved in wage earning	26.9	3.2
	Take care of siblings	6.6	6.0
	Weak in studies	12.1	9.6
	School do not function regularly	1.2	1.0
	Parents are not interested	19.5	9.6
	Expensive education	31.1	12.5
	Education is not necessary	7.8	5.2
	No school in the village	6.6	0.0
Puri	Poverty	71.1	48.8
	Not interested in studies	21.2	3.2
	Sick ness	3.8	1.0
	School far away	3.8	1.0
	Absence of teacher/ female teacher	7.7	5.2
	Involved in wage earning	8.2	3.2
	Take care of siblings	11.5	2.3
	Weak in studies	23.1	9.2
	School do not function regularly	7.7	2.1
	Parents are not interested	30.8	3.5
	Expensive education	26.9	12.3
	Education is not necessary	3.8	1.0
	No school in the village	0.0	0.0
Sundargargh	Poverty	83.5	70.8
	Not interested in studies	27.3	12.1
	Sick ness	5.7	3.2
	School far away	13.6	9.8
	Absence of teacher/ female teacher	2.3	3.1
	Involved in wage earning	13.6	5.6
	Take care of siblings	5.4	3.9
	Weak in studies	4.0	3.5
	School do not function regularly	1.1	0.0
	Parents are not interested	25.0	18.9
	Expensive education	53.4	39.5
	Education is not necessary	5.6	3.1
	No school in the village	20.5	20.5

3.5 Perception of Parents on various aspects related to education of children

3.5.1 Barriers for children's schooling

The Parents were asked about the difficulties faced by them for sending their child to school and their opinions are summarized in Table 3.12. It was noticed that financial constraint was the most formidable problem for the parents to send their wards to school. But most surprisingly it was found that 3 parents in Puri district express the barrier of the children due to untouchability which is matter of concern.

Table 3.12 : Barriers faced by parents in sending their children to school

Districts	Blocks	Financial problem	Not interested	Shortage of school teachers and class rooms	Others	Untouchability	No response	Total
Bolangir	Khaprakhol	50	64	39	20	0	51	224
	Loisingha	93	10	23	0	0	99	225
	Titilagarh	71	1	8	2	0	19	101
	Total	214	75	70	22	0	169	550
Puri	Brahmagiri	105	1	10	7	0	23	146
	Gop	1	0	0	0	0	23	24
	Puri sadar	44	0	2	6	3	25	80
	Total	150	1	12	13	3	71	250
Sundargarh	Bisra	37	3	7	11	0	42	100
	Gurundia	73	0	8	0	0	80	161
	Rajagangapur	53	2	5	76	0	3	139
	Total	163	5	20	87	0	125	400

3.5.2. Attitude of teachers towards children

To some extent the attitude of teachers affect the schooling of children which was gathered during our survey. It was very interesting to note that more than 60 % and more than 55 % of parents in Bolangir and Sundergarh respectively have opined that their children are punished at the school by the teachers. Block wise distribution of parent's perception about teacher's attitude is presented in Table 3. 13.

When Parents were asked about the attitude of teachers towards children in different blocks it was found that 209 and 241 children respectively in the districts of Bolangir and Sundergarh were punished by the teachers in the school. This type of attitude of teachers was mostly found in tribal dominated blocks and backward regions. The punishment to the students by the teachers may affect the attendance of students particularly in tribal areas where parents' attitude towards education is very much apathetic.

Table 313: Teachers attitude towards children in the school

Districts	Blocks	Punishment by teachers	Affectionate teachers	Don't know	No response	Total
Bolangir	Khaprakhol	16	200	0	8	224
	Loisingha	178	33	0	14	225
	Titilagarh	15	69	0	17	101
	Total	**209**	**302**	**0**	**39**	**550**
Puri	Brahmagiri	89	38	13	6	146
	Gop	16	8	0	0	24
	Puri sadar	34	41	3	2	80
	Total	**139**	**87**	**16**	**8**	**250**
Sundargarh	Bisra	48	49	0	3	100
	Gurundia	103	47	0	11	161
	Rajagangapur	90	36	0	13	139
	Total	**241**	**132**	**0**	**27**	**400**

3.5.3. Teachers' Attendance in the school

Parents were asked to express their opinion about the regular attendance of teaches in the school. It was highest number of responses were given about the regular attendance of teachers in Sundergahr district followed by Bolangir and Puri. Across the blocks regularity of teachers were found in the developed blocks as compared to backward blocks. Table 3.14 presents the block wise attendance of teachers in the selected districts.

Table 3.14

Regular attendance of teachers

Districts	Blocks	Yes	No	Don't know	No response	Total
Bolangir	Khaprakhol	95	0	0	129	224
	Loisingha	58	1	0	166	225
	Titilagarh	29	0	0	72	101
	Total	182	1	0	367	550
Puri	Brahmagir	84	25	13	24	146
	Gop	3	1	3	17	24
	Puri sadar	18	1	21	40	80
	Total	105	27	37	81	250
Sundargarh	Bisra	50	8	3	39	100
	Gurundia	46	0	0	115	161
	Rajagangapur	90	2	0	47	139
	Total	186	10	3	201	400

It is generally observed that teachers do not come to school in time particularly in remote rural areas (table 3.15). It is found from our sample survey that in remote rural areas teachers do not observe the schedule timing of the school which is not the case with less remote places. Across the blocks no specific observation can be made in this regards as mixed opinions are expressed by the parents on this count.

Table 3.15: Timely presence of teachers in the school

Districts	Blocks	Yes	No	Don't know	No response	Total
Bolangir	Khaprakhol	95	0	0	129	224
	Loisingha	60	0	0	165	225
	Titilagarh	30	0	0	71	101
	Total	185	0	0	365	550
Puri	Brahmagir	95	5	22	24	146
	Gop	5	1	1	17	24
	Puri sadar	24	1	15	40	80
	Total	124	7	38	81	250
Sundargarh	Bisra	50	7	5	38	100
	Gurundia	46	0	0	115	161
	Rajagangapur	33	59	0	47	139
	Total	129	66	5	200	400

3.5.4 School timings

Less than 50 percent of the Parents have expressed that the schools open in time in all the districts while about 50 percent did not give any opinion in this regard.

Table 3.16: Opening of the school during school hours

Districts	Blocks	Yes	No	Don't know	No response	Total
Bolangir	Khaprakhol	95	0	0	129	224
	Loisingha	71	0	0	154	225
	Titilagarh	29	0	0	72	101
	Total	195	0	0	355	550
Puri	Brahmagir	103	3	15	25	146
	Gop	9	0	0	15	24
	Puri sadar	35	0	5	40	80
	Total	147	3	20	80	250
Sundargarh	Bisra	59	3	0	38	100
	Gurundia	46	0	0	115	161
	Rajagangapur	92	0	0	47	139
	Total	197	3	0	200	400

3.5.5 Distance to school

As per the norm, all children should have primary schools within their habitation particularly in tribal areas. It was found that almost all the primary schools are within 1 km distance. But in some cases there are schools beyond the distance of 3 kms. However it is matter of complacency that all children reach the primary schools within the distance of 5 kms. Table 3.17 presents the distribution of schools by distance**.** This is supported by the reasons for dropout of children stated by the parents.

Table 3.17. : Type of school and average distance from home

Districts	Blocks	Education	Distance to school in kms					
			<=1	1-3	3-5	5-10	10+	Total
Bolangir	Khaprakhol	Primary	111	0	2	0	0	113
		Middle	47	1	0	0	0	48
		Secondary	8	1	27	1	0	37
		Total	166	2	29	1	0	198
	Loisingha	Primary	105	16	5	1	0	127
		Middle	40	23	12	0	1	76
		Secondary	10	24	38	1	2	75
		Total	155	63	55	2	4	278
	Titilagarh	Primary	56	3	0	0	2	61
		Middle	20	13	12	0	0	45
		Secondary	18	12	2	0	1	33
		Total	94	28	14	0	3	139
	Total	Primary	274	19	7	1	0	301
		Middle	107	37	24	0	1	169
		Secondary	41	37	67	2	3	150
		Total	422	93	98	3	7	620
Puri	Brahmagir	Primary	150	6	2	0	0	158
		Middle	57	11	0	0	0	68
		Secondary	19	39	5	0	0	63
		Total	226	56	7	0	0	289
	Gop	Primary	20	0	0	0	0	20
		Middle	5	0	0	0	0	5
		Secondary	5	2	0	0	0	7
		Total	30	2	0	0	0	32
	Puri sadar	Primary	71	7	0	0	0	86
		Middle	27	13	0	0	0	40
		Secondary	16	15	0	0	0	31
		Total	114	35	0	0	0	157
	Total	Primary	241	13	2	0	0	256
		Middle	89	24	0	0	0	113
		Secondary	40	56	5	0	0	101
		Total	370	93	7	0	0	470
Sundargarh	Bisra	Primary	109	14	11	0	0	134
		Middle	35	4	3	1	0	43
		Secondary	5	10	14	1	2	32
		Total	149	28	28	4	2	211
	Gurundia	Primary	186	3	0	4	0	193
		Middle	65	1	1	1	2	70
		Secondary	28	15	3	1	4	51
		Total	279	19	4	6	8	314
	Rajagangapur	Primary	132	0	0	0	0	132
		Middle	29	1	0	1	0	31
		Secondary	15	4	0	1	2	22
		Total	176	5	0	2	2	185
	Total	Primary	427	17	11	4	0	459
		Middle	129	6	4	3	2	144
		Secondary	48	29	17	3	8	105
		Total	604	52	32	12	12	710

3.5.6 Children assisted in School homework.

Since most of the parents in the study area among the tribal families are illiterate, the children do face problems to do their home work at home. It was observed that in the district of Bolangir about 3/4th of the parents and in Sundergarh about 50 percent of the parents said that, their children do not get any assistance for doing the home work. Proportionately higher number of parents assist in home work in Puri district as compared to the other two districts. Table 3.17 presents block wise responses of Parents about the assistance in home work.

Table 3.18: Blockwise distribuion of children getting assistance for home work

Districts	Blocks	Nobody	Teacher	Parents	Brother/Sister	No response	Total
Bolangir	Khaprakhol	200	12	2	0	10	224
	Loisingha	170	16	4	16	19	225
	Titilagarh	74	3	11	7	6	101
	Total	444	31	17	23	35	550
Puri	Brahmagir	84	39	16	7	0	146
	Gop	14	0	9	1	0	24
	Puri sadar	39	22	17	0	2	80
	Total	137	61	42	8	2	250
Sundaragarh	Bisra	58	7	18	13	4	100
	Gurundia	91	36	12	10	12	161
	Rajagangapur	88	0	21	22	8	139
	Total	237	43	51	45	24	400

3.5.7 Various incentive schemes in the schools

Mid day meals and scholarships

In order to enhance the enrolment and retention at the primary level, various incentive schemes are initiated both by the central government and state government in all the states. Many times the benefits received from the scheme are not percolated to the potential beneficiaries. It was found from the present study that highest proportion of awareness was observed in Puri district followed by Sundergarh district. But the benefits received from mid day meal is found to satisfactory in almost all the districts and blocks. So far as scholarships are concerned, highest beneficiaries were found in Bolangir district and the lowest proportion of beneficiaries were found in Sundergarh district. Table 3.19 shows the details about mid day meal and scholarships in all the blocks of the selected districts.

Table 3.19: Distribution Children benefitting from Mid - day meal and Scholarships

Mid day meal

Districts	Blocks	Aware	Benefitted
Bolangir	Khaprakhol	221	205
	Loisingha	172	172
	Titilagarh	57	57
	Total	450	434(96.4%)
Puri	Brahmagir	142	135
	Gop	23	23
	Puri sadar	59	45
	Total	224	203 (90.6%)
Sundaragarh	Bisra	54	35
	Gurundia	143	143
	Rajagangapur	34	34
	Total	231	212 (91.7%)

Scholarships

Districts	Blocks	Aware	Benenfited
Bolangir	Khaprakhol	15	6
	Loisingha	11	2
	Titilagarh	2	2
	Total	28	10(35.7%)
Puri	Brahmagir	101	20
	Gop	6	2
	Puri sadar	43	5
	Total	150	27(18%)
Sundaragarh	Bisra	15	3
	Gurundia	2	2
	Rajagangapur	91	0
	Total	108	5 (4.6%)

Free ships and text Books

All the students are provided free text books and free from paying any tuition fee at the primary level. But it is also noticed that sometimes there are some leakages somewhere about the schemes. It was found in the present study that more than 95 % of the students are getting free text books while 72 to 84 per cent of the students get free ships. In both the cases this value is found to be higher in Bolangir district and lower in Puri district. Table 3.20 presents the number of beneficiaries of text books and free ships at the primary level in all the selected districts.

Table 3.20: Distribution Children benefitting from Freeships and Text books

Freeships			
Districts	Blocks	Aware	Benenfited
Bolangir	Khaprakhol	1	1
	Loisingha	5	1
	Titilagarh	20	20
	Total	26	22 (84.6%)
Puri	Brahmagir	21	19
	Gop	4	4
	Puri sadar	11	3
	Total	36	26(72.2%)
Sundaragarh	Bisra	11	5
	Gurundia	5	5
	Rajagangapur	16	10
	Total	78	58(74.4%)
Text Books			
Districts	Blocks	Aware	Benenfited
Bolangir	Khaprakhol	218	203
	Loisingha	170	168
	Titilagarh	66	66
	Total	454	437 (96.2%)
Puri	Brahmagir	146	143
	Gop	24	23
	Puri sadar	72	66
	Total	242	232(95.8%)
Sundaragarh	Bisra	56	44
	Gurundia	144	144
	Rajagangapur	125	121
	Total	325	309(95.1%)

Free Uniforms and Notebooks

We had also collected the information about the free uniform and notebooks, pencils etc during the primary survey. Table 3.21presents the proportion of beneficiaries of uniform and notebooks etc in the selected blocks. Similar pattern is found in case of notebooks as incase of earlier tables i.e. Bolagir enjoys the highest benefit and Sundergrh the lowest. But in case of Uniform Sundergarh stood the highest and Bolangir the lowest.

Table 3.21. : Blockwise distribution of children benefited from free uniforms and notebooks etc

Notebooks etc.

Districts	Blocks	Aware	Benenfited
Bolangir	Khaprakhol	203	198
	Loisingha	33	10
	Titilagarh	2	2
	Total	238	210(88%)
Puri	Brahmagir	3	0
	Gop	16	12
	Puri sadar	28	16
	Total	47	28 (60%)
Sundaragarh	Bisra	9	2
	Total	9	2(22%)
Free Uniforms			
Districts	Blocks	Aware	Benenfited
Bolangir	Khaprakhol	192	155
	Loisingha	152	68
	Titilagarh	35	35
	Total	379	258(68%)
Puri	Brahmagir	130	113
	Gop	24	24
	Puri sadar	65	48
	Total	219	185 (84%)
Sundaragarh	Bisra	41	32
	Gurundia	119	119
	Rajagangapur	22	22
	Total	182	173(95%)

Pocket money and Hostel facilities

Block wise distribution of children getting benefits for pocket money and hostel facilities is presented in Table 3.22. The awareness as well as the benefits from pocket money received by the children is found to be very low in all the districts. In this respect more awareness need to be created among the parents and children to make use of the facilities available for pocket money. In so far as the hostel facilities are concerned similar pattern is observed in all the districts.

Table 3.22: Blockwise distribution of children benefited from pocket money, hostel facility

Districts	Blocks	Aware	Benenfited
Pocket money			
Bolangir	Khaprakhol	3	2
	Loisingha	1	0
	Total	4	2
Puri	Gop	4	0
	Total	4	0
Sundargarh	Bisra	17	14
	Rajagangapur	1	0
	Total	18	14
Hostel Facilities			
Districts	Blocks	Aware	Benenfited
Bolangir	Khaprakhol	122	40
	Titilagarh	6	6
	Group Total	128	46
Puri	Brahmagir	4	0
	Gop	1	0
	Puri sadar	11	0
	Group Total	16	0
Sundargarh	Bisra	3	1
	Gurundia	20	20
	Rajagangapur	2	0
	Group Total	25	21

Ashram schools, ICDS Centres, Community schools and Bridge schools

There are 356, 88 and 40 ICDS centres in the selected sample blocks in Bolangir, Puri and Sundergarh districts respectively. There is no Ashram schools found in the sample areas of Puri district which may be due to the reason that the Ashram schools are meant for the tribal children and the tribal population is the lowest in this district. Similarly the community schools are found only in one block of Bolangir district. So far as the bridge school is concerned, only 6 schools are found in Puri district. In order to bring the out of school children back to school the role of bridge school and community schools is very important. Hence these type of schools may be opened in more numbers particularly in the tribal belts in order to bring back the children to school who are out of school and not able to attend the regular schools.

Table 3.23 : Children benefited from ICDS center, Ashram school, Community school and bridge school

ICDS centre

Districts	Blocks	Aware	Benenfited
Bolangir	Khaprakhol	218	204
	Loisingha	154	152
	Total	372	356
Puri	Brahmagir	76	45
	Gop	24	21
	Puri sadar	61	22
	Total	161	88
Sundargarh	Bisra	14	9
	Gurundia	28	28
	Rajagangapur	90	3
	Total	132	40

Ashram school

Districts	Blocks	Aware	Benenfited
Bolangir	Khaprakhol	139	132
	Titilagarh	1	1
	Total	140	133
Puri	Brahmagir	1	0
	Puri sadar	2	0
	Total	3	0
Sundargarh	Gurundia	40	38
	Rajagangapur	2	2
	Total	42	40

Community Schools (GVVK)

Districts	Blocks	Aware	Benenfited
Bolangir	Titilagarh	3	3
	Total	3	3
Puri	Puri sadar	1	0
	Total	1	0

Bridge School

Districts	Blocks	Aware	Benenfited
Puri	Brahmagir	1	1
	Puri sadar	5	5
	Total	6	6

3.6. Concluding Observations

The BPL Households with scheduled tribes are proportionately more than other caste groups. Most of these households follow labour as their occupation which adds to their poor economic status. Not only is this but the incidence of illiteracy also very high among these households. Poverty along with illiteracy compels the households either not to send their children to school or to with draw them from the school before completion of a certain grade. In respect of enrolment and attendance of children it was observed that the backward regions have less attendance in schools as compared to their counterparts. The dropout and non enrolment is higher among the scheduled tribes than scheduled castes and other general castes. So far as various incentive schemes are concerned, it was found that the awareness about scheme seems to be very poor for which they are not able to take the advantages of the scheme which is meant for them. This may be on account of low level of literacy/education of the parents. The backward population and the backward regions with predominantly tribal population are found to be backward in respect of almost all the aspects of elementary education in the study area. The main constraints for these low level of education will be discussed the next chapter.

Table 3A.1: Block wise social category wise households

Districts	Blocks	Social group	No of HH
Bolangir	Khaprakhol	SC	19
		ST	170
		OBC	30
		General	5
		Total	224
	Loisingha	SC	3
		ST	177
		OBC	45
		Total	225
	Titilagarh	SC	17
		ST	67
		OBC	17
		Total	101
	Total	SC	39
		ST	414
		OBC	92
		General	5
		Total	550
Puri	Brahmagiri	SC	36
		ST	38
		OBC	24
		General	48
		Total	146
	Gop	SC	13
		ST	1
		OBC	4
		General	6
		Total	24
	Puri sadar	SC	17
		ST	17
		OBC	25
		General	21
		Total	80
	Total	SC	66
		ST	56
		OBC	53
		General	75
		Total	250
Sundaragarh	Bisra	SC	7
		ST	75
		OBC	6
		General	12
		Total	100
	Gurundia	SC	15
		ST	137
		OBC	8
		General	1
		Total	161
	Rajagangapur	ST	139
		Total	139
	Total	SC	22
		ST	351
		OBC	14
		General	13
		Total	400

Table 3A.2: Distribution of sample population by Age, Sex and caste in selected blocks of the sample districts

Districts	Blocks	Social group/Age/	<25			25-34			35-44			45-54			Above 55			Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Bolangir	Khaprakhol	SC	0	0	0	7	0	7	9	0	9	2	0	2	1	0	1	19	0	19
		ST	4	0	4	46	1	47	80	5	85	22	1	23	11	0	11	163	7	170
		OBC	1	0	1	7	0	7	14	0	14	7	0	7	1	0	1	30	0	30
		General	0	0	0	1	0	1	2	0	2	2	0	2	0	0	0	5	0	5
		Total	5	0	5	61	1	62	105	5	110	33	1	34	13	0	13	217	7	224
	Loisingha	SC	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	3	0	3
		ST	0	0	0	17	5	22	73	6	79	52	1	53	21	2	23	163	14	177
		OBC	0	0	0	4	0	4	29	3	32	8	0	8	1	0	1	42	3	45
		Total	0	0	0	21	5	26	105	9	114	60	1	61	22	2	24	208	17	225
	Titilagarh	SC	0	1	1	2	0	2	7	0	7	5	0	5	2	0	2	16	1	17
		ST	0	0	0	2	0	2	29	1	30	16	4	20	13	2	15	60	7	67
		OBC	0	0	0	2	0	2	11	0	11	2	0	2	1	1	2	16	1	17
		Total	0	1	1	6	0	6	47	1	48	23	4	27	16	3	19	92	9	101
	Total	SC	0	1	1	9	0	9	19	0	19	7	0	7	3	0	3	38	1	39
		ST	4	0	4	65	6	71	182	12	194	90	6	96	45	4	49	386	28	414
		OBC	1	0	1	13	0	13	54	3	57	17	0	17	3	1	4	88	4	92
		General	0	0	0	1	0	1	2	0	2	2	0	2	0	0	0	5	0	5
		Total	5	1	6	88	6	94	257	15	272	116	6	122	51	5	56	517	33	550
Puri	Brahmagiri	SC	1	0	1	7	0	7	18	0	18	10	0	10	0	0	0	36	0	36
		ST	1	0	1	5	1	6	21	1	22	9	0	9	0	0	0	36	2	38
		OBC	0	0	0	0	0	0	12	0	12	11	0	11	1	0	1	24	0	24
		General	0	0	0	13	0	13	29	1	30	4	0	4	1	0	1	47	1	48
		Total	2	0	2	25	1	26	80	2	82	34	0	34	2	0	2	143	3	146
	Gop	SC	0	0	0	3	0	3	7	0	7	3	0	3	0	0	0	13	0	13
		ST	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
		OBC	0	0	0	2	0	2	1	0	1	1	0	1	0	0	0	4	0	4
		General	0	0	0	2	0	2	1	0	1	3	0	3	0	0	0	6	0	6
		Total	0	0	0	8	0	8	9	0	9	7	0	7	0	0	0	24	0	24
	Puri sadar	SC	0	0	0	0	0	0	11	0	11	4	0	4	2	0	2	17	0	17
		ST	0	0	0	4	0	4	8	2	10	3	0	3	0	0	0	15	2	17
		OBC	0	0	0	2	0	2	16	0	16	6	0	6	1	0	1	25	0	25
		General	0	0	0	1	0	1	15	1	16	3	0	3	1	0	1	20	1	21
		Total	0	0	0	7	0	7	50	3	53	16	0	16	4	0	4	77	3	80
	Total	SC	1	0	1	10	0	10	36	0	36	17	0	17	2	0	2	66	0	66
		ST	1	0	1	10	1	11	29	3	32	12	0	12	0	0	0	52	4	56
		OBC	0	0	0	4	0	4	29	0	29	18	0	18	2	0	2	53	0	53
		General	0	0	0	16	0	16	45	2	47	10	0	10	2	0	2	73	2	75
		Total	2	0	2	40	1	41	139	5	144	57	0	57	6	0	6	244	6	250
Sundaragarh	Bisra	SC	0	0	0	2	1	3	1	3	4	0	0	0	0	0	0	3	4	7
		ST	0	0	0	10	22	32	10	19	29	7	6	13	1	0	1	28	47	75
		OBC	0	0	0	3	0	3	1	0	1	2	0	2	0	0	0	6	0	6
		General	0	3	3	0	3	3	3	2	5	1	0	1	0	0	0	4	8	12
		Total	0	3	3	15	26	41	15	24	39	10	6	16	1	0	1	41	59	100
	Gurundia	SC	0	0	0	5	2	7	6	2	8	0	0	0	0	0	0	11	4	15
		ST	0	0	0	32	9	41	60	27	87	8	1	9	0	0	0	100	37	137
		OBC	0	0	0	1	0	1	7	0	7	0	0	0	0	0	0	8	0	8
		General	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
		Total	0	0	0	39	11	50	73	29	102	8	1	9	0	0	0	120	41	161
	Rajagangapur	ST	0	0	0	17	0	17	99	3	102	20	0	20	0	0	0	136	3	139
		Total	0	0	0	17	0	17	99	3	102	20	0	20	0	0	0	136	3	139
	Total	SC	0	0	0	7	3	10	7	5	12	0	0	0	0	0	0	14	8	22
		ST	0	0	0	59	31	90	169	49	218	35	7	42	1	0	1	264	87	351
		OBC	0	0	0	4	0	4	8	0	8	2	0	2	0	0	0	14	0	14
		General	0	3	3	1	3	4	3	2	5	1	0	1	0	0	0	5	8	13
		Total	0	3	3	71	37	108	187	56	243	38	7	45	1	0	1	297	103	400

Table 3A.3: Block Wise Number of HHs according to BPL and APL category

Districts	Blocks	BPL	APL	Income not given	Total
Bolangir	Khaprakhol	150	73	1	224
	Loisingha	208	15	2	225
	Titilagarh	92	7	2	101
	Group Total	450	95	5	550
Puri	Brahmagiri	127	17	2	146
	Gop	16	8	0	24
	Puri sadar	58	22	0	80
	Group Total	201	47	2	250
Sundargarh	Bisra	59	38	3	100
	Gurundia	117	44	0	161
	Rajagangapur	129	10	0	139
	Group Total	305	92	3	400

Table 3A. 4: Block Wise distribution of Households as per Occupation and income

Districts	Blocks	Occupation	Income (in Rs)
Bolangir	Khaprakhol	Labour	684600
		Cultivator	2592900
		Business	341000
		Service	250000
	Loisingha	Labour	1257500
		Cultivator	566000
		Business	93200
		Service	778000
		Other	0
	Titilagarh	Labour	718400
		Cultivator	180700
		Business	33800
		Service	308000
		NTFP	32500
		Other	0
	Total	Labour	2660500
		Cultivator	3339600
		Business	468000
		Service	1336000
		NTFP	32500
		Other	7836600
Puri	Brahmagiri	Labour	985000
		Cultivator	510500
		Business	271000
		Other	12000
	Gop	Labour	44000
		Cultivator	262000
		Business	79000
		Service	36500
	Puri sadar	Labour	289000
		Cultivator	182000
		Business	495000
		Service	344000
		Other	12000
	Total	Labour	1318000
		Cultivator	954500
		Business	845000
		Service	380500
		NTFP	0
		Other	24000
		Total	3522000
Sundargarh	Bisra	Labour	1006100
		Cultivator	261400
		Business	491000
		Service	747600
		Other	0
	Gurundia	Labour	824500
		Cultivator	1388400
		Business	220800
		Service	1092000
		NTFP	14500
	Rajagangapur	Labour	260100
		Cultivator	686100
		Business	55000
		Service	258000
	Total	Labour	2090700
		Cultivator	2335900
		Business	766800
		Service	2097600
		NTFP	14500
		Other	0
		Total	7305500

Table 3A.5: Educational status of children by age group

Districts	Blocks	Education/Age/Sex	6-10 yrs			11-14 yrs			15-18 yrs		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
Bolangir	Khaprakhol	Primary	130	84	214	9	5	14	2	0	2
		Middle	0	0	0	35	19	54	0	0	0
		Secondary	0	1	1	16	8	24	8	8	16
		Total	130	85	215	60	32	92	10	8	18
	Loisingha	Primary	88	89	177	8	4	12	1	1	2
		Middle	0	0	0	32	50	82	6	2	8
		Secondary	0	0	0	41	23	64	28	23	51
		Total	88	89	177	81	77	158	35	26	61
	Titilagarh	Primary	30	32	62	0	0	0	0	0	0
		Middle	0	0	0	26	18	44	2	0	2
		Secondary	0	0	0	8	10	18	9	8	17
		Total	30	32	62	34	28	62	11	8	19
Puri	Brahmagiri	Primary	73	77	150	2	5	7	1	3	4
		Middle	0	1	1	34	35	69	1	2	3
		Secondary	0	1	1	21	11	32	20	10	30
		Total	73	79	152	57	51	108	22	15	37
	Gop	Primary	12	13	25	0	0	0	0	0	0
		Middle	0	0	0	2	3	5	0	0	0
		Secondary	0	0	0	1	3	4	1	2	3
		Total	12	13	25	3	6	9	1	2	3
	Puri sadar	Primary	49	33	82	0	4	4	1	0	1
		Middle	0	0	0	16	19	35	5	0	5
		Secondary	0	0	0	11	11	22	5	4	9
		Total	49	33	82	27	34	61	11	4	15
Sundaragarh	Bisra	Primary	40	43	83	9	6	15	0	0	0
		Middle	1	3	4	18	21	39	0	1	1
		Secondary	0	0	0	10	10	20	7	5	12
		Total	41	46	87	37	37	74	7	6	13
	Gurundia	Primary	66	76	142	5	13	18	0	0	0
		Middle	1	1	2	39	31	70	1	1	2
		Secondary	0	0	0	11	9	20	22	11	33
		Total	67	77	144	55	53	108	23	12	35
	Rajagangapur	Primary	45	49	94	1	0	1	0	0	0
		Middle	0	0	0	19	12	31	1	0	1
		Secondary	0	0	0	15	7	22	0	0	0
		Total	45	49	94	35	19	54	1	0	1

Table 3A. 6 : Block wise Number of Children with Economic Status

Districts	Blocks	Children with school going age	BPL		APL		Total		Granda Total	% children going to school (6-14 yrs)
			Boys	Girls	Boys	Girls	Boys	Girls		
Bolangir	Khaprakhol	School age children	148	96	74	48	222	144	366	
		School going children (6-14 yrs)	131	83	64	46	195	129	324	**88.52**
	Loisingha	School age children	226	220	16	15	242	235	477	
		School going children (6-14 yrs)	165	156	11	12	176	168	344	**72.12**
	Titilagarh	School age children	106	92	6	10	112	102	214	
		School going children (6-14 yrs)	67	62	6	7	73	69	142	**66.36**
	Total	School age children	480	408	96	73	576	481	1057	
		School going children (6-14 yrs)	363	301	81	65	444	366	810	**76.63**
Puri	Brahmagir	School age children	154	171	23	15	177	186	363	
		School going children (6-14 yrs)	130	138	21	12	151	150	301	**82.92**
	Gop	School age children	12	16	8	5	20	21	41	
		School going children (6-14 yrs)	12	16	6	5	18	21	39	**95.12**
	Puri sadar	School age children	59	45	20	23	79	68	147	
		School going children (6-14 yrs)	56	46	18	23	74	69	143	**97.28**
	Total	School age children	225	232	51	43	276	275	551	
		School going children (6-14 yrs)	198	200	45	40	243	240	483	**87.66**
Sundargarh	Bisra	School age children	66	53	38	42	104	95	199	
		School going children (6-14 yrs)	53	45	32	39	85	84	169	**84.92**
	Gurundia	School age children	126	103	46	62	172	165	337	
		School going children (6-14 yrs)	106	87	46	61	152	148	300	**89.02**
	Rajagangapur	School age children	194	187	19	17	213	204	417	
		School going children (6-14 yrs)	86	91	8	6	94	97	191	**45.80**
	Total	School age children	386	343	103	121	489	464	953	
		School going children (6-14 yrs)	245	223	86	106	331	329	660	**69.25**

Chapter- IV

DEMAND AND SUPPLY SIDE CONSTRAINTS OF EDUCATIONAL PARTICIPATION OF ST CHILDREN

4.1 It is widely recognised that education is considered as one of the basic inputs for the development of human capital. This has become more of important when the population is backward with high incidence of illiteracy. The scheduled tribes are at the lowest range of literacy rate all over the country. The state of Orissa pocketing more than one fifth of ST population is no exception to this. The backwardness of Orissa is largely on account of this bulky population whose backwardness adds to the sates overall backwardness. Hence it is pertinent to examine the reasons for the low level of education among these groups of population. This chapter attempts to outline the basic characteristics of ST households and school going children and then tries to find out the constraints for their educational backwardness. The chapter is divided into five sections. The second section presents the demand side constraints of education. The supply side constraints are discussed in the third section. The fourth section presents results of the multivariate analysis. The last section summarises the main findings with concluding observations.

4.2 DEMAND CONSTARINTS

There are number of factors responsible for the education of children. We have divided these factors into two parts: Demand side and supply side factors. The demand side factors are further classified as Demographic Factors, Socio cultural factors, Economic factors, Home related factors. These are discussed as follows:

4.2.1 Demographic Factors

Among the demographic factors, it may be expected *inter-alia* that size of family and degree of urbanization significantly influence the participation of tribal children in education. Of the several demographic factors that might influence educational participation, family size has attracted a considerable amount of attention among the researchers. There is an inverse relationship between family size and education. It is also

argued that larger families cannot afford to send all their children to school and among the children boys get first preference. The birth order of the child also influences the education of children significantly. Several research studies indicate that there is a glaring disparity in education between urban and rural area children. Urban-based educated parents do take a favourable decision regarding their children's education than those parents with rural background. Again the difference is there between boys and girls for attending the schools. This is more serious among the tribals as the incidence of poverty among the tribals is very high and they do prefer to live in the rural and remote places which are generally isolated from the wider society. This characteristic of tribals affects their schooling to a great extent.

The tables and the discussions in the preceding section indicate that ST in general and females in both ST and Non-ST categories are in a disadvantageous position in respect of educational achievements. Girls are behind their boy counter parts and ST children are behind the non ST category of children.

4.2.2 Socio cultural factors

These factors include the attitude of families/parents towards education, religion, race/ethnic origin and marriage etc., which tend to discourage the education of tribals. Since the gestation period of education is very long, parents do not prefer to invest on the education because of the practice of early marriage, belief of non receipt of benefits of education by parents and so on. The effect of race and ethnicity in determining educational participation has been found to be quite significant among the tribals as they do not understand the value of education in the context of their socio cultural identity. Marriage, which is assumed as universal for girls, discourages girls from continuing their studies. Along with marriage, the pattern of dowry is also an important social factor in the economic dimensions to discourage the education of girls and more so for tribal girls because of their poor economic condition. Many parents do not desire to give more education to their daughters with the fear to pay more dowries for a better-educated bridegroom. In this way it affects girl's education.

Here we present the children's education by social status of family (Table 4.1). The education of children is influenced by the social category of parents and the developmental status of the region. The level of education of children is generally found to be lower among the ST households and higher among non ST/ general category of households. But in the district of Puri the enrolment of ST children is better than that in Bolangir and Sundergarh districts. This implies that the ST children in the developed region are performing better than that in backward region. *This provides the plea that the ST children are not educationally backward per se, they can also excel if they are given the opportunity.*

Table 4.1: District wise social category and the education of the children (%)

District	Social Group	Primary	Middle	Secondary	Total
Bolangir	SC	58.21	20.90	20.90	100.00
	ST	56.72	22.72	20.56	100.00
	OBC	51.35	19.59	29.05	100.00
	General	71.42	14.29	14.29	100.00
	Total	**56.11**	**21.91**	**21.98**	**100.00**
Puri	SC	61.54	20.28	18.18	100.00
	ST	65.05	19.42	15.53	100.00
	OBC	46.49	31.58	21.93	100.00
	General	54.97	21.85	23.18	100.00
	Total	**56.95**	**23.09**	**19.96**	**100.00**
Sundaragarh	SC	54.35	26.09	19.57	100.00
	ST	59.26	24.44	16.30	100.00
	OBC	66.67	9.52	23.81	100.00
	General	60.00	20.00	20.00	100.00
	Total	**59.17**	**23.92**	**16.91**	**100.00**

4.2.3 Economic factors

Economic factors matter much in influencing the child's participation in education. Poor agrarian regions/countries where per capita income is very low face most severe constraints. Most South Asian and African countries have low female literary and enrollment and wide gender gap. The middle-income countries face problems related to rural-urban differences. In Latin American countries education policies have promoted children enrollment effectively, though there is still high rate of illiteracy among rural females. The Middle-Eastern countries have shown slow progress in female

literacy, but all the oil-producing Arab nations and socially less conservative countries like Turkey and Tunisia have achieved substantial success in participation of children and more particularly girl children in education and labour force.

***Family Income and education**:*

The participation of children in education is closely associated with economic factors. The economic factors include mainly per capita income, labour market factors, employment/unemployment, and rates of return to education etc. However, economists have offered different views about the importance of these factors. It is generally believed that the higher the level of per capita income, the higher is the level of participation in schooling. We have collected information on the income of the family and the enrollment of children and presented in Table 4.2.

Table 4.2: District wise income and the education of the children (%)

District	Income	Primary	Middle	Secondary	Total
Bolangir	<=17500	56.25	23.69	20.06	100.00
	17501-35000	60.94	16.41	22.66	100.00
	35001-50000	34.62	15.38	50.00	100.00
	50000 & above	36.36	13.64	50.00	100.00
	Total	**55.79**	**22.11**	**22.11**	**100.00**
Puri	<=17500	58.22	23.68	18.11	100.00
	17501-35000	56.30	20.00	23.70	100.00
	35001-50000	33.33	33.33	33.33	100.00
	50000 & above	23.12	33.33	43.55	100.00
	Total	**56.97**	**22.99**	**20.04**	**100.00**
Sundergarh	<=17500	61.94	22.89	15.17	100.00
	17501-35000	53.72	25.62	20.66	100.00
	35001-50000	53.85	35.90	10.26	100.00
	50000 & above	40.73	25.03	34.24	100.00
	Total	**59.23**	**23.76**	**17.01**	**100.00**

It is clearly evident from table 4.2 that with rise in income the enrolment of children rises. This gives the clear impression that the demand for education is influenced by income of the family. The pattern is similar in all the districts.

The economic status of the household is also determined by the occupational status of the households. The pattern of household's occupation is discussed earlier in this

chapter. But there is a significant relationship between the occupation of parents and demand for children's education (Table 4.3)

Table 4.3: District wise Occupation and the education of the children (%)

District	Occupation	Primary	Middle	Secondary	Total
Bolangir	Labour	57.6	23.2	19.2	100.0
	Cultivator	57.6	20.7	21.6	100.0
	Business	46.7	33.3	20.0	100.0
	Service	29.2	14.6	56.3	100.0
	NTFP	85.7	14.3	0.0	100.0
	Other	100.0	0.0	0.0	100.0
Puri	Labour	60.9	21.8	17.3	100.0
	Cultivator	59.6	23.4	17.0	100.0
	Business	41.3	26.1	32.6	100.0
	Service	20.0	20.0	60.0	100.0
	Other	75.0	25.0	0.0	100.0
Sundaragarh	Labour	66.0	22.5	11.5	100.0
	Cultivator	52.6	24.6	22.8	100.0
	Business	46.9	31.3	21.9	100.0
	Service	21.3	13.3	65.3	100.0
	NTFP	75.0	25.0	0.0	100.0
	Other	33.3	66.7	0.0	100.0

Occupation of Family and Education of children

Like income, the occupational status of the households influences the education of children to a significant extent. When the occupation of the households is service, more and more children attend beyond middle and secondary level. This may be due not only to the income and occupation of family but also due to the educational status of parents. The parents who are in service are assumed to be educated parents and they are motivated to send their children for more and more education. Hence it may be inferred that the demand for education is determined by both the economic status and the educational status of parents.

Opportunity cost of children

It is observed that the real opportunity cost of education of tribal children is higher than that of non tribal children. Hence, the low income of the family forces their children to discontinue their education. This is evident form the empirical data collected through our primary survey (Table 4.4). The hours of work by ST children are much higher than non ST children. The proportion of children engaged among the ST

households is also higher than that of non ST children. In Puri district the percentage of ST children engaged in wage earning activities is the lowest and in Sundergarh is the highest, so also the hours of work.

Table 4.4: Children engaged in Wage earning activities by social category

District	Category	% of children	Average hours	Average salary in Rs.
Bolangir	ST	20	6.5	25
	Non ST	3	2.7	39
Puri	ST	5.2	3.7	34
	Non ST	0	0.0	0
Sundergarh	ST	23	7.1	27
	Non ST	2	4.0	20

High cost of education:

The *cost of education* is also one of the important factors for depriving the poor children from education. Even if the education at the primary level is expected to be provided free to all children, in practice it is not free. The table below provides the information about the private expenditure of primary education in the study area. The expenditure varies from Rs 192.36 to a high of more than Rs 300 per annum per child among the ST children and the corresponding amount is Rs 221.25 to Rs420.29 for Non-ST children. This shows the burden of expenditure on the parents to send their ward to school. The costliness of primary education compels the parents not to send their children to school or to with draw the child before completion of a particular state of education. Table 4.5 presents the cost of education in the selected districts.

Table 4.5: District - wise Private Exp. of school going children (Rs per child per annum)

	Average Exp(Rs)	
District	**ST**	**Non -ST**
Bolangir	192.36	221.25
Puri	221.76	329.46
Sundargarh	300.26	420.29
Total	**236.10**	**323.67**

4.2.4 Home related factors

Home related factors include socio economic status of the family, race, religion, family size, parental occupation, education etc most of which are discussed above except the factors like parental education and occupation. Better-educated parents perceive the intrinsic and monetary benefit of education more clearly than do less educated parents. Educated parents particularly educated mother are in favour of female education. Parental occupation also contributes to a great extent to child's education. Next to education, the most important variable influencing children's educational attainment is parental occupation. The better/higher the level of occupation of parents, higher is the chances that their children would go to school. Sometimes the children are required at home to help the parents in different domestic activities which deprived the children to attend to school or not performing well in studies. Table 4.6 shows the hour of work a child helps in domestic activities. It is found that girls are more engaged in domestic activities than the boys. The average hours devoted by a girl is more than 3 hours per day while the same is less than an hour by the boys.

Table 4.6: Children engaged in domestic work

Districts	Mean hours of work	
	Boys	**Girls**
Bolangir	0.30	5.47
Puri	0.10	2.50
Sundaragarh	0.20	3.76
Total	0.19	3.17

4.3 SUPPLY SIDE CONSTRAINTS

The supply side constraints are mainly **School related factors** and these are discussed in the following paragraphs.

The schooling factors are mainly the type of school (boys/girls) and quality of schools with all necessary infrastructures, distance to school, percentage of female teachers, tribal teachers, cost of schooling etc matter much in influencing the parental decision to send their wards to school. Heyneman and Luxley (1983) and Fuller(1986) found that school characteristics are more important to the levels of educational achievements than the factors related to socio - economic and home-related.

Distance to school: The distance to school negatively affect the participation in schools particularly girls. Girls have special needs for physical protection and privacy. Parents are more conscious about their privacy and social reputation in the regions where culture forces girls to be in seclusion and this factor has a great impact on female enrollment. Parents hesitate to get their daughters enrolled unless schools are located close to home, have lavatories for girls and unless they have female teaching staff. The more distantly situated is the school, the more concern/hesitation is shown by the parents to send their wards particularly girls to school, though it is not the same for boys. In Egypt, the location of school with in 1 km results in 94 per cent enrollment rate for boys and 74 per cent for girls, whereas when school is 2 Km away from home, enrollment rate drops disproportionately (90 per cent for boys and 64 per cent for girls). Enforcement of Compulsory schooling laws varies widely and is usually weak.

The information collected through our primary survey in respect of distance covered by children to reach school is in conformity with the above discussion. The distance covered by children to reach the school affects the study of children to a great extent. It is found that 70 to 80 per cent of children have their schooling within 1 km distance. But there are still some children who have to cover 5 km to more than 10 km distance to reach to a school. The more is the distance the less is the attendance and enrolment of children. This is observed in both Bolangir and Sundergarh but not in the district of Puri.

Table 4.7: Distance Covered by Children to School (% of Children)

Districts/blocks	Schools covered by children within					
	<=1 kms	1-3 kms	3-5 kms	5-10 kms	10+ kms	Total
Bolangir	**71.5**	**11.5**	**15.8**	**0.4**	**0.9**	**100.0**
HT block	75.0	10.6	13.1	0.5	0.8	100.0
AT block	76.1	10.2	12.3	0.5	0.9	100.0
LT block	72.5	10.0	16.4	0.1	1.0	100.0
Puri	**79.7**	**18.9**	**1.4**	**0.0**	**0.0**	**100.0**
HT block	78.6	20.1	1.3	0.0	0.0	100.0
AT block	80.1	18.9	1.0	0.0	0.0	100.0
LT block	82.3	16.8	0.9	0.0	0.0	100.0
Sundergarh	**77.6**	**11.8**	**8.7**	**0.8**	**1.0**	**100.0**
HT block	79.5	12.3	7.5	0.5	0.2	100.0
AT block	81.2	11.5	6.9	0.3	0.1	100.0
LT block	85.6	9.5	4.7	0.2	0	100.0

Note: Estimated using the survey data

School timing: The school timing is also another important dimension of low participation of tribal children in schools. The usual timings of the school do not match to the timings of the tribal children for which they remain either absent or dropped out from the schools.

Costliness of education: The policy for providing compulsory education is not likely to be successful unless schools are within children's reach and affordable for families. The direct costs of schooling (textbook, fees, uniforms) are known to account for 5 to 10 percent of family consumption in households in many developing countries, and about 20% in poor households (World Bank Primary Education Policy Paper 1990: Women in Pakistan 1989). Reducing costs may persuade poor families to send their daughters along with their sons to school, since they consider schooling for girls to be more expensive and less likely to benefit the family. Education policies often combine awareness campaigns and laws of compulsory education with cost-reducing measures. The private expenditure of education is presented under the demand side factors, hence we have not presented it here.

Incentive schemes: Incentives like waiving of fees, provision of free textbooks and ashram schools etc were combined with compulsory education to give the tribal enrollment a boost. But in spite of this the tribal enrolment is far behind their non tribal counterparts. It is also found that there are some direct costs borne by the parents in the name of some alternative payment and this leads to high rate of school dropouts among he tribals. The information collected through our primary survey in respect of incentive schemes are presented in Table 4.8.

Table 4.8: Percentage of Beneficiaries from different schemes

Districts	Schemes									
	Mid day meal	Scholarships	Free Ships	Text Books	Notebooks	Free uniforms	Pocketmoney	Ashram school	ICDS	Hostel Facilities
Bolangir	**70.92**	**0.33**	**3.59**	**71.41**	**34.31**	**42.16**	**0.33**	**34.73**	**58.17**	**7.52**
HT block	62.3	0.12	1.21	62.9	21.3	39.1	0.10	32.1	49.3	5.2
AT block	69.3	0.26	1.98	69.8	29.8	40.5	0.28	33.5	56.7	7.0
LT block	70.8	0.45	3.25	75.2	36.1	43.6	0.39	35.2	59.1	6.4
Puri	**43.01**	**13.14**	**5.51**	**49.15**	**5.93**	**39.19**	**0**	**2.54**	**18.64**	**0**
HT block	38.5	10.2	3.2	39.2	3.2	29.6	0	2.5	15.9	0
AT block	39.8	12.4	4.8	41.8	5.0	36.5	0	2.1	17.3	0
LT block	42.7	14.1	5.2	50.0	5.9	41.0	0	0.2	20.6	0
Sundargarh	**47.01**	**1.11**	**2.22**	**49.45**	**0.44**	**38.36**	**3.1**	**8.1**	**8.87**	**4.66**
HT block	40.3	0.15	1.1	41.1	0.58	32.5	1.0	10.8	10.2	3.2
AT block	43.8	0.87	2.0	46.5	1.2	39.1	1.9	7.9	6.9	4.9
LT block	49.1	0.98	2.5	49	0.21	40.2	2.3	5.2	8.2	3.6
Total	**55.31**	**4.5**	**3.78**	**58.11**	**15.64**	**40.13**	**1.04**	**17.39**	**31.53**	**4.36**

Note: Estimated from the data collected by the PI

It is found that Bolangir has the highest proportion of all types of incentive schemes availed by its children followed by Sundergarh. Across the incentive schemes, the benefits for text books and mid day meals are found to be the highest followed by free uniforms. It may be noted here that the free text books and uniforms are expected to be made available to all the students and more particularly to the tribal students. But contrary to this it is observed that 50 to 70 per cent of the children receive the benefit of text books and 38 to 42 percent of the students receive the benefit of free uniforms. Free ships and scholarships are availed only by less than 5 per cent of the students. The incentive schemes which are meant for the children at the primary level when not made available to them particularly to the economically backward children, it is not possible for them to go for education because of their high opportunity cost. Across blocks of each district, low tribal population blocks get more advantages of benefits of each scheme followed by medium and low tribal population blocks.

Basic Facilities: Special facilities like boundary walls around the girl's schools and lavatories are required for the privacy and protection of girls. Parents concern about their daughters while sending them to schools without these facilities is justified. In rigid, conservative societies, male-female interaction is not favoured and most parents want their young girls to be taught by female teachers. In Pakistan and Bangladesh, cultural needs strongly favour female teachers, but they face a shortage of them (about a third of

primary school teachers in Pakistan and fifth of those in Bangladesh are women : World Bank Sources). The facilities are of two types. One is physical facilities like toilets, drinking water, compound wall etc. The other one is facilities related to teaching. We have collected data on physical infrastructure and teaching infrastructure. Table 4.9 presents the physical infrastructure in the schools.

Table 4.9: Physical Infrastructure facilities (%) in the schools

District	Drinking water	Toilets	Toilet for girls	Play ground	Road to school	Transport	Electrification	Head teachers room	Other teachers room	School garden	Compound wall
Bolangir	**81.8**	**45.5**	**18.2**	**9.1**	**63.6**	**27.3**	**9.1**	**0**	**0**	**18.2**	**10.2**
HT block	65.2	36.5	10.5	2.6	52.2	15.3	2.6	0	0	0.9	5.8
AT block	71.5	39.4	15.4	8.2	61.5	22.8	5.8	0	0	12.7	7.1
LT block	83.0	48.1	21.3	10.2	65.8	29.4	10.5	0	0	20.4	8.3
Puri	**93.3**	**60.0**	**50.0**	**53.3**	**100.0**	**60.0**	**20.0**	**73.3**	**13.3**	**26.7**	**30.3**
HT block	75.2	52.3	41.2	25.9	100.0	45.2	22.3	49.1	2.5	10.5	15.8
AT block	82.6	55.6	49.6	45.6	100.0	61.3	20.5	68.6	8.9	16.8	25.7
LT block	95.2	62.8	52.3	59.1	100.0	68.1	25.1	76.1	15.3	29.1	31.1
Sundargarh	**75.0**	**100.0**	**40.0**	**25.0**	**100.0**	**75.0**	**50.0**	**75.0**	**0.0**	**75.0**	**18.3**
HT block	59.4	96.5	32.1	15.6	**98.2**	69.1	21.6	65.2	0	45.2	10.4
AT block	68.2	100.0	39.0	21.3	**100.0**	72.5	35.6	72.9	0	59.7	15.8
LT block	78.1	100.0	42.5	27.4	**100.0**	76.1	49.2	81.0	0	79	19.1
Total	**87.0**	**60.0**	**33.0**	**33.0**	**87.0**	**50.0**	**20.0**	**47.0**	**7.0**	**30.0**	**19.6**

Note: Estimated from the data collected by the PI

About 2/3rd of the schools do not have toilets for girls and less than 20 percent of the schools do not have compound walls. As discussed earlier many parents do not send their children particularly the girl children to school on account of this. In the tribal areas, with forests and wild animals it is really not safe for the schools not to have compound walls and separate toilets for girls. Across the blocks it was found that the blocks with high tribal population suffer from shortage of the facilities as compared to other blocks.

In addition to the physical infrastructure, the teaching infrastructure is also equally important for attracting the children particularly the tribal children to schools. Under the scheme of OBB, each school should have science kit. But it is observed that very negligible percentage of schools in Sundergarh have science kit and highest proportion of schools in Puri have science kits. Similar pattern is found in respect of

teaching learning materials. Table 4.10 presents the information about the teaching infrastructure in the schools. This affects the teaching at the primary and upper primary school level to a great extent. It may be noted that all the facilities are better in low tribal population blocks followed by medium and high tribal population blocks in all the districts. This is uniform in all the districts. This indicated that the villages and blocks with high density of tribal population are deprived of facilities as compared to the low and medium tribal population blocks. This may be one of the major supply side constraints for low participation of tribals in education.

Table 4.10: Teaching Infrastructure facilities in schools (Fig in %)

District/ blocks	Library	Laboratory	Science Kit	Sports kit	Music kit	Craft Instruments	Teaching learning material	Water can/glasses
Bolangir	**81.8**	**0**	**36.4**	**9.1**	**0**	**36.4**	**72.7**	**36.4**
HT block	10.3	0	5.3	5.1	0	10.5	57.1	2.3
AT block	40.6	0	10.4	7.5	0	25.4	56.1	8.1
LT block	75.2	0	32.8	8.9	0	38.1	70.6	37.2
Puri	**80**	**0**	**66.7**	**26.7**	**6.7**	**13.3**	**86.7**	**86.7**
HT block	52.3	0	42.1	12.6	0	3.2	65.3	72.5
AT block	65.1	0	48.6	18.3	3.5	8.4	78.1	85.0
LT block	79	0	65.1	25.2	5.2	9.7	84.9	87.6
Sundargarh	**5**	**0**	**5**	**0**	**0**	**25**	**25**	**50**
HT block	0	0	0	0	0	10.3	15.6	18.1
AT block	1.5	0	1.5	0	0	19.8	24.9	26.1
LT block	4.6	0	4.6	0	0	21.9	27.1	49.2
Total	**70**	**0**	**46.7**	**16.7**	**3.3**	**23.3**	**73.3**	**63.3**

Note: estimated from data collected by the PI

Pupil Teacher Ratio (PTR)

Pupil teacher ratio in the districts shows that both Sundergarh and Bolangir suffer from low pupil teacher ratio while Puri district has fulfilled norm as per national average. In the two districts it may be due to less number of students as compared to the number of teachers. It may be noted that in the high tribal population blocks the pupil teacher ratio is very low as compared to the low tribal population blocks. Table 4.11 presents the teacher pupil ratio in the districts.

Table 4.11: Pupil - Teacher Ratio for dists/blocks

Blocks	Bolangir	Puri	Sundergarh
All Blocks	36	40	26
HT block	18	34	21
AT block	28	39	37
LT block	34	45	31

Source: Own Survey, HT=High tribal population, AT=Average tribal population, LT= Low tribal population

Language problem: Mathematics and Science are found to be very difficult for the tribal children to understand as these are not written in their language. Textbooks are found to portray the pictures and illustrations from the general society but not the culture of tribals, which is very different from the tribal culture and life style. If at all these are rarely depicted, they appear as passive, stupid and not suitable for traditional roles of tribes living in the forests. These shortcomings retard the participation of tribals in education and hinder their access to better-paying jobs.

Curriculum load: The curriculum meant for general children is considered to be one of the constraints for the tribal children. It is too difficult for these children to follow the general curriculum which is of very high standard for these children to follow as many of these children are first generation learners. In our sample about 80 percent of the Parents expressed that the curriculum load is very heavy on the child.

Table 4.12 presents the details of schools surveyed. All the schools are government schools. Still there are schools without a good access road, without compound wall and without drinking water facilities which are the basic needs of the schools.

Table 4.12: District Wise details of the Schools surveyed

District	Block	School location	School Stage	management	Distance from village	Approach Road	Compound Wall	Type of school building	Is there rented building	No. of rooms	No. of class rooms	Drinking Water
Bolangir	Khaprakhol	ST habitation	7th	govt	0	Kutcha	yes	Pucca	Yes	7	5	Yes
Bolangir	Khaprakhol	ST habitation	5th	govt	0.2	Not available	no	Pucca	No	3	2	Yes
Bolangir	Khaprakhol	ST habitation	7th	tribal welfare govt primary school	0.5	Semi Pucca	yes	Pucca	No	7	6	Yes
Bolangir	Khaprakhol	ST habitation	7th	tribal welfare govt primary school	0.5	Semi Pucca	no	Pucca	No	7	5	Yes
Bolangir	Titilagarh	ST habitation	5th	govt	1	No road	no	Pucca	No	1	1	Yes
Bolangir	Titilagarh	SC habitation	5th	govt	0.4	Kutcha	no	Pucca	No	1	1	Yes
Bolangir	Titilagarh	ST habitation	7th	govt	0.5	Kutcha	no	Pucca	No	6	5	Yes
Bolangir	Loisingha	ST habitation	5th	govt	0	Pucca	no	Pucca	No	3	3	Yes
Bolangir	Loisingha	ST habitation	5th	govt	0	Kutcha	no	Kutcha	No	2	2	Yes
Bolangir	Loisingha	ST habitation	2nd	govt	0.1	Pucca	no	Not available	Yes	1		Yes
Puri	Sadar	General	5th	govt	0	Pucca	no	Pucca	No	3	2	Yes
Puri	Bramhagiri	SC habitation	5th	govt	0.5	Kutcha	no	Pucca	No	1	1	Yes
Puri	Bramhagiri	General	5th	govt	0.3	Semi Pucca	NA	Pucca	No	6	4	Yes
Puri	Bramhagiri	SC habitation	7th	govt	0.5	Kutcha	yes	Pucca	No	6	5	Yes
Puri	Gop	ST habitation	7th	govt	0.5	Kutcha	no	Kutcha	No	8	7	Yes
Puri	Gop	SC habitation	5th	govt	0.5	Kutcha	no	Pucca	No	5	4	Yes
Puri	Gop	SC habitation	7th	govt	0.3	Kutcha	yes	Pucca	No	7	6	Yes
Puri	Puri sadar	General	5th	govt	0.5	Semi Pucca	yes	Pucca	Yes	10	8	Yes
Puri	Puri sadar	General	5th	govt	1	Pucca	yes	Pucca	No	5	5	Yes
Puri	Puri sadar	General	7th	govt	0.1	Kutcha	no	Pucca	No	8	6	Yes
Sunadrgarh	Rajgangpur	ST habitation	5th	govt	1	Pucca	yes	Pucca	No	5	4	Yes
Sundargarh	Bisra	ST habitation	7th	govt	0.3	Kutcha	no	Pucca	No	5	4	Yes
Sundargarh	Bisra	ST habitation	5th	govt	0.5	Semi Pucca	yes	Pucca	No	6	5	Yes
Sundargarh	Gurundia	General	5th	govt	1	Pucca	yes	Pucca	No	4	3	Yes
Sundargarh	Gurundia	General	5th	govt	0.1	Pucca	no	Pucca	No	6	5	No
Sunadrgarh	Rajgangpur	General	5th	govt	0.2	Pucca	no	Kutcha	No	4	3	No
Sundargarh	Gurundia	ST habitation	7th	ashram school	0	Pucca	yes	Pucca	No	17	7	Yes
Sundargarh	Rajgangpur	ST habitation	5th	govt	1	Pucca	yes	Pucca	No	6	5	Yes
Sundargarh	Bisra	General	7th	govt	0.4	Pucca	yes	Pucca	No	8	7	Yes
Sundargarh	Bisra	SC habitation	5th	govt	0.2	Kutcha	yes	Pucca	No	8	5	Yes

4.4 MULTIVARIATE ANALYSIS

The role of demand and supply side factors as discussed earlier in this chapter has been clearly brought out. The net influence of each determinant controlling other factors is examined in this section with the help of multiple regression models by using maximum likelihood probit estimates. We have examined effect of various factors on the probability of enrolment of children (6-14) which is defined as a dichotomous variable. The details of models used are given in Chapter-1.

We have included a set of variables to continue the observed heterogeneity across the families. The important home related and child related variables included in the model are age and sex of child, education of father and mother, household's per capita income, caste, etc. The community variables included in the model is types of villages i.e. villages with high ST population and medium ST population and distance to forest. The supply side variables relating to school are the distance to school, TPR and school infrastructure included in the model. It is assumed that if there is no school in a nearby village or within the village, the children either do not attend the school or dropout from the school before completion of a particular level of education. The dependent variable enrolment is a dichotomous choice variable and is estimated by more appropriate maximum likelihood probit model. We have estimated the regression equation separately for all samples and for three districts.

4.4.1 Results for All samples (All Districts)

The age of the child is inversely related to the years of schooling of the child. This indicates that the participation of children is less likely at the higher classes. In other words, the drop out rate of children increases at the post primary stage. It was observed that children after a particular stage (post primary) either join paid work or assist the parents in agriculture/domestic work in rural areas. The coefficient of sex is positive and statistically significant which implies that boys have a better chance of schooling than the girls. The demand for education by the households is higher for male children than that of female children. The coefficients of education of father and mother are positive and statistically significant indicating that children are more likely to participate in education

if the father and mothers are educated. It is found that if the education of father increases by 10 percent, the enrolment of children is likely to increase by 2 percent and 10 percent increase in mother's education enhances the probability of child's enrolment by 0.4 percent.

The impact of Per capita income (proxy for economic status) has a positive and significant impact on the enrolment of children. The negative coefficient of SC/ST variable caste (if scheduled tribes) indicates that the enrolment is affected negatively if the children belong to scheduled tribes. This is in conformity with the findings of several research studies regarding the social inequality of educational participation of children in India. NSSO report also indicates that the attendance of ST children particularly girls of this community is very low as compared to their Non ST counterparts.

The effect of village dummy included in the model shows that the coefficient of villages with high ST population was negative but statistically not significant. But the village with medium ST population has a positive and significant effect on the enrolment. This implies that in the highly ST populated area; the demand for education is affected to a great extent while it is not affected in the districts with moderate ST population. It is also interesting to note that the coefficient of distance to forest comes out as negative and significant. This implies that if the distance of forest to home is more, the participation of children in school is likely to be less. This is because of the reason that the tribal children are engaged in collecting the minor forest produce like tendu leaves, mahua flowers, fuels etc early in the morning. The time of collection of forest produce coincides with the timing of the school for which they miss many of their school days.

The existence of schools within the reach of children increases the enrolment of children. The regression co-efficient of distance to school indicates that when the distance increases the children are less likely to participate in the schools. The school infrastructure influences the education of children positively. In other words when the school has good infrastructure facilities (like road, building, toilets, separate toilet for

girls, teachers learning materials etc.) the likelihood of enrolment also increases significantly. Table 4.13 presents the regression results for the total samples.

Table 4.13

Regression Results of Maximum Likelihood Probit Estimates of Determinants of Enrolment of Children (6-14 years) [All Sample]

Variables	**Co-efficient Values**	**t-values**
Constant	1.59	12.30*
AGE	-0.84	- 4.13*
AGESQUARE	-.0061	-2.564**
SEX	0.19	3.51*
FATHEDU	0.16	4.12*
MOTHEDU	0.04	3.67*
PCI	0.08	2.92**
SC/ST	-0.13	-2.89**
VILLAGETYPE (High ST)	-0.11	-0.23
VILLAGETYPE (Med.ST)	0.27	2.79**
DISTFOREST	-0.18	-2.85**
DISTANCE SCHOOL	-0.07	-4.86*
INFRASCHOOL	0.05	3.39*
PTR	0.02	0.09
Pseudo R^2	0.57	
Log Likelihood	-782.15	
N	1800	

* = Significant at 1% level

** = Significant at 5% level

Excluded variables ; Female sex, Non-ST, Villages with Average ST population

4.4.2District Wise Results of Regression

The regression results for the 3 districts show similar pattern with some exceptions. For instance in Puri district (lowest ST population), the co-efficient of caste (ST) has a positive and significant effect on enrolment while in other two districts the variable caste (ST) affects the enrolment negatively. In Bolangir this effect is more serious than Sundergarh.

Similarly the effect of villages when examined it was found that the villages with high ST population and Medium ST population have positive effects an enrolment in Puri District while in Bolangir and Sundergarh there is inverse relationship between high ST village and enrolment. But in Sundergarh district there is positive and significant relationship between medium ST village and enrolment of children. Among the schooling variables the Pupil teacher ratio has shown very weak effect in Puri district while in the other two districts it has shown a strong relationship with the enrolment. This implies that in the tribal dominated districts more of teaches leads to more enrolment. Tables 4.14, 4.15 and 4.16 present the results for Puri, Sundergarh and Bolangir districts respectively.

Table 4.14

Regression Results of Maximum Likelihood Probit Estimates of Determinants of Enrolment, Puri Dist.

Variables	Co-efficient	t-values
Constant	-8.65	5.92*
AGE	0.69	5.73*
AGESQUARE AGE	-0.0004	-1.01
SEX	0.42	3.91*
FATHEDU	0.07	5.15*
MOTHEDU	0.05	4.13*
PCI	0.12	3.76*
SC/ST	0.31	0.12
VILLAGETYPE (High ST)	0.04	2.09**
VILLAGETYPE (Med.ST)	0.12	2.19**
DISTFOREST	-0.01	-0.15
DISTANCE SCHOOL	-0.19	-5.16*
INFRASCHOOL	0.25	4.71*
PTR	0.06	1.21
Pseudo R^2	0.47	
Log Likelihood	-963.74	
N	470	

* Significant at 1% level

** Significant at 5% level.

Table 4.15

Regression Results of Maximum Likelihood Probit Estimates of Determinants of Enrolment, Sundergarh Dist.

Variables	Co-efficient	t-values
Constant	2.68	3.59*
AGE	-0.72	-4.96*
AGESQUARE	-0.001	-2.95**
SEX	0.39	3.96*
FATHEDU	0.07	2.89**
MOTHEDU	0.03	2.76**
PCI	0.15	3.49*
SC/ST	-0.002	-1.32
VILLAGETYPE (High ST)	-0.17	-2.91**
VILLAGETYPE (Med.ST)	0.05	3.75*
DISTFOREST	-0.28	3.48*
DISTANCE SCHOOL	-0.06	-5.12*
INFRASCHOOL	0.21	3.77*
PTR	0.07	2.56**
Pseudo R^2	0.51	
Log Likelihood	-981.62	
N	710	

* Significant at 1% level

** Significant at 5% level

Table 4.16

Regression Results of Maximum Likelihood Probit Estimates of Determinants of Enrolment, Bolangir Dist

Variables	**Co-efficient**	**t-values**
Constant	-7.49	-4.39*
AGE	0.41	3.86*
AGESQUARE	-0.0007	-1.89**
SEX	0.36	3.92*
FATHEDU	0.03	3.67*
MOTHEDU	0.02	2.99**
PCI	0.21	2.97**
SC/ST	-0.31	-3.78*
VILLAGETYPE (High ST)	-0.01	-1.29
VILLAGETYPE (Med.ST)	0.02	0.04
DISTFOREST	-0.31	-4.25*
DISTANCE SCHOOL	-0.07	-6.21*
INFRASCHOOL	0.29	3.69*
PTR	0.01	2.21**
Pseudo R^2	0.42	
Log Likelihood	-923.56	
N	620	

* Significant at 1% level

** Significant at 5% level

4.5 Summary and concluding observations

The study with empirical evidence shows that the goal of Universalisation of primary education in 27 villages of 3 districts seems to be a distance goal as the enrolment is much below 100 percent.

It was also found that the opportunity cost of ST children is very high in highly ST populated blocks/districts. The children engaged wage earning activities varies from 3 hours to 7 hours. The working hours among the ST children are found to be higher than non ST children. Girls are engaged for more hours in domestic work than their boy counterparts. This is mainly on account of poor economic condition of the family. The incentive schemes meant for these children seem not to be fully utilized by them. The direct private expenditure of primary education is also found to be very high. In order to avoid all these barriers sufficient amount of scholarship needs to be available to all the ST children in general and in highly ST populated districts/villages in particular. This will reduce the inequalities in enrolment between educationally backward and advanced villages within the same district. Hence, location specific programmes and policies need to be formulated and implemented keeping in view the specific/targeted population.

In order to reduce the dropout rate and enhance the enrolment among ST children, parental motivation is assumed to be very significant. Parental motivation for children's' education depends on the level of education of parents. It is found that the incidence of illiteracy among the parents of ST children is very high and it is one of the main constraints of the parental motivation for educating their children. For improving the literacy level of Adult members in the ST dominated area, adult literacy programmes be initiated in these areas extensively. The language problem of ST children, school timing and curriculum load are also found as some of the constraints for the education of scheduled tribes.

The regression results indicate that the enrolment of children is positively associated with the economic status of family and parent's education in all the districts

and among all the categories of castes. The distance to forests affects the attendance of children significantly. The enrolment of ST is inversely related to the distance to school in all the districts while it is positively associated with the infrastructure of the schools. In order to enhance the enrolment of all ST children, schools within habitation with all the basic infrastructure facilities need to be provided. The results of regression is similar for all the districts.

Chapter –V

Summary and Conclusions

5.1 The present study examined the educational status of scheduled tribes and the constraints of the educational achievement of this group of population in the context of a less developed state i.e. Orissa. The main objectives of the study are: (i) To take the stock of the educational participation of scheduled tribes as compared to the non scheduled tribes; (ii) To examine the regional disparities in educational participation of ST and non STs; (iii)To identify the demand side and supply side constraints of the educational participation of STs and non STs; (iii) To evaluate the effect of demand side and supply side factors on the educational participation of STs and non STs; (iv)To suggest the strategies for the improvement of educational participation of scheduled tribe children.

The study collected both primary and secondary data. Primary data was collected from the selected students with regard to the demand side factors which affect the education of students. The secondary data was collected mainly from different published records, schools and teachers, BEOs, Community leaders and other such stake holders etc. The study covered three districts, 9 blocks and 27 villages of Orissa. A total of 1200 parents, 1800 children, 30 schools, 77 teachers, 30 community leaders, 9 BEOs were covered for collecting the relevant information relating to the supply and demand side factors affecting the education of children, both tribals and non tribals. Using various statistical tools as discussed in Chapter-1, were used to find out the constraints faced by the triabal children.

5.2. Main Findings

(i) The literacy rate of male, female and total population of scheduled tribes in the scheduled districts are lower than the non scheduled districts with an exception to the district of Sundergarh. The lowest female literacy rate is found to be less than 8 percent in Malkangiri district (scheduled district), which is really a matter of serious concern.

(ii) About 27 percent of the habitations with predominantly scheduled tribe population do not have a primary school within a radius of one kilometer.

(iii) The enrolment in primary schools indicates that girls are generally behind the boys. The dropout rate of ST children is the highest as only 47 percent of children continue till class-V among ST while the same is 65 percent among others.

(iv) The percentage of female teachers in the state is much below the required norm. Across region the same pattern is observed as it is much below than the state as a whole.

(v) The percentage of tribal teachers is only 8.1 percent in the state. Non-tribal teachers are posted to schools located at tribal areas, who are not aware of tribal cultural values.

(vi) The socio-economic status of the households showed that (a) the highest (88%) proportion of Scheduled tribes is found in Sundergarh and the highest proportion of SCs are in Puri district. In Bolangir more than 3/4th of the households belong to STs. The district Puri has the least proportion of tribal population and higher proportion of population belonging to the general category; (b) In so far as the poverty level is concerned, it was found that in both the districts of Bolangir and Sundergarh the households living below poverty line are almost the same while the same is much lower in the district of Puri; (c) The occupational status of the HHs indicated that highest number of households in Bolangir are engaged as daily labour while it is the lowest in the district of Puri. It was further observed that highest proportion of households in the district of Puri is engaged in service while the same is the lowest in the district of Bolangir. It provides a clear indication that the economic status of the district Puri is

found to be better than that of other two districts; (d) the per capita income of the district of Puri is found to be the highest followed by Sundergarh and Bolangir; (e) the rate of illiteracy among females is much higher than that of males in all the districts. The illiteracy is found to be the highest in the district of Bolangir and it is the lowest in the district of Puri. Across social groups, the Scheduled tribe illiteracy rate is higher as compared to other caste groups.

(vii) The profile of the children showed that (a) there are some over aged (11-14) children still continuing at the primary level. This proportion is found to be the highest in Bolangir district and lowest in Puri district. More interestingly it is observed that the over aged children among girls are found to be less than their boy counterparts. This implies that girls are performing better than the boys in their respective educational levels. (b)The tribal enrolment is found to be lower than that of non tribals in all the districts. Similarly the dropout and never enrolment rates are the lowest in Puri and highest in Bolangir district. (c)It was observed that there was a large gap between the enrolment and actual attendance of children. Most interestingly, the attendance of girls was found to be higher than that of boys. (d)The mean grade attainment of all currently enrolled children is higher for males than for females in all the districts and in all social groups. It is invariably the highest among children of the high castes than SCs or STs.

(viii) The dropout is more among the tribal children than their non tribal counterparts. One of the most important reasons stated invariably by the parents was poverty which compels the parents not to send their ward to the schools. However there are few other reasons, which may also be responsible for drop-out problem of tribal students which are as follows:(a) The medium of teaching i.e., Oriya language is a foreign language for the tribal children; (b) Absence of tribal cultural and regional

materials in class books; (c) Teachers in interior pockets neglecting in duties; (d) Irregular supply of mid-day meals; (e) Lack of communication facility;(f) Untimely supply of study materials. There are many other minor reasons for drop out of tribal students. If this type of process will continue and slow progress of literacy rate will prevail then the very purpose of fundamental right to education as per 86th amendment of Constitution will be defeated. (g)The children engaged wage earning activities varies from 3 hours to 7 hours. The working hours among the ST children are found to be higher than non ST children. Girls are engaged for more hours in domestic work than their boy counterparts. This is mainly on account of poor economic condition of the family.

(ix) The results of multivariate analysis indicate that of the demand side factors, the economic status of family and parent's education in all the districts are positively associated with the enrolment of children among all the categories of castes. The distance to forests affects the attendance of children significantly. The caste and village dummy show that the villages with high ST have negative impact on the enrolment of children. Of the supply side factors school infrastructure and pupil teacher ratio are positively related to the enrolment of children while the distance to school is negatively associated with the enrolment. The results of regression are similar for all the districts.

5.3. Concluding observations

In view of the above findings the following suggestions may be considered:

i) Extensive literacy campaign in the tribal dominated districts may be undertaken on a priority basis to literate the tribal in general and the tribal females in particular in order to create awareness about their rights to education and other fundamental rights.

ii) The primary schools need to be provided within the habitation of the tribals and more of tribal teachers need to be appointed in these schools.

iii) Since the tribals do not speak Oriya language, it is difficult for them to understand if the script of the text books is in Oriya. In view of this more and more text books may be developed in tribal dialect. The illustrations provided in the books need to be in line with their culture and traditions.

iv) Regular mid day meal programme for all the schools in all the tribal areas and timely supply of textbooks and other incentives are to be taken up on priority basis. This will enhance the enrolment and decrease the dropout to a considerable extent.

v) Recently the Approach Paper to the 11th Five Year Plan of the Government of India, which will provide the overall framework for the Government's work from 2007-2011, the Government reiterated its commitment to addressing disparities in education between castes. The Approach Paper states the following

"Development and empowerment of socially disadvantaged groups is a commitment enshrined in the Constitution, and education is the most effective instrument of social empowerment. Schemes for the educational uplift of the SCs and STs have borne fruit although the gap between the general population, SCs and STs are still at unacceptable levels….Some minorities have fallen far behind the national average in education. It will be necessary to go to the root of the problem and examine the reasons for the decline so that remedial measures can be taken during the 11^{th} Plan." (Planning Commission, 2006, 64).

The emphasis on inclusive education by the government is a way forward for the development of tribal education. No uniform policy needs to be formulated to understand the constraints of education for different groups and in different areas. Hence the policy needs to be location specific keeping in view a particular targeted population.

5.4. Limitations of the study and Scope for Further Research

The study is not free from limitations. The main limitations of the study are: (i) size of the sample of the study from three districts is very small. One can not infer any definite conclusion on the basis of the sample for the district as a whole; (ii) Comparing two tribal districts with one non tribal district seems to be very limited comparison; (iii) The achievement test of the children has missed out in the study; (iv) Covering only one level of education i.e primary level, do not provide the participation of Scheduled tribes in other levels of education i.e secondary and above.

Keeping in view the limitations of the present study, the future research can be undertaken in the following areas: (i) larger sample studies may be undertaken by covering more number of districts, households, schools etc in order to infer sound conclusions of the study for applying the conclusions in the wider context; (ii) The achievement test may be undertaken among the tribal children on some important subjects like mathematics, science and language etc. on which they perform poorly; (iii) Some of the important determinants which have not included in the present study but contributes significantly to the educational participation of tribals, may be taken up in the future studies. However, despite the limitations of the study, the study would certainly provide lot of impetus and proper direction for future research in this area.