AN ANALYSIS OF DEVELOPMENT OF TRIBAL PEOPLE AND ITS RELATIONSHIP WITH HUMAN DEVELOPMENT MEASURE (HDM)

Dr. Arun Kumar Mandal,
Assistant Professor
Department of Education
Union Christian Training College,
Berhampore, Murshidabad, West Bengal

ABSTRACT:
Development of the tribal people largely depends on promotion of their economy and educational status. Most of the tribal people in India suffer from some push factors like unemployment, lack of food security, gender inequality, social insecurity, religious persecution, political instability, violence, natural disasters with drought and they live below the subsistence level. Human Development Measure (HDM) can be estimated in terms of Educational Measure (EM), Income Measure (YM) of tribal households and Good Health Measure (GHM) of tribal respondents at different tribal villages. They suffer from low health status and socio-economic conditions due to various socio-economic push factors. It is supposed that good health is associated with lower incidence of disease as a result per capita disease would be minimum as much as possible. Education does have potentiality for socio-economic development of tribal people. The incidence of malnutrition is influenced by low socio-economic Status (SES) of the tribal family. So, the present paper has attempted to focus on an analysis of development of tribal people and its relationship with Human Development Measure (HDM). The study represents HDM influence development of tribal people largely

Key words: HDM, GHM, EM, YM, Push Factors, Subsistence level, Poverty, Development, SEC.

INTRODUCTION:
Development of the tribal people largely depends on promotion of their economy and educational status. Dalton (1971)explained tribal economy within three interrelated features as (i) It is a structural arrangement and enforcement rules for the acquisition and production of material goods and services, (ii) In the process of acquisition and production of goods and services, division of human labour , use natural resources and application of technology(tools and knowledge) are involved, (iii) In the distribution process, superficial devices and practices such as marker place, device for measuring some types of transaction are involved. He also viewed that an economy is a set of institutionalized activities, which combine natural resources, human labour, and technology to acquire, to produce and distribute material goods & special services in a structured and repetitive fashion. Most of the tribal people in India suffer from some push factors like unemployment, lack of food security, gender inequality, social insecurity, religious persecution, political instability, violence, natural disasters with drought and they live below the subsistence level. The Human Development Index (HDI) is a statistical tool used to measure a country's overall achievement in its social and economic dimensions. The social and economic dimension of a country depends on the health of people, their level of education attainment and their standard of living. The effective and speedy mobilization of tribal people can be carried out by the Socio-culture and economic development of tribal people. It is supposed that good health is associated with lower incidence of disease as a result per capita disease would be minimum as much as possible. Education is the single most important means which individuals and society can improve personal endowment, build capacity levels, overcome barriers, and expand opportunities for a sustained improvement in their being (Bagai and Neera 2008).There are over 700 scheduled tribes notified under Article 342 of the constitution of India, spread over different states and union Territories of the country. According to the 2011 census, the population of Scheduled Tribes in the country is 8.43 crore, which is 8.2 % of the total population of the country. Tribals constitute a substantial portion of Indian's population. In many respects they lag behind their non-tribal

counterparts. To ameliorate their condition, much attention has been given to their education. But, in spite of such attempts, education has made little progress among tribals. The practice of education estimated common in Santal, Lodha, Toto than Sabar. Majority of the Sabar respondents belonged to under low-income group. Family Size was found large in Santal, than other three tribes. Family educational status, land type, land holding, family size, family type showed highly significant to health status amongst the Lodhas(Dhargupta, 2009).Tribal's household derives 9.92 % to 29.21 % of their income from forests. Percentage of forest labour days to total annual labour days per household varies from 20.23 % to 70.19 %. Joint Forest Management (JFM) helps to reduce rural poverty and unemployment and promote health condition of tribal people to some extent. There is medium fertility (3/woman). About 85.71 percent tribal people drink haria. The tribal woman is medium healthy. The tribal woman is illiterate and low nutritional status of the tribals (Mandal, 2009).Education is a potent instrument for social change and rapid development. Socio-culture and economic development of any society is made possible through the effective and speedy mobilization of the large number of young rural population. The mobilizing of this large young population would create a momentum for progress of the country and increase the socio-economic living conditions of the majority of people. (Sen, 1981). The influence of socio-economic factors like occupation, parental literacy level and monthly family income showed that children from farmers' families having educated parents and from families with comparatively more family income suffered less from various grades of malnutrition. The own farm helps in reducing the prevalence of malnutrition. This may be because of access to more food from own farm. Income level of the family had influenced the prevalence of malnutrition in tribal preschool children. It was found that higher the economic status of the family, lower was the prevalence of malnutrition (Srimoy and Michael, 2002). So, the present study has attempted to focus on an analysis of development of tribal people and its relationship with Human Development Measure (HDM).

OBJECTIVES OF THE STUDY:
➢ To find out the good health measure (GHM) of the tribal households in the study areas.
➢ To estimate development of the tribal people in terms of human development measure (HDM) of tribal households in the study areas.
➢ To find out the relationship between HDM and EM of the tribal households in the study areas.

METHODOLOGY:
In order to carry out the sociological study the sample have been selected on the basis of multi-stage sampling technique at three levels like districts, blocks and villages in the district of Birbhum. Total seven villages have been chosen taking into consideration one tribal village from each block of the Birbhum district where tribal people reside in rural areas. Total 320 tribal households have been selected from 410 tribal households of 7 tribal villages taking into consideration of BPL and APL households. Good health measure (GHM) is estimated as $GHM_i=$ Min (Per Capita disease)/ (per capita disease).Educational status score ($EDUSC_i$) for the ith group= (Proportional distribution of the ith group in the class) x(rating) , we rate the different level of education according to the given socio-economic conditions(SEC) scale and Linkert method. Educational Status ($EDUS_i$) =$EDUSC_i$/AFM where AFM=Average Family Member. Income measure is estimated as $Y M_i=AM\ Y_i$/Max AMY. Human Development Measure (HDM) has been estimated in terms of Educational Measure (EM), Income Measure (YM) of tribal households and Good Health Measure (GHM) of tribal respondents at different tribal villages. It is supposed that HDM of tribal households would be very low w.r.t others social groups.

ANALYSIS AND RESULTS:
Table-1: Incidence of various Diseases among the Tribal Respondents al different Location.

Items/ Location	Mor-Gadanga	Bir-japur	Gan-garampur	Kada-amvir	Metala	Harishpur	Bharghata	Total
Sickle diseases/ Anemia	17	16	15	24	14	17	22	125
Ear disorder	2	3	2	5	2	3	4	21
Eye disorder	1	2	1	3	1	2	4	14
Chest & Heart	3	2	3	5	2	3	5	23
Headache	2	1	2	3	2	2	3	15
High BP	3	2	2	4	3	2	4	20
Low BP	2	2	1	2	1	1	4	13
Spondylitis	1	2	1	3	1	1	3	12
Toothache	2	1	1	2	2	1	2	11
Tuberculosis	1	2	2	4	2	1	4	16
Malaria	2	2	3	2	3	2	3	17
Diabetes	3	1	2	4	3	2	3	18
Skin diseases	7	5	6	12	6	8	11	55
Jaundice	3	2	3	6	4	3	4	25
Cold/ Cough/Fever	12	13	14	16	11	14	15	95
Total	61	56	58	95	57	62	91	480
Per Capita disease	1.22	1.12	1.16	1.9	1.42	1.55	2.27	1.50

Source: Village level Survey

Table -1 reveals that identified cases of disease and ailment estimate 480 among 320 respondents according to location of different tribal villages. The highest cases of disease and ailment measure 95 at Kadamvir, followed by 91 at Bharghata, 62 at Harishpur, 61 at Morgadanga, 58 at Gangarampur, 57 at Metala and lowest 56 at Birjapur respectively. The incidence of cases of diseases and ailment among the tribal respondents is found for cases of sickle diseases (125), followed by Cold/ Cough/Fever(95), Skin diseases(55), Jaundice(25), Chest and Heart(23), Ear disorder(21), High BP(20), Diabetes(18), Malaria(17), Tuberculosis(16), Headache(15), Low BP(13), Spondylitis(12) and lowest for Toothache (11) respectively.

Table-2: Good Health Measure (GHM) of the Tribal Households at different location.

Location	Per Capita disease	$GHM_i=$Min (Per Capita disease)/(per Capita disease)$_i$
Morgadanga	1.22	0.918
Birjapur	1.12	1
Gangarampur	1.16	0.965
Kadamvir	1.9	0.589
Metala	1.42	0.788
Harishpur	1.55	0.722
Bharghata	2.27	0.493

Source: village level Survey

Table 2 focuses the Good Health Measure (GHM) of the tribal households at different location. GHM is measured on the basis of per capita disease where it is supposed that good health is associated with lower incidence of disease as a result per capita disease would be minimum as much as possible. So, GHM is defined as $GHM_i=$Min (Per Capita disease)/(per Capita disease)$_i$..The highest per capita disease is found as 2.27 at Bharghata corresponding lowest GHM (0.493), followed by Kadamvir(1.9) with GHM(0.589), Harishpur(1.55) with GHM(0.722), Metala(1.42) with GHM(0.788), Gangarampur(1.16) with GHM(0.965) and lowest 1.12 with GHM (1.00)at Birjapur.

Table-3: Educational Measure (EM) of the Tribal Households at different location.

Location	Educational Status Score($EDUSC_i$)	AFM	Educational Status($EDUS_i$)= $EDUSC_i$/AFM ,AFM=Average Family Member	$EM_i=$ $EDUS_i$ /MaxEDUS
Morgadanga	269	5	53.8	0.893
Birjapur	299	6	49.88	0.828
Gangarampur	301	5	60.20	1
Kadamvir	248	5	49.6	0.823
Metala	230	5	46.0	0.764
Harishpur	227	5	45.40	0.754
Bharghata	175	5	35.0	0.581

Source: village level Survey

Table-3 reveals Educational Measure (EM) of the tribal households at different location on the basis of Education Status (EDUS) and Max EDUS. Highest EM measures 1 with EDUS (60.2) at Ganagarampur, followed by 0.893 with EDUS (53.8) at Morgadanga, 0.828 with EDUS (49.88) at Birjapur, 0.823 with EDUS(49.6) at Kadamvir, 0.764 with EDUS (0.764) at Metala,0 .754 with EDUS(45.4) at Harishpur and lowest to be 0.581 with EDUS (35.0) at Bharghata respectively. EM differs in different tribal villages ranging from 1 to 0.581. EM plays a significant role for upliftment of SEC and health status of the tribal people.

Table-4: Income Measure (YM) of the Tribal Households

Location	Average Monthly Income (AMY in RS.)	Y M$_i$=AM Y$_i$/Max AMY
Morgadanga	4436	0.648
Birjapur	4895	0.715
Gangarampur	4650	0.680
Kadamvir	3832	0.560
Metala	6837	1
Harishpur	4585	0.670
Bharghata	3844	0.562

(Source: Village Level survey)

Table-4 accounts for Income Measure (YM) of the tribal households according to different location on the basis of Average Monthly Income (AMY) and Maximum AMY. The highest YM gives an account for 1 with maximum AMY Rs 6837 at Metala, followed by0 .715 with AMY RS 4895 at Birjapur, 0.680 with AMY RS 4650 at Gangarampur, 0.670 with AMY RS 4585 at Harishpur, 0.648 with AMY RS 4436 at Morgadanga, 0.560 with AMY RS 3832 at Kadambir and lowest to be 0.562 with AMY RS 3844 at Bharghata respectively. YM varies within range from 1 to 0.560 according to different location of tribal villages.

Table-5: Human Development Measure (HDM) following Educational Measure (EM), Income Measure (YM) of households and Good Health Measure (GHM) of the tribal respondents at different tribal villages.

Location/HDM	YM	EM	GHM	HDM
Morgadanga	0.648	0.893	0.918	0.819
Birjapur	0.715	0.828	1	0.847
Gangarampur	0.680	1	0.965	0.881
Kadamvir	0.560	0.823	0.589	0.657
Metala	1	0.764	0.788	0.850
Harishpur	0.670	0.754	0.722	0.715
Bharghata	0.562	0.581	0.493	0.545

(Source: Village level Survey)

Table-5 highlights the Human Development Measure (HDM) in terms of Educational Measure (EM), Income Measure (YM) of tribal households and Good Health Measure (GHM) of tribal respondents at different tribal villages. The highest HDM estimates highest 0.881 at Gangarampur, followed by 0.850 at Metala, 0.847 at Birjapur , 0.819 at Morgadanga, 0.715 at Harishpur , 0.657 at Kadamvir and lowest to be 0.545 at Bharghata respectively. HDM also focuses the existing SEC of the tribal people among the tribal villages and points out the relative position of the SEC of the tribal people.HDM does have a active role in estimating the development or SEC of the poor tribal people who live below the subsistence level of economy.

Table-6: Association between HDM and EDUS   **(N=320)**

HDM/ Category	Low	%	Average	%	High		Total	%	
Low	30	9.37	41	12.81	32	10.0	103	32.18	
Average	57	17.81	115	35.93	31	9.87	203	63.43	22.219
High	2	0.62	4	1.25	8	2.5	14	4.37	
Total	89	27.81	160	50.0	71	22.18	320	100.0	

Dependent Variable: HDM

Hypothesis: H_0: $f_{EDUS(Low)} = f_{EDUS(Average)} = f_{EDUS(High)}$

H_1= $f_{EDUS(Low)} \neq f_{EDUS(Average)} \neq f_{EDUS(High)}$

with given significance level .01 and   df= (c-1)(r-1) =(3-1)(3-1) =2×2=4, χ^2= 13.28

If observed χ^2 < 13.28, accept H_0, if   observed χ^2 > 13.28, reject H_0

Table- 6 examines that the value of chi square on association between educational status (EDUS) and human development measure ((HDM) of the tribal households among different tribal villages. It is interpreted that the calculated value of χ^2= 22.21 which is greater than the tabulated value of $\chi^2_{.01}$ = 13.28 with d.f =4, so reject H_0 and accept H_1. So, we may infer that there is a significant difference between association of Human Development Measure (HDM: Low, Average and High) and different category of educational status (EDUS: Low, Average and High) of tribal households. The association between HDM and EDUS is not equally distributed among the tribal villagers.

CONCLUSION:
The Human Development Index (HDI) was developed as an alternative to simple money metrics. It is an easy to understand numerical measure taking into consideration of basic ingredients of human well-being: health, education, and income. India raised one spot to 130 out of 189 countries in the latest human development ranking released recently by the United Nations Development Programme (UNDP) report. India's HDI value in 2017 is 0.640, which put the country in the medium human development category. Between 1990 and 2017, India's HDI value increased from 0.427 to 0.640, an increase of nearly 50 per cent and indicator of the country's remarkable achievement in lifting millions of people out of poverty. The vicious circle of poverty still prevails in tribal society. Education does have potentiality for socio-economic development of tribal people. The incidence of malnutrition is influenced by socio-economic status of the tribal family. Tribal education attempts to find out a balance between preserving tribal cultural identity and mainstreaming for economic prosperity means building education programs that ensure a tribal child's success in mainstream schools. West Bengal is among the Indian States where the rate of growth of crop-output has reached a satisfactory level. But rural poverty in West Bengal is very high (34.7%: Source-World Development Indicator, 2005). There is a large number of tribal populations in the district of Birbhum. Due to cause of poverty the tribal people do not have sufficient food to eat, water to drink, shelter to live and clothing to wear which in turn lead to ill-health of the tribal people. Prof A.K.Sen emphasized on public health and primary education to increase the efficiency of work-forces which in turn lead to an increase in agricultural and industrial production. Poverty can be must be tackled using three strategies simultaneously e.g (i)Economic Growth, (ii) Human Development, (ii)Anti Poverty Programmes (Nayyar, Dhiraj, 2000, EPW). Major findings of the study stated as:
  ➢ The incidence of cases of diseases and ailment among the tribal respondents is found for cases of sickle diseases as highest followed by Cold/ Cough/Fever, Skin diseases, Jaundice, Chest

and Heart, Ear disorder, High BP, Diabetes, Malaria, Tuberculosis, Headache, Low BP, Spondylitis and lowest for Toothache respectively in the study areas.

➢ It is supposed that good health is associated with lower incidence of disease as a result per capita disease would be minimum as much as possible.

➢ Good Health Measure (GHM) differs at different location of tribal villages

➢ Educational Measure (EM) differs in different tribal villages ranging from 1 to 0.581. EM plays a significant role for upliftment of SEC of the tribal people.

➢ Income Measure (YM) varies within range from 1 to 0.560 according to different location of tribal villages.

➢ The incidence of malnutrition is influenced by socio-economic status of the tribal family.

➢ Good Health Measure (GHM) is positively and significantly correlated with EM of the tribal households at different location, but it is positively and non-significantly correlated with YM.

➢ GHM is positively influenced by Educational Measure (EM) due to some socio-economic factors such as educational level of tribal people, income, employment and educational opportunities, job security, family members, farm-size, communication from epicentre of various socio-economic opportunities and social –awareness.

➢ Good Health Measure (GHM) is conducive to cognitive, effective and psycho-motor development of the all children as well as tribal children.

➢ HDM does have an active role in estimating development of the poor tribal people who live below the subsistence level of economy.

➢ There is a significant difference between Human Development Measure (HDM: Low, Average and High) and different category of educational status (EDUS: Low, Average and High) of tribal households.

➢ The association between HDM and EDUS is not equally distributed among the tribal villagers.

REFERENCES:

1. Bagai, Shweta and Nundy, Neera (2008). Tribal education: A Fine Balance. Dasra. Catalyst for social change, p.17. Mumbai-400050.

2. Bhagat, L.N (2008)**.**Role of Education and Value System in Economic Development of Tribals: A Case Study of Oraon and Kharia Tribes of Chotanagpur. In kanchan Roy (Ed.), Education and Health Problems in Tribal Development: A Study of National Integration (pp.67-79). Concept Publishing Company, New Delhi-110059.

3. Bhowmik, Indraneel (2010).Human Development among the workers of Transport Sector in Tripura: A Comparative Study on the Workforce of the Urban Public Modes of Transport. In Keya Sengupta (Ed.), Human Development: Multi Dimensional Approach to Human Well-Being (pp.85-99). Concept Publishing Company PVT. LTD., New Delhi-110059.

4. Dalton, George (1971).Economic anthropology and development. Essays on Tribal and Peasant Economics. New York: Basic Book.

5. Dhargupta, Antra et al. (2009). Study on the Effect of Socio-economic Parameters on the Health Status of the Toto, Santal, Sabar and Lodha Tribes of West Bengal, India. Stud Tribes Tribals, 7(1): 31-38.

6. Government of India, Ministry of Tribal affairs (1999). The National Tribal Policy: A Policy for the Scheduled Tribes of India.p.3. New Delhi-110001. http://tribal.giv.in

7. Mandal, A.K. (2009). Poverty, Health and Tribal Development through Joint Forest Management (JFM) as well as Forest Development: A Case Study in A Tribal Village of Birbhum. In Sujit Kumar Paul (Ed.), Health, Poverty and Development (p.137). Commonwealth Publishers PVT.LTD. New Delhi-110002.

8. Mandal, A.K .and Mete, Jayanta (2013). Social and Economic Empowerment of Tribal women: An Analytical Overview. In Jayanta Mete and Ajit Mondal (Eds.), Emerging Issues On Women Empowerment (pp.396-404).Kunal Books, New Delhi-110002.

9. Mandal, A.K. and Mete, Jayanta (2019). A Study of Good Health Measure (GHM) and Its Relationship with Educational Measure (EM) and Income Measure (YM) of Tribal Households. Journal of Education and Development (A Multi-disciplinary, peer Review Journal), Vol-9, No.18, December, 2019, ISSN: 2248-9703, Pp214-216

10. Nayyar, Dhiraj (2000). Alleviating Poverty. EPW, Vol.35, Issue No.42, 14 Octo, 2000.

11. Sen, Amartya (1981**).** Poverty and Famines: An Essay on Entitlement and Deprivation. Oxford University Press, New York. P.10

12. Siromoy, P and Michael V. (2002). Kerala. In V.K. Agnihotri (Ed.), Socio-Economic Profile of Rural India (PP.87-147). Volume one South India. Centre for Rural Studies L.B.S. National Academy of Administration.