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**INEQUALITY IN THE DISTRIBUTION OF INCOME IN MINING AREAS IN  
WESTBENGAL IN INDIA**

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**ABSTRACT:**

We know that Mining is an industry of operations are temporary economic activity extending over a finite period of time . Poorly closed mines and derelict landform leave behind a legacy that brings forward several inequalities issues. Abandoned mine sites , degraded environment around the mine site and loss of livelihood of local people shatters the local economy . The local people remaining in ghost mining townships lose their food and social security. This is the post mining general scenario seen in a closed mine sites in India. Here i want to observe whether mining activities increase poverty and inequalities as for mining activities one hand provide services some group of large land size holding people at same time loss of food security who lost small size of land.

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## INTRODUCTION

We know that per capita income is only an average figure as mining activities increase per capita income as during mining activities increase income some group of people. We cannot get any idea about the standard of living from the per capita income. If income of a few rich rises, then per capita income rises but the standard of living of the common people will not increase. Thus, with the growth in income, if inequality of income in any country rises, the standard of living may not rise even if per capita income rises. It has been found in India that per capita income has during the plan period has increased, but the inequality of income has increased side by side. As a result, the standard of living of the people has not increased very much. Removal of poverty and reduction in inequality of income distribution were two major goals of our plans of our country. But even after a long era of economic planning, these two major problems are very much present in the India economy.

To study the problem of inequality in the distribution of income in India, a committee was set up in 1960 under the chairmanship of prof.mahalanobis. the committee is known as mahalanobis committee. The committee submitted its report in 1964. From this report we can get a picture of income inequality in India. The committee utilised the estimates of the reserve bank of India and showed that the richest 5% people enjoyed 17% of total income in the rural areas. On the other hand, the poorest 20% people enjoyed received only 9% of total income. In the urban areas, the richest 5% people got 20% of total national income while the poorest 20% people enjoyed only 7% of total income. This shows that there is inequality in the distribution of income in both rural and urban areas. The committee also found that the income inequality was greater in urban areas than in rural areas.

Apart from the estimates of mahalanobis committee, there are two other important estimates of income inequality in India. One estimate is made by Iyengar and mukherjee and the other by the national council of applied economic research or NCAER. These two estimates also give similar pictures. According to the estimates of NCAER, in 1960, the richest 10% families of both urban and rural areas enjoyed 42.4% and 33.6% of national income respectively. On the other hand, the poorest 20% families of both rural and urban areas obtained only 4% of national income.

The worldbank, in its report of 1989, presented the picture of income inequality in India. From this report, it is found that in 1975-76, the richest 20% families of India enjoyed 49.04% of national income. On the other hand, the poorest 20% families enjoyed only 7% of national income. However, in the reports of 1990 and 1991, it has been mentioned that this inequality has somewhat reduced in the year 1983. To estimate income inequality, these reports have considered the distribution of per capita expenditure. According to these reports, the richest 20% families spent 41.4% of total expenditure of the poorest 20% families was only 8.1% of total expenditure. All these estimates strongly establish that there are glaring inequalities in the distribution of income in India. The national sample survey (NSS) also obtained similar picture of inequality in the distribution of consumption expenditure. The NSS estimate also pointed out that this inequality was greater in urban areas than in rural areas.

Thus, different estimates and surveys indicate that there are severe inequalities in the distribution of income in India. Some economists think that this inequality has increased during the plan period. However, there are others who refuse to accept it. The study of NSS indicates that the income inequality has reduced to some extent, though by a negligible amount. However, this study does not include the incomes of some very rich persons. Hence, some economists are unwilling to accept the NSS view. We shall say that it is not certain either that the income inequality has decreased over time. However, we may note that savings of the high income group increased tremendously during the plan period. We know that savings depend directly on income. Hence, the sharp increase in savings of the high income group is due to the sharp increase in their income. From this perhaps it can be indirectly deduced that the plan period. But the point is, even if inequality has not increased, the present inequality in income is severe and acute.

### THE PROBLEM OF POVERTY IN MINING AREAS IN INDIA

We generally say that a vicious circle of poverty operates in the underdeveloped countries. The main theme of the vicious circle of poverty is that income in the underdeveloped countries is low. This results in low saving. Low saving leads to low investment. As investment is low, level of income is again low. The main objective of the economic plans is to remove the poverty and raise the standard of living of the poor. In India, it is found that even after 50 years of economic planning, the problem of poverty could not be removed. Along with development, the number of poor people is also continuously rising. For discussing this problem, we should first know what is the definition of poverty. That is, we need a definition of poverty line in order to determine whether a person is poor or not. We should first define poverty line in order to measure the number of people below or above the poverty line. Hence, we first consider the definition of poverty line.

### DEFINITION OF POVERTY LINE

Poverty may be defined at two levels. One is at the basic minimum level and the other is at the desirable level. We generally use the concept of basic minimum level because the attainment of the basic minimum level of living is the first and foremost problem. After attaining the basic minimum level, we can try to attain the desired level of living. Many attempts have been made to measure this minimum level of living. The crux of these measures is that an individual has to consume some goods and services for subsistence. It has been generally accepted that for subsistence an individual should take at least 2250 calories per day. These calories can be obtained from consuming different quantities of commodities. The total money value of these commodities is the minimum consumption expenditure is called the poverty line in money terms. The individuals who cannot spend this amount on consumption, are called the poverty line in money terms. The individuals who cannot spend this amount on consumption, are called poor. They are said to be below the poverty line. On the other hand, people who can afford this consumption expenditure, are said to be above the

poverty line. According to the Indian planning commission, at 1960-61 prices, the cost of these minimum quantities required for subsistence is Rs.20 per capita per month. Hence, the individual whose consumption expenditure per month is less than Rs.20 at 1960-61 prices, is said to be lying below the poverty line and the individual whose consumption expenditure per month is equal to or more than Rs.20 at 1960-61 prices, is said to be above the poverty line. This estimate has been done on the basis of the minimum intake of 2250 calories per day for subsistence.

### MEASUREMENT OF POVERTY IN INDIA

Different economists and organisations have estimated the number and percentage of population below the poverty line. They have taken 2250 calories per day as the minimum need for subsistence. As the rural people themselves produce their own food, the expenditure on food in the rural areas has been assumed to be less than that in the urban areas. Let us discuss some of the important estimates of poverty in India.

- (1) Ojha's estimate : Ojha has estimated the number of persons below the poverty line on the basis of an average calories intake of 2250 per capita per day. As per his estimate, 190 million persons of the country (44% of total population) were below the line in 1960-61. For 1967-68, he found a higher incidence of poverty.
- (2) Da Costa's study : Da Costa has classified three rings of poverty severe destitution, destitution and poverty. He has estimated poverty for the year 1963-64. As per his estimate, 62 million persons lived a life of severe destitution, 104 million of destitution and 162 million of poverty. The proportion of people living a life of severe was 13.2% and those living in poverty was 34%.
- (3) Dandekar and Rath's study : Dandekar and Rath have modified the definition of poverty line given by the planning commission. The planning commission accepts Rs. 20 per capita per month (i.e., Rs.240 per annum) at 1960-61 prices as the poverty line. Dandekar and Rath think that it would be unfair to them, at 1960-61 prices, Rs. 15 per capita per month (i.e., Rs.180 per annum) should be the poverty line for the rural areas and Rs. 22.5 per capita per month (i.e., Rs.270 per annum) should be the poverty line for the urban areas. On this basis, they have estimated that in 1960-61, 40% of the rural population was below the poverty line and 50% of the urban population taken Rs. 324 per capita per annum as the poverty line for the urban areas. On the basis of this poverty line, they estimated that in 1968-69, about 40% of the rural population and 50% of the urban population lived below the poverty line. Thus, according to Dandekar and Rath, the proportion of poor people in total has increased, the total number of poor people has increased. According to them, million in 1968-69. During this period, the number of urban poor has increased from 42 million to 49 million.
- (4) Minhas' study of rural poor : Prof. Minhas has shown that during 1956-57 and 1967-68, the proportion and the number of rural poor have decreased. He has taken the level of per capita annual consumption expenditure of Rs.240 in 1956-

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57 as the poverty line. On the other hand, people having consumption expenditure more than this are above the poverty line. On the basis of this, Minhas has estimated that in 1956-57 the proportion of rural population below the poverty line was 65%. This proportion has decreased in 1967-68. In 1967-68, the proportion of rural populations below the poverty line was 50.6%. however, minhas is the only economist to show that the proportion as well as the number of rural poor have decreased.

Other economists do not support the view of minhas. Among them, P.D.ojha and pranab bardhan have shown that the proportion of rural poor has been continuously increasing.

- (5) Bardhan's study : prof. pranab bardhan has taken per capita monthly consumption expenditure of Rs.15 at 1960-61 prices as the poverty line. As per his estimate, the proportion of rural population below the poverty line was 38% in 1960-61. In 1967-68, this proportion was 53%. That is, during 1960-61 and 1967-68, the proportion of rural population was below the poverty line.
- (6) Estimate by the seventh finance commission : As per the estimate of the seventh finance commission, in 1960-61, 53% of rural population was below the poverty line and 51% of urban population was below the poverty line. 48.8% of total population was below the poverty line.
- (7) Ahluwalia's estimate : montek singh ahluwalia has tried to estimate rural area poverty. He has found that between 1956-57 and 1973-74, the proportion of rural population has sometimes increased and sometimes decreased. According to him, the proportion of rural population below the poverty line was 50% in the mid-fifties. This proportion decreased to 40% in 1960-61. It again rose to 56.5% in 1967-68. In 1973-74, this proportion came down to 47.15. thus, he has shown that the proportion of rural poverty is related to the condition of agriculture. In the year of good harvest, the incidence of rural poverty decreases. Again, in a year of failure of monsoon when agricultural productivity is low, the incidence of rural poverty increases.
- (8) World bank's estimate : another estimate of poverty has been provided in a study (1989) by the world bank. According to the estimates of the world bank, the percentage of people below the poverty line in rural areas declined from 53% in 1970 to 41.7% in 1988. The corresponding percentages of population in urban areas were 45.5% in 1970 and 1988. However, in absolute terms, the number of poor persons increased from 287 million in 1970 to 322 million in 1988.

Different studies have used different definitions and different methodologies. Hence, their estimates vary. They are also not comparable. but there is a general consensus on two things. First, the percentage of population below the poverty line has started declining due to the measures adopted by the government. Still, the proportion of population below the poverty line is about one-third. secondly, the absolute number of people below the poverty line has certainly increased even though the percentage of the people below the poverty line has decreased.

**THE PROBLEM OF PROVERTY IN MINING AREAS IN WESTBENGAL**

Basically mining activities are done by taking agricultural land, By means Agriculture local people can maintain their sustainability generation to generation ,local people also habituated with that profession, when that land is transfer to mining number of people become job less ,some people gets job only by exchanging the land who have land more than 6 bighas(rules of ECL) other people getting job is dream. Again mining activities loss the fertility power of land it affects land not only for mines areas but also loss fertility power of large areas surroundings mines ,it is practically observed by Ecological foot prints, there fore local people suffer from the problem of food security, not only the land it also reduce the water level of that region ,and also causes shortage of grazing land that also causes poverty, besides that it polluted the total areas that causes loss of biodiversity and ecological system, this have been shown by primary level survey conducted by Bengal engineering and science university funded by MOEF

**Soil sampling points of study area**

Sl No.	Sample Site
1& 2	Loose portion of Dump ( 15 cm & 30 cm )
3	Waste Dump
4	Loose portion of dump from outsourced working
5	Barren land of village
6	Paddy field of village
7	Village field in rehabilitated village
8	Foot hill of naturally reclaimed dump
9	Artificially reclaimed dump
10	Soil sample of village

11	Slope of naturally reclaimed dump
12	Paddy field of village
13	Artificially reclaimed dump(species used is Zatropa)
14	Paddy field of village
15	Paddy field of village
16	Paddy field of village
17	Paddy field of village
18	Plantation area near village
19	Paddy field of village
20	Paddy field of village I
21	Paddy field of village J
22	Paddy field of village K
23	Paddy field of village
24	Paddy field of village
25	Paddy field in control village
26	Plantation area in control village
27	Colony Area
28	Paddy field of control village

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29	15 year old dump
30	Paddy field beside road.
31	Afforestation area
32	Foothill of dump behind village. D
33	Foothill of dump near village C
34	Foot hill of waste dump
35	15 years old dump
36	15 years old dump
37	Afforestation area
38	Near 15 years old waste dump in paddy field
39	Paddy Field in front of village.
40	Dumping Area
41	Paddy Field in village
42	Dumping Area in village
43	Paddy field of control village
44	Old Dumping Area near village
45	Paddy Field near a control village



Sample Location	Sound level in dB (A)
Village 1	57.8
Rehabilitated village	64.6
Village 2	62.1
Village 3	57
Village 4	58.3
Village 5	58.9
Village 7	59.8
Village 8	56.9
Village 9	46.9
ControlVillage	62.4
Rehabilitated village	55.4
Village 10	60.8
Village 11	49.8
Market away from the mine site	63.4
Colony away from active mining area	57.3
Village 9Arsula village	53.7
. Rehabilitated village	49.8
Village 12	58.5
ControlVillage.	52.7

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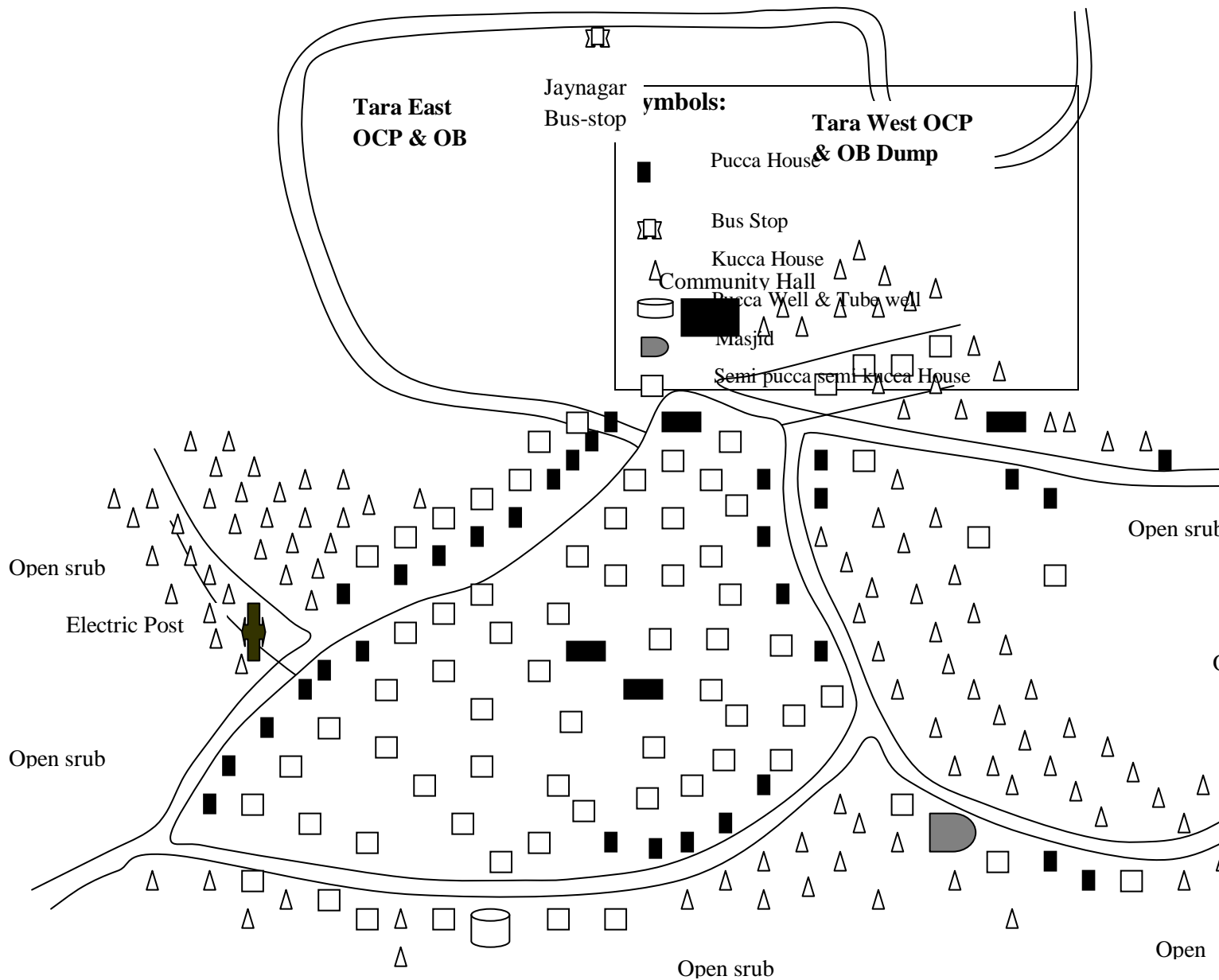
**Sampling sites for noise quality measurement in study area 1**

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Village Map of DesherMohanVillage

Block: Jamuria



From the picture of village as a sample here I take shows large in equality depicted by building and kacha houses and narrow land and lack of basic infrastructure facilities such as drainage system electric and tele communication

**Trend Analysis of Village**  
**Block: Jamuria**

Variables	10 years ago	Present situation
Overall Agricultural production	.....	....
Paddy Production	....	.....
Water (Drinking) Scarcity	....	.....
Water (Irrigation) Scarcity	....	....
Grazing land availability	..	..
Live stock	.....	....
Disease	....	....
Literacy	....	.....

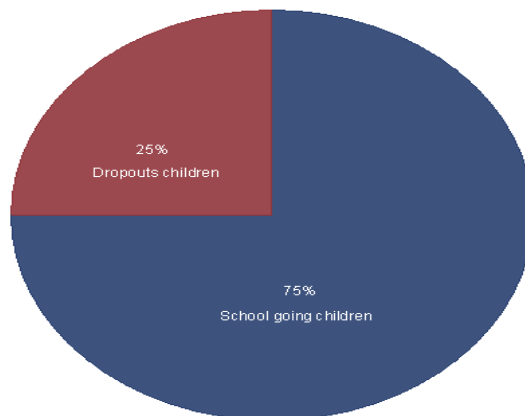
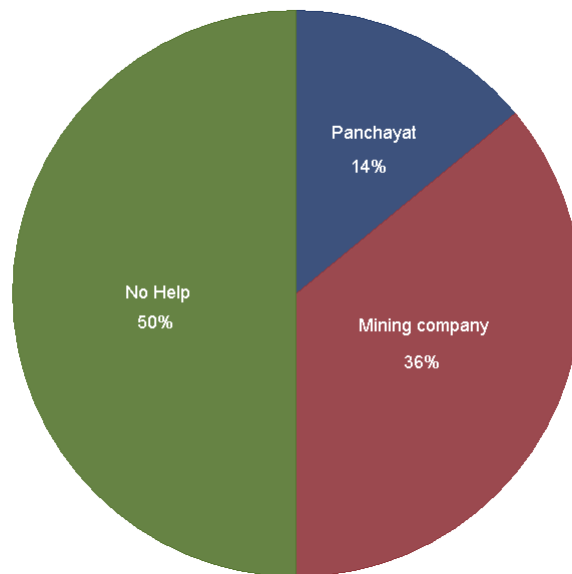
Source: Primary Survey (21<sup>st</sup> August, 2009)

From above table one point indicate the points 10 ,it is clear from table overall agriculture production, scarcity of water availability reduced, irrigation facilities also reduced that indicates that people are suffering food security during mining period , that is the persons who are based on agriculture totally loss their sustainability on the other hand the people who got job are benefitted income from mining that increases inequality as a result poverty increase of that region.

After mining period local people cannot received too much help from mining authority only 36% person got help from mining sector and 50% person of people can not received any help from any sector depicted in following diagram.

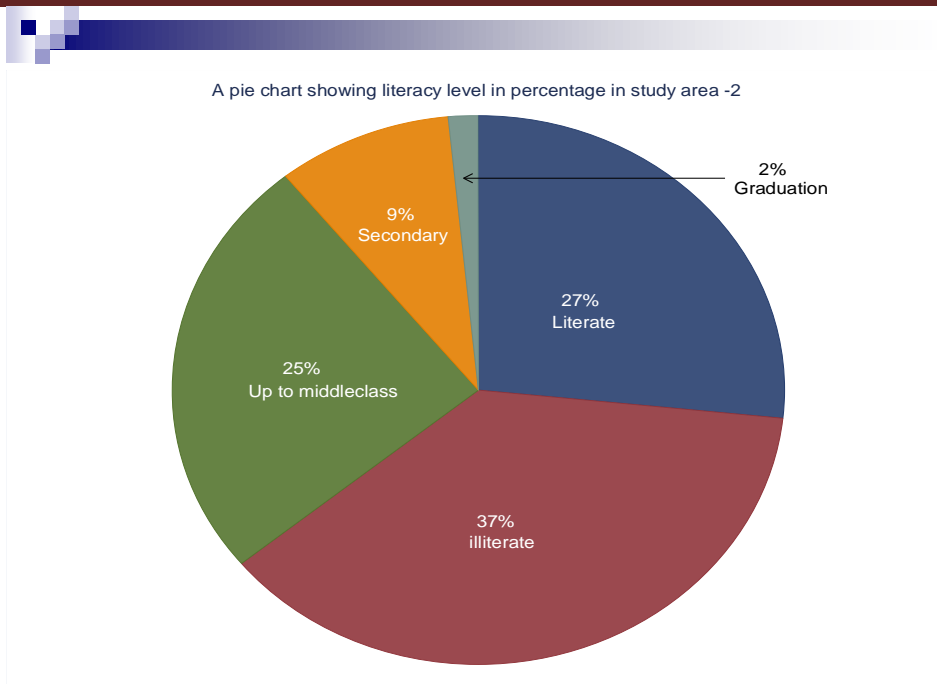


A pie chart showing local institutional help to the village as per villager's perception in study area 2



Drop out rate in study area 2

After



miniA

After mining activities literacy may improve but illiterate person are more than literate persons are more than literate persons higher education level is to bellow compare to total Burwan District(as well as literacy and higher education) shown in above diagram that is people surrounding mining areas are lagged behind than other region of the Burdwan district, In that area we also observe that there is some drop out rate that is adverse effects of mining ,dropping from school that student are involved in illegal coal extraction activities. In one word human capital are not growing in mining areas rather drainage of human capital.

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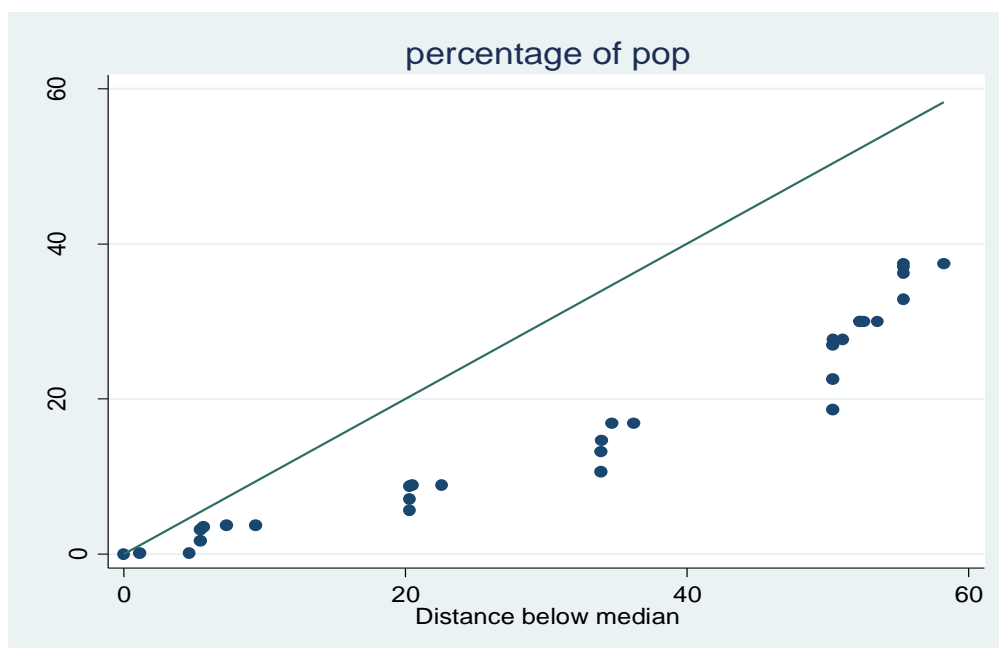
**DATA SHEET OF PRIMARY LISTING**

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Name village	Number of pop	Average income
	121	15000
	79	30000
Chinchur bill	1	70000
	0	175000
	0	375000
	51	15000
	28	30000
Taldanga	7	70000
	0	175000
	0	375000
	34	15000
	19	30000
Loda	1	70000
	0	175000
	0	375000
	396	15000
Churulia	43	30000
	20	70000
	1	175000
	0	375000
	316	15000
Arsola ,kuchibera,Basak danga	59	30000
	5	70000
	0	175000
	0	375000
	306	15000
	58	30000
Bazari	45	70000
	6	175000
	0	375000
	22	15000
	36	30000
Birkulti	31	70000
	4	175000
	0	375000

	45	15000
	40	30000
Nabagram	10	70000
	5	175000
	0	375000
	55	15000
Dahuka	40	30000
	45	70000
	5	175000
	0	375000
	48	15000
	72	30000
Haripur	40	70000
	62	175000
	0	375000
	50	15000
	110	30000
Sonpur	122	70000
	20	175000
	0	375000
Bhaluka	64	15000
Zzzz	0	30000
	0	70000
	0	175000
	0	375000
	80	15000
	96	30000
Jainagar	20	70000
	12	175000
	0	375000





On the basis of data here draw a gini curve(Lorenz) cumulative o Taking % cumulative income on vertical axis and % cumulative of population on horizontal axis it is clear that most of family diverted from equal distribution ,and from above picture total inequalities are observed.

Now if i regress of % cumulative income and % cumulative family population it also indicates the inequality from the regression analysis in bellow it can be said that if 1% cumulative population increase cumulative income will rise less than 1% that also indicate inequality.

#### Regress percentage of income percentage of Family

Source	SS	df	MS	Number of obs =	65
-----+-----				F( 1, 63) =	2016.76
Model	57267.8047	1	57267.8047	Prob > F	= 0.0000
Residual	1788.94338	63	28.3959266	R-squared	= 0.9697
-----+-----				s Adj R-squared =	0.9692
Total	59056.7481	64	922.761689	Root MSE	= 5.3288

percentage~e | Coef. Std. Err. t P>|t| [95% Conf. Interval]

percentage~p | .9613489 .0214069 44.91 0.000 .9185706 1.004127

\_cons | -1.487903 1.339928 -1.11 0.271 -4.165535 1.18973

## ASSETS

Assets	TV	Motor cycle	Bicycle	Refrigerator	Tractor	sCar
	97	12	176	0	0	0
	36	9	39	0	0	0
	32	15	48	1	0	0
	238	63	309	10	4	2
	7	3	14	0	0	0
	0	0	6	0	0	0
	3	0	9	0	0	0
	365	88	400	12	0	0
	53	23	67	11	1	1
	88	72	100	10	0	0
	70	20	88	12	0	0
	135	60	145	5	0	0
	180	40	192	15	0	14
	2	0	0	0	0	0
	290	140	302	45	0	0
	260	12	285	6	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	1856	557	2180	127	5	17
	66.45184	19.94271	78.05227	4.547082	0.179019	0.608665
INDIA12plan	33.4					

Assets building are not so grown up after mining activities above figure shows % of assets per family if i consider their 4 members in each families percapita assets is bellow than percapita assets under 12 plan period census.

Thus from over all discussion Economic condition of local people surrounding mining areas are not so developed as well as human capital also not so developed so that they can maintain livelihood of that region that causes loss of inter and intra generation equality. So here i say that mining activities never improve Economic condition of local people , During

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mining period it is also clear that some group of people gets benefit from mining activities some local market are developed by benefitted class but after mining period that mining area become a ghost area, so need some community development for reducing the inequalities of mining areas that is, suggest holistic approach of development.

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