Socio-Economic Profile and Quality of Life of villages in and around mining area of Keonjhar District, Orissa, India

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Abstract

Though mining activity in odisha has played an important role in industrial growth of state, but it has led to affecting the environment and social life of the community located nearby. The effort taken by mining companies in minimizing the adverse impacts on the environment and society is in-adequate and not matching the need of hour. The current research paper has attempted to give a picture on the impact of mining activity on the socioeconomic condition of the local inhabitants living around the iron ore mines of Keonjhar district in Odisha. The study area is habituated by Paudi bhuyan and Juanga, two primitive tribal group of Eastern India. A sum of 300 households comprising 1204 individuals was selected and interviewed through the help of a pretexted structured questionnaire. The Quality of Life (QOL) has been indexed in a 0-10 point scale based on some important value function like occupation, caste and prevailing economic and social condition. Data on socioeconomic conditions as well on several indicator parameters like housing, source of water, sanitary facility, type of food intake, prevalence of common disease, education level, medical facilities, communication facilities, occupation, fuel and energy used, assets possessed, own transportation, per capita income, recreational facilities and mal-nourishment. The overall quality of life index based on the value functions ranged from very poor to average with overall average score of 39.38. The major findings shows that the socio-economic and overall quality of life of inhabitants, is far from satisfactory as the natives are very poor having poor educational status, sanitary and housing facilities, less possession of asset and vehicle, and low per capita income. There is an urgent need to launch income generation, educational and health awareness program as well as to make them aware and help them. Therefore, in future both mines as well as government authority should give emphasis on improving the economic status of the people thus enhancing the quality of life.

Introduction

Industrialization played an important role in the development of a nation. Mineral resources development is an essential condition for successful economic development of an economy[1,2]. Like any other industrial project, mining paves the way for development of infrastructure and generation of market forces. It not only generates employment opportunities to the people but also provides income to state exchequer and foreign exchange to the mineral producing country. The possible impact on the local economy can be transformation of the traditional economy activities resulting in withdrawal of labour force from agriculture and engagement in the construction of roads and buildings[3]. The impact of externalities of mining project is widely observed all over world. Unless mining project is meticulously planned and carefully executed, mining can devastate lands, pollute and deplete water, denude forests, wipe out wildlife, and defile the air[4]. The environmental effects of the mine operation on human and physical environment of mines area and its surroundings are severe. A Mining project requires land – mostly, land belonging to indigenous and marginalized people living surrounding it since ancient time. Due to this the entire villages and communities

livelihood, lifestyle, economic and social condition are affected. As most of the mineral bearing zones of India are mostly forest area having high-value ecological resources and habituated by tribal people, the impact of mining both on ecology as well as on local people are magnified. These impacts include displacement of people and loss of livelihood, changes in lifestyle, impacts on health, effects on women and children, influx of outsiders attracted by prospects of employment, and illegal mining and its associated risks.

Odisha, one of the mineral-rich state has a vast deposit of wide varieties of known mineral, and is placed at the top ranks in production of some key strategic minerals such as Coal, Iron ore, Chromite and Bauxite.Unfortunately for Odisha, almost all its minerals are found in the same regions that hold its greenest forests and largely inhabited by the scheduled tribes – who traditionally depend on the very same forests and watersheds for their survival. Mining in this area, therefore, is not a simple 'dig and sell' proposition. It is, in fact, a highly complex socioeconomic and environmental challenge: at stake are natural resources as well as people – forests, wildlife, water, environmental quality and livelihoods. The footprint of mining

activity on the surrounding environment is an established fact in Odisha. The present study area, the Suakati mines of Keonjhar district has a number of old mining of state operating since 1960. The area is located at Juanga pidha "the customary home of a primitive tribal group. The impact of mining on the socio-economic condition of the surrounding inhabitants is well observed. Studies on Socioeconomic profile have been made by Kumar[5] for West Bokaro Mining Complex, by Prusty[6] for Jharia Coalfields and by Mishra[7] in mining areas of Talcher and Ib Valley of Orissa. Work on the concept of quality of life grew out of the social indicators movement of the 1960s [8] and investigators started using a social indicator approach to define what quality of life (QOL) meant to them. However, subsequently many researchers adopted both subjective and objective approaches to assess QOL based on wide literature on the subject. Noronha and Nairy adopted participation process, case histories, biomedical health analysis and spatial and environmental analysis in developing a Quality of Life tool.

With this background the present study was undertaken to assess the impact of mining on the living conditions, socio-economic development of the people living in villages surrounding the mining cluster at Suakati. The present study was undertaken to assess the impact of mining on the living conditions of the people by including various parameters like health, nutritional status, communication status and livelihood of people living in surrounding villages of the Iron ore mines.

Objectives: The specific objectives of this study are as follows: i. To analyze the socio-economic condition of the inhabitants living surrounding the mining area. ii. To evaluate the quality of life of the inhabitants through the Quality of Life Index.

Study Area:
The study area is located between 21°37'09"-21°40'02"N and longitudes 85°29'20" - 85°31'30"E, near to Suakati town in Keonjhar district of Odisha (Figure-1). An iron ore deposit of state namely Gandhmardan hill is located at the centre of study area, having reserves of 350 million tons of iron ore. The iron ore mining commenced by Odisha Mining Corporation (OMC), a State govt owned agency since 1965 and at present it has two open cast iron mines namely Gandhamardan A and B covering around 2200 hectare. Similarly two Private owned mines are also operating at Putulpani (Talajagar) and at Urumunda village respectively covering a total area of 182.1932 hectares. The Banspal block of Keonjhar (under which the area is coming) is home to two primitive tribal group's i.e the Paudi Bhuiyan and the Juang. The Banspal block is coming under fifth schedule category. Apart from tribal, mostly general and OBC category people are residing at the mines surrounding villages. Agricultural activity is the main source of livelihood followed by collection of NTFP, cattle rearing. Some people of these areas are found to be engaged in the mines or mines related activity.
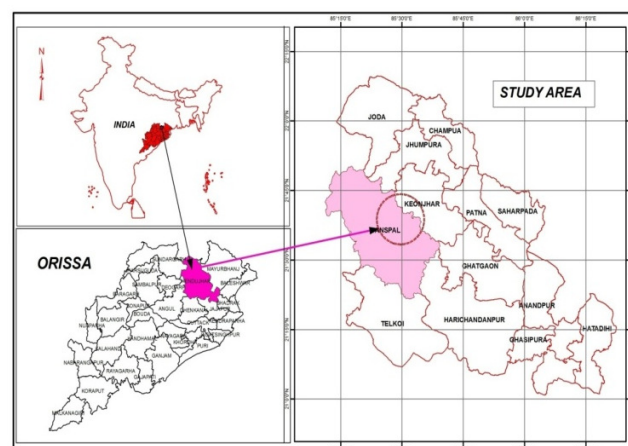

Figure-1
The Location Map of Study area

Methodology

The field survey for this study has been carried out during May-July 2014 in and around the villages of the mining area. The data for the present study has been collected using structured questionnaire from 10 villages comprising 300 households and 1204 individuals. The research design followed for this study is exploratory and descriptive in nature and the samples were selected purposively for collection of relevant data. The study covers two aspects viz., socio-economic profile of the people and assessment of quality of life, with regard to demographic features, educational status, occupational structure, facilities available in the area and living condition, food intake pattern, asset ownership structure and income distribution. Health status of the people has been assessed pertaining to frequency of occurrence of various diseases. The study has sought to examine the incidence of various types of common diseases as well as chronic diseases viz., air borne diseases, water born diseases and parasitic infections. The Quality of Life index (QOL) has been computed for the study with broadly the methodology adopted in a study 'Quality of life index of the Mining Areas' by Saxena[10]. The Saxena method is modify to fit with the present context. The parameter used for the assessment of quality of life is presented in table 1. The parameters used for scoring are social status, gender, education, occupation, land status, monthly income, monthly expenditure, assets, vehicle, housing, source of water, sanitary facility, food type, disease, fuel, entertainment source, road condition and electrification. Weightage are assign to different parameters in the scale of 0-1 as presented in table-1. The quality of life index was calculated with normalization of data with the mean. The parameter wise weightage was calculated with the submission of the all weightage value which is calculated with the multiplication of the normalization value with the weightage. The village level quality of life was prepared with sum of all value in different parameters. The value range is grouped in 5 group using Mean and Standardization methods. The five categories of group along with the value is mention in table-2.

Table-1
Parameters used for the computation of the quality of life index

Parameters		Weightage
Social status	ST	0.5
	SC	0.5
	GEN	1
Gender	Male	1
	Female	0.5
Education	illiterate	0
	< matriculate	0.25
	matriculate	0.5
	higher education	1
Occupation	NTFP collection, labour	0.25
	labour	0.25
	businessman	0.75
	mines worker	0.25
	farmer	0.25
	service	1
Land status	landless	0
	<2 acre	0.25
	2-5 acre	5
	5 acre above	1
Monthly income	<1000	0
	1000-1500	0.2
	1500-3000	0.4
	3000-6000	0.6
	6000-15000	0.8
	15000 above	1
Monthly expenditure	<500	0.2
	500-1000	0.4
	1000-2000	0.6
	2000-3000	0.8
	>3000	1
Assets	<5000	0.25
	5000-30000	0.5
	30000-60000	0.75
	>60000	1

Parameters	Weightage	
Vehicle	no	0
	cycle	0.25
	two wheeler	0.5
	four wheeler	1
Housing	pucca	1
	mixed	0.5
	kutcha	0.25
Source of water	Borewell/own well	1
	common well/tubewell	0.5
Sanitary facility	No	0
	proper	1
Food type	Good (Rice, Dal, curry)	1
	moderate (rice+ dal)	0.5
	poor	0.25
Disease	suffering from acute disease	0
	common disease	0.5
	no major disease	1
Fuel	wood	0.25
	gas	1
	electricity	0.75
	other (kerosene)	0.5
Entertainment source		1
	radio	0.5
	no	0
Road condition	bad	0
	moderate	0.5
	good	1
Public transportation facility	Yes	1
	No	0
Electrification	Yes	1
	No	0

Table-2
Categories of group along with the value

Sl No	Quality of Life	Score
1	very Good	>72.80
2	Good	48.83-60.20
3	Average	36.23-48.83
4	Poor	23.63-36.23
5	Very Poor	< 23.63

Results and Discussion

Socio-economic profiles: The socio-economic profile of the study area is study with social status, gender, education, occupation, land status, monthly income, monthly expenditure, assets, vehicle, housing, source of water, sanitary facility, food type, disease, fuel, entertainment source, road condition and electrification.

Demographic: The demography composition of the survey household shows the area is inhabited mostly the tribal peoples (62.79%). The ST and SC composed of 71.10% of the total population. In the state like Odisha the ST and the SC are mostly deprived section of people. The sex ration in the region

is 55:45 which is imbalance in the area, but the state has a very good sex ration in the tribal dominated area.

Table-3
Demographic composition of the sample household

Village	Popula-tion	ST	SC	GEN	Male	Female
Uperjagar	120	85	13	22	68	52
Tala Jagar	136	98	8	30	71	65
Urumunda	114	79	7	28	62	52
Kumundi	132	71	10	51	65	67
Kansari	108	66	5	37	59	49
Phuljhar	102	57	0	45	57	45
Suakati	156	102	16	38	87	69
Banspal	137	87	12	38	74	63
Injana	97	54	9	34	51	46
Nayakote	102	57	12	33	65	37
Total	**1204**	**756**	**92**	**356**	**659**	**545**

Literacy Status: It is noticed that more than half of the surveyed population are Illiterate, that means above one third of the population are unable to read and write, these. The most important information is that only 22.4.8% populations have education above matriculation and only 2.1% has college and University education where as 39.8% population below matriculation.

Occupation: The survey data revels that most of the people engaged in the primary sector. The highest percentage of people engaged in the NTFP collection with mainly consist of sal leave, mahua flower and seed, kendu leaves, roots of different plant, wood resin (*jhuna)* and honey, this constitute 35.6% followed by labour (24%), farmer (21.0%). Around 18.5% people engaged in the higher income segment i.e in business, work in mine as mines worker and services.

Table-4
Literacy of the sample household

Village	Illiterate	<Matriculate	Matriculate	Higher Education
Uperjagar	41	25	9	4
Tala Jagar	51	22	11	1
Urumunda	33	29	17	3
Kumundi	29	53	16	4
Kansari	32	23	20	0
Phuljhar	23	27	19	0
Suakati	24	69	35	3
Banspal	27	50	29	2
Injana	15	45	21	0
Nayakote	37	5	19	1
Total	312	348	196	18

Landholding status: India is an agrarian economy mostly dominated by the small and marginal farmers. Land holding is one of the important for the people. However the study area data shows that 43.3% household are landless and 37.0% households have less than 2 acres of land only. A household having more than 5 acres of land is only 4.7% and 15.0% household posses only 2-5 acres of land. Households having less than 2 acres of land and landless household bound to depends on the NTPC collection and work as daily labourers which constitutes 83.35 of households.

Monthly Income: Most of the households are engaged in NTFP collection, labourer, farmer and pity business, these activities are generally low income generating activities. The per capita income in this area is also very low. The average daily income for 59.7% HH is less than 100 rupees only from all the sources. Service personal and the business man and mines worker have in general higher income. Only 7.3% HH only have income more than rupees 15000.

Table-5
People engaged in different occupation in the sample household

Village	NTFP collection	Labour	Businessman	Mines worker	Farmer	Service
Uperjagar	18	23	5	16	7	2
Tala Jagar	48	17	7	3	9	0
Urumunda	30	21	5	12	8	0
Kumundi	24	21	11	14	13	1
Kansari	26	19	6	2	21	0
Phuljhar	23	17	10	0	14	0
Suakati	25	23	13	7	16	4
Banspal	27	21	12	5	30	2
Injana	22	14	3	0	23	0
Nayakote	31	16	2	0	21	0
Total	274	192	74	59	162	9

Table-6
Landholding of the sample household

Village	landless	<2 acre	2-5 acre	5 acre above
Uperjagar	22	5	3	0
Tala Jagar	15	9	5	1
Urumunda	9	16	3	2
Kumundi	8	15	5	2
Kansari	8	16	5	1
Phuljhar	9	17	4	0
Suakati	12	10	6	2
Banspal	15	8	5	2
Injana	14	8	6	2
Nayakote	18	7	3	2
Total	**130**	**111**	**45**	**14**

Table-7
Monthly Income of the sample household in Indian Rupees

Village	<1000	1000-1500	1500-3000	3000-6000	6000-15000	15000 above
Uperjagar	6	5	3	4	8	4
Tala Jagar	5	8	9	6	2	0
Urumunda	3	7	6	3	6	5
Kumundi	4	6	5	4	7	4
Kansari	4	6	10	4	4	2
Phuljhar	5	5	9	6	5	0
Suakati	1	5	6	7	6	5
Banspal	2	8	9	5	5	1
Injana	9	5	5	7	3	1
Nayakote	8	8	7	5	2	0
Total	47	63	69	51	48	22

Monthly Expenditure: The expenditure of the surveyed households is very low as the income of these household are too low. The expenditures are mostly for the food and other necessary expenses like healthcare, transportation and social activities. Per day expenditure of 85.7% HH are less than 100 rupees, where as only 14.3% HH spend above 100 rupees daily.

Value of assets possession in Indian rupees: Value of assets possession is shown in table-9. The assets value is the survey HH are very low, 42.3% HH assets value is below <5000, 25.3% HH have value in the range of Rs. 5000-30000. The HH engaged in business and service only posses' assets which cost above Rs. 60000.

Table-8
Monthly Expenditure of the sample household in Indian Rupees

Village	<500	500-1000	1000-2000	2000-3000	>3000
Uperjagar	6	5	8	6	5
Tala Jagar	8	12	7	1	2
Urumunda	5	6	5	5	9
Kumundi	2	4	8	9	7
Kansari	6	5	10	5	4
Phuljhar	7	8	10	3	2
Suakati	2	3	7	10	8
Banspal	4	9	7	7	3
Injana	7	6	7	8	2
Nayakote	7	12	6	4	1
Total	54	70	75	58	43

Table-9
Value of assets of the sample household in Indian Rupees

Village	<5000	5000-30000	30000-60000	>60000
Uperjagar	9	6	11	4
Tala Jagar	16	7	7	0
Urumunda	11	6	7	6
Kumundi	11	6	9	4
Kansari	12	10	6	2
Phuljhar	13	12	4	1
Suakati	9	9	9	3
Banspal	12	6	7	5
Injana	17	6	5	2
Nayakote	17	8	3	2
Total	127	76	68	29

Vehicles: The surveyed HH data shows 53.0% HH does not possess any vehicles, even a cycle. 31.0% posse's cycles and 13.3% HH posse's motor cycle and only 2.75 HH posses four wheeler.

Table-10
Vehicles Possession of the sample household

Village	No Vehicles	Cycle	Two wheeler	Four Wheeler
Uperjagar	9	11	8	2
Tala Jagar	11	15	4	0
Urumunda	15	10	4	1
Kumundi	13	11	5	1
Kansari	20	8	2	0
Phuljhar	19	10	1	0
Suakati	14	8	6	2
Banspal	16	7	5	2
Injana	20	7	3	0
Nayakote	22	6	2	0
Total	159	93	40	8

Housing: The living condition of the people is very poor, about 64.0% HH lives in Kutcha houses which are constructed with mud wall, mud floor and threshed roof. 26.0% HH lives in mixed types of house which made of both mud wall and floor with asbestos or brick wall and asbestos. Only 10% HH have pucca (concrete) building.

Table-11
House types of sample vilages

Village	Pucca	Mixed	Kutcha
Uperjagar	8	9	13
Tala Jagar	3	6	21
Urumunda	2	9	19
Kumundi	3	8	19
Kansari	1	8	21
Phuljhar	2	8	20
Suakati	6	8	16
Banspal	4	9	17
Injana	0	6	24
Nayakote	1	7	22
Total	10.0	26.0	64.0

Sources of Water and sanitation facilities: Water and hygiene is one of the concerns in the tribal's and mines area of the country. From the survey it is fund that 90% of the total HH depends on the common well i.e tube well in the village, only 10% of the HH have their own bore well for water. Sanitation facilities is too very poor in the village, people used to open defecation as 87.0% HH does not have sanitary facilities where as only 13.0% HH have their own facilities.

Table-12
Sources of Water and sanitation facilities of sample HH

Village	Source of water		Sanitation facility	
	Own well (Bore well)	Common well (tube well)	Proper	No
Uperjagar	7	23	6	24
Tala Jagar	4	26	4	26
Urumunda	2	28	4	26
Kumundi	2	28	5	25
Kansari	4	26	5	25
Phuljhar	3	27	2	28
Suakati	3	27	5	25
Banspal	4	26	7	23
Injana	1	29	0	30
Nayakote	0	30	1	29
Total	30	270	39	261

Food types: Generally people takes food three times, i.e breakfast, lunch and dinner, in all times they takes rice except few high income HH. The information revels that 46.3% HH takes rice with either onion or *sag (green leaves),* 32.3% HH takes rice with dal only and only 21.3% HH take rice, dal and vegetable with sometimes non-vegetable mainly chicken and meat.

Table-13
Food pattern of sample HH

Village	Good (Rice, Dal and curry)	Moderate (rice and dal only)	Poor (Rice, Onion and Sag)
Uperjagar	13	8	9
Tala Jagar	6	9	15
Urumunda	9	15	6
Kumundi	6	14	10
Kansari	5	10	15
Phuljhar	3	9	18
Suakati	5	9	16
Banspal	8	9	13
Injana	4	6	20
Nayakote	5	8	17
Total	64	97	139

Diseases: The health status of people of the surveyed villages (table-13) reveals the common ailments to be cough and cold and headache among the villagers. The common chronic diseases in terms of air borne diseases were respiratory infections, tuberculosis, Chicken Pox, asthma and others. The water borne diseases were jaundice, diarrhea, dysentery and other diseases and parasitic infections. Incidences of such chronic diseases were reportedly much less among the sample households. 14.0% persons suffered from acute diseases, 59.4% in common diseases and 26.75 had no major diseases.

Table-14
Health status of Sample HH

Village	Suffering from acute disease	Common disease	No major disease
Uperjagar	14	74	32
Tala Jagar	12	82	42
Urumunda	22	82	10
Kumundi	21	94	17
Kansari	9	66	33
Phuljhar	14	56	32
Suakati	34	76	46
Banspal	22	58	57
Injana	10	57	30
Nayakote	10	70	22
Total	168	715	321

Fuel: Firewood is the major sources for fuel in the survey villages, as the area is closed to the forest people collect firewood from the forest which is also a cheap source for the people, 86.3% of HH depends on this. The other sources of fuel are LPG, electricity and kerosene with 2.3%, 6.7% and 4.75 respectively.

Table-15
Types of fuel used by Sample HH

Village	Wood	Gas	Electricity	Other (kerosene)
Uperjagar	22	1	5	2
Tala Jagar	28	0	1	1
Krumunda	23	0	6	1
Kumundi	28	0	1	1
Kansari	26	0	2	2
Phuljhar	30	0	0	0
Suakati	22	2	2	4
Banspal	20	4	3	3
Injana	30	0	0	0
Nayakote	30	0	0	0
Total	259	7	20	14

Source of entertainment: Amusements during leisure time are mainly from the television and radio, this cover 14.0% and 24.7% HH respectively. 61.3% HH do not have even access to

TV and radio too. The youth some time spend their leisure time with playing Card.

Road condition and electricity: The road connectivity to the household information revels that 72.0% HH do not have proper road connectivity, where as 26.7% have moderate i.e jeep able road and 1.3% have concrete road. The 60% HH does not have electrification where as only 40% HH have electrification.

Table-16
Major Source of entertainment of Sample HH

Village	TV	Radio	No
Uperjagar	8	11	11
Tala Jagar	2	6	22
Urumunda	4	10	16
Kumundi	4	7	19
Kansari	3	9	18
Phuljhar	3	3	24
Suakati	7	11	12
Banspal	6	7	17
Injana	3	5	22
Nayakote	2	5	23
Total	42	74	184

Table-17
Road condition and electricity of Sample HH

Village	Road condition			Electrification	
	Bad	Moderate	Good	Yes	No
Uperjagar	30	0	0	14	16
Tala Jagar	8	22	0	12	18
Urumunda	26	4	0	9	11
Kumundi	28	2	0	17	13
Kansari	22	6	2	8	22
Phuljhar	14	16	0	0	30
Suakati	25	5	0	22	8
Banspal	22	6	2	19	11
Injana	21	9	0	3	27
Nayakote	20	10	0	6	24
Total	216	80	4	110	180

Quality of life: The analysis of the data shows the quality of life mostly influence by the occupation, monthly income and expenditure. In reality occupation give the income and income lead to the expenditure pattern. So a good occupation is very much essential for the quality life. The gender, sanitation and the water sources are less importance. The details of weighage village wise for different parameters are shown in the table 18. The village Suakati rank 1st among all the villages mainly due to its social status, gender, education, occupation, land status, and monthly income where as the least among all the villages is Phuljhar due to poor score in social, education, fuel, vehicle and electrification apart from other parameters.

Table-18
Parameters wise weighatage for different surveyed village

Village	social status	gender	education	occupation	Land status	monthly income	monthly expenditure	assets	vehicle	Housing	source of water	sanitary facility	food type	disease	fuel	entertainment source	road condition	electrification
Uperjagar	1.89	1.51	2.63	3.98	3.45	3.95	3.14	3.16	3.80	3.41	2.76	1.54	2.61	1.51	4.23	2.65	0.00	1.00
Tala Jagar	1.93	1.67	0.99	1.63	6.47	1.81	2.15	1.55	0.90	1.66	1.81	1.03	1.67	1.88	1.00	0.88	1.38	1.58
Urumunda	1.69	1.42	2.31	1.69	5.12	4.20	3.71	3.45	2.02	1.49	1.19	1.03	2.29	0.88	2.83	1.63	0.25	1.42
Kumundi	2.45	1.60	3.01	3.51	7.32	3.94	3.81	2.98	2.17	1.76	1.19	1.28	1.84	1.19	1.00	1.43	0.13	0.67
Kansari	1.75	1.34	0.68	1.50	6.63	2.82	2.93	2.25	0.47	1.12	1.81	1.28	1.57	1.49	1.72	1.32	5.38	0.00
Phuljhar	1.64	1.28	0.68	1.66	4.83	2.22	2.40	1.83	0.39	1.44	1.50	0.51	1.26	1.39	0.29	0.92	1.00	1.83
Suakati	2.61	1.95	3.06	6.83	8.32	4.60	4.05	2.80	3.47	2.72	1.50	1.28	1.53	1.96	5.25	2.41	0.31	1.58
Banspal	2.29	1.70	2.21	4.63	7.16	2.65	2.89	3.13	3.31	2.13	1.81	1.79	1.95	2.18	8.10	1.90	5.38	0.25
Injana	1.80	1.20	0.86	1.04	8.28	2.23	2.73	1.97	0.56	0.70	0.87	0.00	1.29	1.33	0.29	1.05	0.56	0.50
Nayakote	1.96	1.33	1.08	1.02	4.92	1.58	2.21	1.88	0.41	1.07	0.56	0.26	1.50	1.17	0.29	0.81	0.63	10.00

Table-19
Quality of life and ranking of villages

Village	Total Score	Rank among the Villages	Quality of Life
Suakati	56.24	1	Average
Banspal	55.48	2	Average
Uperjagar	47.21	3	Poor
Kumundi	41.27	4	Poor
Urumunda	38.60	5	Poor
Kansari	36.04	6	Very Poor
Nayakote	32.66	7	Very Poor
Tala Jagar	32.01	8	Very Poor
Injana	27.26	9	Very Poor
Phuljhar	27.06	10	Very Poor

The result of the analysis shows the QOL in the study area is poor. Out of ten villages 50% villages are coming under the very poor category, where as 30% villages under the poor category and only 205 are coming under the average category as shown in table 19.

Conclusion

The impact of mining activity on the surrounding people depends on the resource available to them and conditions faced by the local people. What has been overlooked is that a large number of projects are sanctioned but what affects local livelihood of remotely located poor and tribal communities and fragile biodiversity ecosystems in numerous ways is overlooked by government[11]. The present study assesses the QOL of the people based on the objective and subjective approach surrounding the iron ore mine areas. It appears that the QOL of people is found to be poor in the villages located surrounding the mine and there is a dire need for development of the socio-economic condition of the villagers by the mining authority though its CSR activity. The Socio- economic and nutritional status of women is directly connected with their economic position, which in turn depends on opportunities for participation in economic activities[12]. Mining activity has to ensure that there is improved quality of Life giving emphasis on the social, environmental and health impacts of mining and the

implications of resource demand of mining vis-àvis the rights and needs of the people. This will then reduce the gap between the distance of mis-trust among local people and mine authority.

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