Summary of the findings, Conclusion, and Suggestions:

Although the 'Coal cycle wallahs' of the coal mines of eastern India have always been in the centre of study for many sociologists, Geographers and other social scientists, and academicians, the researcher chose the subject to bring forth the hidden and not so 'researched' aspects of the lives and livelihood of the hapless coal carriers on bicycles. The previous pathbreaking studies duly acknowledged elsewhere in the present effort though had these hapless cycle wallahs at the centre stage, but with different perspectives. This study, part of the University Grants Commission (UGC) New Delhi funded Major Project, has tried to explore the socio-economic shades along with their livelihood pattern of the cycle pullers, the most important guiding and inspiring factor to take up the issue for the study was the desire to look into the lives of those living in and around the coal mining regions having complete dependence upon the mineral for their survival. Coal is the most important mineral and mining being the soul of the regional economy. Coal mining and auxiliaries have a direct or indirect impact on the lives of the people living in the vicinity (in some cases within the designated mining areas, since, the inhabitants of the region despite being relocated and rehabilitated elsewhere refuse to part away from their lands on the pretext of not being compensated adequately. Association with mining and related activities have become part and parcel of the villagers in this region. Coal continues to be the main source of income through formal as well as informal activities / Trade. Those not on the payrolls or associated with mining activities in an organized manner, constitute a large number of which the coal carriers from mining areas (illegal/informal) to the nearby urban centres to sell on bicycles are a small part of. The large number of people affected by the mining activities both at 'Karma Project' along the Ranchi – Hazaribagh National Highway 33 on the bank of River Damodar and Rajrappa mines in Rajrappa near the confluence of Damodar and Bhairavi river, are into the illegal or informal trade of coal. Be it excavation of coal from abundant mines, digging the village dug mines, scavenging from the overburdens of the operational and defunct mines and importantly siphoning of a sizeable quantity of raw coal from dumping sites, unofficially. Among the informal users (the word informal is used preferably over illegal for the following reasons- the word illegal has strong legal connotation and attracts penal action, whereas the informal simply suggests which is not formal or organized. Technically speaking people involved in taking away raw coal from the mining areas without the consent or

permission from the authorities constitute an illegal action, however, the indigenous population who have been displaced from their land in the name of development and nation-building are indulging in such acts to sustain themselves. Here, it is necessary to add that the researcher made a distinction between the coal carriers on the bicycles and a well oiled and meticulously designed nexus among the local administration, Mining companies, and the politicians, creating a syndicate of parallel economy, making huge money by sidelining and pilfering the formal or the established official setups.

The coal mafia and the clandestine yet parallel network bleeding the coal sector is beyond the purview and domain of the present study. Putting the two kinds of activities at the same footing may be correct but ethically not desirable. The illegality of the both who steal coal and send truckloads clandestinely to the markets up to Varanasi and Kolkata and the cycle wallahs buying the Poda (burnt coal/ charcoal) up to **300** kg and taking an incredibly arduous journey of 60-70 km with loaded cycles, challenging the limits of human endurance, just to meet his both ends meet, maybe same before the court of law, but the quantum and intent differs enormously.

Those who are living in the mining regions for ages and through generations are the ones who in the light of drying up of the alternative source of livelihood, forced to adopt coal as the mainstay for the sustenance. The quantity being taken away for poda making and finally transported to the nearby urban places for household and other tiny enterprises like laundries, small dhabas, motels, etc, is very small and perhaps becomes insignificant considering the daily output from an operative mine. However, this is not the case for an organized syndicate operating parallel to the legal channel that is duping the coal mining sector significantly, the use of the word 'informal' instead of illegal coal carriers is to avoid chastising them and branding them into a group of lawbreakers chronic and brazen offenders with complete disdain for the law of the land.

The pioneer in one of its stories covering the cycle wallahs in the year 2010 branded the community as the largest criminal community of India. Such prejudiced and disparaging attitude does no good.

Enlisting the limitations of the study it would not be out of context to mention that the study straight-jacketed itself to focus on certain aspects over the others. The objectives laid down at the beginning of the report highlights as well as to demarcate the purview of the study. As the study progressed it was realized that the study and understand the lives and continued struggles of the hapless cycle wallahs in totality, a more comprehensive and all-encompassing approach needed.

The mining region everywhere in the global south face lots of problems and are reeling under many unresolved issues. The coal mining regions of Jharkhand are no exceptions. The issues about displacement, relocation, and rehabilitation of the indigenous people have rarely been resolved by the government or the private mining companies (as the case may be) to the satisfaction of the affected persons. The mining areas of the Karma Project and Rajrappa Projects also have similar issues. It has been observed that two villages which have been acquired and the villagers relocated elsewhere in the Rajrappa projects whereas the villagers of chillum Tungri in the Karma Project continue to stay over and have refused to be rehabilitated elsewhere. Such kind of defiance makes them persona non grata in the eyes of the mining companies and the government, such people overstaying the acquired land are voiceless and bound to face hardships and are also left out of the alleged welfare schemes launched by the government from time to time. These people are not considered as bonafide and hence they are assumed to keep themselves afloat by sneaking into the illegal trade of the coal to have both ends meet.

Among the obstacles and hurdles faced by the researcher was primarily the lack of trust quotient among the respondents. Meticulous and painstakingly designed rapport-building sessions were conducted on the behest of the researcher by the interviewers before the actual survey. The efforts created a positive environment and removed the apprehension and general reluctance, the nature of their occupation shadowed their interaction with the researcher. The general apprehension that the information shared might be used against them, was among the major roadblocks in rapport building exercise. Reluctance and not correct information were very common. The researcher along with the others (Research Fellows) realized that the Informal coal carriers were more hesitant and reluctant in comparison to non-coal carriers.

There were occasions that in general the income-related questions of the questionnaire has the highest amount of variations among both communities. In some instances, it was observed that what was reported during the first round of the survey by the cycle wallahs have mismatch when the household survey (second round) was undertaken. For example, responding to household commodity consumptions, there were was a tendency to under-report. During the village level, field household survey discrepancies were observed, which were rectified.

The tendency to under-report commodities being used at the household level, the physical status of the houses/dwellings (Kachha, Pucca or Semi Pucca), and other items reflecting the economic prosperity, were probably because of an attitude to portray themselves 'leading a wretched life'

so that the govt has the sympathy and does not come hard on the practice of transporting coal for economic benefits from mining regions to the customers in the cities, without seeking permissions from the mining companies and for that matter the government itself.

The lack of trust and general suspicious outlook towards anybody from the outside their community reflects in their otherwise congenial and warm demeanour.

Summary of the findings:

The three-year-long project which spilt over its deadline owing to many factors including the widespread pandemic successfully concluded with the following results.

The project had the cycle coal-carriers at the centre and focus of the study. The socio-economic profile and mapping along with the vulnerability quotient in the context of livelihood regime and pattern of the community were collateral to the central theme. The livelihood pattern and its vulnerability to the climate change and other hazardous situation confronting the hapless cycle coal-carriers, is computed and Livelihood Vulnerability Index (LVI) for coal – carriers and non-coal- carriers on bicycles arrived at using the Hahn et al. method, is explanatory in itself. Discussed at length in the previous section the LVI and its implication. The highlights of the findings are enlisted here.

The overall LVI calculated for ICCB (Informal Coal Carriers on Bicycles) and NCCB (Non-Coal – carriers on Bicycles) for five livelihood assets also known as the Pentagon approach, is slightly higher for the ICCNB community as compared to the later. The higher index value indicates more vulnerability towards climate change and other Hazardous situations (mentioned in detail in the previous sections) for the cycle wallahs. However, the value for the non-cycle wallahs is also on a very high side. Statistically, speaking more vulnerability is indicative of less diversification of livelihood and lower sustenance against the sudden and negatively affecting factors. The survey has established the fact that the dependence quotient of the household on selling coal to the customers in and around the periphery of urban dwellings is very high. Once, the activity is barred, interrupted, checked in, or shunned and disused on any ground, it has a telling impact on the livelihood of the households of the cycle coal – carriers. Although, their counterpart also fared badly on the LVI but owing to better livelihood diversification and resilience to change, manage to have a lower value than the former. The NCCB is dependent upon the informally acquired coal and they do not spend a penny procuring it either by scavenging from the overburdens of the operating and defunct mines, extracting and digging

from village dug mines, getting from abundant and leftover mines and most importantly tsking away (stealing raw coal from the dumping points of operative mines, unlike the ICCB who are not involved in either of these activities. They buy the burnt (Poda) from the poda makers on payment which varies from season to season but remains largely static throughout the year, uploads on their inanimated beast of burden by stuffing every square inch of the possible room in the bicycle. After uploading they start off to the city of Ranchi to reach their customers. The dependence on one particular activity is very high for this community, whereas this is not the case with those people who are dependent upon coal but re not bound by a particular activity for sustenance.

The table displaying the Livelihood Vulnerability Index values for five livelihood assets and capitals namely, Natural Capital, Human Capital, Physical, Financial, and Social Capitals along with their major components (altogether ten), have been discussed in detail in the previous section.

The rationale behind choosing two similar communities living in and around the coal – mining activities sharing many commonalities except the mode of informal trade of the coal, is to develop an understanding of livelihood pattern and strategies. What drew this community of cycle wallahs to a highly enervating, taxing, and not so lucrative occupation of cycling the incredible load of poda to a distance of more than fifty km on an uphill negotiating a circuitous and hazard-prone journey. The earning after a trip is not more than Rs. 700-800 (As reported by them), twice a week, the monthly income hovers between Rs. 6000 to 7000. They buy one poda heap for an amount of Rs. 300/- per heap. One heap contains roughly 300-350 kg. it is up to the cyclists how much they could stuff in one cycle. In other words, the rate for one full load of the cycle with poda is fixed. In no situation, a cyclist is allowed to load two cycles at the cost of one cycle loadⁱ. A small number of the cycle pullers make occasionally three trips a week, that too between October to February. One of the unstated objectives is to find out the real reason behind people getting into the occupation, what is the incentive offered to the prospective and present cycle wallahsⁱⁱ. The household survey of the bicycle coal- carriers

The statistical manoeuvring with the help of software throws more light. The responses coded into the questionnaire and processed to give meaningful interpretation helped reach some conclusion. The correlation coefficient (Refer to the table no. 3.4) indicates a positive 0.40 correlation coefficient between the respondents' age and income. It was observed that those in

the late twenties and early thirties can handle more load in the bicycles and therefore manage to earn slightly more than the others. The positive correlation coefficient statistically proves younger the age more load they can carry on bicycles and mange to have better income, comparatively. Table no. 3.5 presents the correlation matrix, highlights the strong correlations among the variables, the positive correlation coefficient value for the income and age is on predicted lines. The experience plays an important role however, the physical endurance is most important when it comes to making a livelihood through dragging cycles with an abnormal quantity of coal stuffed in bags of all kinds jammed literally in every inch of the cycle. Three categories were made to segregate the available data based on the information gathered. The first category having the age between 20-25 while the other two were 25-30 and 30 and above. The largest number of the respondents belonged to 30 and above, however, the strongest correlation is for those belonging to the second category for the generation of income. The correlation coefficient value for the remaining two age groups is also positive.

The table depicting the correlation matrix shows the relationships between income, the number of trips, the household commodities in use, the status of the house/dwelling in terms of the construction material used, household expenditure incurred under various heads, education and medical facilities availed, as some of the variables. cross tab calculated between the medical facilities availed and the income per month as well as between the household consumption and the household expenditures established. To get a more insight the regression analysis was also done between the independent and dependent variables.

Regression computed for the information collected points towards the nature of the occupation be it for the Non-Coal Carriers on the Bicycle or the coal Carriers is not a deterrent. In other words, the fear of police or law enforcement agencies does not exist. The statistical value of the regression indicates a clear relationship between the two variables, the dependent variable of household commodity consumption has a definite positive relationship with the yearly income of the household of the informal coal carriers on the bicycles.

It would be pertinent to mention here that an unmistakable mismatch was observed between the responses about the economic and financial status of the families and the households by the cycle wallahs while responding to the questions in the questionnaire and the ground-level realities.

On the physical visit by the researcher to conduct the household survey in the villages gross mismatch was empirically observed. Interestingly, the information gathered through spending time with the cycle pullers also had a significant variation with regards to income. However, the anomalies get rectified by ground-level verification. The typical attitude of under-reporting the income by selling off the coke was not that perplexing. The apprehension of drawing unnecessary attraction from all corners which might catapult into a situation where authorities take notice and a crackdown cannot be ruled out. The general feeling of doing something which is not in compliance with the legal or approved act of trade. Those who manage to pilfer coal illegally from the working mines, village dug mines, and from the abandoned official mines are also used to be apprehensive of punitive action from the law enforcement agencies, local administration, and coal mining companies, but certainly to a lesser degree. both communities have strong dependence upon the mineral for their livelihood, the former have access to only the burnt coal (coke/poda) whereas the latter draw their sustenance from collecting the raw coal from multiple points. The cycle coal- carriers since venture out to sell the coal which they bought paying a certain amount for a cycle load, have a deep-seated fear of being intercepted by the local administration or the police on way to Ranchi. The non-coal carriers also entertain such apprehension but as mentioned earlier to a lesser degree and with multiple sources of abandoned and widely spread ubiquitous coal, the crackdown seems non-plausible and perhaps redundant on behalf of the agencies. The psychology of under-reporting the income by the coal carriers lies in the fact that the agencies could easily scuttle and jeopardize all their livelihood by simply curtailing the movement and confiscating their bicycles and the loaded consignment. These cycle hapless cycle pullers have encountered such situations quite frequently.

Chapter two of the present study is the survey-based core chapter which deals at length the relationships among the various variables. in the first section of the chapter cross tabs among the variables based on the primary questionnaire-based survey is calculated, the findings of the cross tab in the form of graphical form, discussed in the chapter. It can be mentioned here that among the basic amenities available to the households of the informal coal-carriers in Ramgarh coal region (fourteen surveyed villages), the situation prevailing cannot by any standard be stated to be satisfactory. Apart from the electricity connectivity where all the households of the ICCB irrespective of the economic category have access to electricity, the two other essential amenities, Vij, availability of flush toilet and safe drinking water, the results after the survey indicate towards a pathetic situation. With no network of piped water supply, the inhabitants of the region are forced to rely upon the other source of drinking water including the handpumps

and the wells. The availability of handpumps is few and far in between. In terms of economic categories, those households coming under the BPL category have minimal access to a handpump for their drinking water requirements. More than two-thirds of the households across all categories have complete reliance over the wells available in their neighbourhoods. Similarly, in terms availability of the toilets below 8 per cent of the total households, have an access to the private or within the house toilets. More than sixty per cent use common or public toilet, whereas almost 22 per cent of the total households still practice open defecation. Even after some proactive policy implementation on behalf of the central and state government under ' Clean India' campaign, the whole region is still far from being open defecation free (ODF). It should be noted here that many villages have been allocated funds at Panchayat levels to construct public lavatory on the behest of the government. However, much still needed to be done particularly in terms of more coverage of the remote areas and also in terms of sustaining a minimum standard of cleanliness and sanitation of the public utility services like the toilets. The former is the responsibility of the government, while the latter depends solely upon the people availing the facilities. The analysis of the findings brings forth the fact that almost ninety per cent of the total households are reeling under the poverty line. The informal economy of the region is acting as a fulcrum for upward mobility. Coal though playing cardinal position in the power generation and thus among the axels of the engine of the economic growth of the country fails to positively affect the impoverished segment of the society.

Coal continues to occupy a very significant role among the lives of those in and around the mining region. With an average per month earning hovering between Rs. 5.6 to Rs. 8.8 thousand and little diversities and low resilience to the livelihood pattern, the informal coal-carriers continue to languish in a wretched condition in want of alternative source of economic sustenance. The analysis of the cross tabs further brings forth some interesting relationship between the income / earning and the age of the cycle pullers. the most productive age group as the statistics revealed is 35-40. However, those above the age of fifty also active in the trade. The incredible amount of physical labour undertaken by those past fifty in itself reflects the precarious economic state of the community.

The correlation matrices and regression equation show that there is a clear relationship between the hazardous situation and the performance in terms of the trips taken per week and the quantity of the coal loaded in the bicycle which reflects in the income per month. The negative slope in the regression line suggests the inverse relationship between physical injury and the per month income. Similarly, the equation about and the slope in the regression line for the predictive variable income and outcome variable expenditure upon medical-related issues suggest that a significant per cent share of medical-related expenses is brought in by the income. In other words, the medical expenses hinge upon the income directly, however, this relationship is not significant for outcome variables like expenses on clothing, groceries, recreation, education and even miscellaneous heads.

Such a finding reveals two significant things. First, the medical-related issues top the priority list on expenditure. The extremely draining and taxing hard work and the dust-laden, coal ashes filled fine soots and solid particulate matters suspended environ engulfing the residential areas, take serious toll of the health of the coal-carriers as well as their family members. The findings suggest that most of the coal-carriers and their family members suffer from the respiratory and pulmonary diseases few of them (based on personal interaction) were having cardiovascular problems ailments which keep on aggravating in want of proper medical attention. The hand to mouth community had hardly any surplus to cater to the needs of the ailing members. however, the statistical analysis points towards the fact that it is among the top priority after the essential daily expenses. Other heads of expenditure do not exhibit the same level of a significant relationship and subsequent dependence upon the monthly income. It must be clarified here that the meagre earning and the Livelihood Pattern (Please refer to the discussion in chapter three) of the Informal Coal- Carriers on Bicycles (ICCB), hardly leave them with any surplus other than to sustain themselves and their families. Complete lack of diversities in the livelihood pattern and very poor resilience to external factors bringing negative change turn the whole communities economic status very precariously deplorable. Another communityⁱⁱⁱ the Non – coal- carriers on Bicycles, though derive their livelihood sustenance from the coal itself has greater livelihood diversities making it more resilient to negative changes in their livelihood pattern in comparison to their hapless counterparts.

Conclusion and Recommendation

The basic findings of the study have been incorporated in the previous section summary of the result. This section furthers the findings with the observations made during and after the conduct of the survey.

It is noted that even after generations involved in the coal-carrying occupation, most of the households reeling under poverty and their economic status may best be described as deplorable and the income hinges precariously on so many factors and none of them under any kind of control of the hapless cycle pullers, the second important aspect as a corollary to the former one that why this community sticks to an occupation which failed to bring them economic respite or helped in the upward mobility of the community. The first thing which flashes to an outsider that why don't this community adopt alternative livelihood strategies, which may be more lucrative, adequately, and rewarding in proportion to the diligence put in. Answer to these questions are not so simple, its entwined and engrained into many factors.

The first and foremost is the actual lack of any alternative source of income available. The statistics show that the age of initiation into the occupation is 24 years onwards. The covert reason being a hope to get into an alternative source of income till none fructifies. In the interaction with the coal-carriers and also with the head of the households almost all in no uncertain terms clarified to the researcher that their wards and children should not get into the coal-carrying activities on the bicycles. however, the reality of earning a livelihood stares them forcing them to succumb and join their families' trade. They cannot have other activities like hoarding the raw coal, frequent the manually dug mines and other abandoned mines to procure raw coal, for those living in the close proximities of the mining areas do not allow to encroach upon their field of operation. The hoarding of raw coal through illegal means is done by the locals to make poda which is sold to the coal-carriers subsequently. Interestingly, the buyers of such burnt coal heaps are the cycle wallahs only, in other words, both community dependent upon the illegal trade of the legal or illegal coal, complement each other very well. the quality of land is not fit for agriculture and very small holdings per household make farming hardly any source of income for the community. In such a vicious cycle the present occupation seems only income-generating activity available to them. Two things further explain the inertia attached with the profession, first, the coal carriers being geographically away from the mining region, are not entitled to any compensation whatsoever, which might accrue due to acquisition of land for the excavation purpose and secondly being away from the mining activity render their unsaid/tacit

claim over the coal untenable which is available freely to the inhabitants of the region. Although, the claim over the use of the coal for free for domestic cooking purpose to those in the vicinity of the mine areas is not official but yet deliberately overlooked by the mining company officials along with the local administration. However, it becomes illegal and a matter of law and order when it is commercially being exploited at a large scale. The communities other than the bicycle coal – carriers many of their family members engaged in either cutting the coal from the coal seams of the village dug mines, scavenging from the overburdens, stealing from the dumping sites, siphoning off from the trucks or the goods trains, scavenging from the abandoned mines, or other related activities. More hands generate more opportunities for income in a few instances the hordes of poda become large enough to be sold to the more organized network into the illegal trades of the coal. Once they become a regular supplier to these big players (those involved in illegally taking away the coal in trucks and tractors to far off places like Kolkata and Varanasi etc.), they experience a steady flow of income. However, maintain a supply of a large quantity of coal becomes a gigantic problem and they usually opt-out of the network very soon. Supplying a decent quantity of the burnt coal to the cycle carriers is more convenient and also ensures an assured and regular income. Paradoxically coal which is multiple sources of income for others has very limited use for the coal carriers.

On a closer look of the situation particularly in the Karma Project region, it is observed that the mental make up of the bicycle coal – carriers are different from other informal users of the mineral. Those in and around the mining area have less regard and disdain for the existing mining laws. The audacity with which they indulge in the illegal procurement of the raw mineral stems from the deep down psychic of the general populace of the region. The general belief that they have a natural right over the coal. This belief further substantiated by discontent arising out of the apparent retraction of the government on issues of compensation, rehabilitation and relocation/resettlement of the people against their land acquisition by the mining companies, in this case, the CCL. Many villages situated in and around the Rajrappa and Karma coal open cast mines have been acquired and inhabitants relocated, rehabilitated and compensated adequately on paper. however, in reality, quite a few of them continues at their original sites, despite the repeated cajoling and coercing by the mining company on the pretext of not been adequately compensated. Such a situation make the inhabitants of such villages terra-incognita or officially non-residents. The peculiar social condition where the company do not recognize them officially

adds to the general feeling of being duped and disgruntlement among the residents, igniting a brazen and blatant attitude towards the mining company, whom they consider intruder usurping what has rightfully been theirs for generations. The illegal nature of their economic activities gets emotional compensation and a moral scruple which fights out the guilt and grudge.

The community which is in the centre of the study the Informal Coal Carriers on Bicycles (ICCB) paradoxically differs significantly from its counterpart. The bicycle coal carriers not only located physically away from the core area of mining but also not in a position to use the ubiquitous mineral independently for some factors, the villages of coal carriers, geographically not within the mining zone and generally as in the cases of Rajrappa and Karma Projects, also not in the future excavation expansion plan of the company. The sense of 'natural birthright' deludes them completely. Based on the experience gathered through informal interaction with both the communities a clear chasm in perspectives of the two was observed by the researcher. The fear of the local administrative authorities was much pronounced among the coal – carriers. It must be cautiously added here that the quest for livelihood overshadowed every other consideration for both. The multiferous activities which the non -coal-carriers are involved in strengthening and diversifying their livelihood pattern are simply not available to the coal carriers. In absence of other viable opportunities, as mentioned earlier the coal carriers stick to what they know best to earn their living. Those in and around the vicinity of the mining areas are not forthcoming and accommodative to them. Strange it may sound the poda makers, illegal coal cutters, coal lifters from the official dumping sites and other pilfering sources (these are leaking sources from where existing loopholes encourages the coal theft.), all depend upon the poda buyers in form of cycle wallahs and practically, all activities to a great extent exist because of the informal coal -carriers community. Ironically, even being the axel of the low scale illegal coal trade in the coal mining areas, the economic and social status of the coal- carriers are abysmal and hinge precariously. The whole livelihood pattern is very fragile and susceptible to the slightest negative change. The important thing is that it has the potential to go completely awry once a negative change, be it the rains, the police intervention and other hazardous potential situations which might prop up.

It may be pertinent to add that the coal carriers are highly vulnerable to even the slightest negative change Among the hazards, they encountered during their journey to the city of Ranchi with incredibly loaded bicycles, the most debilitating is related to a physical injury incurred during an accident. Handling a loaded cycle (modified in a way to carry the maximum load) which couldn't be paddled since stuffed by coal bags stuffed every possible inch of the cycle, is in itself require tremendous physical endurance and a high level of balancing skill. However, there are instances when unfortunate incidents occur. A few years back when the NH 33 was not a four-lane high way, such accidents were more frequent. The sole bread earning member meeting an accident, even not fatal, throws the livelihood strategy of the household completely awry. With no insurance or social security coverage, the ricocheting impact of the accident on the economic health of the family is massive. The suddenness of the event doesn't let the family recover.

The menace of the police and so-called law enforcing agencies illegally extracting money, akin to Gunda Tax for giving a safe passage to the hapless coal – carriers, is another hazard faced by them regularly. Illegal money extortion has become a routine and every cycle wallahs have to cough out a certain fixed amount at different places en route to Ranchi with their coal loaded cycles. Those involved have no concern for the deplorable and pathetic plight of the coal -carriers at all. Since in Jharkhand, the law states that the major minerals (which includes coal as one of the minerals) found beneath the surface of the earth, belong to the state. Trading without the government permission, even if excavated from beneath a piece of the privately owned land is illegal and hence comes under the purview of penal action. The use of coal for domestic use up to a certain quantity is permissible for those living in the mine area. The raw coal is not carried on the bicycle for the obvious reason of it being heavier, full of volatiles and moisture, not fit for use as a domestic fuel, the coal after burning (regulated and anaerobic) is lighter, free from volatiles and impurities in form of moisture, and is also more combustible with increased inflammability.

The illegal extortion of money at the hands of men in uniform not only inhuman to the coal – carriers but also brings shame and bad name for the police department. The act of few who indulge in such activity depicts the whole department in a very poor light, the local administration must take this in cognizance and the practice must stop immediately.

Surprisingly, the practice of criminal elements involved in extortion is extremely rare. The coalcarriers since moving in small groups of 8-10 persons, make them a difficult target for the antisocial groups of the area. On being confronted with the question about the probability of falling prey to some miscreants, most of the coal- carriers pointing towards their robust iron rod (which they use to assist their loaded cycles both in negotiating the curves and as a stand to balance the stationary loaded cycle) jokingly say 'this wards them off'.

Suggestions:

The completion of three long years of study which was the part of a project sponsored by the University Grants Commission, New Delhi, on some specific aspect of a community infamously known as the 'cycle wallahs' has again been looked into with different perspective by the author. Rechristened as Informal Coal Carriers on Bicycle, the community catches the eye with their beeline formation, struggling and manoeuvring incredibly loaded, modified robust cycles on the National Highway 33, from the coal regions to the nearby cities of Ranchi and Hazaribagh.

The present study focused upon the community itself, however, as a corollary, other aspects having a direct and indirect bearing upon the socio-economic lives and livelihood pattern have been investigated. With all limitation of the study and based on observations certain humble suggestions are highlighted. Given the vastness of the canvass of the study, nothing can be the last word, nevertheless, quite a few suggestions are put forward.

Demonised once as the largest criminal community (Reference..) in the world, the bicycle coalcarriers continue to languish pathetically under abysmal and deplorable socio-economic conditions. Mining economy has a strong bearing upon the well being of the national economic health. The informal economy which finds its sustenance in and around the mining regions, directly affecting thousands of indigenous people, either displaced, resettled, rehabilitated or still living in the acquired lands (by the mining companies), needs a sympathetic and allencompassing approach on the part of the government and the mining companies.

Demands for legalising the whole activity of carrying coal on bicycles, keep on surfacing from different corners. Organisations working in the fields of public welfare along with the trade unions, NGOs, and other social organisations are voicing the concerns of this community, however, till date the voice is feeble and not a single political party (be regional or the national) has taken up the issue seriously. Surprisingly, the issue failed to secure a place in the manifestos of the political parties. The government on its part have always shown knee jerk reaction to the issue. The situation of the coal-carrying as well as the other communities, drawing their livelihood on to the informal/ illegal trade of the coal living in and around the mining regions of Jharkhand has never been addressed at properly, for a tendency of shiting responsibilities on

others shoulder. State government absolves itself on the pretext that it is the sole responsibility of the Central Coalfields Ltd an undertaking of Coal India Ltd which comes under the jurisdiction of Ministry of Coal, Govt. of India. The CCL on its part has time and again shown its inability to curtail the menace (of illegal mining and large scale illegal trading through pilfering of coal) as it is not a law enforcing agency. This kind of 'none's responsibility' is conducive for the coal mafias and big players indulged in siphoning off coal through systematic pilfering of the coal from the government / CCL mines. The situation is further aggravated due to rampant corruption among the CCL employees and close-knit, well-oiled nexus among the local politicians, administration and the companies employees, who all stand to gain from the existing situation. The role of trade unions to check or put a lid on the illegality pervading in the coal mining areas of the state is minimal as they are no longer as strong as they use to be and secondly, their focus is oriented towards their own well being and on how can they manage a larger share of the flesh. The informal coal-carriers are important only because of the number of people involved in the practice. The quantity of the coal being carried on bicycles yearly is insignificant or very low in comparison to what being smuggled out in trucks and large vehicles, to as far as Uttar Pradesh and West Bengal. The officials at CCL also though unofficial or off the record admit that the focus of the company has never been upon steps to be taken to check the coal being illegally taken away on the bicycles. As mentioned earlier in the section the coal- carriers though are the most brazen and overt face of the illegal practices rampant in the mining sector, are in no way the part of well oiled operating powerful syndicate, which operates parallel to the company's network. In such an oxymoron situation where they are the most brazen and overt face of the illegality while in actuality being the fairest player (they buy the poda/burnt coal which is not illegal, for burnt coal is permissible for domestic purpose^{iv}.). During police crackdowns in form of raids (which are very few and far in between), the hapless cycle coal carriers are the easiest catch. The big players always remained evasive, elusive, and free from the tentacles of the law enforcing agencies. Patting its back police seems always satisfied with the action taken. The brunt of police actions bordering loosely on the lines of atrocities, at times goes completely unnoticed and unregistered.

Not only this the stigma of 'coal thieves' continues to haunt them for generations. It has been so engraved in their common psychic that constant fear and perpetual guilt have a significant say on their overall mental well being. Adding injury to insult the men in uniform have hammered that

they are illegal coal carriers and can easily be penalised, and greasing their palms is the only way out.

For those who are against the very idea of making coal-carrying on bicycles, legitimate may contemplate the issue afresh. The bicycle coal- carriers are not 'illegal' rather 'informal', the authorities need to understand the subtleties of the two. Even being the most obvious face of the illegality (wrongly perceived and presented) the Informal Coal- Carriers on Bicycles are not even the tip of the iceberg, they don't have any association with the illegal mining and illegal trade of the coal. It is a gross injustice on the part of the state government and the mining companies to bracket them along with those involved in illegal mining, trade, and other corrupt practices.

Moreover, it is a well-established fact that what the quantity being taken away yearly is not large rather minuscule given the scale of the annual output of a working mine. A rough estimate suggests that one normal size truckload of coal is equal to 70 fully loaded bicycles. last but not the least the perpetual social stigma of 'thieves' or criminals creates a sense of alienation and social ostracizing. This is evident from the way the local inhabitants living in the mining areas and who are active in multiferous activities including poda making out of the stolen coal, treat these cycle wallahs.

The study suggests that the coal-carrying on bicycles with a cap on the quantity may be legalized and be declared no longer an act of criminal activity attracting penal action. in one of the public meeting the present Chief Minister, then an opposition leader promised measures to address the woes of the community and among the plethora of steps 'legitimacy' was the important one. Precisely, for the reasons mentioned above, the issue of informal coal -carriers need to be viewed in a more sympathetic and with humane heart.

The livelihood of the coal-carriers indicates a very simplified pattern with singular reliance. Lack of diversification leads to very weak resilience to negative extraneous variables, the incredible physical endurance undertaken generates meagre income. Highly taxing physical activity which challenges the limits of human endurance, takes a serious toll of the health of the cycle pullers, but in want of alternative source of livelihood, they continue to languish. Many of the central government policies, particularly, the Pradhan Mantri Kaushal Vikash or skill development schemes have the potential to transform the economic health of not only the coal-carriers along with others involved in informal activities in the mining region. The need of the hour is to

provide an alternative source of income for the informal coal-carriers on bicycles. The coal-carriers were of one voice of affirmation in responding to the question on the questionnaire about change in the occupation if provided a chance. Similarly, not a single respondents wanted his children to join their profession. There is no love for the present occupation and the coal – carriers are willing to shun given an option.

The condition of the villages of the coal – carriers is pathetic. The availability of basic facilities like toilets, safe drinking water, road connectivity, primary health centres, elementary school, public distribution shops etc is either completely missing or very nominally present. Notwithstanding the electricity connectivity, the other basic amenities need urgent consideration. The income generated despite putting in so much of physical labour and undergoing exposure to many hazardous is meagre. The stagnant income is in no way can act as a catalyst to trigger the economic uplift of the community.

Quite a few public toilets have been constructed under the 'Swachh Bharat Abhiyan', however, much is still required to be done.

The open cast mines in the Rajrappa coal projects and Karma coal mines region are gradually upgrading themselves in terms of the state of the art technologies and sophisticated heavy machines and digging appliances, still, employ a large number of the miners. These miners usually belong to the nearby locales. The coal -carriers, if absorbed as miners and labourers informally by the mining companies, can do a world of good to them. The senior officials of the Central Coalfields Ltd. At their headquarters in Ranchi admit that there are plenty of opportunities to absorb a large number of unskilled workers. The need is to rationalize the vacant positions and a sympathetic approach by those who are at the helm of the affairs.

The abandoned and defunct open cast mines if not reclaimed by the overburdens (which is generally the case with the coal mines in Jharkhand) are the good sources of underground water. these water bodies have perennial water supply since connected with the under groundwater table. Such large water bodies are found scattered in the vast tract of badland expanse in the mining areas. These water bodies can be judiciously used with community development and social participation programmes which may find a good opening and source of additional livelihoods for the indigenous and other residents of the region.

Actually, the Poda makers have fixed one heap of burnt coal at Rs. 300/- but the catch is they can upload any amount of coal which is sold packed in gunny and plastic bags. these bags are of different sizes varying from less than 10kg, upto 25 kgs an more than 40kg. these bags are furnished by the poda makers themselves. In practice one poda heap is consumed by one cycle wallah to upload a cycle with some of the burnt coal

- the coal through illegal mining, poda making, scavenging coal from the abandoned mines & overburdens of the mine, village dug mines etc and selling it to the cycle wallahs and other small customers, are also dependent upon the coal. However, this community may siphon off the legal coal illegally and use it illegitimately. Besides, these people (irrespective of their caste, religion and ethnicity who generally are in and around the centre of mining activities, comprising people who already been relocated and compensated for the acquisition of their land by the mining companies, but have refused to shift and decided to stay over) are taken by the researcher as **Non-coal-carriers on Bicycle.** NCCB is differentiated from ICCB on the fact the later's livelihood is solely dependent upon carrying coal on bicycles to the nearby cities, in this case, Ranchi to sell them off to the small customers. The burnt coal (poda) they purchase are also sold by the NCCB people.
- There are no such official guidelines on the matter on behalf of the CCL or BCCL. However, an unsaid understanding that as far as the coal is being used by the inhabitants residing in the coal mining areas / acquired land for the purpose but the formal excavation has yet not started for the domestic purposes, it does not attract any penal action and hence the right on the indigenous communities cannot be (rather should not be) withdrawn

ⁱⁱ The incentive for the Bicycle coal- carriers are quite a few. Those enlisted here are both based on the interaction with them as well as empirical findings. The perspective developed by the researcher may or may not be approved by the others.