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Mobility as Capability: Understanding the livelihoods of tea plantation workers using the Capabilities Approach

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Abstract

The research looks into the mobility pattern of tea plantation workers within the region of North Bengal. The prevailing regional imbalance due to cultural and social factors have brought inequalities in the area's geography which has also shaped the character of the research. In an attempt to conceptualise mobility in the dimensions of physical and socio-cultural space, the Capability approach (CA) was used for configuring the social discourses that allows tea workers to evaluate critical aspects of their livelihoods. The use of CA has been the proxy for analysing the mobility patterns, aspirations, ambitions and struggles of tea plantation workers. The study examines the debate over the inclusion of mobility and education within the capability space of the tea workers. In the pursuit of furthering one's capabilities, the study unveils a rather different and a contradictory perception of mobility. It invites philosophical reflection on understanding the circumstances and the context play in shaping individual mobility. The study concludes the use and application of CA has proved to be effective in understanding the mobility space of the tea plantation workers and recommends the use of the approach in policy and practice.

1. Introduction

Mobility derives its origin from the French word *'mobilité'* which means *changeableness* (Online Etymology Dictionary, 2001) and can be considered to be the buzzword of the century. Over time 'mobility' has gained form when combined with other terms, bearing multiple meanings: mobility as progress (Cresswell, 2006), as freedom (Kronlid, 2008) as opportunity (Lucas, Van Wee, & Maat, 2016), as potential (Kellerman, 2012), as modernity (Urry & Elliott, 2010). Transport studies in the late 1990-beginning of 2000 have mainly referred to mobility as the physical movement of people (Litman, 2003) via transportation modes, using motorized modes. However, this view is now being debated with studies evolving towards the importance of non-motorised modes which includes walking and cycling.

When replacing 'movement' to 'mobilities', Urry (2007) underscores that movements have broader implications. In the symbolic 'mobility turn' (Urry, 2007), there is an implicit link between mobility and urban planning studies – implying to consider living experiences in contemporary cities and the relation it generates. These emerging relationships in cities do not only relate to physical space but rather expand to the notion of the social space. Mobility being multidimensional, considering spatial (physical), temporal and social as its three dimensions currently represents the challenge of bringing those dimensions to interact with each other for theory and practice (Kakihara & Sorensen, 2001). This paper supports the idea that even though from a socio-cultural perspective mobility has been used to denote physical movement, it goes beyond that when considering the social and cultural space.

The spatial mobility can be also considered as a temporary phenomenon revolving around four main forms: 'migration, residential mobility, travel and daily mobility' (Kaufmann, 2016, p. 40). These spatial-temporal forms produce social consequences addressing space and time (May & Thrift, 2001). Daily mobilities are therefore associated with time, which should be in accordance with the spatial dimension. From the four main temporary forms, the daily mobilities have the highest relevance in this study; as for the tea plantation workers they are shaped by the particularities of the geography of North Bengal, as well as the access to transport modes that configure the temporalities.

Few researches have studied the interactions and daily situations configuring the commuting time of tea plantation workers, which have been described as repetitive movements between familiar situations and interactions (Jarvis, 2005). The geographical scenario for defining the tea workers' daily mobilities is relevant. This group has experienced intergenerational migration over the years, which has resulted in changes in the daily mobility patterns of the workers. In general, few tea workers who initially worked as bonded labour, now are working elsewhere near the main city as contracted labour. This means that despite living in the tea estates, they do not end up working there. The labour geography of North Bengal, Terai and Siliguri in the rural areas is especially focused into tea, timber and transport industry (Ghosh, 2017). Siliguri, for instance, can be considered as a migration town (Das, 2014); having workers from surrounding areas commuting daily from the city. This clearly shows people from the tea industry transitioning towards contracted, short time labour work. On the other hand, mobility practices of household members or networks are inherently linked to individual mobilities was also noticed among the plantation workers where one's mobility is not just one's own but dependent on the situation and composition of the household when considering the complex compromises of the persons involved (Kaufmann, 2016). The tea plantation workers live and work within the ambit of the estates, they hardly get time to do other activities.

The paper, therefore, focuses on two dimensions: mobility as freedom and mobility as opportunity, considering them as the basis for human wellbeing. Both concepts conform the tea workers' capability space, where the physical and socio-cultural space will be explored in the context of bonded labour, infused with migratory and commuting movements to the plantations. 'Mobility as opportunity' (Lucas, Van Wee, & Maat, 2016) is understood in this paper beyond the particularities of the modal choices. Initially conceptualised by Amartya Sen, the backbone of the Capability Approach (CA) lies in expanding freedom through the attainment of human functioning. Therefore, the CA is an appropriate framework for evaluating the opportunities. Sen (2000) distances himself from the economic perspective of a person's advantage as income, wealth and resources and focuses on 'valuable functioning' (Sen, 1993) that consider set of individual capabilities as an indispensable and central part of evaluating a person's wellbeing. This has been also supported outside the approach, suggesting that the objective of human development perspectives should not be economic growth, but "rather be the expansion of people's real freedom to do what they value" (Uteng, 2006; Alkire, 2005; Alkire & Black, 1997).

Over time the theory has had many additions and reinterpretations from scholars in diverse contexts, in order to understand and apply (Hickman et al., 2017), weight (Robeyns, 2005) and operationalize (Alkire & Black, 1997) this approach. Nussbaum (2000, 2003) for instance, has generated a Central Human Capability list, summarising the factors and capabilities that should be considered in order to obtain a better life. In transport planning, there are instances where capability approach theory has been used to derive a better understanding of accessibility (Pereira, et al., 2018). Understanding the ways in which mobilities and capabilities intersect was first proposed theoretically by Robeyns (2003), and then applied by Uteng (2006) on migrants in Norway. This is undoubtedly complex as both concepts are infused with meaning, power and contested understandings. The point is central to an analysis of how mobility enables or (potentially) disables a person's capability. Uteng (2006; p.439) suggests that "spatial mobility is

intimately connected to social mobility so that 'a change in geo-spatial mobility pattern affects the individual space of opinions and actions and thus produces varying terrains of social mobility". Mobility is then complete only when social and physical components are connected, increasing possibilities of one's capability. An understanding of the physical nature of one's mobility is needed to determine one's social mobility aspects.

2. Tea plantation workers in North Bengal

Before we deepen our understanding of the case, the aspects of mobility and capability need to be first understood in the setting of North Bengal's regional context and in association with the tea plantation workers. The main reason of choosing the tea plantations in North Bengal is because of the region being enveloped by serious regional inequality spearheading imbalance within the region, splitting the terrain not only in terms of the geographic and economic nature but because of cultural and social factors. Heterogeneity which has stirred the process of regional divergence in North Bengal is seen to derive from two sources, 'colonialism and geography' (Roy, 2014). Both these sources way back in the past have been key in shaping the present-day mobility of the tea plantation workers. The geography of the region has instigated migration not only from the neighboring states as Bihar, Orissa as in the present-day subcontinent; but also, from neighboring countries Nepal, Bhutan and Bangladesh. Over time movement has enabled people to settle over the region for jobs who have sought permanent residence. In the North Bengal region, the tea plantation workers have migrated from 'Chotanagpur region' in the Indian state of Bihar for the sole purpose of working in the tea gardens. North Bengal belt exhibits a strong factor of intergenerational migration (Brown, Ganguly, & Scrase, 2016), which can be considered as a characteristic feature of the labour geography of the region.

The second source; Colonialism, was a driving force. Though exhibited at the national scale has left its traces till date in India's regions. It was under the British colonial regime that the tea plantations were nourished and flourished. In India, the tea plantations are in the Malabar and Nilgiris in South India, Assam and the states in North east India, Himachal Pradesh, Uttar Pradesh, Bihar and Orissa and the Doors of North Bengal and Darjeeling (NABARD, 2016). The emergence of the tea industry demanded single migrant workers from surrounding areas to work at these estates. The labour force composed of not "migrants but immigrants" (Gupta, 1986) who first individually and then eventually with families immigrated to the tea estate for work, land and housing needs. Today, generations of tea workers have passed living in the same patch of land and working at the same tea estates at the cost of 'bonded labour'[1]. The interplay of these factors: geography, colonialism, migration, regionalism; have altogether shaped the 'daily mobility' pattern of the workers. Informal discussions have revealed that these migrants among the undertaken study area belong to a tribal population of Bihar, follow their own cultural lineage speaking languages of local origins like 'Sadri', 'Oraon', 'Munda', 'Bangla', 'Santhali' and 'Nepali'. Given that they experience bonded labour, a kind of slavery in today's world (Kara, 2012), they fail to leave the labour force in the search of better opportunities. Like other organised sectors, they follow a strict vertical hierarchy (Mishra, et al., 2011) that maintains the class hierarchy of workers, with them in the bottommost category (Prasanneswari, 1984).

The mobility analysis for tea workers is explored in terms of their opportunities and freedoms, configuring their capability space. In the context of capabilities, mobility can be understood as asset to the attainment of wellbeing. Little is known about the daily experiences of the tea plantation workers in the plains of North Bengal, and how their lives have shaped because of the dearth of 'potential mobility'. And so, we embark onto gaining a deeper understanding on re-defining mobility for tea plantation workers, considering concepts pulled out from the CA as

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[1] As in the Bonded Labour System (Abolition) Act, 1976; "Bonded labour system" means the system of forced, or partly forced, labour under which a debtor enters, or has, or is presumed to have, entered, into an agreement with the creditor (The Bonded Labour System (Abolition) Act, 1976). Owning to this agreement, following are the end results (Pandey, 2017):
- Render services to the creditor for a specified period with no wages
- Forfeit the right to move freely
- Forfeit the right to appropriate or sell the product or the property at market value from his labour or service

'choice', 'freedom' and 'human potential'.

3. Research Strategy and Methodology

The research aims to conceptualise mobility in the dimensions of freedom and opportunities, using the capability approach for configuring the social discourses that allow tea workers to evaluate critical aspects of their physical and socio-cultural space. The methodological approach relies on a series of observations and qualitative data from primary sources in the format of interviews and focus groups with local communities. The approach of gathering qualitative data seeks to understand the workers' vision on their freedoms and opportunities, from a bottom-up perspective. The discussions with the tea workers enabled to develop their own perception of mobilities, based on everyday practices. The main qualitative method developed was the Focus Group Discussion (FGD), where the structure of the discussion was based on the concepts gattered from the capability approach, particularly around issues of everyday mobilities, attainment of opportunities, and commuting processes as reflection of choices and freedoms. After each FGD, semi-structured interviews with the participants allowed exploring individual perceptions and personal experiences.

The use of qualitative methods for in-depth analysis have been suitable in research for operationalising the CA in multiple countries (Hollywood, et al., 2012). For instance, the impact of housing freedom on the residents of squatter settlements in Brazil (Frediani, 2008), was carried out by combining the framework of capabilities approach to participatory methods. Moreover Alkire (2007) suggests usage of mixed methods, to access the relevance of subjects used when selecting capabilities. While these studies suggest the use of participatory method to understand capabilities, Cleaver (2001) mentions the need complement participatory methods with a theory which provides a linkage between people's lives and dimensions of wellbeing. For the purposes of this research, the CA provides a comprehensive theory to participatory methods, emerging into the rationale of the adopted 'mixed' methodology. The approach aims at widening the ambit of thought into territorial aspects of daily mobility, helping draw a connection on the use of qualitative methods through both Focus group discussion (FGD) and semi structured interviews analysis.

The premises for the questions that structured the FGD and the semi-structured interviews were the concepts of mobility and capability as discussed in the literature. Initial dialogues with the tea workers and local social workers, listening to their mobility stories and having informal conversations helped contextualising those questions, facilitating the discussion on the FGD. The initial conversations helped understanding the dynamics within the community for setting up the FGD later on. Four focus group discussions were carried out, each at different locations Matidhar, Durgachi, Khadubanga and Sukna tea estates. The places for carrying out the FGD were selected based on their locational difference; distance from the central city, local knowledge and based on the availability of the tea workers for the survey. They involved a different mix of people as shown on Table 1. Where the first FGD was composed of both male and female participants, the second involved only female participants. The third FGD incorporated seasonal workers along with the tea plantation workers. Three of the four FGD, had a mix of tea and non-tea workers. The open-ended, in-depth interviews brought even more clarity to the study as each participant gave an account of the relationship between mobility and capability. In total, eight interviews were held, considering two participants from each focus group. The interviewees shown in Table 2, were participants of the FGD and were selected based on their level of participation and distinct individual features.

	FGD 1	FGD 2	FGD 3	FGD 4
Place	Matidhar	Durgachi	Khadubanga	Sukna
No of people	6	8	7	9
Gender distribution	Male=3	Male=6	Male=0	Male=4
	Female=4	Female=2	Female=7	Female=5
Count	Tea: 6	Tea: 8	Tea: 5	Tea:8
(Tea/Non-tea workers)	Others: 1	Others: 0	Others:2	Others: 1
Language Spoken	Sadari	Orao	Bangla	Sadari

Table 1. Configuration of the four Focus Groups Discussions used for the research.

The tea workers were approached through the medium of the social workers, as the context underlining the lives of these workers is sensitive in terms of the type of labour. Although the discussions mostly were carried out in Hindi, the presence of the social workers in the discussions helped to overcome the language barrier. Another barrier for the data gathering was the spearheading Gorkhaland agitation (Giri, 2017) that happened at the time of the field-work, forcing the close-down many tea estates, and affecting the logistics and availability of social workers for helping on the research. This partially defined the limited number of semi-structured interviews after conducting the FGD. The discussions took place in the respective tea estates, which involved travelling now and then to these estates. Approximately almost two days were dedicated for rapport building and conducting the FGD and interviews, which mostly happened during the afternoon breaks or in the late evenings after the tea plantations work.

Interviewee	Gender	Job	Education qualification	Mode
L	M	Toll collection worker	Primary level (10th grade)	Before: Walk/Cycle After: Two-Wheeler
S	F	Permanent Tea worker	Dropout (3rd grade)	Before: Walk/ Cycle After: Walk
A	F	Permanent Tea worker	Primary level (7th grade)	Before: Walk After: Walk/ Cycle
K	M	Seasonal Tea worker	Dropout (5th grade)	Before: Walk/ Cycle After: Walk/ Bus/Cycle
R	F	School teacher	BA, MA	Before: Walk/ Cycle After: Two-Wheeler
B	F	School caretaker	Secondary level (9th grade)	Before: Bus Now: Carpool/ Bus
N	F	Hospital Nurse	BSc	Before: Bus/ Walk Now: Bus/ Auto Rickshaw
R	M	Permanent Tea worker	Dropout (6th grade)	Before: Walk/ Cycle After: Walk/ Cycle

Table 2. Participants of the semi-structured interviews.

The FGDs and interviews were transcribed, and thematic analysis was used for analysing the data. The information gathered at the FGD was coded and classified for the analysis, using the NVivo software. The categorisation of the codes into themes formed the capability space configured by physical and socio-cultural aspects. This process of coding the selected quotes ended up producing thirty codes as in Appendix C , distributed into three major overarching themes. The structure of the analysis follows the development of each theme.

4. Analysis

The data reveals that the understanding of mobility is associated with the physical space; touching upon experiences, aspirations, freedom and satisfaction. Aspirations and satisfaction were mostly related to the non-physical aspect of job satisfaction. The resultant themes represent the relevance and the emphasis people attributed to these topics, analysed and understood through the lens of the capability approach. The themes are as follows:

1. Walking as a burden
2. Social structures and interaction with others as facilitators of personal freedom
3. Education as promoters of change and enhancement of personal capability

4.1 Walking as a burden

Daily commute takes a central place as is directly connected with their work-related activity they perform during the

day. The particularity for the tea plantation workers is that daily commute is strongly connected to social connections and bonds within the communities. Daily commute gets connected with the aspect of freedom on the basis of two aspects: time and work. Both the time spent while commuting and the time spent while working has hindered people from engaging in other activities, so walking has been associated as a secondary activity as a spill over in their daily lives. However, the perception of walking as a burden comes not necessarily for the time spent in commuting, but in the additional effort that walking implies when having to work all day using the physical strength as a mean for performing those working activities. The daily travel can be considered as a secondary activity, or even as part of the main production activity. As quoted,

> "Walking is an issue, because we walk while commute and while plucking tea leaves, we have to stand under the sun and move around on our feet" (female, tea worker, mid 30s).

Even at the workplace they are required to be on toes, plucking leaves. Therefore, after the time spent in their workplace, commute still takes a considerable amount of time. Walking then has almost become a sort of an involuntary act, and continuous walking causes the older women to feel tired. Apart from that walking also consumes a considerable amount of time, as suggested,

> "Walking is time consuming and boring. I feel I can spend my time in something better rather than walking" (female non-tea worker, early 20s).

Daily commute also defines the boundaries of their aspiration, as fare price or the distance are the constraints, they faced in travelling out of the estates looking for better opportunities. Travel options – usually by bus or autorickshaw exist; but it all comes at a cost that is not easily affordable for the workers. On the other hand, the lack of available infrastructure, lack of direct transportation routes and the unaffordability of personal travel modes (motorbike or bicycle) have constrained tea workers on the boundaries of walkability. Their current circumstances unable them to afford a motorised personal mode. The literature repeatedly mentions the geography as a key aspect, the worker's housings are usually confined to the middle of tea plantations with no adjacent highway that provides an easy connection. The paths along the tea estates are carved from within the plantations, not providing a direct route to get to a place. Commuting can take about 1.5 to 2 hours to get to where the plucking must be done. Commuting to work and the work itself takes a major amount of time for the tea workers leaving them with comparatively lesser or absolutely no personal time. For the tea workers there is a minimum wage set, their work doesn't accommodate the ability to advance into higher position, therefore they join as a labourer and continue working as a labourer. Given this to enjoy a sense of personal freedom, one must break the set barrier of having to work at the estates. To an extent, accessing transportation modes opens to new possibilities of work and faster commute may enable increase in personal time spent.

Relatively important to 'time expenses on commute' gets featured the 'unsuitability of the primary mode' and 'job satisfaction'. Of which 'bonded labour' is a code that is repeatedly mentioned on several occasions. This resonates with the workers daily schedules, which by far is formed of repetitive movement between work and home; leaving no time for non-work related activities. Additionally, both their residence and work needs are met within the boundaries of the estate, making them share a common feeling of being enslaved to carry out the role of a tea estate worker. As quoted:

> "The many things we own today is because of 'bonded labour'. Our ancestors were given land where they could farm and build house upon. The land was even named after them. But all they had to give in return was to work at the tea plantations" (male, tea worker, late 30s).

Contrary to the perception of slavery or boundedness; the feeling of 'Satisfaction related to one's work' was shared between the tea and non-tea workers. The only difference is that for the tea workers satisfaction remained limited to having a "permanent job, salary and house"; whereas for the non-tea workers it went beyond that, expanding to one's personal achievement. As quoted:

> "I am happy with it, because of the job, I feel at par with the other people who have gained education in the

community. Also, I am now able to support my family to a larger extent." (female, non-tea worker, early 20s)

The discussion around job satisfaction was crucial, firstly because it provided a reflective thought to the tea workers on the changing aspects of the community; secondly in provided a link to the physical and social mobility. The idea of the unsuitability of the primary mode is also relevant as states the infrastructure and logistic needs of a wide portion of population in this area. The codes on modes recurrently mention walking and bicycle; depicting the common mode among the workers and its frequency of usage. Discussions around 'improving travel choice' was least stated; given that very few workers travelled from other areas to work at the estates and based on the responses it seemed to be incoherent. Also, people working in the tea estates hardly have experiences travelling out of the estate which can also relate to the opportunities people see in the attachment of their lives to the land. As quoted,

"We have to live, work and die in the estate, like some of our forefathers" (male, tea worker, aged 40).

Seasonal changes especially the rains affect the mostly the part-time or seasonal workers, coming from other areas to work at the estate; rather disrupting their travel. They say that during summer months it is not much of a problem as the river is shallow and dried up. But during rains, the river gets difficult to be crossed. However, those dwelling within the estate, experienced almost no seasonal shift. They followed the same route at their scheduled time; travelled along with the same people, using walk as the only mode. They repeatedly commute the same way for years together so much so that 'regularity is seen in their travel pattern'. Thus, this repetitive movement have brought experiences and consequences, which on introspection open up to discussions on freedom, experiences and social relations in the further themes.

Even though recent research has proposed encouraging more active travel, particularly walking and cycling, the research's findings exposes that having no more options than walking becomes a life complication. Walking becomes a burden for people, especially for those who must use this means to commute. Some reasons are age, prolonged length of walking, seasonality and the inaccessibility to the main road from where public transport is made available. The ideal perspective of urban and transport planners does not work in these contexts. People do not necessarily link walking to 'exercising' or as 'leisure', but the contrary on becoming a slow mean for commuting, that hinder them to get advantage and control over their life. This is also explained by the job activity they performed, as the physical activity is constant in the tea plantations. This is probably one of the most critical observations in this area that directly affects aspects of physical and mental health, as well as the opportunities they lose as a consequence of the use of energy and time on their commuting time.

4.2 Social structures as facilitators of personal freedom

Freedom for the tea workers means ability to spend more personal time doing activities they are interested. Seeking personal space in the light of capabilities brings about activities people would carry out which in turn opens to an array of new opportunities. The community being closely knitted, elements of individual freedom is closely related to the social structures they dwell within. These social structures mostly affect women which gendered perspective of the understanding of freedom. For instance, the ongoing repeated practice of walking brings about interaction with others enabling 'social commuting', along with other experiences. Some women have mentioned the act of walking as enabler and part of their social activities. They say they chat while going work and returning home, which works as a mode of socializing.

Women find jobs especially during holidays and on the limited free time they spare, so the possibilities of performing other leisure, cultural or social activities is practically null. The same is not the case with men, as the male discussants claim to have balanced time spent with family or friends after work which was unlikely in the case of women. For male workers, their social activities involve spending time in the evenings with a game of 'teen-patti' with friends or usually going to the city for leisure or shopping work. Women are the major workforce of the tea plantations (Roy S. , 2017), the work schedule is designed such that it supports their domestic life. This in the realm of gendered perspective and mobility presents hindrance to freedom.

Women experiencing a higher level of work satisfaction compared to men is another occurrence of this gendered perspective. The work does provide to some extent a tinge of satisfaction because of the liberty to work and bring in wages to run the household. It is an underlined fact that apart from work women are tied to the additional responsibility of running the household in which 'motherhood and womanhood does present a barrier'. Overseeing the children and the house is their secondary activity, so the time they spend walking allows them to interact with other women, and have social experiences through their daily routines. These interactions nourish the associations with other female members of the community, which brings them more confidence on the issues and personal experiences they might be encountering. There is another uncovered issue /beyond the sympathy of having more people around when walking; and is related to 'perceptions of safety' on the way to work. These women perceive themselves safer in presence of known people under known surroundings.

> "We can move around freely because we know people. Movement outside the estate is dangerous, anything can happen. It seems unsafe to me" (female, tea worker, early 50s)

The lifestyle has brought a certain level of 'dependency in relations and other social structures. The houses of the families of the tea estate workers are singular disjointed rooms but are structured to open up to form a cluster of rooms, sharing a common space sometimes even kitchen. This enables the women workers leave their children with their in-laws and/or extended family to be able to work. However, it is evident that the family in-turn depends on the working member of the household for affording shopping, leisure or health needs.

The same social structures sometimes act as barriers, that have tied them to working at these tea estates. People have unfulfilled 'aspirations related to improving one's movement'. Some aspirations were directly associated with their current job like; change to more skill related job, educating oneself for better work prospects, able to accommodate one's travel to be able to do part-time work along with the main work. Other aspirations included the need to leave the estate and settle elsewhere and to be able to do other activities other than work and household chores. The nature of the current social structure as well as workplace dynamics have limited their 'freedom to involve in other activities than work'. As quoted:

> "I used to spend time doing tailoring work. I still get some orders, not getting time during weekday's work, I finish it over during work holiday" (female, tea worker, mid 30s).

Social and cultural factors seem to be restrictive at the first place from allowing people to follow their will, be that in the choice of work or other choices one makes. In the first instance it appeared to be the same for the tea workers especially women, when they denied leaving the estate for work purpose because they had children and a family to look after. But the same social ties enable the tea workers to go to work, leaving their children at the care of the family. A sense of supporting the family with their income provides the workers with a tinge sense of personal freedom. The changing dynamics of is also enabled through the realisation extended freedom; that has brought them to educate their children, this change is evident in their social relations too as education for them is now of utmost importance in their discussions around mobility

4.3 Education as promoter of change and enhancement of personal capability

Education as promoter of change is a result from the focus groups and the interviews that goes in accordance with the Capability Approach (CA) concepts of freedom and aspirations. Unfortunately, in this context, the lack of education is even more recurrent in the narratives of the interviewees, where the concept turns out to be in the spectrum of the barriers. Freedom is related to the kind and quality of activities one can perform apart from the regular work and commute. The daily travel has bestowed women with lesser time, therefore limiting them to 'freedom to perform activities other than work'.

Among the diverse aspirations (to move out of the estate, change of work, etc.), education as promoter of change and enhancement of personal capability is at the crux of the debate and its sole mention is an important aspect within the capability space. Lack of education was always related to lack in choice, and lack of choice impacting individual freedom. The tea workers' purpose behind educating their children is an aspiration which is very much related to the

role of education over timely may either change the dynamics or expand capabilities of the tea workers.

> "We have aspirations for our children. We are educating them, providing a choice not to work in the tea gardens. I am not educated much, but on undergoing training I made myself get a secure job" (male, non-tea worker, mid 40s).

In the literature, the role of education in the capability space appears contested given what one chose to do with education cannot be predetermined (Walker, 2003). But in the case of the tea plantation workers, being educated was held high, was starting to be given much importance. Education can play a role in the expansion of capabilities, claims Saito (2006), by granting autonomy to a person enabling one to make choices in life. As for Sen, mention of education as capability is an important debate given the Indian context, stating, basic education is the first requirement to achieve rapid progress (Dreze & Sen, 1995). On one hand where for some communities education is still thought to be an elementary tool to attain capabilities, a study on educational migration in Beijing concluded, 'the idea that social mobility can be attained through higher education is often a fantasy reserved for elite families' (Hart, 2009). Having said this the onset of realisation of the need to travel outside the estate for education, work, leisure or other purpose is setting in among this community. Brass (2008) mentions about the changing dynamics of permanent to non-permanent migrant workers in India. The tea workers with their minimum wages are economically constrained, which at a level does affect their travel and education, but this didn't attract much discussion compared to social and cultural based barriers that exist.

5. Discussion around the capability space

The themes and emerging codes set the premises guiding our evaluation through using the 'capability approach'. The analysis is carried out building upon a 'capability space' – an evaluative space for both the tea estate workers and the non-tea estate workers. Since both these groups sharing the same space and relation with the community, on evaluating the them in the capability space, the understanding of the dynamics of the choices, capabilities and functioning takes place within the existent social norms and cultural context. The literature on mobility in relation to capability have left loose ends to be deliberated when fitted into the context. We therefore start from the tea workers discussion that unveils education as an important aspect in their capability space. Education here is seen as a two-way process; one way once sought will enable movement outside the estate for want of better job opportunities. The second and the most critical way of seeing it is, on acquiring the necessary education, one becomes capable enough to move freely.

> "Our children unlike us has started to move out of the estate for their educational needs, which will provide them the confidence of moving out and standing on their feet. If one is educated, one knows how to read and write; one also knows how to read bus schedules and ask people the timings" (female, tea worker, mid 30s).

Therefore, mobility increases capability; but the reversal i.e. capability increases mobility is also a possibility among the community of these tea estate workers. However, the position regarding the walking activity as a promoter of better quality of life is still unclear. We have suggested that walking can become a burden when people cannot opt to take another transport mode for getting either to work or to other activities. However, the study reveals a rather contradictory perspective of mobility from the tea plantation worker, mainly based on gender. Women tend to acknowledge the possibility of walking as an opportunity to interact with other people in their daily routines mostly with other women from their community – in spite of the physical effort this activity requires after hours of active jobs in the field. Men do not share this perspective, as they have stated they have the option of interacting with others and having social life beyond the circle of job. Women still have the social responsibility of overseeing the household and the children, which has been the secondary activity after having to work. Therefore, current persistent social structures difficult the possibility of using spare time to perform other activities.

The creation of the capability space leads us to making an attempt categorising the functioning and capabilities within the same context. Robeyns (2005) helps on this, by differentiating 'means' and 'functioning' representing in the form of a diagram. Using the same diagram, we listed the features of the two group of people i.e. the tea estate workers Figure 1 and the non-tea estate workers Figure 2; using the diagram as an evaluative space. Within the Capability Approach as theorised by Robeyns; human diversity is accounted for in two ways: by focusing on the "plurality of functioning and capability in the evaluative space" and focusing on "personal and socio-environmental conversion factors" (Robeyns, 2005); that affect one's capability set directly.
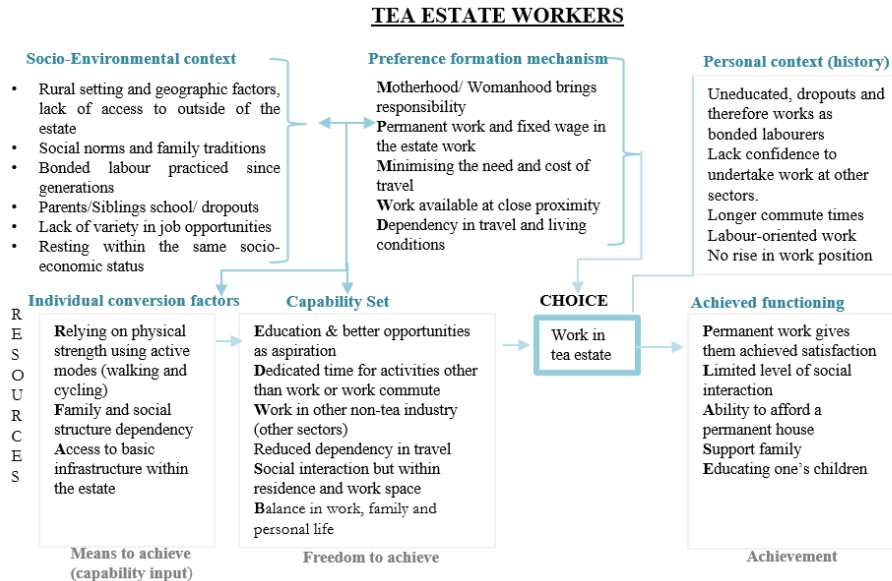
TEA ESTATE WORKERS

Socio-Environmental context
- Rural setting and geographic factors, lack of access to outside of the estate
- Social norms and family traditions
- Bonded labour practiced since generations
- Parents/Siblings school/ dropouts
- Lack of variety in job opportunities
- Resting within the same socio-economic status

Preference formation mechanism
Motherhood/ Womanhood brings responsibility
Permanent work and fixed wage in the estate work
Minimising the need and cost of travel
Work available at close proximity
Dependency in travel and living conditions

Personal context (history)
Uneducated, dropouts and therefore works as bonded labourers
Lack confidence to undertake work at other sectors.
Longer commute times
Labour-oriented work
No rise in work position

R E S O U R C E S

Individual conversion factors
Relying on physical strength using active modes (walking and cycling)
Family and social structure dependency
Access to basic infrastructure within the estate

Means to achieve (capability input)

Capability Set
Education & better opportunities as aspiration
Dedicated time for activities other than work or work commute
Work in other non-tea industry (other sectors)
Reduced dependency in travel
Social interaction but within residence and work space
Balance in work, family and personal life

Freedom to achieve

CHOICE
Work in tea estate

Achieved functioning
Permanent work gives them achieved satisfaction
Limited level of social interaction
Ability to afford a permanent house
Support family
Educating one's children

Achievement

Figure 1: Tea plantation workers Capability space

NON-TEA ESTATE WORKERS

Socio-Environmental context
- Rural setting and geographic factors, lack of access to outside of the estate
- Social norms and family traditions
- Bonded labour practiced since generations
- Parents/Siblings school/ dropouts
- Lack of variety in job opportunities
- Resting within the same socio-economic status

Preference formation mechanism
Welfare of family & friends
Better job or working in urban areas brining better prospects
Usage of transport modes for commute
Ability to rise in work position
No dependency in commute, owning a personal mode

Personal context (history)
Either through formal education or job training they have risen above from undertaking the estate job
Comparatively shorter commute
Skill based work

R E S O U R C E S

Individual conversion factors
Education and training increasing mental ability
Skill development
Physical health and well being
Access to public & private mode

Means to achieve (capability input)

Capability Set
Better job prospects as aspiration
Ability to move to other cities for better work
Dedicated time for activities other than work

Freedom to achieve

CHOICE
Work in other sectors

Achieved functioning
Maximum satisfaction in job, undertake multiple jobs
Extension of social networks through interaction and knowledge share
Extending service to the community
Rise in status within the community
Time for leisure based activities and improved lifestyle
Ability to support family at large
Work, family and Personal life balance
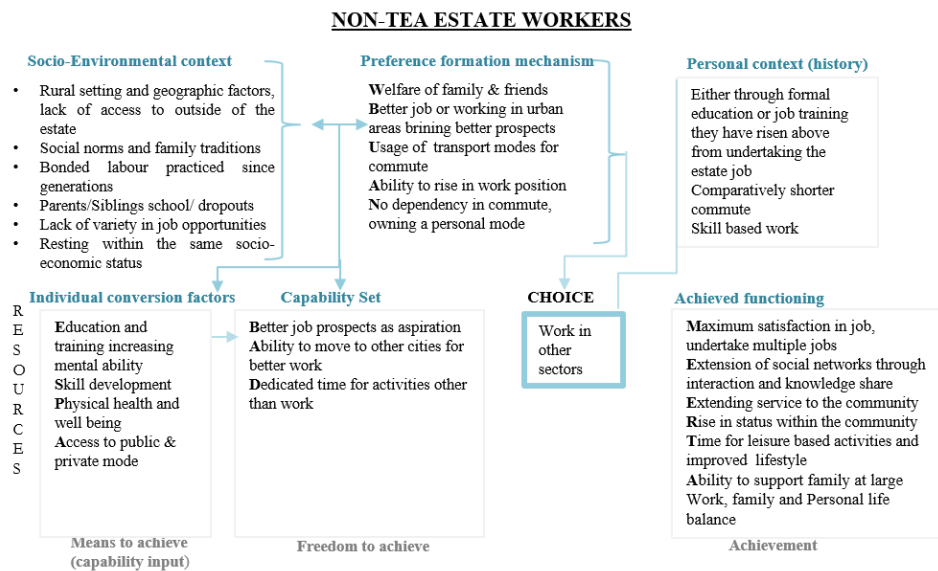
Achievement

Figure 2: Non-tea workers Capability space

The diagrams were mainly derived from the discussions over FGDs, and the semi-structured interviews further played a major part in shaping the conversion factors, freedom of choice and capability and functioning related discussions. The socio-environmental context for the tea and non-tea workers remains the same. The 'preference formation mechanism' for the tea and non-tea estate workers varies; and so, does their 'personal history'. An important thing to be noted here is the variation in the position of education for the tea workers and non-tea workers. The position of education within the capability space seems much under the capability set as a realised functioning for the tea workers Figure 1 whereas in the case of non-tea workers on achieving education also in the form of skill development makes it an individual conversion factor Figure 2. According to (Robeyns, 2005) conversion factors play a role in converting characteristic of the good to individual functioning. The positioning of education within the capability space will be debatable and subjected to change over generations to come. Therefore, more mobility in this case does not mean more opportunities in the light of capabilities.

Freedom forms the core of the capability approach. While non-tea workers enjoyed freedom in their choice of jobs and ample time availability for other than work related activities; the tea workers education was an unachieved aspiration. We cannot deny the role transport modes play in elevating one's sense of freedom, as at some instances it also reduces dependency in travelling. While the tea workers access the basic facilities within the boundaries, the non-tea workers use of available mode of transport does not limit their movement to the estate boundaries.

On a closer look at the diagrams; we see the list of capabilities and functioning differs in terms of number and the content that defines their space. Despite the groups, experiencing similar socio-environmental barriers, the choice of working in or out of the tea estates plays an important part in the expanding one's capabilities and further achieving them. The freedom of choice of livelihood thus determines one's mobility. Moreover, movement of people outside the estate for work, have enabled social interaction in their workspace too and have extended their social network, as opposed to the tea workers who have similar sort of social interactions within their work and residence space. Both the tea estate workers and the non-tea estate workers travel for substantive amount of time. But the commute of the non-estate workers is different to that of the tea estate workers. Their ability to achieve their capability is what differentiates them from the mass. Movement is essential, therefore the availability of transport and access to it not only enables movement within the physical or geographic space but also set people's motion in the capability space.

6. Conclusion

The research explored mobility and capability in terms of daily movement enabling freedom and aspiration in the lives of the tea workers. Apart from that, from a wider perspective it has opened a window of thought into the existent inequalities in the region. Literature time and again has explored the regional aspect of disparities with the region due to variation in geographical and cultural contexts. Understanding individual mobility could also further understanding of inequalities within the region. As mentioned before, one of the limitations of the research was unable to get to the hills in the region. The hills would give a rather differentiated perspective from that of the plains.

In the present context around policy debates, the research questions, 'Bonded labour'; despite of it being abolished under the Bonded Labour System (Abolition) Act (1976) leaves traces in the present. The Plantation Labour Act (PLA)[2], 1951 was devised to reduce the anomaly of the other Acts affecting tea workers. One of the main criticisms of the PLA is that they have looked into welfare of the works; but haven't done much on improving relation between employers and workers. Research on changes in bonded labour and from our study on mobility of tea workers reveal that people are not able to rise in work position level and resort to migration and informal work. The changing nature of labour; where unfree labour or bonded labour was long term and more settling, people now have no choice than look for short term contractual labour positions in the city.

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[2] Plantation Labour Act (PLA) provides for improved housing, sanitation, schooling for children of plantation workers, medical facilities and certain other welfare measures. The provisions are made for those working full-time in a permanent position and not for informal or seasonal workers (The Plantation Labour Act, 1951)

The application of CA in understanding the livelihood pattern of the tea estate workers helped developed ideas beyond the provision of transport infrastructure. It allowed for understanding daily mobilities and livelihood pattern of the tea workers from their own perspectives and it helped explore links between mobility and education; mobility and intersectionality; their varied emotions around walkability. Another important perspective was that transport can facilitate, but might not be enough for solving people's needs, it requires the examination of people's aspirations and opportunities.

Our approach relied solely on qualitative sources of information. To an extent, this went beyond the discussions central to mobility and transport. In terms of academia and research using the method would rather uncover a range of issues that cut across disciplines; helping draw multiple connections. From a practical point of view, such broader applications might rather be a bit daunting. For practice, therefore it would rather be more effective to use CA as an approach to be streamlined through focused discussions. CA as a theory opens a philosophy of thought on how a policy or an intervention can act either furthering or limiting one's capability.

Appendix A: Questionnaire for Focus Group Discussion

1. What are your perceptions about mobility in the plains? Do you have any experiences with certain modes while travelling or commuting?
2. Owing to the geographical location is commuting to work or travelling easy or difficult? What difficulties do you face? Does it vary as per seasons?
3. Is time taken to travel to work? What are the other activities that take place? Which activity takes the longest travel time in a day?
4. Since how long have you been working in the tea gardens? Have you changed your job, how often have you changed your job? What was your previous occupation? Reason for change/ unchanged?
5. Can you give me any indication of bonded labour? For instance, you said about the alarm bell, why an alarm bell?
6. What are the activities you are involved in apart from working? After work what do you do?
7. What kind of changes have you experienced in the long run? How do you think changes have come when compared to the past situation? What do you believe the future holds for you? Your aspirations and dreams?
8. What do you feel should travel choices be improved? Do you need them? How do you feel of using walking as a mode to commute? How are the choices now different from the travel choices before?
9. If there is a reduction in travel time, what sort of activities would you spend time in?
10. Are you satisfied with the current situation? Does your ability to move fulfil your aspirations? How do you think things might improve/ change?

Appendix B: Questionnaire for Interviews or Travel Trajectory

1. Since you were present in the focus group discussion, do you agree/disagree (partially or fully) with things that were discussed? The way you experience bonded labour as a tea plantation worker?

2. How do you consider your mobility (movement pattern) different/same from that of others? Has it changed according to the change of job?
3. Owing to the feature that's different, what difficulties do you feel?
4. Compared to before being there anything that has significantly brought change to you? New activities that you do now that you had not been doing before?
5. What are the activities that you undertake throughout the day? How do you start your day?
6. How important is it for you to travel the distance that you do? How would you describe your daily travel experience?
7. How do you think can changes be brought to you? What do you say would be the most significant change?

Appendix C: Derived Codes and formation of themes from FGD & Interviews

	Walking as a burden
1	Walking as a means to social connect
2	Walking as a leisure- based activity
3	Regularity in commuting time and travel pattern
4	Daily travel as a secondary activity
5	Seasonal variation in travel pattern/ Seasonal changes affecting travel
6	Improving travel choices
7	Bonded labour
8	Length of stay in a particular job
9	Efficiency of a mode
10	Cycling provides faster commute
11	Lack of infrastructure or a direct route
12	Lack of desire to change work or move out of the estate or bring change in one's lifestyle
13	Unaffordability of personal modes of commute
14	Fare price as a constraint to commute
15	Distance as constraint to commute
16	Time as commuting constraint
17	Lack of choices in terms of commuting or freedom to choose modes
18	Advantages of job's proximity or proximity to the city
19	Build environment conditions for walking and cycling
20	Satisfaction related to one's job
	Social structures as facilitators of personal freedom
21	Interaction with others and social commuting

22	Travel mode offering a sense of freedom
23	Freedom to perform activities other than work -usually related to social/ home-based activities
24	Motherhood hood or womanhood as a barrier
25	Dependency in relatives and other social structure
26	Considering or desiring to move out of the boundaries of the estate for better prospects
27	Dependency in travelling and perception of safety
Education as promoter of change and enhancement of personal capability	
28	Education as opportunities
29	Aspiration related to improving one's movement
30	Economic constraints affecting travel and education

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