

# CASE STUDY LIVELIHOOD STUDY OF INFORMAL SETTLEMENTS: A CASE OF MUTHANAKULAM SETTLEMENT, COIMBATORE

Janani Thiagarajan – 2018



Funded by the Erasmus+ Programme of the European Union







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# ABSTRACT

The vulnerability of urban areas and more so informal settlements is augmented by the rapid pace of urbanization coupled with the ever-increasing population burden. In Mumbai this vulnerability of the informal settlements is most acute and greatly compounded by the location of these communities that is often determined by their relative proximity to livelihood, on neglected, marginalized spaces in the city such as coastal zones, flood prone areas and geologically unsafe slopes, as well as proximity to dump yards, slaughter houses etc.

Moreover, such populations are subjected to a wide gamut of health risks arising due to an absence of planning and provisions of basic services by the respective institutions. And hence the marginalized areas coupled with a poor institutional and municipal framework, creates certain conditions which entrap the poorest citizen in a cycle of despair.

These conditions alone do not attribute to an upsurge in risk levels. Natural hazards driven by Climate Change impacts result in the marginalized communities exacerbated vulnerability towards health risks and life. Impoverished and migrant population are more vulnerable to the impacts of climate change such as extreme rainfall events, flooding and water logging, increase in summer temperatures or the urban heat island effect. Thomas Hobbes, in his book, "The Leviathan," describes life in the natural state as being "short, nasty and brutish". These existential conditions, unfortunately, have become 'natural' and routine for the marginalized population in Mumbai - its swelling ranks lured by Mumbai's livelihood opportunities but cast aside in the concomitant planning and governance challenges.

This Case Study of the communities living in informal slums (Aadarsh Nagar, a neighbourhood in Deonar), occupying marginal low-lying land adjacent to the dump-yard, examines how these harsh existential conditions are being exacerbated through environmental forces (driven by climate change) like flooding, water logging and urban heat island effects, and specifically aims to establish an interlink between climate change and health. Further, it seeks to design some planning solutions that can play an important role in ameliorating the severe health outcomes suffered by Mumbai's marginalized, forgotten population. •

" This Case Study examines how existential conditions are being exacerbated through environmental forces and specifically aims to establish an interlink between climate change and health."

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# **ABBREVIATIONS**

AIADMK	All India Dravida Murpoku Kazhagam
CPI	Communist Party of India
DMK	Dravida Murpoku Kazhagam
DU	Dwelling Unit
EWS	Economically Weaker Section
GOTN	Government of Tamil Nadu
HDI	Human Development Index
TNSCB	Tamil Nadu Slum Clearance Board

# PART 1 INTRODUCTION

# 1.1 Context

The informal sector forms the backbone of all economies and plays a key role in the economic growth of all countries. This unorganized sector, or shadow economy, contributes significantly to economies of developing nations like India that have been experiencing rapid urbanization since the 1990s. According to the Indian Labor Market Update Report of 2016, published by the International Labor Organization (ILO), about ninety two percent of the total workforce is employed in the informal sector and contributes to fifty percent of the national product.

Unlike the organized or formal economic sector, informal economies are characterized by the absence of monitoring or governance systems, temporary and insecure nature of employment, lack of social security and welfare measures, a poorly skilled workforce, and denial of basic rights to minimum wages and worker privileges. The population employed in this economic sector is driven by the need to survive and earn a livelihood to meet basic needs, and is not motivated by the desire to earn profits. It is the source of employment for a majority of the urban poor who lack the skills and training to be employed in the formal sector.

The concentration of informal economy is quite high in cities due to the availability of a wide range of employment opportunities and infrastructure in urban areas. This positive pull attracts a significant proportion of the rural population to the city, thus generating a large influx of migrants. The unorganized sector acts as a safety net to these communities by providing them with unskilled jobs that require no initial capital or investment. Invariably these people are exploited by their employers, who take advantage of their desperate circumstances and an unregulated employer – employee relationship (absence of formal contract of employment and lack of labor laws for the unorganized sector). Nevertheless, to these rural immigrants, the economic gains far outweigh the miserable working and living conditions imposed upon them.

In the context of Coimbatore, the city has been a hub of economic activities since time immemorial because of its convenient location at the cross roads of Tamil Nadu and Kerala and the availability of natural resources (black cotton soil, climate and water resources). During 1866, after the establishment of Coimbatore Municipality by Robert Stanes, industrialization took root through the establishment of several textile mills. In the  $20^{th}$  Century, after the development of transport infrastructure like roads and railways, it transformed to a transit and trading hub due to its prominent position on the trade route connecting the Western region and Tamil Nadu. By the end of this century various other manufacturing industries like engineering machinery, electric pumps & motors and automotive parts and service-based industries like Information Technology, real estate, hospitality and retail chains had been established. Furthermore, this is one of the few cities in Tamil Nadu where entrepreneurial skills have transformed the urban economy in a large way.

The growing economy resulted in high rates of rural-urban migration which eventually led to a surge in informal sector activities in Coimbatore. Workers were engaged as vegetable & fruits vendors, street vendors, carpenters, electricians, contract labourer in construction industries (as masons and painters), industrial units (as fitters, welders, machine operators etc), small scale offices (as maintenance personnel and staff) & municipal works (sweepers & cleaners), automobile mechanics, artisans and craftsmen, barbers, tailors, drivers, domestic help, loaders and scavengers.

Subsequently, informal settlements started to form in response to the rising housing demands of the migrant population. Public land and areas near water bodies were perfect zones for these communities to encroach upon and inhabit. Such land parcels, if located near main commercial districts and business centers, were ideal due to ease of commute and availability of infrastructure facilities like water supply and electricity.

#### **1.2 Research Questions**

The main objective of this study is to understand the livelihoods pursued by different sections of the Muthanakulam settlement and to gain insight into the lives of these people. It further seeks to establish the economic significance of informal settlements by identifying the various services rendered by these communities to the city and comprehending the economic interdependencies that exist between them.

#### This case study attempts to study

- I. The livelihood pattern of the inhabitants
- II. Household characteristics of the inhabitants based on their occupation patterns
- III. Impending issues and problems faced by the residents
- IV. The economic contribution of the slum to the city and
- V. The vulnerability of various occupations.

# 1.3 Methodology

The first stage of the case study was to identify a slum that possessed a diversified occupational pattern. Most of the slums in the city consist of Coimbatore Municipal Corporation (CMC) workers who were employed as sanitation workers in the city. After conducting pilot surveys at various sites, the Muthanakulam settlement was chosen for further studies due to its strategic location, the variety of occupations pursued by its inhabitants, and the sheer scale of the settlement.

# **Primary Data**

Primary data was collected from the people through surveys, discussions and interviews. Field visits were conducted on a regular basis to harness data on site.

# **Surveys**

This was done conducted in two stages: a basic pilot survey and an issue-based survey. The former was used to attain a general picture of the settlement by understanding the local population and their common difficulties. Based on this pilot survey, specific questionnaires relating to livelihood patterns and in-depth nature of the issues were drawn up. Care was taken to ensure that the questionnaires did not digress and only concentrated on the problem statement. This was an important lesson learned after a phase of poor response from respondents due to the extremely lengthy character of the survey. One-to-one surveys were the key source of information since occupations are based on each individual's specific perception.

Housing and infrastructure were documented through maps and photographs to record existing infrastructure. The above was carried out to obtain decisive proof of problems and to provide quantified data so that a sound judgment could be derived about the informal economy that existed here.

# **Group Discussions**

Workshops were conducted on site in the form of awareness programs to build trust with the inhabitants. IT created a platform wherein all the inhabitants could gather at one place and share their experiences and views about their problems, both at community and individual levels. These programmes helped the people to be at ease with the research team and entrust them with information. Focus group discussions were considered to be a more effective tactic in the case of informal settlements. They were conducted after the workshops, in which the people were asked to talk about their problems in a public forum. Depending on the number of people corroborating a specific issue, the gravity of the problem could be comprehended. This helped produce a list of problems a community faced in general. Other informal focus group discussions were held during field visits with much smaller groups of respondents. Neighborhood or locality-specific problems could be learned from these dialogues. Focus groups containing people of a particular occupation was not viable amidst such a large population. Thus occupation-based questions were primarily dealt with on a one-on-one basis.

#### Secondary Data

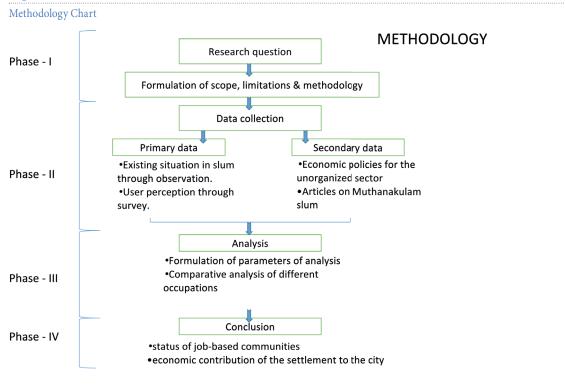
Secondary data was collected from various documents like the City Development Plan and Policy documents. Additionally, from various case studies, scholarly articles and newspaper reports on the housing scheme scenarios in Coimbatore.

#### Figure 1

#### 1.4 Reflection

The analysis in this case study involves understanding the basic focuses required to identify the different factors that affect the main occupations pursued by the inhabitants of the Muthankulam settlement. These factors are classified under the headings Human Capital, Physical Capital, Social Capital and Financial Capital. In order to conduct this investigation, all survey samples belonging to a unique occupation were clustered and data trends were observed under each of the study parameters. This helped to identify the basic characteristics and nature of a particular community classified according to its jobs.

After the individual clusters were studied, a comparison was drawn up between different livelihoods existing in the settlement. This provides a clear picture of the status of occupation-based communities in relation to each other and gives an idea of the impact of relocation on this settlement. •



# PART 2 POVERTY IN INDIA

Poverty and livelihood are interrelated factors, often through the general opinion that lack of livelihood or inadequate income from livelihood contribute to poverty. Contrary to such widespread opinion, however, poverty in reality is multi-dimensional and does not stem from scarcity of income or unemployment. This chapter aims to delve into various parameters that define poverty and to present the context of poverty in India, Tamil Nadu and Coimbatore. Primary data collection was based on the study of associated elements upon which poverty assessments are based.

#### 2.1 Introduction

In general poverty, is perceived as a condition wherein a certain segment of society is deprived of basic amenities and necessities of life such as food, shelter and clothing. This explanation, however, is far too simple and elementary to describe the state of poverty as it only defines people's economic needs. In reality, the phenomenon of poverty is far more complex and is the manifestation of social, political, economic and infrastructural deprivation. This includes lack of assets, low income levels, hunger, poor health, insecurity, physical and psychological hardship, social exclusion (on the basis of gender, race, religion or caste), degradation and discrimination, political powerlessness and disarticulation. [CITATION Sac14\l 16393]. Not only are the poor and vulnerable classes denied access to basic infrastructural and social services, they pay a much higher price than the average middle classes for the same goods and services.

Poverty is typically considered to in two dimensions – (i) income poverty & (ii) human poverty. Income poverty refers to the lack of a minimum income to satisfy basic material necessities and is measured by the national poverty line determined by the Planning Commission of India. Human poverty, on the other hand, is more complicated and means the denial of choices and opportunities for a tolerable life in all economic and social aspects. [CITATION Lal13\l 16393] While the former is more direct and easy to quantify, the latter is more casespecific and does not possess a universal method of measurement.

The Planning Commission estimates the country's poverty on a quinquennial basis, the last of which was conducted in 2012. The poverty line was estimated on the basis of per capita expenditure which was fixed at Rs 972 per person per month in rural areas and Rs 1407 per person per month in urban areas (towns & cities). This roughly translates to a daily expenditure of approximately Rs 32 to Rs 47 per person and a monthly expenditure of between Rs 4860 and Rs 7035 for a household of five in rural and urban areas respectively. According to this assessment, about twenty two percent of the country was below the poverty line with a significant share being in the rural areas (Figure 2.1). Though the trend is indicative of an overall decline in the poverty levels since the early 90s, India still ranks as one of the poorer nations of the world.

### LIVELIHOOD STUDY OF INFORMAL SETTLEMENTS: A CASE OF MUTHANAKULAM SETTLEMENT, COIMBATORE PART 2 – POVERTY IN INDIA

## Figure 2.1

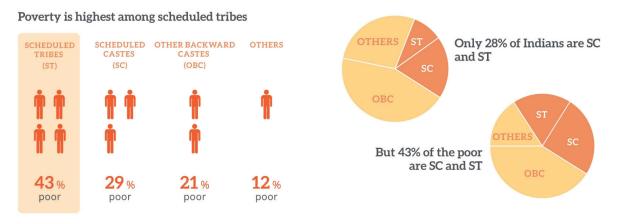
Poverty statistics of India, 2012

YEAR	POVERTY RATIO (%)			NUMBER OF POOR (MILLION)		
	Rural	Urban	Total	Rural	Urban	Total
1993 – 94	50.1	31.8	45.3	328,6	74.5	403.7
2004 – 05	41.8	25.7	37.2	326.3	80.8	407.1
2011 – 12	25.7	13.7	21.9	216.5	52.8	269.3
			•	·		
ANNUAL AVERAGE DECLI	NE (PERCENTAGE POI	NTS PER ANNUM)				
1993 – 94, 2004 – 05	0.75	0.55	0.74			
2005 – 05, 2011 – 12	2.32	1.69	2.18			

The World Bank statistical records suggest that about six percent of the populations in all large cities above one million inhabitants are poor. Furthermore, poverty is more prevalent in certain communities like scheduled caste (29%) and scheduled tribe (43%) as compared to other social groups, despite the fact that only 28% of total Indians belong to SC & ST communities (Figure 2.2). Most of the urban poor are employed as casual laborers (34%) or engage in self-employment (40%) through various informal businesses like street vending, tailoring etc.

### Figure 2.2

World Bank statistics of poverty based on Caste, 2016



#### 2.2 Poverty in Tamil Nadu

Tamil Nadu was an impoverished state after independence in the year 1947 in the aftermath of colonial rule. The state was so impoverished that nearly half the population was below the poverty line. Table 2.1 represents the poverty line trends, expressed in per capita monthly expenditure, from 1973 to 2012 for rural and urban areas. This table suggests that development picked up during the 1980s – 1990s in Tamil Nadu, as indicated by the higher poverty line in both urban and rural areas compared to the national average.

#### Table 2.1

#### Poverty Line in Tamil Nadu and India (in Rs per Capita per month)

YEARS	RURAL		URBAN	URBAN		
	TAMIL NADU	INDIA	TAMIL NADU	INDIA		
1973 – 74	45.09	49.63	51.54	56.76		
1977 – 78	56.62	56.84	67.02	70.33		
1983	96.15	89.90	120.30	115.65		
1987 – 88	118.23	115.20	165.82	162.16		
1993 – 94	196.53	205.84	296.63	281.35		
1999 - 00	307.64	327.56	475.60	454.11		
2004 - 05	441.69	446.68	559.77	578.80		
2009 - 10	639.00	672.80	800.80	859.60		
2011 – 12	880	816	937	1000		

One method of assessing the poverty level is the head count ratio, which represents the number of poor in a region as a percentage of the total population of that region. Table 2.2 represents the poverty ratio (rural and urban combined) trends for a few select states over the years. Tamil Nadu has consistently performed well, with poverty reducing by one point per year since 1973. Currently Andhra Pradesh and Kerala are the only other southern states that have better poverty ratios than Tamil Nadu, with 9.2% and 7.05% respectively. Poverty in these states is also significantly below the national average of 21.92%. Figure 2.3 represents the drop in the poverty levels of other states in India, so that a comparison of poverty reduction levels can be made.

#### Table 2.2

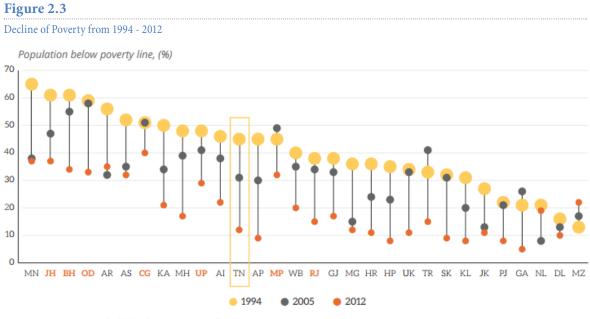
Poverty Ratios (combined) of Indian States (in percent)

	1973 – 74	1977 – 88	1983	1993 – 94	2004 – 05*	2009 – 10*	2011 – 12*
Andhra Pradesh	48.86	33.31	26.91	22.19	29.60	21.10	9.20
Bihar	61.91	51.55	62.22	54.96	54.40	53.50	33.74
Gujarat	48.15	41.23	32.79	24.21	31.6	23.00	16.63
Haryana	35.36	29.55	21.37	25.05	24.10	20.10	11.16
Karnataka	54.47	48.78	36.24	33.16	33.30	23.60	20.91
Kerala	59.79	52.22	40.42	25.43	19.60	12.00	7.05
Madhya Pradesh	61.78	61.78	49.73	42.52	48.60	36.70	31.65
Maharashtra	53.24	55.82	43.44	36.86	38.20	24.50	17.35
Orissa	66.18	70.07	65.29	48.56	57.2	37.00	32.59
Punjab	28.15	19.27	16.16	11.77	20.90	15.90	8.26
Rajasthan	46.14	37.42	34.46	27.41	34.40	24.80	14.71
Tamil Nadu	54.94	54.79	51.66	35.03	29.40	17.10	11.28
Uttar Pradesh	57.07	49.05	47.07	40.85	40.90	37.70	29.43
West Bengal	63.43	60.52	54.85	35.66	34.20	26.70	19.98
All India	54.88	51.32	44.48	35.97	37.20	29.80	21.92

Source 2.1: Handbook of statistics on Indian Economy (Reserve Bank of India), MDGs-Based poverty reduction strategy for Tamil Nadu (Madras School of Economics) Source 2.2: Handbook of statistics on Indian Economy (Reserve Bank of India), MDGs-based poverty reduction strategy for Tamil Nadu (Madras School of Economics)

\*Poverty lines have been calculated using Tendulkar methodology

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Low Income States are highlighted in orange, AI is All India.

Table 2.3 depicts the decline in urban and rural poverty in Tamil Nadu from 1973 to 2012. Overall the poverty numbers dropped from 24 million in 1973 to 8.3 million in 2012, which represents a reduction of sixty five per cent. The number of rural poor deteriorated rapidly from 17.3 million to 6 million, and the urban poor declined from 6.7 million to 2.3 million. This portrays the grave poverty in the rural hinterlands of the state, accounting for at leastseventy per cent of the total poor.

#### Table 2.3

Rural and Urban poverty trend in Tamil Nadu

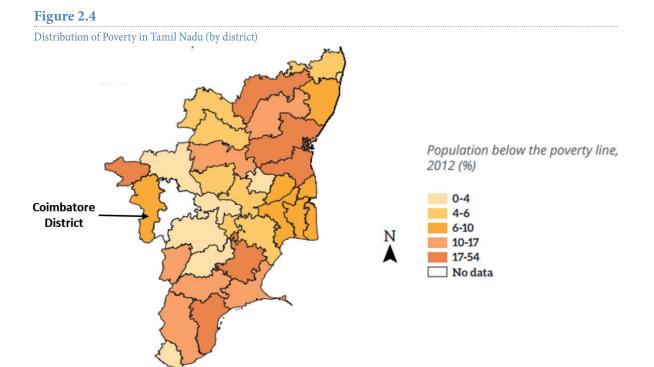
YEARS	RURAL		URBAN		COMBINED	% OF URBAN	
	NO OF PERSON (LAKH)	POVERTY RATIO (%)	NO OF PERSON (LAKH)	POVERTY RATIO (%)	NO OF PERSON (LAKH)	POVERTY RATIO (%)	POOR TO TOTAL
1973 – 74	172.60	57.43	66.92	49.40	239.52	54.94	27.94
1977 – 78	182.50	57.88	72.97	46.69	255.47	54.79	28.56
1983	181.61	53.99	78.46	6.96	260.07	51.66	30.17
1987 – 88	161.80	45.80	69.27	38.64	231.07	43.39	29.98
1993 – 94	121.70	32.48	80.40	33.77	202.10	35.03	39.78
2004 - 05*	134.40	37.5	59.70	19.70	194.10	29.40	30.76
2009 – 10*	78.30	21.20	43.50	12.80	121.80	17.10	35.71
2011 – 12*	59.23	15.83	23.40	6.54	82.63	11.28	28.31

Source Figure 2.3: Tamil Nadu - Poverty, Growth & Inequality (World Bank Report, June 20th 2017)

Source Table 2.3: Handbook of statistics on Indian Economy (Reserve Bank of India), MDGs-based poverty reduction strategy for Tamil Nadu (Madras School of Economics) \* Poverty lines have been calculated using Tendulkar methodology

#### 2.2 Poverty in Coimbatore

At the district level, Coimbatore falls in the intermediate level with 6 – 10% of the population below the poverty line. Though this is a marked improvement over 1993 – 94 when the poverty level poverty was 25.8% (27.80% rural and 24.4% urban), Coimbatore district has fallen behind in comparison with its neighbouring districts Erode, Dindugal, Madurai etc. In fact, this district, along with Thiruchirapalli, has undergone a relative increase in urban poverty due to the increased pace of urbanization in these areas. Tamil Nadu state has performed well with regard to the Human Development Index (HDI) in recent decades, especially since the 2000s. Over the years the state has steadily increased its HDI from 0.343 in 1981 to 0.666 in 2014, a jump of nearly fifty percent. It has constantly improved its ranking from seven to three, for which the development model of the state has been widely acclaimed. Furthermore, the HDI of the state has been consistently better than the national average as shown in Table 2.4 and Figure 2.5.



### LIVELIHOOD STUDY OF INFORMAL SETTLEMENTS: A CASE OF MUTHANAKULAM SETTLEMENT, COIMBATORE PART 2 – POVERTY IN INDIA

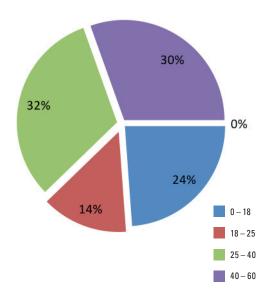
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Human Development Index of select Indian states (1981 – 2014)

	1981	RANK	1991	RANK	1999 – 2000	RANK	2007 – 2008	RANK	2014	RANK
Andhra Pradesh	0.298	9	0.377	9	0.368	15	0.473	15	0.617	9
Bihar	0.237	15	0.308	15	0.292	19	0.367	21	0.536	17
Gujarat	0.360	4	0.431	6	0.466	10	0.527	11	0.616	10
Haryana	0.360	5	0.443	5	0.501	7	0.552	9	0.661	6
Karnataka	0.346	6	0.412	7	0.432	12	0.519	12	0.618	8
Kerala	0.500	1	0.591	1	0.677	2	0.790	1	0.711	1
Madhya Pradesh	0.245	14	0.328	13	0.285	20	0.375	20	0.557	14
Maharashtra	0.363	3	0.452	4	0.501	6	0.572	7	0.666	4
Orissa	0.267	11	0.345	12	0.275	22	0.362	22	0.557	13
Punjab	0.411	2	0.475	2	0.543	5	0.605	5	0.661	5
Rajasthan	0.256	12	0.347	11	0.387	14	0.434	17	0.577	12
Tamil Nadu	0.343	7	0.466	3	0.480	8	0.570	8	0.666	3
Uttar Pradesh	0.255	13	0.314	14	0.316	18	0.380	18	0.541	16
West Bengal	0.305	8	0.404	8	0.422	13	0.492	13	0.604	11
All India	0.302		0.381		0.387	ĺ	0.467		0.609	

### Figure 2.5

Human Development Index of Tamil Nadu and India, Females



The Human Development Index of various districts of Tamil Nadu is published by the government in its Tamil Nadu State Human Development Report of 2017. "The Tamil Nadu Human Development Report 2017 Ranks 32 districts index wise – human development index, gender inequality index, child development index, multidimensional poverty index and food security index."

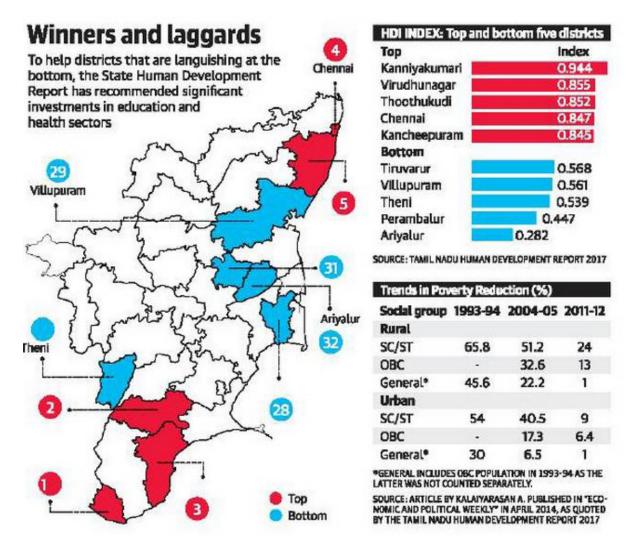
Source Table 2.4: [CITATION Tad15\l 16393], [CITATION Pla01\l 16393], [CITATION Pla11\l 16393] Source Figure 2.5: [CITATION TRa181\l 16393]

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Figure 2.6 depicts the performance of the districts in Tamil Nadu in 2017. With respect to Coimbatore district, which ranked among the top five districts in the Tamil Nadu Human Development Report of 2003, it fell to the sixth place in 2017. Nevertheless, it performed well in the Child Development Index and Multi-Dimensional Poverty Index with 0.745 and 0.41 points respectively. It ranks second and fourth in the state with regard to Child Development (comprising of education, health and nutrition status of children) and Multidimensional Poverty Index (comprising of access to basic amenities such as drinking water, fuel and sanitation which are likely to negatively impact well-being due to low income). •

#### Figure 2.6

Performance of districts of Tamil Nadu based on HDI



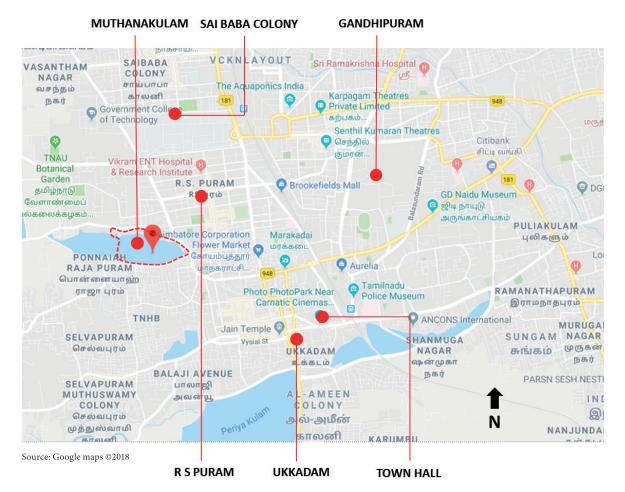
# PART 3 MUTHANAKULAM INFORMAL SETTLEMENT

# 3.1 The Context

The Muthanakulam slum is situated in the heart of Coimbatore City amidst the bustling activities of its commercial core. All the important business centers of the city like RS Puram, Town Hall, Gandhipuram and Ukkadam are within 3 kilometers of this settlement, thus providing various means of livelihood to its inhabitants (Figure 3.1). This slum, like all the other informal settlements of the city, was formed by encroaching Kumarasamy Lake, one of the largest lakes of the city. During the 1950s, the city's major activities were concentrated in Town Hall and RS Puram, with the former being an administrative center during the British regime and the latter being a business hub after independence. In fact, RS Puram was created to house the growing population of the city by clearing away 400 acres of agricultural land during the 1950s. But over time this area became the main commercial center and residents were moved to upcoming new neighborhoods like Sai Baba colony, Gandhi park, Vadavalli and other settlements along Mettupalayam Road.

#### Figure 3.1

Location of Muthanakulam in Coimbatore



The encroachments began in the 1950s when the city attracted a lot of migrants from rural areas through various job opportunities in the business and industrial sectors. Prominent textile mills like KG, Bannari Amman Textiles, Stanes and Coimbatore Spinning and Weaving Mills provided employment prospects in the textile sector, for which the city is hailed as the Manchester of South India. Concurrently, with the increase in trade and commerce, the availability of unskilled workers like street vendors, helpers and informal entrepreneurs was on the rise in the shopping districts of Town Hall and Sukrawarpet. In addition, the residential neighborhoods also provided employment for a portion of the immigrants as domestic helps and servants.

The strategic location of the lake, in conjunction with its abutting areas, proved to be an ideal haven for the incoming migrants. Being public property, the lake lands were violated and encroachments initially began along the Eastern tip of the lake where the water body intersects Thadagam Road. Over the years the infringements continued to occur along the northern boundary of the lake in tandem with the increasing economic activities of the adjacent regions.

Environmental degradation of both the city and the lake additionally hastened this process of encroachment. Kumaraswamy Lake is part of the interconnected nine lake system of the city into which the Noyyal River finally drains. Rapid urbanization has resulted in reduced water inflow into these lakes due to clogging and unauthorized construction along the river bed, which in turn has led to decreasing water levels in all these lakes. Furthermore, dumping construction debris and garbage into the lake has aided in creating more land upon which more informal housing colonies are being built. Thus Kumarasamy Lake is gradually turning into a full-fledged urban area fueled by the growing business areas.

#### Locational Advantage

Muthanakulam slum can be accessed by two main roads – Thadagam Road on the east and Thondamuthur/ Narasipuram Road running along the northern edge of the lake. While the former is a state highway connecting the city to Annaikatti (Tamil Nadu – Kerela Border), the latter is a sub arterial road linking the city core with the suburban neighbourhoods of Thondamuthur, Sundampalayam and Uliyampalayam. Even though the water body is bounded by SBOA school road on the south, there are no signs of encroachment on this side given the high water level on this side of the lake.

In addition to the proximity to prominent business centers of the city, this settlement benefits from the availability of certain infrastructure elements like water supply, electricity and public transport. Some of the major civic amenities around the settlement are government schools, colleges (along the Thadagam road & Metupalayam road) and religious buildings. Thus Muthanakulam slum dwellers are endowed with an ideal location in Coimbatore City.

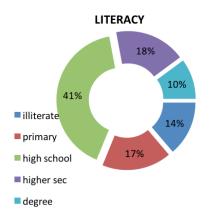
#### The People

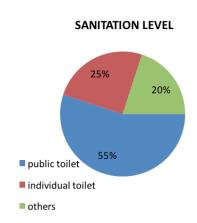
This informal settlement is home to about three thousand people who are directly or indirectly dependent on the adjoining areas for their livelihood. On average most people have been living here for at least fifty years, hence almost all families are two generation households (consisting of parents & offspring) with some three generation (grandparents) too. One of the residents of the colony, residing near the main road, says "My mother-in<del>law and father</del> in-law moved to the city in search of employment opportunities during the 1960s. Now they are no more and we are living here with my husband, son and daughter."

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### Figure 3.2

Age distribution in male and female population





Fifty three percent of the residents here are males with nearly sixty four percent of them falling under the working age group of 25 - 80 yrs as depicted in Figure 3.2. The same trend is reflected in the female population given that nearly sixty two percent of the women here are in the working age group with a minor difference of only two percent between the 25 - 40 yrs and 40 - 80 yrs category (Figure 3.2). This suggests a relatively identical sex ratio and working population. Muthanakulam, being a large settlement, has a wide array of household sizes, with the older areas having as many as five or six people per household, and the more recent developments having only two or three per household (Figure 3.3). However, on average the household sizes range from three to four. It is quite evident that the longer a family has been residing in the place, the larger their families have become. In other words the subsequent generations tend to continue living in the place given the abundance of opportunities.

# Figure 3.3



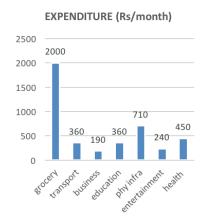
Household size and caste distribution

The bulk of the inhabitants are Hindus (87%), followed by Christians (8%) and Muslims (5%). About half of the population falls under the Scheduled Caste (SC) people followed by Other Backward Castes (OBC) as indicated in Figure 3.3. Tamil is the dominant language spoken here irrespective of native languages like Malayalam or Kannada.

The literacy rate here is ninety percent. The illiteracy rate is ten percent and is confined to people over fifty years old. The most significant

## Figure 3.4

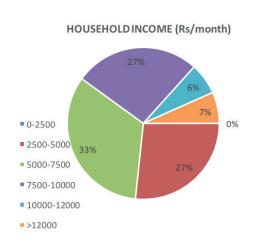
Literacy and occupation distribution



Most of the school graduates enroll in colleges irrespective of their gender even though a relatively higher number of the male populace prefers to start working right after high school. The level of education and the significance of educating the current generation has a high priority within this community. One of the respondents even claimed to have acquired an education loan for enrolling her daughter in a private institution. Most of the residents stressed the need to educate their children in hopes of better job opportunities so that the current generation does not undergo the ordeals experienced by their parents.

In this slum, most of the workers have jobs in and around Coimbatore City. From Figure 3.4 it can be

point is that forty one percent of the people have a high school education and eighteen percent are pursuing college education. Thus, about fifty nine percent of the total population has received education beyond primary schooling (Figure 3.4). The school dropout rates are nil here due to the existence of a higher secondary government school in the vicinity where girls & boys are equally educated. Accessibility to places of higher education also has a positive effect on the enrollment rates.



observed that twenty four of people are for daily wages works which will fetch them income everyday irrespective of their education qualification. About thirty percent of the population is engaged as drivers and automobile mechanics because these are the jobs that generate a relatively steady, moderate income due to the slum's location near the commercial hub of the city. Following self-employed people like tailors, vendors etc the next most common occupations here are electricians and painters, which constitutes about sixteen percent of the total working population. These are the jobs that will be affected once they are shifted from the city center to some outer part of the city due to evictions, a process currently underway as a part of Coimbatore's smart cities initiative. This ousting process will increase daily household expenditure in terms of commuting costs from the suburbs to the city center and it is very likely that this working class will lose its regular clientele given the distance of the new resettlement sites from the city core.

The average household income ranges from Rs 5000 to Rs 20,000 per month, depending on occupation and the number of wage-earning members per dwelling. The average monthly income per household is Rs 9,000, with at least one wage-earner in the family. According to the definitions by the Government of India (Ministry of Human Resources and Development), the Economic Weaker Section (EWS), Lower Income Group (LIG), and Lower Middle Income Group are people who earn up to Rs 3,00,000 per annum and between Rs 3,00,000 per month. This indicates that LIG is higher than EWS in this particular slum.

About nine percent of the people here are employed in the formal sector like offices and organized businesses while the rest are employed as construction workers, road side vendors, drivers, carpenters, electricians, painters, and domestic help in residences, commercial establishments & merchandise delivery systems. People earn according to their workplace, because people who work locally are mostly vendors who earn a daily wage of up to Rs 5000 per month as opposed to people who go out of the slum radius who earn more than Rs 10000 per month. Since only a minor portion are engaged in these relatively high paying jobs, the community here is homogeneous with respect to income levels. People who work in the construction industry, like masons etc, earn more in relation to other sectors, and people who work in such sectors will not be as much affected as evicted daily wage workers.

## 3.2 Site Planning

The Muthankulam settlement is spread over approximately 7.2 hectares with around 2500 households, amounting to a density of 350 dwelling units per hectare. The housing areas are sandwiched between the water body and two major roads which act as the main access ways. Thadagam and Thondamuthur roads, having road widths of 15 m and 7.5 m respectively, are wide enough to support two-way traffic and even cater to heavy vehicles. Both these roads support public transport and have been provided with bus stops at regular intervals. Several small lanes, not more than a meter in width, act as pathways that connect the main road with the houses seated near the water. This network of lanes can be perceived as entrances when viewed from the main roads.



# Figure 3.5

Site Map of Muthanakulam

Source: Google maps ©2018

Due to the absence of demarcated pedestrian walkways, there are many points of conflict between pedestrians and vehicles, resulting in slow traffic flow and congestion. The problem is further aggravated by inhabitants who park their vehicles on or too close to the road. A considerable portion of Thadagam Road is used for storing goods and illegal constructions like sheds, temples and porches extend from residences. These infringements were a point of conflict t between the government and the colony dwellers in the past, when road widening programmes were implemented.

The entire settlement can be roughly classified into three parts as these zones exhibit certain similarities based on the following parameters (i) the pattern of development since the 1950s (ii) the economic status (iii) political affiliations and (iv) infrastructure. The first part of the site (Zone -1, Figure 3.5) is the portion that is situated at the conjunction of the roads. This area is the oldest part of the settlement having at least three generations and the residents here are financially stable. Most of the residents positioned along the road are self-employed and run their own businesses like bamboo weaving, mechanic sheds and meat shops. It is a typical case of mixed use development with shops facing the road and living quarters in the rear. This is an obvious choice given the unique advantages like increased footfall, ease of access and wider visibility range which are offered by pavement businesses.

The land on which this portion has developed belongs to the Highways Authorities, a central government organization which is seldom open to negotiations with the local populace, because of which these people face the threat of eviction during road widening. In response to these problems the locals here have affiliated themselves with local politicians (Communist Party of India (CPI) for leverage and have constructed temples to demarcate their territory. This political affiliation has also been responsible for better infrastructure standards in this zone.

Further along the Thondamuthur Road (Zone-2, Figure 3.5) the settlement is predominately a residential area with only few petty shops scattered along the road. The economic profile of this zone is based on a combination of self-employment and contract workers. While vendors, electricians, painters and restaurant owners are some of the predominant occupations constituting the self-employed category, office assistants and workers at textile mills, foundries & factories make up the contract workers segment. The land ownership here is with the state government and thus the inhabitants are able to leverage this situation. Encroachment of state-owned lands is relatively easier due to local political affiliations (All India Dravida Munnetra Kalagam (AIADMK)) that protect these settlers from eviction in return for their votes. As in the previous scenario, temples have been constructed to demarcate their area and represent the sentiment of the community. This section of the settlement is also well equipped with infrastructural facilities like water supply, transportation, electricity and sanitation.

However when it comes to the last portion of the site (Zone-3, Figure 3.5) the housing conditions and general infrastructure deteriorate considerably. The people here are relatively new and making the most of their existing situation in any way they can. Dumping of sewerage, waste, garbage and construction debris near this zone has resulted in poor environment and declining health quality. Their lack of political affiliation may have contributed to this sad state of affairs.

# Housing

The overall housing conditions in this settlement is typical of any slum in Coimbatore city. Most houses are of kutcha type made of low quality materials like mud, burnt brick and thatch as defined by the Census of India, with the exception of a few concrete homes in between. The colony is built on public land and contains only one storied structure, with heights ranging from 2.5 to 3 m. The house owners' economic conditions reflect the nature of housing. The first portion of the settlement, situated along Thadagam Road, consists of both mixed use and residential buildings. While the former exist along the road, the latter is located between the lake and the commercial stretch as indicated in Figure 3.6 The mixed use development comprises commercial portions on the front, abutting the road, and the private living quarters at the rear. The workspaces have extended into the road in the form of thatch or asbestos-cement roof sheds where bamboo weaving, garage works, scrap businesses, grocery stores and animal (goat) rearing is practiced.

#### Figure 3.6

Housing in Zone 1 – Road front development and multiple rooms in dwelling



Invariably all the residential units have built up areas between 9 m<sup>2</sup> and 15 m<sup>2</sup>, containing a multipurpose hall with an attached toilet, a kitchen space and a sleeping quarter. These housing structures are made of fly ash brick walls (outer and inner partition walls), cement flooring and tiled roofing, making them relatively better than other dwelling units (Figure 3.6). This may be attributed to the financial stability of these households and their long period of habitation in this area that gives them the incentive to develop their homes. Nevertheless they still qualify as kutcha houses due to the lack of proper foundation and structural members like columns and beams.

The next section of the colony, stretching from the intersection to the Food Corporation of India (FCI) (Zone 2 and 3), is predominantly residential in nature

with a few business venues like grocery stores and eateries interspersed between them. Dwellings units have areas between 6 m<sup>2</sup> – 18 m<sup>2</sup> depending on the household size. But overall the scenario of overcrowding is higher in this segment as compared to other parts of the settlement. The housing units include bare minimum spatial requirements with a multipurpose hall and a kitchen. An attached toilet or sleeping space within the dwelling units can be found only in few houses with the majority of them using the multipurpose space for sleeping or working and make-shift common bathing spaces for their daily chores. There is an assortment of housing structures with respect to the materials used in construction. Residences here are typically made of mud wall or sun dried brick walls, roofing made of tiles, thatch or asbestos-cement sheets and cement flooring (Figure 3.7).

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Figure 3.7 Housing material and overcrowding



A finished floor level is made by stacking up large stones from the construction debris and structural members supporting the roof are made of wooden members (Casuarina tree) that were used for scaffolding in building sites. Single glass panels in the roofs (Figure 3.7) are used for lighting within these spaces as there are no window openings in the walls. This not only makes ventilation extremely poor but also increases the temperature within the dwelling units. Common areas between the houses are used for drying clothes, washing vessels, storing household goods and in some cases even as bike parking areas. Depending on the use, they are either covered using tarpaulin sheets or thatch.

# Figure 3.8

Common spaces, inter connecting corridors and make shift toilets (with thatch wall)



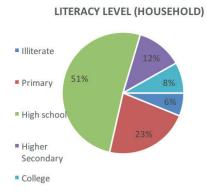
#### LIVELIHOOD STUDY OF INFORMAL SETTLEMENTS: A CASE OF MUTHANAKULAM SETTLEMENT, COIMBATORE PART 3 – MUTHANAKULAM INFORMAL SETTLEMENT

#### 3.3 Infrastructure

The colony obtains its water supply primarily through public taps that are found throughout the settlement. The public tap system itself can be classified under two categories (i) taps connected to the underground water supply pipe and (ii) taps attached to above-ground reservoirs. While the former can be observed along the Thondamuthur/Narisipuram roads, the latter is found on the inner street networks within the housing area. These taps are supplied with soft/ potable water supplied by the corporation on a weekly basis (once a week) which the residents then store in vessels or drums for their daily use. With almost every house being situated within 20 m of these taps, reportedly no difficulties are incurred during the transportation and storage of water.

#### Figure 3.9

Water supply and sanitation distribution



PERIOD OF RESIDENCE 48% 48% 10-20 yrs 20-30 yrs 4%

The relatively older part of the settlement, housing about a quarter of the population, has managed to get individual tap connections (from the main water line) within their homes (Figure 3.9 and 3.10). Even in times of water shortage, which frequently occurs during the summer months, the government supplies this colony with water through tankers and lorries. Thus there are virtually no concerns with regard to water supply both in terms of quality and quantity.

#### Figure 3.10

Water supply facilities



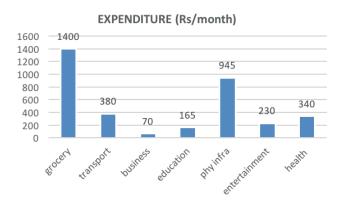
Currently, sanitation is a key concern for the inhabitants of this settlement given that a significant proportion of the population still resorts to open defecation. As indicated by Figure 3.9 about half the people are dependent on the public toilets provided by the Corporation, a quarter have constructed make-shift toilets near their homes and the rest resort to open defecation. Overall there are two public toilet complexes, with one near the Thadagam main road and the other near the FCI Godown on Thondamuthur Road. Of these, only the one on the main road is in working order while the other has been closed down (three months before) due to unavailability of water supply to the complex. These toilet complexes operate on a pay and use system, and the local authorities claim them to be well maintained on a daily basis. The only disadvantage of these toilets is that they are not suitably equipped for pregnant women and the physically disabled, and lack essential amenities like wash areas and bathrooms.

In response to the inadequate sanitation facility, most of the households have created toilets and bathrooms to cater to the needs of a single family or a community. Households that are economically well off have constructed individual bathrooms attached to their dwelling units whereas the others have constructed a common one to serve their needs. While houses abutting the road have constructed these accessory rooms right above the open drains, into which the effluent is released, other households have created their own informal drains by digging trenches. All these drains are invariably channeled towards the lake (given the natural slope) and untreated sewerage is discharged directly into the water body. Consequently the lake is being polluted and various water borne and insect borne diseases like dysentery, malaria and dengue frequently affect the residents.

Open defecation is another major issue in Muthanakulam slum with nearly twenty percent of the total population and ninety five percent of children below 5 years doing so (Figure 3.11). All households bordering the lake exhibit high proportions of outdoor defecation, especially along the lake bunds. Unfortunately, there seems to be very little awareness amongt the people with regard to the problems of such practices.

# Figure 3.11

Open defecation in Muthanakulam



There is a network of storm water drains along the main roads that directs the runoff water into Kumarasamy Lake (Figure 3.12). Also, as mentioned before, there are many informal drains that are constructed by the residents in response to the lack of storm water drains in the inner areas. The government-provided drains are open and made of concrete. These open drains are susceptible to clogging due to the accumulation of garbage, resulting in water logging during the rainy seasons. Furthermore, this water stagnation creates breeding grounds for mosquitoes and acts a means of entry for wild animals like snakes and other poisonous insects into the dwelling units. To alleviate this issue, the locals have placed stone slabs (picked from construction debris dumped into the lake) over the drains. However, during times of inundation, when the lake itself overflows, people living near the lake boundary are forced to evacuate their homes.

#### LIVELIHOOD STUDY OF INFORMAL SETTLEMENTS: A CASE OF MUTHANAKULAM SETTLEMENT, COIMBATORE PART 3 – MUTHANAKULAM INFORMAL SETTLEMENT

Figure 3.12

Storm water drains (closed & open)



Municipal garbage bins are placed across the road near prominent places like temples or local party offices. The dwelling units near the lake, being located in the interior, lack garbage collection facilities and consequently dump their waste into the water body. Garbage like plastic, paper, bottles and organic waste accumulate along the lake shore right next to these residences, creating a foul odor and acting as insect breeding grounds (Figure 3.13). Furthermore, waste separation is not practiced by the community.

**Figure 3.13** Open Garbage disposal



All households have access to electricity given that the main roads and a few inner lanes have electric poles with attached street lights. Individual houses have drawn electricity from these poles in which there is a mix of both legal (metered) and illegal connections. The inner areas have problems due to non-functioning street lights, which is a source of concern for the residents. They claim that despite their complaints to the municipal officials, the state of affairs remains unchanged.

#### Social life

Communal life in Muthanakulam is limited to festivities and political functions. Temples are the main source of all social activities in Muthanakulam due to the frequent occurrence of religious events. Local festivals, specific to each of the temples here, are the most important occasions when the community gets together for celebrations. Every household makes a monetary contribution, to the tune of Rs 50 - 100 per family, and participates in the organization of the festival.

# Figure 3.14

Hindu festival at Muthanakulam



The other major motivation for communal gatherings are political rallies where public meetings are held. In fact, some residents are local area candidates of major political parties like CPI and AIADMK. There is a strong need for political affiliation in this neighborhood as it faces the threat of eviction given the absence of secured land tenure. Constituent politics secures permanence and protection from bureaucratic rules that seek to shift the settlers to slum redevelopment quarters. But opinion is divided amongt the people regarding resettlement to multi-storied apartments constructed by the TNSCB in Kovaipudhur (on the outskirts of the city). Though a majority of the residents expressed their displeasure in the relocation proposal, the remaining population is demanding that they be given proper habitable homes, even if it requires them to move to the suburbs. This is solely due to the poor infrastructure and environment in zones near the lake. One of the residents claims "I would rather spend more money on travelling from Kovaipudhur to my work place in RS Puram rather than on doctors' fees for treating illnesses."

Overall, the residents of Muthanakulam have segregated themselves into tightly knit groups based on their zone. They exhibit strong social ties and have a tendency to inherently protect themselves as a group, though only within their limited neighborhood. Every household has established good relations with their neighbors and exhibits mutual inter-dependency in terms of economic and social needs.

#### **Social Infrastructure**

There are three main temples in the settlement: one on Thadagam Road and two others on Thondamuthur road. These religious buildings represent the culture and identity of the community as everyone, irrespective of their caste and faith, takes part in the festivities associated with the temples. The events celebrated within these temple premises are Ganesh Chaturthi and festivities during the summer season that involves rituals for the rain god. Of the two, the latter is more significant and elaborately planned. Political party offices of AIADMK and CPI are situated along the roads and act as centers for political meetings. Government higher secondary school and RS Puram police station are also present within a 10-minute walking radius of the settlement, which is convenient for the children attending school in this area.

However, government hospitals and primary health centers are not easily accessible from this place. This has forced the residents of Muthanakulam to rely on expensive private clinics they can hardly afford. Social amenities like community parks and play areas are virtually nonexistent and have left the elderly and children with no options for recreation. Leisurely gatherings, comprising mostly of old women, occur near the temple in the evenings while the children play on the roads. Social interaction near the public taps and verandas of houses along the road are also a common occurrence here for the middle aged. On the whole, the road has become a venue for communal activities, a fact that not only hampers the normal traffic flow but also endangers the lives of the residents given their vulnerability to motor accidents. •

# PART 4 LIVELIHOOD STUDY

This section of the study focuses on the livelihood patterns of the people residing in Muthanakulam. The findings of this chapter are based on two stages of primary data collection conducted on site through a questionnaire-based survey (100 household samples) and interviews. On the basis of this data, five major types of employment were identified in this settlement namely (i) formally employed (ii) self-employed (iii) day labourers (iv) automobile drivers and (v) painters. In each section, this chapter focuses on the individual workers and their household characteristics in order to understand their socio-economic conditions and daily lives.

#### 4.1 Formally employed

The formal sector may be defined as the segment of economic activity which "encompasses all jobs with

normal hours and regular wages, and are recognized as income sources on which income taxes must be paid." (www.businessdictionary.com). Essentially the jobs under the formal sector present a steady source of monthly income and in some cases come with social security benefits like Provident fund and gratuities. In the case of Muthanakulam settlement, about nine percent of the population derives its income from formal jobs such as employment in offices and industries.

#### 4.1.1 Worker characteristics

Of the formally employed, about eighty percent are men and twenty percent women. It is also quite noteworthy that this small proportion of female workers is under forty years of age, unlike the male workers where even age groups over 40 yrs are employed (Table 4.1).

# Table 4.1

Age and gender distribution of formal workers

AGE GROUP	MALE		FEMALE		AS % OF TOTAL (SAMPLE)	
	ACTUAL	%	ACTUAL	%	A5 % UF TUTAL (SAMIPLE)	
18 – 25 yrs	2	25.00	1	50.00	30.00	
25 – 40 yrs	4	50.00	1	50.00	50.00	
40 – 60 yrs	2	25.00	0	0.00	20.00	
Actual number surveyed	8	100.00	2	100.00	100.00	

From Table 4.2 it is apparent that women have a much better rate of literacy, with all of them having a graduate level of education. All the women in the formal sector have received college level education unlike their male counterparts, where the highest level of education is only till the higher secondary level. In fact, there is a high dropout rate of boys from higher secondary education in the younger generations.

### Table 4.2

Literacy levels of Formal workers

LITERACY LEVEL	MALE		FEMALE		AS % OF TOTAL (SAMPLE)	
	ACTUAL	%	ACTUAL	%	AS % UF TUTAL (SAMIPLE)	
Illiterate	0	0	0	0.00	0.00	
Primary	1	12.50	0	0.00	10.00	
Higher	5	62.50	0	0.00	50.00	
Higher Secondary	2	25.00	0	0.00	20.00	
College	0	0.00	2	100.00	20.00	
Actual number surveyed	8	100.00	2	100.00	100.00	

When the above data are correlated, it suggests a positive trend that reinforces the role of new generation women through education and its corresponding employment opportunities. Furthermore, the fact that these women are unmarried indicates a break in the typical patriarchal societal norm which socially obligates women to marry early. High literacy levels could have been a major driver for these social changes in this settlement. The income levels in this employment category are higher when compared to other informal sector jobs. On an individual worker basis, the average income of an organized sector worker ranges between Rs 7,500 – Rs 12,000 per month depending on education level and experience.

# 4.1.2 Household characteristics

The household size for this employment category varies from three to five, with three to four being the average size. About one fifth of these households constitutes school going minors under eighteen years of age, and thus forms the bulk of the dependent population (Tale 4.3). These families have attached a lot of dignity and importance to education, which is probably the reason why there are no school drop outs in this age group. Also most of the households have only two generations spanning between the ages of 0 - 60yrs with virtually no senior citizens.

#### Table 4.3

AGE GROUP	MALE		FEMALE			
	ACTUAL	%	ACTUAL	%	AS % OF TOTAL (SAMPLE)	
0 – 18 yrs	6	28.60	1	8.30	21.21	
18 – 25 yrs	3	14.30	3	25.00	18.18	
25 – 40 yrs	5	23.80	5	41.70	30.30	
40-60 yrs	7	33.30	3	25.00	30.30	
> 60 yrs	0	0.00	0	0.00	0.00	
Actual number surveyed	21	100.00	12	100.00	100.00	

#### Age distribution of Worker Households

The number of earning members per household is mainly based on the household size. About fifty percent of the households, with relatively smaller families of two or three members, have a single earning member while the rest have at least two (in some cases up to 4) earning members, of which some of them may be employed in the informal sector. Overall about 60% of this sample population

is engaged in the workforce, of which twenty five are women. Unlike the men, who are completely employed, there is a sizeable proportion of women who are stay at home mothers and who do not participate in the work force (Table 4.4). The share of women in the overall working population is fifteen percent while that in the female population is thirty six percent.

#### Table 4.4

	MALE		FEMALE	AS % OF TOTAL	
	ACTUAL	%	ACTUAL	%	(SAMPLE)
Formal workers	8	38.10	2	16.67	30.30
Informal workers	7	33.33	2	16.67	27.27
Non workers	0	0.00	7	58.33	21.21
Children	6	28.57	1	8.33	21.21
Senior citizens	0	0.00	0	0.00	0.00
Actual number surveyed	21	100.00	12	100.00	100.00

Household distribution of workers and non-workers

About fifty percent of the households have been living here for more than thirty years (from their parents' generation) with relatively few newcomers (below ten years). Families living in the settlement for not more than thirty years represent the recent job seekers from rural areas and are characterized by significantly high number of children in the household. While ninety percent of the formally employed belong to the Hindu religion, the rest are affiliated to Islam.

The average income of a household with at least one formally employed earning member falls between Rs 7500 – Rs 12000 per month The respondents further add that the presence of a stable income has rendered them more resilient to the detrimental effects of economy and improves their ability to spend on basic infrastructure amenities like education, health, water supply and electricity. These households spend nearly seventy percent of their income, about Rs 4500 per monthon average, on daily needs like groceries and basic amenities followed by transportation costs. It is to be noted that health expenses are high in families that have a significant number of day labourers, unlike households that have only formally employed workers. The rest of the income is saved for future expenses (about Rs 3000 - Rs 4000 per month) like marriage and education, which are a priority for every typical household.

But irrespective of the saving efforts, these households still need to borrow money from time to time. At least sixty percent of them have borrowed money from banks and self-help groups<sup>1</sup> to cover their expenses (Table 4.5). While the banks cater to business and education loans, the Self Help Groups meet household expenses (which are relatively lower in value).

<sup>1</sup> Self-help groups in this context refers to informal, community-based associations formed by the women of the settlement. This association acts as an informal bank wherein its members regularly deposit money as savings and can reclaim them during times of need.

#### LIVELIHOOD STUDY OF INFORMAL SETTLEMENTS: A CASE OF MUTHANAKULAM SETTLEMENT, COIMBATORE PART 4 – LIVELIHOOD STUDY

# Table 4.5

Modes of loan procurement

	LOAN AVAILED	PURPOSE	LOAN AMOUNT
Nationalized banks	0	-	
Private banks	3	Education & business	D- 10000 D- 10000
Chit funds	1	business	Rs 10000 – Rs 12000
Private hand loan	0	-	
Self Help group	2	Household expenses	Rs 2500 – Rs 5000
Actual number surveyed	10 HH		

## 4.1.3 Locational perception

The prime location of Muthanakulam near all the major commercial hubs makes this an attractive spot for the settlers. But for the formally employed, this is not very game changing factor. These workers are employed in far-off places like Tirupur, Hopes, Ukkadam, beyond one kilometer radius of the settlement, with only a few being employed in the nearby RS Puram region. They are dependent on public transport or privately-owned vehicles to reach their place of work, which explains their increased expenditure for transport.

With respect to physical infrastructure, there seems to be a general appreciation for facilities like water supply, electricity and street lighting, because these well-off households can pay for these services, formally or informally (bribes). But when it comes to common services like public toilets, drainage and garbage disposal, there is a perception of inadequacy and poor maintenance. Despite their ability to pay, these public goods are not constantly maintained by the government. Social infrastructure like hospitals and schools are rated as an attractive factor by these sample households, irrespective of the fact that most hospitals in the area are privately owned.

# - Impending Problems

With the government's decision to relocate this settlement to the periphery of the city one would expect that these families would be adversely affected, especially in terms of their livelihood. But on the contrary these households are willing to move if they could be promised a proper home. Their only requirement is the availability of schools and hospitals in their new locality so that their children's education would not be hampered. Cost of commuting does not seem to impact these households as they are already paying high transportation costs. Overall no major grievances seem to be addressed by this category of workers.

# 4.2 Painters

A substantial segment of the population in Muthanakulam is engaged in painting work for the construction industry, and wall-based advertisements for local companies and political parties. This occupation employs about nine percent of the unskilled workers in the colony and is considered to be a convenient job with very little investment. However, this work depends on the ability to make contacts through various middlemen and the building industry by providing regular services to certain enterprises. Unlike an electrician or carpenter, this occupation does not require a lot of skill or training. This livelihood includes painting at construction sites, bill boards for advertisements and public walls for either awareness or political reasons. It does not provide a constant income on a monthly basis to the households as they are highly dependent on the level of demand. Peak seasons include festive seasons and election times when there is a demand for decorating homes and painting political symbols on public walls. Thus, there are always peaks and troughs in the income patterns, which is a source of stress for these families.

#### 4.2.1 Worker characteristics

Even though painting jobs account for nine percent of the total workforce, it seems to be a highly gender-biased occupation. There are virtually zero women carrying out this occupation (Table 4.6). This has possibly got to do with the nature of the work itself with regard to work schedule and the dangers involved (working at heights and male dominated work places etc). Even among men, a larger proportion of workers are in the older age groups. There is a decline in the preference for these jobs among the younger generations as reflected in the fact that only eighteen percent of the total workforce is within the 25 - 40 yrs age group. Despite the fact that painting is an unskilled job, there is high literacy level among the workers, with ninety percent having high school level literacy (Table 4.7).

#### Table 4.6

Age and gender distribution of painters

AGE GROUP	MALE (%)	AS % OF TOTAL (SAMPLE)
18 – 25 yrs	0	0.00
25 – 40 yrs	2	18.18
40 - 60 yrs	9	81.82
> 60 yrs	0	0.00
Actual numbers surveyed	11	100.00

#### **Table 4.7**

Literacy levels of painters

LITERACY LEVEL	MALE (%)	AS % OF TOTAL (SAMPLE)
Illiterate	0	0.00
Primary	1	9.09
Higher	8	72.73
Higher Secondary	2	18.18
College	0	0.00
Actual numbers surveyed	11	100.00

This profession, being based on contacts and middle men, is not confined to the locality of RS Puram and Town hall, the commercial hubs of the city. The travel radius for this sector includes the suburbs, which are beyond the city limits, at distances of about fourteen kilometers. Some of the painters even claim to travel to nearby cities in an event of low demand within Coimbatore. Thus this occupation might be considered to have the least influence on the city inhabitants. In other words, this is a service provided by this informal settlement which does not relate very much to the common citizen, unlike other unorganized sector jobs like street vendors or taxi drivers.

Depending on the seasonal demands, incomes may range from as low as Rs 2500 to as high as Rs 12000 a month. Just as any other profession, the income levels depend on the experience of the worker, thus resulting in unattractive pay for the younger.

#### 4.2.2 Household Characteristics

The average household size is three, comprising parents and children. Nearly forty percent of the parents fall under the 40 - 60 yrs category making them the older generation, with the next generation belonging to the 18 - 25 yrs age group. The working population, and fifteen percent, are the younger parents with school going children (Table 4.8). Therefore, given the lower number of young generation parents, the number of dependent children is also lower, accounting for only twelve percent of the population. It is quite noteworthy that the number of children is just equal to or below the replaceable value of two. The lack of elderly population is explained by the fact that this generation passed away in the previous decade, leaving parents in the over forty age group.

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# Table 4.8

Age distribution of worker Household

	MALE		FEMALE			
AGE GROUP	ACTUAL	%	ACTUAL	%	AS % OF TOTAL (SAMPLE)	
0 – 18 yrs	3	15.79	1	7.69	12.50	
18 – 25 yrs	3	15.79	2	15.38	15.63	
25 – 40 yrs	4	21.05	5	38.46	28.13	
40-60 yrs	9	47.37	5	38.46	43.75	
> 60 yrs	0	0.00	0	0.00	0	
Actual number surveyed	19	100.00	13	100.00	100.00	

Thirty percent of the households have more than one wage earner while the rest of the seventy percent are solely dependent on the income of a single member. There is however a stark contrast between these families with regard to the gross household income. Irrespective of multiple wage earners, they seem to be earning less or equal to single wage earner households. On further enquiry it was found that this reduced income was the result of sending the young generation (18- 25yrs) into informal jobs (mechanics, drivers, painters etc) just after high school. But the families claim that the male children unlike the female children do not pursue higher education and are more inclined to get a job. To some extent their income does help the family to take care of certain emergency expenses like medicine and marriages. These households like all the others also rely on credit facilities from friends and families during times of crisis.

Table 4.9 indicates that nearly sixty percent of the

households have non-working populations in the form of children or college students. Of this sixty percent, forty percent are women (over eighteen years with minimum high school education) which suggest one of the minimum participation of women in the workforce. On the contrary, even young girls in the 18-25 yrs age group are not attending college and are staying at home without pursuing any occupation. One of the girls responded by saying that they cannot afford a college education (especially for a woman) with the current levels of income. This is a paradoxical situation with women interested in college education not being able to afford it but men uninterested in higher education willing to be sponsored by their parents.

It is also to be noted that none of these families are employed in the formal sector, which seems to be a natural conclusion given the meager importance attached to education by these people. Somehow this section of livelihood still retains a lot of old cultural sentiments about education and female employment that gives an overall picture of a lack of progressive thought.

	MALE		FEMALE			
	ACTUAL	%	ACTUAL	%	AS % OF TOTAL (SAMPLE)	
Formal workers	0	0	0	0	0	
Informal workers	14	73.68	0	0	43.75	
Non workers	2	10.53	12	92.31	43.75	
Children	3	15.79	1	7.69	12.5	
Senior citizens	0	0.00	0	0	0	
Actual number surveyed	19	100.00	13	100.00	100.00	

#### Table 4.9

Household distribution of workers and non-workers

The age group composition corroborates the length of time these families have resided in this locality. With seventy percent of families having been here for more than 30yrs this means that at least three consecutive generations have belonged to Muthanakulam. Consequently the older parental age groups currently living here represent this segment of the population that has a legacy to the settlement. The remaining thirty percent of newcomers comprise young couples (25 – 40 yrs) with school-going children, who have moved in recently in search of jobs.

Illiteracy is confined to nine percent of the population, and that too only within the older generations nearing sixty years of age. The rest of the people have received a minimum of high school level education with only three percent (all males) having pursued college education. Till high school level there is no gender discrimination in terms of access to education, probably due to the minimal fees of the State Government run high schools. But beyond High School, college expenses are quite high, which deters students to enrol in graduate degree programmes.

The average monthly income of these households ranges between Rs 5000 – Rs 12000. However, every family in this occupational group receives different levels of income depending on the number and age group of the earning members. When this data is correlated with the family characteristics, it becomes apparent that younger families have lower income levels while older families (with higher number of earning members) earn significantly more.

Just as all other families in Muthanakulam, these households too spend about a third of their income on groceries. The next largest expenditure is for physical amenities and health. In fact, at least thirty percent of the households reported incurring large health expenses on an annual basis. Of all the other occupations, painters suffer the most health-related disorders, which is reflected in the high health-related expenses. The constant exposure to chemicals and lead-based paints used by these workers and lack of proper safety equipment in work environments has resulted in skin ailments, breathing problems (asthma) and general health deterioration. These untimely expenses further aggravate the economic problems of these homes.

Transportation accounts for nearly four hundred rupees per month given the fact that most of these workers own a two wheeler. The nature of the job is such that the place of work is not constant and changes from time to time. Thus the workers claim that having a personal vehicle makes it more comfortable for them to commute rather than having to rely on public transport. Nevertheless a few of them still rely on public buses to travel to their work due to their inability to afford a personal vehicle.

Even though sixty percent have availed loans, the reason for borrowing is plainly different from the trends observed in other occupations. This segment of the population has largely borrowed for health and vehicle ownership rather than for household expenses and education (Table 4.10). Here again private banks are the main source of credit with no borrowing from public banks.

# **Table 4.10**

Modes of loan procurement

	LOAN AVAILED	PURPOSE	LOAN AMOUNT	
Nationalized banks	0	-		
Private banks	3	<u>health</u> , education,	Rs 7500 – Rs 12000	
Chit funds	1	Marriage, health		
Private hand loan	1	<u>vehicle</u>		
Self Help group 1		vehicle	Rs 5000 – Rs 7500	
Actual number surveyed	10 HH			

## 4.2.3 Locational perception

Painters are one segment of the workforce with least reliance on the advantages offered by the physical location of the settlement. Given the variable nature of their workplace and the demandbased nature of their work, their jobs are spread across the entire district. Furthermore, the dependence of local residents or citizens on the services provided by these workers is minimal. After all, hiring painters for homes is not as common as buying groceries, commuting, or having domestic help. Thus, from a worker's point of view, Muthanakulam offers the luxury of easy commuting given its proximity to major transport facilities.

When questioned about the effect of an impending relocation on their lives, one of the female residents responded "My husband will not be affected by it. His place of work varies from day to day. But the rest of us will have a difficult time, especially my children." Other housewives also claimed the same by expressing that they would miss their friends and families who help them out during the tough times and wondered whether there would be schools in their new location. Ultimately they were anxious about the severance of the social bonds that had been developed over time in this neighborhood. To these people, their communal connections not only help them socially but also economically.

However, these households still enjoy some of the favorable features provided by this locality with respect to physical and social infrastructure. The older residents enjoy prime locations near the roads from where water supply and garbage disposal points are closer. On the other hand, new households located near the water body complain about every aspect. Some of the common grievances concern the inadequate / non operational public toilets and lack of drainage facilities.

The presence of a high school in the areas has had a positive effect on the households in Muthanakulam.

But with regard to hospital facilities, this portion of the populace claims that there is a scarcity of government hospitals in the neighborhood (the nearest government general hospital being six kilometers from the settlement). The absence of a community health center has made these people resort to local private hospitals that charge exorbitant fees for even basic treatments. Being unorganized workers they do not possess health insurance which renders them vulnerable during times of medical emergencies.

Despite assertions by the families that they were interested in spending on education, in reality they expressed pride in the fact that their young boys were earning a living from an early age. The dire need for money may account for why these people do not invest in education and have the younger male generation as a source of income. The women in a similar age group were waiting to be married off as it is considered to be more traditional and in keeping with the native culture.

Given the nature of their their jobs, business investments were minimal while transportation costs with respect to vehicle ownership and operating costs were relatively high. Health related expenses also eat into a significant portion of these workers' incomes, leaving these people one of the vulnerable populations. The benefits of both livelihood schemes and social security schemes have not trickled down to these strata of society yet, making them susceptible to adversities even in the event of small aberrations or fluctuations in their daily lives.

# 4.3 Self employed

Self-employed workers are those who own and manage their own enterprises and derive profits through the provisions of goods and services. In this settlement some examples of such businesses are tailoring, selling commodities like vegetable or fruits and running informal eateries/ food outlets. All these small scale enterprises, being less labor intensive, require only small initial capital investment. They generally depend on local resources (in terms of labor and goods procurement) which reduces operating and overhead expenses, and they largely cater to the local population.

Small enterprises often have low gestation periods where the interval between initial investment and profit earning is minimal. Another big advantage of this business model for workers is the ability to pursue a job without having to wait for a formal job appointment. This is one of the primary reasons why most government livelihood schemes for the urban poor encourage self-employment by providing small startup capital. The only downside to this type of employment is the inability to acquire a fixed income on a regular basis, which exposes the workforce to risks in case of an unfavorable socio-political environment.

#### 4.3.1 Worker characteristics

Overall, sixteen percent of the population in Muthankulam depends on small businesses for their daily livelihood. Of this, seventy percent are men with a significant proportion of them being in the above forty category (Table 4.11). Given this data it is evident that these small enterprise owners have been pursuing this business for a long time and have built up a customer base in the area. It is to be noted that even the elderly population is engaged in occupation irrespective of their age. The remaining thirty percent of the female workforce exhibits the same trend, whereas the younger generations are for all practical purposes not engaged in self-employment.

#### **Table 4.11**

Age and gender distribution of self-employed workers

AGE GROUP	MALE		FEMALE		AS % OF TOTAL (SAMPLE)
AGE GROUP	ACTUAL	%	ACTUAL	%	A5 % UF TUTAL (SAMIPLE)
18 – 25 yrs	2	16.67	0	0.00	11.76
25 – 40 yrs	2	16.67	3	60.00	29.41
40 - 60 yrs	7	58.33	1	20.00	47.06
> 60 yrs	1	8.33	1	20.00	11.76
Actual number surveyed	12	100.00	5	100.00	100.00

Small scale enterprises also present an advantage by providing employment opportunities to the unskilled, largely illiterate labor force. Thus it is always inherently assumed that these workers have received only basic primary education. But on the contrary, barring a few workers of the older generation, most of the workforce has received education till High school level (Table 4.12). Only a negligible portion of the higher secondary and college educated graduates have taken up self-employment so as to continue their fathers' businesses. Overall, there is no gender bias with respect to education levels of men and women in this livelihood category.

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## **Table 4.12**

Literacy levels of self-employed workers

LITERACY LEVEL	MALE		FEMALE		
	ACTUAL	%	ACTUAL	%	AS % OF TOTAL (SAMPLE)
Illiterate	3	25.00	0	0.00	17.65
Primary	0	0.00	0	0.00	0.00
Higher	5	41.67	4	80.00	52.94
Higher Secondary	3	25.00	1	20.00	23.53
College	1	8.33	0	0.00	5.88
Actual number surveyed	12	100.00	5	100.00	100.00

Almost all the enterprises are confined to the region of R S Puram and Townhall, with only a very few located in outer areas like Perur and Thondamuthur. This type of commerce is highly dependent on the local region and caters to the needs of the local inhabitants. Nevertheless the average income of this employment category is only between Rs 2500 – Rs 7500 per month ,which is starkly at the lower end of income levels, even for the economically weaker sections.

The above data seems to indicate a downwards trend in the younger age group with respect to selling groceries and edibles. The dwindling participation is due to the perception among the new generation (especially women), that such jobs are not suited for their education levels and do not pay well enough. Other job opportunities like mechanics and formal jobs are more attractive to this populace as they are associated with a higher social status.

### 4.3.2 Household Characteristics

The average household size for the self-employed category ranges from three to five with three being the more frequently occurring family size. On average, thirty percent of each household comprises at least one dependent below eighteen years of age attending a local government school. Though eight percent of the households comprise the elderly, only four percent are dependent on their families (Table 4.13). The rest may be regarded as the earning dependent i.e. *A person who secured a regular income but whose income was not sufficient to support him* (Censusindia.gov.in). Thus self-employment is one of the main sources of income for the elderly, who are one of the vulnerable sections of society.

### **Table 4.13**

AGE GROUP	MALE		FEMALE		
AGE GROUP	ACTUAL	%	ACTUAL	%	AS % OF TOTAL (SAMPLE)
0 – 18 yrs	6	24.00	10	37.04	30.77
18 – 25 yrs	4	16.00	2	7.41	11.54
25 – 40 yrs	4	16.00	11	40.74	28.85
40 – 60 yrs	9	36.00	2	7.41	21.15
> 60 yrs	2	8.00	2	7.41	7.69
Actual number surveyed	25	100.00	27	100.00	100.00

Age distribution of Worker Household

Literally seventy percent of the surveyed households have only one wage earning member per family whose income is the only source of income. Larger households with at least five family members have multiple wage earning members. When a resident was questioned about this meager income she responded "Our income is just about sufficient for our household expenses. In case of emergency we borrow from friends and relatives. But during good business days we use the money to buy essentials for our home". Overall about forty five percent of these households work in the informal sector with only a meager two percent in formal employment (Table 4.14). While all of the male population (except the dependent elderly) is in the workforce, forty percent of women are unemployed. These women - despite having received high school education - have not taken up any gainful employment. The share of working women in the overall workforce is twenty two percent while that of the total female population is eighteen percent.

	MALE		FEMALE		AS % OF TOTAL (SAMPLE)
	ACTUAL	%	ACTUAL	%	
Formal workers	1	4.00	0	0.00	1.92
Informal workers	17	68.00	5	18.52	42.31
Non workers	0	0.00	11	40.74	21.15
Children	6	24.00	10	37.04	30.77
Senior citizens	1	4.00	1	3.70	3.85
Actual number surveyed	25	100.00	27	100.00	100.00

## **Table 4.14**

Household distribution of workers and non-workers

Nearly seventy percent of small business owners have moved here during the early 2000s, making these groups of people a relatively new population in this settlement. A further indication is the smaller household sizes, with members consisting of a married couple with their relatively young children.

Even though the older generations in each household have predominantly received high school education, the overall literacy level is quite high with about fifty percent of the population having received higher secondary and college education. The oldest generations are the only members of the family who received the least or no education. Education opportunities are equally taken by both male and female members of the family with no discrimination. The monthly income of self-employed workers is on the lower end with average income per household ranging from Rs 2500 – Rs 7500 per month. Irrespective of this inadequate income, it is quite an anomaly that seventy percent of the women in the employable age group are unemployed. Hence these households are more likely to take out loans to meet their monthly expenses.

The average expenditure per household is about Rs 5400 per month with groceries and business-related expenses being the highest. Transport and infrastructure account for Rs 500 expenses per month. Frequent trips for commerce-related activities make up a large share of the transportation costs. Health-related issues are more frequent in the workforce employed in the tailoring/ garments business. Savings are virtually nonexistent with borrowing being the only option during tough times. Fifty percent of households have availed loans for various reasons like business, education, health and household expenses (Table 4.15). The smaller families with school going children constitute the rest of the population which are not in debt. This is due to larger families frequently requiring immediate money for education and business, which hikes up expenditure (more than Rs 12000). Business and education-related loans are obtained from private banks while household and health expenses are provided by Self Help groups in the community.

# **Table 4.15**

Modes of loan procurement

	LOAN AVAILED	PURPOSE	LOAN AMOUNT	
Nationalized banks	0	-		
Private banks	3	Business, education	D (0000	
Chit funds	2	Health, education	Rs 12000	
Private hand loan	0			
Self Help group	3	Household expenses, health	Rs 5000 – Rs 7500	
Actual number surveyed	15 HH			

# 4.3.3 Locational perception

These categories of employees are highly dependent on the attractiveness the location offers. Given that most of the families have been residing here for more than ten years, they have managed to establish their base of commerce. Their enterprises are established within the immediate vicinity of their residences, keeping commuting time and distance to the very minimum. Some of these workers use public transport or their own two wheelers for both, personal and job related uses, consequently reducing the cost of transportation.

From the focus group discussions conducted in Muthanakulam it was quite obvious that these self-employed workers are highly dependent on the local resources for their daily business. The proximity of wholesale markets - Thiru Kumaran (TK) vegetable market and shopping streets in Town hall and the flower market in R S Puram - makes for easy procurement of raw materials by reducing overhead expenses incurred for transportation. In fact they have regular, fixed business with whole sale dealers in this market, which not only improves their business relationships but also hedges them against future problems during lull business times (mainly through provision of credit). This system of livelihood that has been established over the years is highly reliant on the physical location of the settlement, in terms of both customers and whole sale goods suppliers.

Overall, the majority of the populace expressed satisfaction with the physical infrastructure services, with the only point of discontent being with the drainage and water supply system. These households are able to access amenities at significantly lower costs compared to other people. Some of the households, being newer to the neighborhood, do not possess the advantage of being situated along the roadside, near the common water taps. Moreover their location, in the interior of Muthanakulam settlement abutting the lake, is adversely impacted during rainy season when the lake overflows.

As these young families have a higher number of children, they complain about the lack of entertainment facilities. The absence of a community park or playground in the vicinity is viewed as a substantial drawback by young mothers. However, all other facilities are deemed to be adequate and comfortable for their daily use.

#### 4.4 Automobile Drivers

Automobile drivers form a significant proportion of the settlement with fifteen percent of its population engaged in such work. The types of automobiles driven range from three wheelers and four wheelers like autos and cars to heavy vehicles like buses. These drivers contribute to the transportation sector by providing services that involve the movement of people and goods within city limits. All the trips associated with this sector are limited to Coimbatore city and rarely ever involve travel to far off places. The service is mainly aimed at the general public rather than goods, as the higher share of auto and taxi drivers shows.

This occupation falls under a category wherein certain investments are required from the workers in terms of skill and initial capital for machine procurement (in this case a vehicle). Driving could be considered as semi-skilled work due to the fact that workers must acquire basic driving skills and pass the license exam. In other words, this skill is certified and approved by the government unlike other unorganized sector occupations.

While obtaining a license is compulsory for this work, raising initial capital to buy the machine is not always necessary. These drivers could be employed by agencies like the government or private sector for a monthly salary. But the share of this type of employment is much lower in Muthanakulam, with most of the drivers renting their vehicles or having obtained them through loans. In such cases, these drivers have to pay monthly rent or loan instalments.

This is a high performance occupation and depends on the number of work hours a driver puts in. Workers are paid for the days they work, with no safety net in case of unforeseeable circumstances that may result in unemployable days (health issues, social commitments etc). This is quite similar to a daily wage worker, with the only difference being in the level of income per day and the skill level of the worker.

#### 4.4.1 Worker characteristics

Driving jobs are highly gender-biased with only men performing this occupation. This reflects the traditional values as to what kind of a job a man or woman should do. Within the male population there is more or less an equal distribution of drivers in the 25-40 yrs age group and the 40- 60 yrs age group, with no participation by the 18-25 yrs (table 4.16).

#### Table 4.16

Age and gender distribution of automobile drivers

AGE GROUP	MALE (%)	AS % OF TOTAL (SAMPLE)
18-25 yrs	0	0
25-40 yrs	7	46.67
40 – 60 yrs	8	53.33
>60yrs	0	0
surveyed	15	100

The literacy level is quite good given that there are no illiterates among the drivers. Ninety percent of the workers have had education till high school with a few of them even having passed higher secondary (Table 4.17).

## **Table 4.17**

Literacy levels of automobile drivers

LITERACY LEVEL	MALE (%)	AS % OF TOTAL (SAMPLE)
Illiterate	0	0
Primary	2	13.33
Higher	10	66.67
Higher Secondary	2	13.33
College	1	6.67
surveyed	15	100.

Though this job allows the workforce to remain unattached to any specific location, one cannot overlook this service's dependency on the immediate vicinity. Some of the drivers claim to be service providers for the neighborhood in terms of dropping off kids at school and having certain regular local customers. In essence it is about having a client base in Muthanakulam that depends on these workers and who they trust for their needs.

The average income is at the higher end, ranging from Rs 10000 to Rs 12000 per month. The relatively better income might be one reason why the younger generations are positively inclined towards this job. This corroborates the fact that skill levels and income are directly related to each other. Socially, too, the job is perceived to be of a higher status in comparison with other informal sector jobs.

#### 4.4.2 Household Characteristics

Most of the households in this livelihood segment are small with only three members even though a few families have up to five members. Dependents, comprising children and the elderly, constitutes about forty percent of the population, with the former accounting for thirty percent (Table 4.18). Without exception all the children are attending the local government school with no case of drop outs and the elderly are non-earning members who depend on the working population.

### Table 4.18

Age distribution of Worker Household

AGE GROUP	MALE		FEMALE		AS % OF TOTAL (SAMPLE)
Ade dhour	ACTUAL	%	ACTUAL	%	AS % OF TOTAL (SAWIFLE)
0 – 18 yrs	8	29.63	6	27.27	28.57
18 – 25 yrs	1	3.70	1	4.55	4.08
25 – 40 yrs	8	29.63	9	40.91	34.69
40 – 60 yrs	9	33.33	5	22.73	28.57
> 60 yrs	1	3.70	1	4.55	4.08
Actual number surveyed	27	100.00	22	100.00	100.00

Seventy percent of the households have only one wage earning member involved in this livelihood type with the remaining thirty percent having other members of the family engaged in other jobs (Table 4.19). While the proportion of the formally employed is extremely small, nearly ninety percent of the workforce is in the informal sector. The trend seen in these households is that all of the male population (in the working age category) are employed while the women (in the working age category) remain as housewives or do some sort of locally available job in the vicinity. This is irrespective of the fact that they have received sufficient education till high school, which in some cases is better than their male counterparts.

#### **Table 4.19**

Household distribution of workers and non-workers

	MALE		FEMALE		
	ACTUAL	%	ACTUAL	%	AS % OF TOTAL (SAMPLE)
Formal workers	1	3.70	1	4.55	0
Informal workers	17	62.96	2	9.09	59.38
Non workers	0	0.00	12	54.55	37.5
Children	8	29.63	6	27.27	43.75
Senior citizens	1	3.70	1	4.55	6.25
Actual number surveyed	27	100.00	22	100.00	100.00

A large portion of these families (about 70%) have been living in the neighborhood for more than two decades. This and the small household size allows it to be construed that this time span represents the period of residence by the previous generations.

Illiteracy is confined to a few elderly people aged over sixty, who were deprived of educational facilities in the earlier days. Fifty percent of the people have had education up till high school, twelve percent till higher secondary and eight percent till college. Every person within the 18 – 25 yr age group in these households has either completed college education or is currently pursuing it. There is a positive impetus towards education given the hundred percent enrollment of children in the local school, irrespective of gender.

As mentioned earlier, this job pays higher, with average income per month ranging between Rs 10,000 - Rs 12000. There are no unemployed males in the working ages between 25 yrs – 60 yrs, which is consistent with the favorable earnings scenario. Only twenty percent of the women contribute to household income, while the rest are homemakers. Naturally, with most families having at least one child, women prefer to stay at home and look after their family. It is also quite interesting that the wage earning women are often in the 25 – 40 yrs category, suggesting the older women were suppressed by old societal norms that impeded them from working. Each household incurs an average monthly expenditure of Rs 4700 per month, with groceries and education accounting for the majority of the expenses at between Rs 1340 and Rs 950 per month. The high expenditure on education is not surprising given that every family has a school going member and also that some have been enrolled in private schools and colleges. Business-related expenses account for about Rs 700 a month, which includes maintenance and fuel for the vehicle used for their business. This is exclusive of what the family spends on transport for purposes of entertainment, school and general mobility in the city. Costs for entertainment, though existent, is very minimal due to the nature of this type of livelihood. Lack of fixed work schedules and making up for lost working time due to circumstances such as health and social functions cuts down the family time of these households.

Thirty percent of the workers have obtained loans from private banks, private hand loans and selfhelp groups for their business (Table 4.20). Business loans for this workforce comprises either a vehicle loan or a loan for repair and maintaining their vehicles in case of emergencies like accidents or faulty parts. Other reasons these households take out loans include health, education and marriage, which are not as frequent as the business loans.

### **Table 4.20**

Modes of loan procurement

	LOAN AVAILED	PURPOSE	LOAN AMOUNT	
Nationalized banks	0	-		
Private banks	2	vehicle, education	. D- 10000	
Chit funds	2	Health, marriage	> Rs 12000	
Private hand loan	1	business	Rs 7500 – Rs 10000	
Self Help group	2	business	Rs 5000 – Rs 10000	
Actual number surveyed	15 HH			

## 4.4.3 Locational perception

Even though the job of a driver may hardly appear to be location-specific nor tied to one particular place as such, the physical setting of the Muthanakulam settlement plays a vital role in their business. The proximity of commercial areas to home saves these drivers the need to travel large distances for potential customers. After all, the cost of such lengthy commutes on a daily basis (though minute for an ordinary middle class person) do matter to these workers. They are customarily affiliated to certain auto stands or taxi stands in the local area in which an informal understanding exists between the drivers, providing them with a sense of job security and work place community. With he recent trend in the transportation sector towards app-based booking, a substantial portion of vehichl-owning auto and taxi drivers have become a part of this network, indicating that they are able to adapt to new trends. Similarly, good literacy levels have contributed to their ability to transform and acclimatize to changing operational environments. In the case of heavy vehicle drivers, the public transport facility makes it easier for them to reach the main bus depots of Gandhipuram or Ukkadam where they start their daily work.

With a large portion of the workforce having lived here for more than twenty years, they have established a customer base in the nearby areas. Private drivers are identified for their good conduct and their ability to reach the pickup point within the shortest time duration. Thus, in case of relocation, these regular customers will have to look for other sources of transport. Most of the drivers are part of a union that represents Coimbatore city's drivers and endeavours to address the problems faced by this working community such as agendas related to fare fixing and fuel price hikes.

With regard to infrastructure services, these households have expressed the same opinion as others, with a sense of satisfaction with physical infrastructure services like water supply, sewerage and electricity and discontent with certain amenities like public toilets, community spaces and hospitals.

## 4.5 Casual workers (daily wage workers)

A casual worker is a worker who has been engaged for work which is of an essentially casual nature [ CITATION Min46 \l 16393]. This implies that the s work carried out by these laborers is temporary in nature (based on ad hoc basis), bound by no formal employer-employee contract and compensated on a daily basis. These workers primarily undertake jobs on construction sites, as loaders of goods in market areas, as cleaners or garbage collectors etc.

There are two fundamental ways in which these workers attain employment; (i) through a contractor or (ii) direct employment by an employer. In the former case the worker maintains good relations with a contractor and is frequently called upon in case of availability of employment opportunities. This accounts for a majority of casual employment, as in this case the extensive networking of the contractor guarantees better access to livelihood prospects, thus ensuring a steady daily income. However on the downside, the pay levels are low and workers may be expected to work in far off places, thus requiring them to be away from their homes for long periods of time.

In the other case the worker is directly employed by the employer on an ad hoc basis, which consequently results in a relatively higher pay for the worker (due to the absence of a middleman) but also, on the down side, irregular job availability. Here the onus of finding work is purely on the workers themselves and depends solely on their limited contact network. This inherently confines their commuting distance to the city limits and precludes untimely working hours. Therefore this alternative finds favor among female workers because of the sense of security afforded by this arrangement. At the city level there is an informal arrangement that serves to connect casual laborers with potential employers. Various public spaces like squares, markets and parks function as gathering points for these workers, where they not only get hired but also acquire information about possible job opportunities. These workers claim that this web, or network, which is complex and intricate, is built up over a long period of time and their ability to maintain it is highly dependent on their physical presence in the area.

### 4.5.1 Worker characteristics

Nearly twenty five percent of the households in Muthanakulam attribute their livelihood to this

### **Table 4.21**

Age and gender distribution of formal workers

type, making it the largest and the most favored occupation type. Of the total population employed as casual laborers, seventy seven percent are men with an even distribution in both the 25 - 40yrs and 40 - 60 yrs age group, as indicated in Table 4.21. The share of women as casual laborers is limited to 23%, of which nearly 70% are in the 40 - 80 yrs age group. Casual labor is the chief provider of employment for the older generations (40 - 60yrs) as no skills are required for these jobs. However, given the erratic nature, physical drudgery and unsafe working environment associated with these jobs, women and the elderly population above sixty years tend to avoid these jobs.

AGE GROUP	MALE		FEMALE		
AGE GROOP	ACTUAL	%	ACTUAL	%	AS % OF TOTAL (SAMPLE)
18 – 25 yrs	1	5.00	0	0.00	3.85
25-40 yrs	9	45.00	2	33.33	42.31
40 – 60 yrs	10	50.00	4	66.67	53.85
> 60 yrs	0	0.00	0	0.00	0.00
Actual number surveyed	20	100.00	6	100.00	100.00

This section of livelihood comprises one of the lowest levels of literacy compared to other livelihoods, with 20% of the workforce being illiterate and 20% having received only primary education (Table 4.22). This data, combined with the data in Table 4.21, confirms the fact that the working older generation (40-60 yrs) contributes to the illiteracy levels. The remaining sixty percent of the casual laborers have received high school education which suggests a trend towards improvement in education in the other age groups.

#### **Table 4.22**

Literacy levels of Formal workers

LITERACY LEVEL	MALE		FEMALE		
	ACTUAL	%	ACTUAL	%	AS % OF TOTAL (SAMPLE)
Illiterate	3	15.00	2	33.33	19.23
Primary	4	20.00	1	16.67	19.23
Higher	10	50.00	1	16.67	42.31
Higher Secondary	2	10.00	2	33.33	15.38
College	1	5.00	0	0.00	3.85
Actual number surveyed	20	100.00	6	100.00	100.00

As explained earlier, there are specific points in the city where these casual workers gather during the early part of the day to seek employment. It is also pertinent that most of these locations are in commercial areas surrounding Muthanakulam like Gandhipuram, Flower Market and Town Hall. The average income for these workers ranges between Rs 2500 – Rs 10,000 per month, which represents one of the lowest income levels in the settlement. In addition, the income fluctuates frequently as these jobs are highly vulnerable to the effects of government policies and macroeconomic conditions.

Gender and age biases are also evident, with younger

males earning the highest remunerations up to Rs 10,000 per month and women and elderly earning as low as Rs 2000 per month. This polarization of income levels is not surprising due to the fact that these jobs involve physical strength and certain social skills which the younger generation males are more adept at.

## 4.5.2 Household Characteristics

The average household size is about three to four, commonly consisting of one working member and at least one dependent child or elderly parent. On average, the dependent and working population account for 35% and 65% of the entire household as indicated in Table 4.23.

#### **Table 4.23**

Age distribution of Worker Household

	MALE		FEMALE		
AGE GROUP	ACTUAL	%	ACTUAL	%	AS % OF TOTAL (SAMPLE)
0 – 18 yrs	13	28.89	9	25.00	27.16
18 – 25 yrs	3	6.67	5	13.89	9.88
25 – 40 yrs	11	24.44	10	27.78	25.93
40-60 yrs	13	28.89	10	27.78	28.40
> 60 yrs	5	11.11	2	5.56	8.64
Actual number surveyed	45	100.00	36	100.00	100.00

Eighty percent of the surveyed households are dependent on a single earning member while the rest of them have multiple earning members, mostly employed in the informal sector. While informal sector employment is seen as the major source of income, accounting for thirty eight percent of the employment in these households, formal sector employment is still very low at just two point five percent (Table 4.24). Women contribute a meager ten percent of the income needs of these families (despite their minimum education level up to high school) with nearly seventy five percent of women assuming the role of family caregivers, as their spouses are absent for long durations due to work. In line with this argument, all of the households with working women have at least one additional member (a senior citizen or an adult male) to take care of the children.

#### LIVELIHOOD STUDY OF INFORMAL SETTLEMENTS: A CASE OF MUTHANAKULAM SETTLEMENT, COIMBATORE PART 4 – LIVELIHOOD STUDY

## Table 4.24

Household distribution of workers and non-workers

	MALE		FEMALE		
	ACTUAL	%	ACTUAL	%	AS % OF TOTAL (SAMPLE)
Formal workers	1	2.22	1	2.78	2.47
Informal workers	23	51.11	8	22.22	38.27
Non workers	3	6.67	16	44.44	23.46
Children	13	28.89	9	25.00	27.16
Senior citizens	5	11.11	2	5.56	8.64
Actual number surveyed	45	100.00	36	100.00	100.00

Seventy percent of these families have resided in Muthanakulam for more than twenty years (as shown in Figure 4.9) and have established the much needed connections necessary for obtaining casual work in the vicinity. But despite this long period of residency, the household sizes are small with a majority of them being nuclear families. This in fact is the result of other household members having moved away to other parts of the city in search of opportunities. This phenomenon is a manifestation of the progressive thinking instilled in these people.

Literacy levels are lowest in the older generations, increasing steadily in the subsequent age groups. The families of casual laborers are largely illiterate, or thirty one percent, which is the highest when compared with other households (Figure 4.9). This is the very reason why this section of the settlement chose to engage in casual labor, as low literacy levels may be attributed to barring them from other opportunities even in the informal sector.

There was also a noticeable trend in descendants taking after their parents work in the over forty age groups. over They claimed to have joined their fathers' occupation (after completing high school) having accompanied them during their daily search for work. Thus the employer – employee relationship spread across generations, continuously evolving over time. Household incomes predominantly range between Rs 2500 - Rs 10,000 per month and may correspond with the number of wage earning members per household (Figure 4.10). The highest expenditure is incurred for groceries followed by basic infrastructure provision at Rs 1400 and Rs 945 per month respectively (Figure 4.10). With the basic necessities for the family itself accounting for a third of household expenditure, these families are placed in a precarious position during times of unemployment. Even though a large share of transportation costs are borne by the employer, these workers still have to spend about five percent of their income on commuting to the gathering points in the city. Furthermore, this kind of livelihood necessitates more expenses towards health care owing to the arduous working conditions.

Nearly forty percent of the families have availed loans, primarily from private banks and self-help groups for education and household expenses (Table 4.25). Borrowing from friends and neighbors is a recurring phenomenon in these neighborhoods, especially during times of unemployment.

## **Table 4.25**

Modes of loan procurement

	LOAN AVAILED PUR		LOAN AMOUNT	
Nationalized banks	0	-		
Private banks	4	Vehicle, Business, education	D - 10000	
Chit funds	1	Vehicle	Rs 12000	
Private hand loan 0				
Self Help group	4	Household expenses	Rs 7500 – Rs 10000	
Actual number surveyed	25 HH			

### 4.2.3 Locational perception

The biggest advantage that Muthanakulam offers casual laborers in terms of physical location is the proximity to all important public spaces in the city, which are essential nodes where employment opportunities can be found. With fifty percent of the total number of workers relying on their own private vehicles, the remaining is reliant on the public transit system for their commute. With regard to infrastructure, just as any other household in the settlement, there is an expression of overall satisfaction. This may be partly due to the fact that the daily wage workers were one of the earliest settlers in this colony, thus giving them the advantage of prime housing plots near the road and other infrastructure resources like water taps, public toilets and electricity.

The optimum blend of commercial and residential areas in the vicinity also facilitates the availability of casual workers to the residents of Muthanakulam. While daily wage workers are employed in the commercial district as loaders, construction workers, cleaners etc., residential districts provide them with menial jobs as gardeners and as helpers for odd jobs. Over time, the right relationships and contacts have been built by the families of these workers in order to maximize their probability of getting work on a daily basis. Though this fact seems to be taken for granted, one has to truly appreciate the multiple layers of bonding these people share with the locality. This complex relationship demands the physical presence and interaction of individuals (such as social drinking, celebration of community festivals, participating in social gatherings like marriages etc) within this social circle so as to continue their mutual association. All of these workers unanimously agree that these exchanges cannot be replaced by any virtual means of communication, which would certainly be the case in an event of relocation.

However, in the context of the current generation, casual labor is hardly preferred, as indicated by the declining trends in the occupation patterns. Improved literacy levels and access to various other possibilities (even in the informal sector) has inspired the youngsters to seek a life away from these informal settlements.  $\bullet$ 

# PART 5 LIVELIHOOD ASSESSMENT

This section of the report aims to analyze the various livelihoods pursued by the occupants of the Muthanakulam settlement by means of livelihood capital parameters. The reasoning behind adopting these factors is the fact that poverty cannot only be described in terms of income or expenditure, as the poverty line attempts to do.

[CITATION Ins04\l 16393].

This stems from the fact that livelihood is a complex term associated not only with income and expenditure but also with resources and capital that allow people to to pursue different occupations. This capital also affects the capabilities and potential of the workforce, and the resilience of workers in terms of response to economic stress during times of hardship. Suitable coping mechanisms necessitating the ability to switch between jobs also depends on the availability of this livelihood capital.

#### 5.1 Livelihood Resources

Livelihood resources or capital may be defined as the "capital' base from which different productive streams are derived from which livelihoods are constructed'. [CITATION Ian98\l 16393 ]. These are the types of resources that could be regarded as basic needs to pursue any kind of livelihood. They can be further categorized as (i) Human Capital (ii) Natural Capital (iii) Physical Capital (iv) Financial Capital and (v) Social Capital, which are defined as

i Human Capital: These are abilities possessed by workers of a particular occupation that enable them to deliver goods or services. These include skill levels (measured by literacy), efficiency/ability (measured by health indices) and willingness to work (labor participation level).

#### ii Natural Capital:

the natural resource stocks (soil, water, air, genetic resources etc.) and environmental services (hydro logical cycle, pollution sinks etc) from which resource flows and services useful for livelihoods are derived. [CITATION Ian98\] 16393]

#### iii Physical Capital:

The basic infrastructures built that are products of manmade interventions like physical and social infrastructure that contribute to the livelihoods as "instruments of production" [CITATION Ins04\] 16393].

#### iv Financial Capital:

the capital base (cash, credit/debt, savings, and other economic assets, including basic infrastructure and production equipment and technologies) which are essential for the pursuit of any livelihood strategy. [CITATION Ian98\l 16393]

v Social Capital:

the social resources (networks, social claims, social relations, affiliations, associations) upon which people draw when pursuing different livelihood strategies requiring coordinated actions. [CITATION Ian98\] 16393]

#### 5.1.1 Human Capital

This subsection seeks to assess and compare the human capital of each occupation using the parameters literacy, health and labor force participation so as to understand which of these livelihoods are the most vulnerable.

## Literacy levels

As described earlier, the literacy levels are quite high among the residents irrespective of gender, occupation and caste. On average every worker has the bare minimum literacy standards, i.e. each one can read and write. This high literacy level may be attributed to the revolutionary Mid-Day Meal Scheme by the Government of Tamil Nadu in 1956, introduced by the former chief minister K Kamaraj. The main aim of this scheme was to improve school enrollment rates by providing afternoon lunches to students at all government schools. A concomitant effect was that low income households could cut down on the food expenses for each child, especially given the fact that the juvenile count per family was quite high in those times. Naturally this effect trickled down to most of the middle aged groups (40 - 60yrs) and their descendants. High literacy levels among women also substantiate the effectiveness of this scheme.

However, on a comparative basis, the self-employed and causal workers have relatively lower literacy levels among the workforce due to the unskilled nature of the work, as opposed to the formally employed who actually employ their literary skills in their jobs (Table 5.1). Automobile drivers are required to possess basic education levels as it helps them broaden their client base and acclimatize to the ever changing transportation sector (with the advent of UBER, OLA and other internet based applications).

## Table 5.1

Literacy level of workers

OCCUPATION	MALE (%)	FEMALE (%)
Formal Jobs	100	100
Self Employed	75	100
Painters	100	NA
Drivers	100	NA
Casual workers	85	67

The impact of education on households is positive, as indicated by the zero dropout level among children below the age of 18. Even low income families make sure that the younger generation receives proper schooling, not only to save on nutrition expenses but also due to the growing awareness among these young parents. However, the older generation still lacks literacy although this is generally confined to the elderly populations. It is evident from Table 5.2 that households that are already enjoying the benefits of better education standards (like the formally employed) naturally impart its importance to their offspring and recognize the significance of formal education.

## Table 5.2

Literacy level in Workers' households

HH OF EACH Occupation	MALE (%)			FEMALE (%)			OVERALL AVERAGE
	CHILDREN (< 18YRS)	ADULTS (> 18YRS)	OVERALL	CHILDREN (< 18YRS)	ADULTS (> 18YRS)	OVERALL	LITERACY LEVELS
Formal Jobs	100	100	100	100	91	92	96
Self Employed	100	79	84	100	70	81	82.5
Painters	100	100	100	100	75	77	88.5
Drivers	100	95	96	100	87	91	93.5
Casual workers	100	56	69	100	78	83	76

Drivers and painters follow formal job workers in terms of literacy at 94% and 91% literacy respectively. Older women who did not have access to education account for most of the illiteracy in these classes. Both of these occupations require a basic amount of education or skill, which could explain the high education levels among these workers. Unlike the aforementioned jobs, self-employed people, mostly street vendors, and casual laborers have fairly high levels of illiteracy as indicated in Table 5.2.

On the positive side, this illiteracy is limited only to people over forty years of age, suggesting vestiges of previous social orders when disregard for female education, inclination towards family businesses and hereditary-based vocational education was widespread. Absence of school dropout rates ( both male and female children) and a steady increase in college enrollment underscores the mark of progress in these societies.

## Workforce Participation

Workforce participation is an indicator of productivity and represents the employability of the members of a specific household. This has a direct bearing on the income levels of the household and helps identify unemployment issues and non-progressive ideologies like child labor and preventing women from pursuing gainful employment.

On comparing the levels of workforce participation among the five livelihoods under study, it is quite apparent that there are certain jobs which are gender-biased and certain jobs which are deemed women friendly. From Table 5.3 it is clear that while the painting and driving occupations show zero female participation, self-employment and casual work accounts for thirty percent and twenty three percent of female employment. There is still a traditional bias towards women being employed as automobile drivers and painters, with the women themselves stating that it is a job meant for males. They attribute their lack of participation in these occupations to poor work environments (painting from scaffolding and the risks attached to driving strangers) and the lack of the necessary skills for the same (driver's license). In this context one can certainly affirm that the lack of safety and security in work places are the primary reason behind the exclusion of women from these occupations.

Casual workers, on the other hand, have a relatively better female participation rate of twenty three percent, but women still do not favor this type of work due to its grueling nature and wide disparities in wages. Of the female casual laborers, seventy percent of the women are over forty with older children nearly eighteen years of age. Younger women are preoccupied with child-rearing duties while their spouses are away for work. In general, self-employment and formal jobs are considered to be the most favorable jobs for women. While the former is preferred because of flexible work hours and safe work environment, the latter is ideal for fixed working hours and high income levels.

## Table 5.3

Work force participation based on gender

OCCUPATION	MALE (%)	FEMALE (%)
Formal Jobs	80	20
Self Employed	70	30
Painters	100	0
Drivers	100	0
Casual workers	77	23

The dependency ratio is a factor that compares the number of non-workers to the number of workers in a household. It determines the dependency levels of non-workers on the working members to assess the vulnerability of a household in each livelihood type in case of adverse economic situations. This stems from the logic that the more people depend on a single income source, the less their ability to hedge against future financial risks. Workforce participation per household is the highest in the formal jobs sector and the lowest in the casual workers sector. Formally employed households have low such dependencies due to high education levels, female empowerment and aspirations to a better life. Though painters seem to have a low dependency

ratio, in reality this distortion is due to the small household sizes as indicated in Table 5.4 where the number of children and elderly are very low. The self-employed and automobile drivers exhibit higher dependency ratios owing to larger family sizes and low female workforce participation.

## Table 5.4

### Distribution of workers and non-workers with respect to livelihoods

OCCUPATION	WORKING MEMBERS		NON WORKERS			DEPENDENCY
	18–60 YRS	> 60 YRS	< 18 YRS	18 – 60 YRS	> 60 YRS	RATIO (AVG)*
Formal Jobs	19	0	7	7	0	0.75 : 1
Self Employed	23	0	16	11	2	1.30:1
Painters	14	0	4	14	0	1.14 : 1
Drivers	21	0	14	12	2	1.33 : 1
Casual workers	33	1	22	19	6	1.38 : 1

## Health

In this case study, the effect of occupation on health is measured by the household expenditure parameter, i.e. by the amount of money each family spends on health- related issues and as based on focus group discussions held during the medical camp. From this it can be concluded that there are two primary causes that affect the health of Muthanakulam residents: (i) environment and (ii) occupation.

Muthanakulam is plagued by environment-related issues for most of the year due to its setting near the Kumaraswamy Lake. Most of the households abutting the lakeside directly use the surface water for their daily needs like washing and ablution, which directly correlates with the poor health conditions of these households. Due to the dumping of sewerage and construction debris into the lake, the water is polluted and unfit for such uses. Given the absence of physical infrastructure in the inner portions of the settlement, the residents have resigned to using the contaminated water.

The impact of climatic factors manifested during seasonal weather changes also adversely affects

the health of the residents. Flooding during rainy seasons caused by the overflowing lake results in stagnant water along the roads and common areas, which reinforces the spread of waterborne diseases like typhoid and dysentery and vector-based communicable diseases like malaria, dengue and chickenguniya. Some residents even reported backflow of sewerage water from their makeshift toilets, which caused unsanitary living conditions during the rainy seasons. In fact, these very residents welcomed the prospect of moving to proper housing provided by the government instead of having to toil with these seasonal changes. The housing conditions of most of the settlers are also not conducive to healthy living due to the lack of proper lighting and ventilation. It may therefore be concluded that a certain section of the resident population faces health deterioration due to external environmental factors.

In addition to the environment, the types of livelihood pursued by the workers also negatively impacts their health. When the health expenses associated with the types of livelihood are compared, as shown in Table 5.6, households engaged in painting activities incur the highest medical expenses at Rs 450

<sup>\*</sup> Dependency ratio is the ratio of non-workers to workers in the household samples collected

per month despite having very few elderly members. This trend presented an anomaly and thus warranted further investigation. The family members of these households asserted that those engaged in these painting activities suffered from illnesses such as asthma and other respiratory ailments due to their nature of work. In addition, their working conditions are perceived to be dangerous due to the lack of safety equipment, for example masks (to protect them from paint fumes) or ropes (when working at great heights). Despite apprehensions about working in physically hazardous locations, there were no actual reports of expenses related to such accidents (like injuries from falling).

The next occupational groups with the highest healthcare expenses were casual workers and the self-employed at Rs 340 and Rs 200 per month respectively. Casual labor demands great physical exertion and is subject to the vagaries of job availability, which requires these workers to commute over long distances. They live like migrants, wandering from one place of work to another, and this consequently takes a toll on their health. Their work environments are equally insalubrious, as they are exposed to physical harm and hazardous substances (when working in factories or plants). The respondents frequently mentioned complaints such as joint pain, muscle pain and occasional cases of skin disorders. Self-employed workers on the other hand face less work pressure as their jobs are predominantly sedentary and ailments are limited to the elderly, i.e. people over 55.

Drivers and the formally employed record the lowest health-related expenditure, at Rs 120 per month, due to better working conditions, steady working hours and absence of arduous work. The formally employed have access to health benefits, particularly if they are employed by government organizations.

### 5.1.2 Natural Capital

In this case study, the natural capital provided by the Muthanakulam settlement is limited to the advantage of the location. Due to the absence of any major site-based industry, natural resource benefits have virtually no effect on the livelihoods of its inhabitants. The site is principally used as residential space with very few families using their dwellings for homebased businesses. Thus the proximity to surrounding business areas or commercial districts, and the hazardous nature of the land (which eliminates demand and competition for this resource) is the only perceptible natural this tract of land contributes to the livelihoods of its inhabitants.

### 5.1.3 Physical capital

As in the case of natural capital, the significance of physical capital is restricted to social infrastructural components that aid the acquisition of basic education, transport infrastructure which indirectly influences occupational output. In the case of this settlement, the proximity of the government school (which provides subsidized education) is an important factor contributing to high enrollment rates, which in turn translates to the development of basic skills and serves to expand the horizon of professional possibilities. Thus the presence of a neighborhood school certainly influences the livelihood opportunities available to these people.

Well-developed transportation networks have enabled the residents to take up jobs over a wide range of the city's landscape. The wide reach of the transportation network and the ability to commute at a nominal rate has positively reinforced the livelihoods of the entire workforce in both the formal and informal economic sectors. It is only through the presence of this principal infrastructural component that the workers are able to convert their skills into a tangible workable product that is fit for human consumption.

Since no products are as such manufactured within the settlement and all occupations undertaken by the dwellers are based on their human skill and capability, the effect of physical infrastructure (basic amenities) within Muthanakulam has no direct bearing on their occupation. But even so, given the negative impacts on the health of the workers when deprived of such basic amenities, it could, perhaps, indirectly influence the livelihood typology (as poor health limits job possibilities).

### 5.1.4 Social Capital

It is a well-established fact that informal settlements depend on their social bonding and rely on these intangible webs of communal integrity for their day to day lives. These connections are the most critical factors as they provide a sense of safety and security to informal settlers and protect them from potential threats of eviction. In fact, this may be considered one of the most unique features of such settlements, one which can seldom be replicated even in the most sophisticated communities.

There are three types of connections the settlement thrives on - (i) political (ii) social and (iii) economic. Political connections are the relationships that the settlers maintain with the local government, both with the administration and the political parties. With more than 2000 households, Muthanakulam constitutes one of the largest constituencies in the vicinity and hence solicited by various political parties (AIADMK, DMK, CPI etc). The inhabitants are adequately represented in all political agendas through enrollment of local leaders in leading political parties. Ultimately both the politicians and residents have a symbiotic relationship in which the local representative of the legislative body (MLA) forges a relationship with these people, resulting in a mutual exchange of favors. While the politicians garner votes during election season, the residents bargain for better infrastructure and neutralize any plan of eviction organized by the bureaucracts. The dwellers of Muthanakulam are exceedingly reliant on this political maneuvering due to the illegality of their tenure and lack of recognition as a tenable slum by the Tamil Nadu Slum Clearance Board, which legalizes any eviction notice against these people.

Scial connections refers to the bonding between every household in a neighborhood that forms the very root of their collective strength. No household in the settlement can be considered as an independent and self-reliant unit. Every family invariably claims to be dependent on their neighbors for a wide range of activities spanning basic issues such as obtaining groceries from Fair Price Shops (FPS)<sup>2</sup> to lending money and taking care of ailing family members. One of the respondents claimed "My neighbor is more of a family to us. I leave my children with them in case of emergencies and we celebrate all festivals together". Social connections evolve over time and are further strengthened by celebrating communal events and local festivals together. Naturally, these are the very bonds difficult to replicate when informal settlements are shifted to multi-storied tenements.

Economic connections in the context of social capital refer to the business associations and contacting network that the workers have accomplished over time in this locality. In the case of self-employed and drivers, a regular clientele base has been established in the vicinity. Such relationships ensure steady inflow of income and helps expand their business in the long run. In other words, these occupations are highly dependent on the sanctity of the employer employee contract. Casual workers, though many of them work temporary jobs, are also required to maintain networks with potential job providers (contractors or direct employers). With casual work being available intermittently and lasting only for a short duration, the ability to earn is directly proportional to the number of contacts a worker has. Of all the occupation typologies, the formally employed are by far the least affected by economic connections due to the inherent nature of contract-based job security.

2 Fair Price Shops means a shop which has been licensed to distribute essential commodities by an order issued under section 3 of the Essential Commodities Act, 1955, to the ration card holders under the Targeted Public Distribution System.[ CITATION Gau13 \l 16393 ] The complex and interconnected layers of human connections contribute significantly to the ability of any worker to seek employment in the informal sector. Thus it is evident from the above discussion that social capital constitutes a vital component of an informal settler's way of life, both occupational and private.

## 5.1.5 Financial Capital

From the perspective of livelihoods in Muthanakulam, financial capital is relevant in the following three ways (i) savings: through income and expenditure trends (ii) investment for means of production or technology and (iii) access to credit.

## Savings

The amount of money saved by a family may or may not be directly related to the livelihoods pursued by its constituent members. Even though the ability to save money for the future is influenced by several factors (like general awareness, family size and needs, absence of social evils such as alcoholism etc), the type of occupation certainly has an impact on savings. Workers in certain occupations have a propensity to save more than the rest due to higher incomes, exposure to banking facilities and family sizes.

Figure 5.2 suggests that expenditure levels of households are below the threshold of Rs 7035 as prescribed by the Planning Commission's poverty line. It can be observed that the self-employed are the most vulnerable in terms of savings and ironically these workers are the most dependent on funds to procure goods. The paltry savings are attributed to high costs incurred for business -related expenses, i.e. the workers invest the profits in buying more goods instead of saving them. On the other hand, the formally employed have the ability to save literally half their incomes, given that their incidental expenses on account of their livelihood are virtually zero. Households of drivers, painters and casual workers have a reasonable amount of savings and were relatively less affected by economic changes.

## Investment for means of production or technology

Every occupation type requires some kind of capital to begin with, either in the form of skills or monetary investment. In the five types of livelihoods under consideration, self-employed and drivers require the highest amount of capital investment for their business. The former require initial capital only for securing goods for sale and overhead expenses for transportation of the same. They are exempt from rental outlays as their business enterprises are situated along streets. In terms of assets, hardly any property is owned for occupational reasons. Automobile drivers need to invest in buying the vehicle and obtaining the necessary licenses. Unlike the self-employed, they own an asset - a vehicle - in the long run, even though the amount of capital investment required is higher. This exemplifies the concept of the more investment, the higher the returns.

In the case of the formally employed, although it may seem that no initial investment is required, in reality these households claim to have spent a significant portion of their wealth on obtaining high levels of education. The most common mode of obtaining money for schooling is education loans. All other occupations in Muthanakulam are reported to have no pressures to seek initial investment or capital.

## Access to credit

Most of the residents of the Muthanakulam settlement do not possess assets that could be pledged for obtaining loans or be sold during times of need. These times of need, as professed by the settlement dwellers, are (i) starting new businesses (ii) health-related issues (iii) family functions – marriages, funerals etc (iv) household expenses – house repairs, expenditure related to basic needs (groceries, infrastructure bills etc) (v) education expenses and (vi) vehicle loans. The inhabitants of the settlement largely depend on private banks and self-help groups for availing credit. Vehicle loans, education loans and business loans are predominantly availed from private banks while self-help groups help in catering to immediate household expenses. Chit funds are also a source of credit primarily in case of health, vehicle and marriage-related expenses. However, nationalized banks and state-run banks are seldom approached for credit, even for education purposes, suggesting a case of exclusion from government-aided credit facilities.

#### 5.2 Comparison study

Table 5.5 provides a comprehensive summary of the dependency levels of each of the five occupations under discussion according to each parameter. The factors of comparison were derived from literature, while the effects of the particular parameters on the workers and their households were identified through their feedback from surveys and focus discussions. From the table it is clear that casual labourers, followed by the self-employed and drivers, would be the most vulnerable and adversely affected in the event of relocation. On the other hand, the formally employed are more resistant to such changes and enjoy a relatively higher level of security. •

### Table 5.5

Comparative study of livelihoods in Muthanakulam

S.NO	PARAMETERS	FORMALLY EMPLOYED	SELF-EMPLOYED	PAINTERS	DRIVERS	CASUAL LABOURERS
нима	N CAPITAL					
	Literacy level	~~~	~~	~~	~~~	~
	Female participation in workforce	~~~	~~~	~	~	~~
	Dependency ratio	V	~~~	~~	~~~	~~~
	Unemployment	~	v	~	~	~
	Health level	~~~	~~	~	~~	~
NATUR	AL CAPITAL					,
	Locational advantage	~	~~~	~~	~~~	~
PHYSIC	CAL CAPITAL					·
	Transportation	~~	~~	~~~	~	~~~
SOCIAL	CAPITAL					
	Employer – employee relationship	V	~~~	~	~~	~~~
	Neighbourhood connections	V	~~~	~~~	~~~	~~~
	Political connections	V	~	~	~	~
FINAN	CIAL CAPITAL	·		·	<u>.</u>	
	Capital investment	~~	~~~	V	~~~	V
	Access to credit	~	~~~	~~	~~~	~~

# PART 6 CONCLUSION

Coimbatore city is an evolving and developing city with a favorable investment climate, especially in the context of economic policies proposed by the Government of Tamil Nadu, in which several economic sectors are flourishing. The natural accompaniment of such developments is the informal sector, which functions to service the mounting needs of the growing population. It is a known fact that informal settlements have started to appear in different parts of the city, especially in the last two decades following the surge in the economic growth of the city due to tertiary sectors like Information Technology, tourism and educational infrastructure. With this unprecedented growth there has been much deliberation by various stakeholders as to how to regulate the informal sector, most of the means being top down and detrimental to the livelihoods of this workforce category.

This case study has attempted to gain insight into the working of the informal sector by understanding the work force employed in it according to various socio-economic parameters, and to shed light on the delicate web of connections that ties these informal economies with the city. Furthermore the case at hand, the Muthanakulam settlement with more than two thousand households, is in a precarious position, on the brink of eviction by the Tamil Nadu Slum Clearance Board (TNSCB), thus making it all the more relevant and imperative that the fragile eco systems of these informal settlements be understood. Firstly, it is necessary to comprehend each informal settlement through its workforce to become familiar with the wide array of services it is able to render to the city. These settlements are factors of production that are intertwined with the economy of the city and are capable of affecting a significant portion of society, from the affluent to commoners. Various commercial enterprises and households derive benefits from the informal workers as they provide them with services that the formal sector can never hope to provide.

Secondly, the informal sector deserves to be put on par with other economic sectors and this type of work must be encouraged to continue through the enactment of norms that empower and provide a sense of security. Informal sectors are not given due recognition by the government, a fact that is obvious from the failure of government agencies to provide financial support to these workers. While the Tamil Nadu government has done a good deal in terms of providing subsidies for basic needs, there is no positive impetus towards empowering people to work by actually providing them opportunities. This is evident from the fact that none of the workers in Muthanakulam claimed to have secured employment through government schemes, and are predominantly employed by the private sector.

Despite the enactment of regulations to ensure a proper work place environment, informal workers still continue to work in hazardous settings, which eventually takes toll on their health. This problem is further aggravated by their inability to access government-subsidized health facilities, resulting in unsanitary living conditions that not only affect the workers but also their families.

Thirdly, not only the workers but their families must also be assessed in order to assess the living conditions of these people. This stems from the basic fact that family circumstances have a great social impact on the poverty level within these communities. Though Tamil Nadu state has performed well in terms of the Human Development Index, much still needs to be done regarding agendas such as female empowerment, improving workforce participation, access to basic amenities like physical infrastructure and education, general awareness about civic rights, access to social security benefits like health insurance and promoting progressive attitudes to counter the current regressive thought processes prevalent in these households.

Finally, before resorting to relocation as a final recourse to regulate informal settlements, the impact of such a move on the livelihoods of these settlers must be thoroughly understood. Though eviction schemes emphasize the need for "rehabilitation" rather than "relocation", this is rarely the case. When the workers are relocated to far-off places in the outskirts of the city, they are severed from majority of the livelihoods they have established over the years. Government-aided relocation schemes only promise better physical capital and gives inadequate weighting to other intangible aspects of these livelihoods. There is often a failure to understand that the prosperity of such households and their occupations directly correlates with the inputs from social, financial and natural capital, which are quite difficult to replicate in another place. It is in this context that it is pertinent to understand the real meaning of poverty and not merely confine it to the fulfillment of basic needs. Thus one really has to question if there is ever any point in shifting the so called "poor" into "acceptable" neighborhoods, only to make them economically and socially poorer in the process.

With Coimbatore being a priority city given the smart city initiatives and growing investment prospects, proper consideration must be given to informal workers. The city must undertake initiatives to appreciate and communicate with this workforce, so as to encourage and safeguard the informal sector just as any other economic activity. •

## LIVELIHOOD STUDY OF INFORMAL SETTLEMENTS: A CASE OF MUTHANAKULAM SETTLEMENT, COIMBATORE **REFERENCES**

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