

**An Economic Profile of
the Urban Poor
- Slum Dwellers of Madras**



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**Study Sponsored by
Madras Metropolitan Development Authority**

**Operations Research Group,
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ABOUT THE STUDY

'In line with National and State Goals, the development objectives of Madras Metropolitan Area (MMA) can be broadly stated as to gainfully employ and adequately service its growing population over the long-term, with attention given to the poorer segments of the population'. (The World Bank document on Appraisal of the Madras Urban Development Project, Annex 13, Page 1). With this perspective, Madras Metropolitan Development Authority (MMDA) sponsored a study entitled "Employment Base Study for MMA with particular emphasis on the Informal Sector".

This study was entrusted to Operations Research Group (ORG) as an integral part of Technical Assistance Programme of the World Bank. The work for the study was divided into several components. The two conceptual classifications of the contents of this study can be described as follows :

- * A profile of the economy of the city of Madras and rest of the areas in the metropolitan area emphasising on the aspects of employment growth and pattern in industrial and non-industrial sectors and the role of what may be called 'informal' sector now and in future.
- * Detailed socio-economic profile of the urban poor and informal sector activities (the two phenomena being integrally related) and identification of some of the strategies and programmes that would be considered effective to upgrade the economic status of the informal sector and to deal with the problem of urban poverty in a given context.

In view of the wide-ranging scope of the study and complexity and distinctiveness of various problems identified and studied, the study findings are being presented in four reports separately.

1. Economic Profile of MMA
2. Industrial Economy of Tamil Nadu and Madras Metropolitan Area
3. Economic profile of the Urban Poor - Slum dwellers of Madras city
4. Informal sector enterprises - a profile and strategy

While the first two reports refer to the first classification of the study described above, the third and fourth reports refer to the second one. Thus it is quite logical that in order to gain a comprehensive understanding of the problem and of urban poverty and a profile of informal sector enterprises the present report (third in the series) should be considered as an integral part of the subject which is presented in two parts, namely third and fourth reports. It is hoped that the fourth report will be also available to the readers in about a month's time from the date of release of the present report.

Regarding the present report which primarily deals with socio-economic profile of the slum dwellers who are identified as the core of the urban poor, the two important contributions appear to be :

1. An upto-date information base primarily on economic aspects of employment and income for the urban poor in the city of Madras
2. An understanding of the employment process particularly for those who are engaged in marginal and low income occupations in the informal sector activities.

The information for this exercise was generated through a large scale survey of households and workers in the identified (by TNSCB) slum locations in the city of Madras. The survey was carried out in two phases - the first phase involving a survey of about 3,700 households generating basic information on employment, income, occupations, demographic characteristics etc. and the second phase involving a survey of about 175 unemployed and 475 employed, most of whom were marginally employed and the rest being self-employed with enterprises of their own.

The study was carried out by a team of professionals of ORG led by Mr. DN Basu. The principal professional for the study was Mr. Chetan V Vaidya. Mr. Raghu Roy of ORG was particularly responsible for developing the theoretical expositions of the employment process as described in Chapter 6. Mr. KR Shaligram also made valuable contributions in different stages of the study. Mr. Soham Desai was exclusively responsible for all the computerised data processing and statistical jobs. Mr. MJ Lannan and G. Chandru helped in supervising field work and coding work. Mrs. G. Rajeswari and Miss. S. Shantni carried out all secretarial work for the study.

This study has benefitted significantly from the officials of MMDA at various levels. Mr. MG Balasubramaniam, ex-Vice Chairman of MMDA, did make a significant contribution to the conceptualisation of the problem of urban unemployment and poverty. Mr. LM Meneses, Member Secretary and Mr. G. Dattatri, ex-Chief Urban Planner both of MMDA

did take pains to spend a valuable part of their time, to improve upon the contents, with ORG team of professionals. Other members of MMDA who were helpful in different stages of the study are Mr. A. Lakshmanan, Senior Deputy Planner, Mr. KT Bellan, Deputy Planner, Mr. N. Sundararajan, Assistant Planner. In closing we must express our gratitude to Mr. BR. Deolaliker without whose encouragement this study would not have at all taken a start.

For OPERATIONS RESEARCH GROUP,

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Madras
Jan 1980

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APPENDIX 'A'

A PILOT SURVEY OF SLUMS ON PERIPHERY OF MADRAS CITY⁺

It is estimated that in 1978, about 40 thousand slum households were living in the peripheral areas of Madras City⁺⁺. The ORG survey did not cover these slums initially. Subsequently a survey of four slums on the periphery of the city was carried out to fill up the gap in the information, particularly to bring out the difference between the characteristics of the city slum population and of the peripheral slums. This survey is indicative of broad occupations and employment status of the slum dwellers. However, the slums covered are not statistically representative of all the peripheral area slums. The four slums were randomly selected with the constraint that atleast one location is selected from each of the three broad zones of the peripheral urban area. The following are the findings of the survey :

Household Characteristics

Percentage of heads of households who have migrated to Madras in last 10 years is high (about 27%) as compared to the corresponding figure of 5% for the city. It was not possible to estimate the growth rate of slum households between 1971-79 as 1971 sampling frame was not available.

⁺Periphery is defined as area outside Madras city and within Madras Urban Agglomeration.

⁺⁺Source : Survey of Slums in MMA - MMDA, 1979

The demographic profile of the peripheral area slums is characterised by age and sex selective migration. Compared to 990 females per thousand males in the city slums and 903 for the city (in 1971), the female-male ratio for the peripheral area slums is only 812. There is also a predominance of adult males (age group of 15-59), accounting for 31.0% of the population whereas the corresponding figure for the females is only 25.1%. The demographic imbalance in the population perhaps indicates that there has been a migrant movement predominantly of adult males. The average size of households in the peripheral area slums is 5.1 and is not much different from that of the city slums (5.2).

Table A.1 Demographic Indicators - Peripheral areas slums and City slums

	<u>Peripheral area slum</u>	<u>City slums</u>
Females per 1000 males	812	990
% of males in age group of 15-59 to total population	31.0	29.1
% of females in the age group of 15-59 to total	25.1	27.1

Workers participation rate in the peripheral area slums is 27.6% which is lower than the city slums (30.2%). Ratio of unemployed to total population is 5.2%. A lower participation rate (all working population) inspite of male predominance is perhaps explained by lower female participation rates in the peripheral areas compared to same in the city. Analysis of labour force participation indicates that the male labour force participation for the

slums is 50.1% which is not much different from the corresponding figure for the city slums (51.7%). But the female labour participation in the slums is 8.1% which is much lower than the corresponding figure for the city slums (15.8%). The incidence of child labour in these slums is also significantly lower than the city slums. Income level of slum dwellers in the periphery seems to be little better than counterpart in the city. This is also reflected in the household income distribution where 72% of total households earn below Rs 350/- (83% for city slums) and the average monthly household income (adjusted for irregularities of employment) of Rs 280 which is higher than that of the city slums (Rs 250). Although the slum household income is relatively more than the city slums, still the incidence of poverty in these slums is much higher than the city as a whole.

Table A.2 Percentage Distribution of Households in Broad Income Groups and Average monthly household income - Peripheral area slums and city slums

Monthly household income(Rs)	Peripheral area slums	City slums
Upto 350	72.1	83.1
350 - 450	11.1	9.7
450 - 600	9.6	4.9
600 +	7.2	2.3
Total	100.0	100.0
Average household income(adjusted)(Rs)	280	250

Employment Status and Unemployed

Analysis of the employment status indicates that unlike the city slums where self-employed category accounts for the major proportion of the workers, in peripheral area slums the employee (unorganised sector) accounts for the highest percentage of workers i.e. 40.6%. There are about 26.7% workers in the self-employed (non-establishment) category. The two categories together account for 2/3rd of the total workers both in the city slums and peripheral slums. As mentioned earlier (Chapter III), a large proportion of workers in the self-employed and unorganised sector employee is reflection of high percentage of marginally employed workers. This is also reflected by the fact that about 52% of total workers in these slums have a monthly income below Rs 150 and are underemployed (in terms of income). The organised sector employee category has 31.7% of total workers which is higher than the corresponding figure for the city slums (21.7%). This is explained by higher proportion of manufacturing workers (25.7%) in the peripheral slums, compared to the city slums. This also explains some what better income distribution for peripheral slums. However the average income of the organised sector employee is about Rs 300 in these slums and is much lower than the corresponding figure for the city as a whole (Rs 400). This indicates that the workers with low incomes in the organised sector live in slums.

Table A.3 Percentage Distribution of slum workers by the Employment Status - Peripheral Area slums and City Slums

Category	Peripheral area slums	City slums
1. Employer & owners of family enterprises	0.9	4.0
2. Employee-organised sector	31.7	21.7
3. Employee-Unorganised sector	40.6	21.7
4. Family workers	1.1	2.6
5. Self employed(non-estb)	26.7	50.0
Total	100.0	100.0

Ratio of male unemployed to total males is 6.8% and the corresponding figure for females is 3.1%. As in the case of city slums, the major percentage of the unemployed are in the age group of 15-24 (72%) and a high proportion of them have high school education (62%).

Occupations and Activity Concentration

A large proportion of the slum workers are in the low-skill occupations (54%) like petty traders, construction labourers, unskilled labourers in manufacturing etc. The proportion of skilled workers like fitter, turner, mechanic (repairs) etc is 18% and is high as compared to the corresponding figure for the city slums (10%). Some of the occupations like rickshaw pullers, craftsmen, traditional service occupations which are predominant in the city slums are in a very small number in the peripheral area slums.

Table A.4 Distribution of Slum Workers by Levels of skills - City Slums and Peripheral Area Slums

	<u>City Slums</u>	<u>Peripheral Area Slums</u>
(a) Highly skilled	10.3	18.4
(b) Semi-skilled	24.1	27.5
(c) Low-skilled	65.6	54.1
Total	100.0	100.0

In terms of employment pattern the tertiary sector is most important ie 51.1% but its proportion to the total workers is low as compared to the city slum workers (64.8%). It is followed by secondary sector with 38.3% of workers. Primary sector plays a significant role in the employment pattern with 9.6% of workers in the peripheral slums. The proportion of workers in the organised manufacturing is 25.7%.

Summarily speaking there are distinct features of employment among the population living in the peripheral slum.

They are :

1. Manufacturing activity contributes to a larger proportion of the working force. At the same time, tertiary activities also play an important role.
2. Employment characteristics of slums in the peripheral area is a combination of industrial activities and upsurge of trade and marginal service activities.
3. There are certain service occupations like rickshaw pullers, craftsmen, porters etc, which are concentrated in the city and much less in the peripheral slums.
4. Economically peripheral slums may be little better off compared to city slums but in absolute terms they also represent a low economic status.

Table A.5 Percentage Distribution of workers by different activities - City slums and peripheral area slums

	<u>Peripheral area slums</u>	<u>City slums</u>
Primary	9.6	2.1
Manufacturing(household)	0.4	5.9
Manufacturing(other than household)	25.7	15.2
Construction	12.2	13.0
Trade	14.0	18.0
Transport	16.3	15.0
Other services	21.8	30.8
Total	100.0	100.0

APPENDIX BEMPLOYMENT LOCATIONS AND PLACE OF RESIDENCE IN SLUMS
OF MADRAS CITY

A variety of factors (like availability of employment, land value, transport etc) are responsible for location of slums in different zones within the city. The objectives of the present exercise are (i) to understand the relationship between place of residence and place of work of slum workers, and (ii) to determine relative indices of localisation of jobs with respect to the slum workers.

Place of residence of worker was determined from the location of slum in which the particular worker lived. Information regarding place of work was asked to each selected employed member from the sampled household. Place of work was identified as (a) same zone (b) no fixed location and (c) outside the zone of residence. Postal zones of place of work of the persons working in other zones were also collected.

Limitation of the data is that all the zones in the city were not covered adequately by the present survey. So the matrix of origin and destination of the slum workers is not complete. But it is indicative of employment and residential location patterns of the slum workers.

Place of Work in Relation to Place of Residence

The proportion of total workers with no fixed place of work (mobile) is 38.3%⁺. About 38.7% of the workers have

⁺From the survey data it is difficult to estimate the locational spread of such employment. However, it is presumed that for most of the self-employment (except say auto-drivers, construction workers) no fixed location can be interpreted as 'same zone'.

place of work in the same zone. Little more than 11% of workers have place of work in nearby zones and only 11.5% work in distant zones. Number of workers with place of work outside MMA is almost negligible. A matrix of place of work and place of residence of slum workers is given in table 8.4 (refer figure 7). Relatively a larger proportion of employment (about 50%) in George Town and Egmore zones is drawn by people residing in other zones. Whereas the corresponding figures for Perumbur and Annanagar is low (less than 15%).

Basically there appears to be two patterns of distribution of place of work of slum workers in different zones. There are some zones with more number of workers by place of work than place of residence. These zones can be termed as receiving zones. There is another pattern where the number of workers by place of residence is more than that of place of work. In these zones workers are going out to other zones for work.

In the above context different zones have been analysed. In more specific terms the number of jobs by location has been compared with number of resident workers. The index for this comparison is taken by ratio of employment by location to employment by residence. For this purpose it is assumed that workers with no fixed place of work are working in the same zone.

The index is more than one in George Town and Egmore Zones and these are receiving zones (refer table 8.1)

Table 8.1 Relation between place of work and place of Residence of slum workers-Madras City

Zone	Workers by place of residence (1)	Workers by place of work (2)	Index ⁺ 2/1
Tondairpet	72500	66700	0.9
Perambur	77100	55800	0.72
George Town	45340	66100	1.46
Mylapore-Triplicane	54570	57200	1.01
Egmore	15880	17600	1.15
Annanagar	56610	44800	0.78

+ This index is subject to correction if the assumption that 'in the zones not covered the ratio of (1) & (2) is not significantly different from one (1)

The index is less than 0.8 for Perumbur and Annanagar zones indicating that there are more resident workers than jobs by location. The index is about 1.0 both for Tondiarpet and Mylapore-Triplicane zones and there does not seem to be a significant difference between jobs by residence and location in these zones.

Index of Attraction

An index of attraction has been developed to indicate the relative importance of a zone in terms of employment location compared to other zones. This index is at zone level and is defined as percentage of workers commuting from other zones to total employment (by location) of the

particular zone⁺. The following table clearly indicates that George Town and Egmore play important role in terms of employment of slum workers.

Table B.2 Index of Attraction

<u>Zone</u>	<u>Index of Attraction⁺</u>
Tondiarpet	11.5
Perumbur	12.5
George Town	56.0
Annanagar	15.1
Mylapore-Triplicane	24.1
Egmore	34.1

+See note in Table B.1

Index of Dispersal

The proportion of workers with place of work in other zones is relatively small in the slums (about 22%)*. So like most of the other cities a policy for slum rehabilitation at a distant place from the present location may not be compatible with current employment location pattern without any elaborate programmes for new employment generation. But it has been observed that the need for having residence near place of work is different in different activities. For analysing the shiftability of workers in any activity, a knowledge of the proportion of workers commuting from one zone

++ This index, it should be noted, is confined to the employment of the slum population only and is not necessarily representative of the city.

* It is assumed that workers with no fixed place of work are working in the same zone.

to another in that particular activity is important. If the proportion of workers commuting for an activity is high, there is less likelihood of dis-location of employment links as a result of shifting workers from the present place of residence. On the other hand, if the percentage of commuting workers is small, it becomes difficult to make a case for relocating these activities. It should be noted, however, there are various other considerations for relocation of activities. The index of dispersal developed is just condensed version of the relative mobility in different occupations. The index computed for each activity/occupation is as follows :

Index of dispersal = $100 - \text{percentage of workers with place of residence and work in the same zone.}$

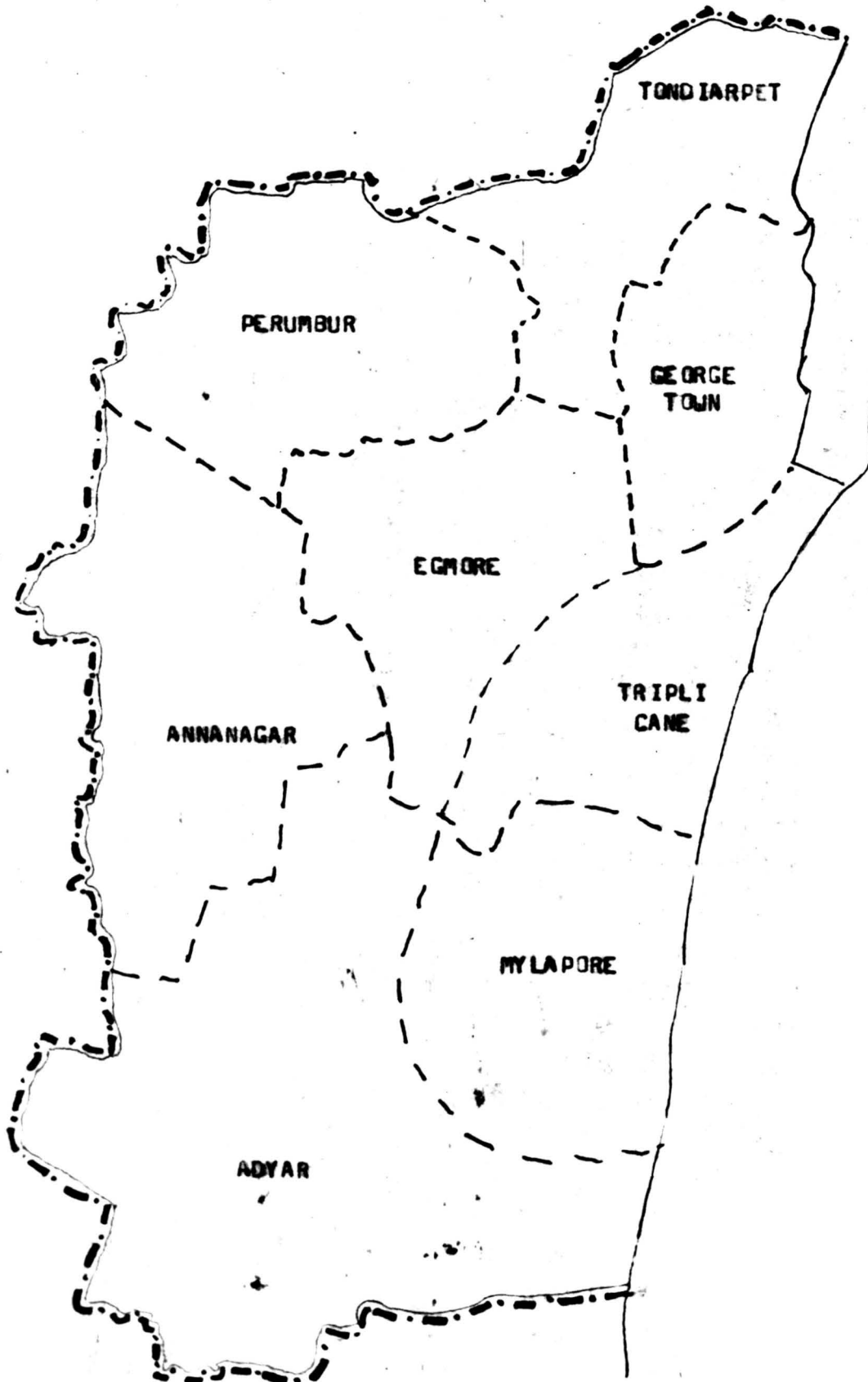
The activities which have relatively high index of dispersion are health and education, government services, public transport and manufacturing (other than household). Whereas activities with lower index are traditional services, tea/tiffin makers, household manufacturing and slow moving vehicles (refer Table B.3). It is interesting to note that there is some relationship between index of dispersal and level of earning. For example, in activities like Government service, manufacturing, index of dispersal is high and average earning of workers is also high. For occupations like traditional services, retail trade, tea/tiffin makers where average income is low, index of dispersal is relatively low. This has implications in terms of new programmes for relocation of slum population (or absorption of new slum population)

particularly when such programmes are integrated with employment generation programmes.

Table 8.3 : Index of dispersal for some important activities in slums - Madras City

<u>Activity</u>	<u>Index</u>
Traditional services	48.9
Health and Education	72.9
Government services	86.2
Repairs	52.6
Public transport	84.9
Slow moving transport	8.9
Provision stores	52.2
Tea/tiffin makers	18.3
Other trade	40.1
Household manufacturing	20.4
Manufacturing (other than household)	80.6
All activities	<u>45.9</u>

FIGURE 87



MADRAS CITY MAP - BROAD ZONES

APPENDIX-CCATEGORISATION OF OCCUPATIONS (WITH PARTICULAR EMPHASIS ON INFORMAL SECTOR OCCUPATIONS AMONG SLUM DWELLERS)

National Classification of Occupations (NCO) classifies occupations into 10 broad divisions each of which is further subdivided at 2 digit or 3 digit level. The total number of major groups is about 90. Such classification of occupations was found to be either irrelevant or too broad to classify the low income, low skill occupations of slum dwellers. This is because of the fact that whereas in NCO, high skill occupations in the manufacturing (eg engineers) and non-manufacturing sectors (eg doctors, accountants) are specified, low skill occupations are combined. These low skill occupations, on the other hand, are more numerous in the slums and exhibit the characteristics of informal sector activities. For example, a major group '98' of NCO combines all types of transport equipment operators but in terms of studying informal sector occupations, it is necessary to make a distinction between transport operators like rickshaw pullers, hand cart pullers, on the one hand and auto-rickshaw driver, car drivers, on the other hand. Each such sub-group is not only numerous among the slum dwellers but also shows some characteristic features. Hence, the approach adopted in the present exercise in developing occupational classification is to club together high-skill occupation particularly in the organised sector and classify further some typical informal sector occupations.

Another reason for developing a special occupation code was that for understanding the slum occupations, it is necessary to consider occupation along with its economic activity. For example, the employment conditions of

a peon in Government service is different from that of peon/helper in trade and service in the unorganised sector. Even in skilled categories like carpenter, repair (mechanical), the features of employment and earning level are different in those employed in the organised manufacturing sector and the self-employed and those employed in the unorganised manufacturing sector with similar occupations. For this purpose, the code developed includes details of the respective economic activity. The activity code (3 digit) consists of two parts - first digit represents broad economic activity like (trade, service, manufacturing) and the second and third digits representing sub-activity within an activity (eg household service within 'service' function, grocery trade within 'trade').

While developing occupation-code (1 digit), relevance of a particular occupation in a particular activity was generally kept in mind. For example, in metal product manufacturing activity, occupation like mechanic, fitter, blacksmith were specified. In household service, on the other hand, more predominant occupations like cook, maid servant were identified. In the intermediate category of activity like trade, occupations like helper, clerk etc were identified. The principle thus was to specify those occupations in a particular activity which are likely to be more numerous and characteristic of the activity and club together the rest. Another consideration was the identification of low skill and low income occupation. Examples of this principle of classification are indicated in Table C.1. In the process, a total of about 400 occupation x activity calls were identified. The next stage was to understand

the numerical significance of the 4-digit classification. In the final stage, both activities and occupations were further grouped to reflect the dominant occupations (classified by broad activities wherever necessary) among the slum dwellers in Madras many of which may be said to be in the informal sector activities. Final occupational classifications were developed in several stages. In the first stage, an exhaustive activity x exact occupation (type of job) was developed irrespective of the numerical significance of each code. From the detailed occupation codes, a list of 33 broad occupations was developed for the purpose of analysis. List of the occupations finally accepted for analysis are presented in table C.2.

Table C.1 : Some Examples of Detailed Occupation Code (4 digit)

Broad activity	Sub-activity	Occupation	Final code
Service (1)	Household Services(01)	Driver (1)	1011
		Cook (2)	1012
		Ayah (3)	1013
		Maid (4)	1014
		Servant (5)	1015
		Sweeper (6)	1016
		Tiffin carrier (7)	1017
		Gardener (8)	1018
		Others (9)	1019
Trade (2)	Grocery (01)	Working owner (1)	2011
		Supervisory staff (2)	2012
		Salesman (3)	2013
		Clerk/cashier (4)	2014
		Office boy/Peon (5)	2015
		Servant (6)	2016
		Porter (7)	2017
		Others (9)	2019
		Manufacturing(3)	Metal product(10)
supervisory staff (2)	3102		
Clerk/cashier (3)	3103		
Mechanic (4)	3104		
Black smith (5)	3105		
Operator (6)	3106		
Peon (7)	3107		
Porter (8)	3108		
Others (9)	3109		

Table C.2 : List of broad occupations as used in the survey analysis

<u>Broad occupation (as used for the analysis)</u>	<u>Detailed occupations (4 digit) - some examples</u>
1. Maid servant	a) Maid in household services b) Ayah in household services
2. Servants (others)	a) Servant (male) in household services b) Servants in trading establishments c) servants in manufacturing concerns
3. Cycle rickshaw puller	a) Working owner of rickshaw b) Rickshaw puller
4. Animal/Handcart puller	a) Working owner of Animal/Hand cart b) Animal/Hand cart puller
5. Tiffin/Tea maker	a) Tea/Tiffin makers b) Tea/tiffin sellers
6. Tailor	a) Master Tailor b) Tailor c) Tailor in garment manufacturing company
7. Traditional service occupations	a) Washerman b) Ironer c) Barber
8. Sweeper	a) Sweeper in household services b) Scavenger in govt/public services etc
9. Peon (services)	a) Peon in government office b) Peon in private offices c) Peon in banks etc
10. Security staff	a) Security staff in household services b) Security staff in public/Government offices c) Security staff in Banks etc

- | | |
|---|--|
| 11. Driver (mechanised vehicles) | a) Driver in household services
b) Driver in auto/taxi services
c) Driver in public transport |
| 12. Carpenter | a) Carpenter in building activity
b) Carpenter in furniture, manufacturing concern
c) Carpenter (set maker) in film production |
| 13. Semiskilled/skilled construction worker | a) Mason in building activity
b) Plumber in building activity
c) Painter in building activity
d) Htt/Pandal worker in building activity |
| 14. Construction labour | a) Unskilled worker in building activity |
| 15. Petty trader | a) Hawker/vendor (non-establishment) selling vegetable/fruit/flower
b) Hawker/vendor selling pan/beedi |
| 16. Salesman/helper in trade | a) Salesman/helper in wholesale/retail trade (establishment) |
| 17. Working owner (trade) | a) Working owner of trading establishment |
| 18. Working owner (others) | a) Working owner of service establishment
b) Working owner of manufacturing |
| 19. Beedi makers | a) Beedi makers at factory and household level |
| 20. Vessel making/polishing | a) Vessel polisher
b) Vessel maker in vessel manufacturing concern |
| 21. Wig making, weaving and allied crafts | a) Wig maker
b) Weaver
c) Jute/Cane product maker |

- | | | |
|-----|---|---|
| 22. | Book binder/Match
box maker | a) Book binder in printing press
b) Match box maker (in household and
factory level) |
| 23. | Other craftsmen | a) Embroidery
b) Potter
c) Earth doll maker |
| 24. | Mechanic (repairs) | a) Mechanic in auto repair services
b) Mechanic in electric repair
services |
| 25. | Turner/Fitter/Welder | a) Turner/Fitter/Welder in manufac-
turing concerns
b) Turner/Fitter/Welder in railways |
| 26. | Other operators
(manufacturing) | a) Machine operators in manufactur-
ing concern |
| 27. | Helper/cleaner in
manufacturing and
services | a) Helper/cleaner in manufacturing
b) Helper/cleaner in repair services |
| 28. | Porter-transport | a) Porter in public transport
services
b) Porter in private transport
services |
| 29. | Coolie (unskilled
worker in services
and trade) | a) Unskilled worker in trade
b) Unskilled worker in services |
| 30. | Professional and
supervisory staff | a) Doctor in health service
b) Nurse in health service
c) Teachers in school |
| 31. | Others in services | a) Other occupations in service |
| 32. | Fisherman | a) Fisherman |
| 33. | Others | a) Other occupations in manufactur-
ing trade and primary activities |