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# Slum Improvement and Upgradation Project for Trivandrum, Cochin and Calicut

Vol. III

Report on Household Survey

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National Institute of Urban Affairs  
New Delhi  
December 1993

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CHAPTER I  
INTRODUCTION

1.1 Analysis of slum formation in the three cities of Trivandrum, Cochin and Calicut reveals that though the proportion of population living in slums is still modest, the growth in it appears to be quite pronounced. Thus, the cities of Trivandrum and Cochin have only 6.81% and 5.81% of population living in slums respectively. Calicut, however, seems to be an exception to the overall low level of slum population in Kerala in general and in the two above mentioned cities in particular. About one-fifth (19.61%) of its total population is living in slums. The situation of slum formation appears to be alarming especially in Cochin where the slum population has grown at a run-away rate of growth of 135% between 1985 and 1990. The growth rates for the cities of Trivandrum and Calicut during the same period are 15.67% and 11.14% respectively. Thus, whereas the process of slum formation in Cochin is alarmingly rapid, the cities of Trivandrum and Calicut have been experiencing a high rate of growth in slum population.

1.2 Slum formation, the status of services available, structural conditions of shelter and other physical aspects of slum situation have already been analysed in the preliminary report. <sup>1</sup> As an understanding of the socio-economic conditions of slum dwellers is basic to devising of a strategy for improvement of living conditions of slum dwellers, a household survey was

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1. NIUA, Slum Improvement and Upgradation Project for Trivandrum, Cochin and Calicut: Preliminary Report, 1990.

conducted in the three cities in August, 1990 based on a sample of 1000 households allocated to the three cities.

### The Sample

1.3 The size of sample was fixed at 1000 under the Terms of Reference of the project.<sup>2</sup> The sampling of slums to be selected for the survey as also the selection of respondent households within the sample slums were done in four stages. At the first stage, the sample of 1000 was itself allocated to the three cities on the basis of ratios of slum households in the three cities individually to the total slum households in the three cities taken together. Thus as Trivandrum has about 26% of the total households in the three cities, a sample of 260 households was allocated to the city of Trivandrum. Likewise, 380 households were allocated to Cochin and 360 to Calicut.

1.4 At the second stage, the slum households were allocated in the three different cities on the basis of the proportion of different types of slums to the total number of slum in each city. With a view to evolve a typology of slums, the slum settlements were first grouped into three distinct types on the basis of structural conditions. The three types were (1) Slums with predominantly pucca structures, (2) Slums having predominantly semi-pucca structures, and (3) Slums having predominantly kutcha structures. Slums with more than 50% of pucca, semi-pucca and kutcha structures were treated as predominantly pucca, semi-pucca and kutcha structures. Thus

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2. Kerala Urban Development Project, Terms of Reference for Slum Upgrading Studies, Para 3.8.

after grouping all the slums into these three broad categories, the slums in each category were further subgrouped into six categories on the basis of the number of services available out of six basic and core urban services like potable water, street lighting, drainage (pucca drain), surfaced roads and streets and sanitation including conservancy and arrangement for the disposal of town refuse. Existence of all the five services constituted the first group. Slums having only four services constituted the second group, and thus the number of groups in each type went on increasing till there did not exist in the slum any services at all. Slums not having any of the five services constituted the sixth group. Thus each type had six groups of slums.

1.5 The number of households allocated to the three cities was thus re-allocated to the three broad types of slums in each city on the basis of the proportion of the three types of slums in the three cities. Since predominantly pucca slums constituted 33% of the total slums in Calicut, 33% of 380 sample households were allocated to this type. Predominantly semi-pucca and katcha slums were allocated 31% and 36% respectively of 380.

1.6 At the third stage, the sample households allocated to the three different types of slums based on structural conditions were again reallocated to the six groups of slums based on availability of services. Thus, 36% of 380 households (137 households) in Calicut were reallocated amongst the different groups within this type according to the ratios of the six groups of slums. At the fourth and final stage, sample slums were selected randomly.

1.7 In all, 36 slums were selected in the three cities. Of these, six were in Trivandrum, 16 in Cochin and 14 in Calicut. The names of sample slums are mentioned in Appendix A.

1.8 In addition to the Household Survey, a survey of all the sample slum settlements was also conducted to collect the physical area, number of households, population, social groups, services provided in the sample slums, the status of land ownership and tenure system as also the slum dwellers' perception and views on the services provided, the extent of operation and maintenance, affordability and so on. These information were collected by administering a separate set of structured questionnaire. The factual data on the area, households, services provided were collected from the Municipal Corporation in the three cities. Perception of slum dwellers on services, operation and maintenance, community participation in slum improvement and maintenance etc. were collected by discussing these things with the slum dwellers. Survey of sample slum settlements provided useful insights into the nature of problems of the slum dwellers living in the sample slums.

## CHAPTER II

### HOUSEHOLD PROFILE

#### Religion

2.1 As mentioned earlier, in all, 1000 households were surveyed in the three cities of Calicut, Cochin and Trivandrum. Distribution of 1000 households according to religion is presented in table 2.1. It is seen in this table that the slums of the three cities taken together have the predominance of Islam. A little less than one half (47%) of the total sample households belong to Islam. Hindus with 38.70% come next to the slum dwellers having faith in Islam. Christians with 14.10% happen to be in minority. However, taking the three cities individually only Calicut and Cochin seem to have the dominance of Islam as a religion. More than three-fourth (76.58%) of the slum dwellers in Calicut and a little less than half of them (46.11%) in Cochin belong to Islam. Trivandrum, however, is dominated by the Hindus as more than two third (69.23%) of the slum dwellers are Hindus. Whereas the cities of Calicut and Cochin have Hindus as the second largest group of slum communities, in Trivandrum, it is the Christianity as one-fourth of the sample slums belong to this religion. In Cochin though one-third of the total slum dwellers belong to Hinduism, it has substantial Christian population as well (20%).

#### Caste

2.2 As the slum improvement programme is disposed towards the improvement of slums having scheduled caste (SC) and



scheduled tribes (ST), an attempt was made to understand the caste composition of slum dwellers in terms of SC and ST only. In the three cities taken together, only a minuscule proportion (17%) of the total slum dwellers belong to SC (table 2.2). The STs are few in number as only 2.2% of the slum dwellers reported belonging to this caste. An overwhelming number (80.7%) of slum dwellers in the three cities belong to castes other than SC and ST. Amongst the three cities, however, Trivandrum has the concentration of SC to the extent of 52.7%. In other cities, the number of SC and ST is only nominal.

#### **Household Size**

2.3 The mean household size of the slum dwellers in the three cities is 5.8 (table 2.3). However, family size in the three cities individually is smaller than this. Thus, Calicut has an average family size of 5.7 members. This in Cochin is 6.1 and Trivandrum with a mean family size of 5.6 has the smallest slum households. Only Cochin has the largest average size of slum households amongst the three cities. Of all the three cities, Trivandrum appears to have a very large number of slum households (60%) having less than five members. Thus about 40% of the households in Trivandrum have more than five members. This in the case of Cochin is 49.2%. The households having more than 10 family members in Cochin is the highest (6.9%) amongst the three cities (table 2.3). This in the case of Calicut and Trivandrum is 4.5% and 3.8% respectively.

2.4 What is the household size of slum dwellers belonging to the different religions? The data on household size of slum

dwellers having faith in different types of religion is presented in table 2.4. A look at this table reveals that of all the three religions Christians as a religious group have the least number of households having more than five family members. In Calicut, there does not exist any household having more than 4 members. In Cochin, such households account for 40.28% of the total households and in Trivandrum 42.63. The family size among the Hindus and Muslims is found to be larger as the number of families having more than five members in Calicut, Cochin and Trivandrum amongst them is higher than that of Christians. 23.52% of Hindu families in Calicut, 41.81% in Cochin and 44.63% in Trivandrum have more than five family members. This in the case of Muslims is found to be the highest amongst the three religions. 55.32% of Muslim households in Calicut, 58.43% in Cochin and 61.53% in Trivandrum are found to have families having more than five members. Thus the household size amongst the Muslims is large. Hindus come next to them and the Christians have the smallest household size.

### Sex

2.5 There appears to be a great deal of variation in the sex ratio in the slums of the three cities. The number of females per 1000 males in the state of Kerala, in the urban areas of the state, in the three districts of Calicut, Cochin and Trivandrum and in the slums of the three districts is given in table 2.5. It shows that the number of females per 1000 males in the slums of Cochin (1066) is not only higher than that of the slums of Calicut (986) and Trivandrum (984) but is also higher

than that of the Kerala state (1032) as well. Thus the slums of Calicut and Trivandrum have lesser number of females than males.

2.6 This is obvious also from table 2.6. In Cochin, females constitute 51.6 per cent of the total slum population which is marginally higher than the proportion of females in the sample slums of Calicut and Trivandrum.

### Age

2.7 The distribution of slum dwellers in different age groups suggests that an overwhelming proportion of slum population belongs to economically active age-group (15 to 59 years). In all the three cities, about two-third of total population belong to this age-group (table 2.7). The proportion of population in the age-group of more than 59 years is very small. It is around 6% in all the three cities. The number of people up to 14 years of age is a little more than one-fourth of the total slum population in the three cities. Whereas in Cochin, about 29% of slum dwellers belong to the age-group of 0-14 years, in Calicut and Trivandrum, the number of children in this age-group constitutes 27.5% and 27.9% of the total slum population respectively.

2.8 Distribution of slum dwellers according to age-group and sex in the three cities together is presented in table 2.8. Because of the prevalence of larger number of females in the three cities, the females in the age-group 15-59 constitute 73.6% of the total female population as compared to 70.36% for the males.

### **Tenure Status**

2.9 The analysis of data on tenure types in the three cities reveals that a large proportion of the sample households are owners. As much as 76.10% of the households in the three cities taken together are owners (table 2.9). 20.70% are living in slums as tenants and the remaining 3.20% of the households did not offer any response to the question on the type of tenure system. Of all the three cities, Calicut has the highest number of owner households (91.84%). Trivandrum with 75.77% of owner slum households comes next to Calicut. The owner slum households in the city of Cochin is to the extent of 59.72%. As regards tenants, Cochin with 40.28% of slum households as tenants has the highest number of tenant households living in slums.

2.10 With a view to comprehend the tenurial system and to clarify the tenure types, an attempt was made during the Household Survey to ask the respondent households about the nature of tenancy and ownership. The data thus collected reveal the prevalence of multiple tenancy system though on a small scale. Of the total tenant households, hardly one-fourth (25.12%) are living under multiple tenancy system in the three cities taken together (table 2.10). 46 households (22.22%) happen to be the secondary tenants. In other words, they are living there in the shelters which have been let out again by the principal tenants. The extent of secondary tenancy is more conspicuous in Cochin where 10% of the tenant households are living as second tenant. In Calicut, the extent of second tenancy is almost negligible. In Trivandrum it is only 3.5%.

2.11 Table 2.10 also throws light on the extent of sale and purchase of properties in the slums of the three cities. Of the total owners, about three fourth (73.46%) are owners on the basis of first ownership. Another about 15% households in the three cities have purchased from the first purchaser. Amongst all the three cities, the sale and purchase of shelter in slums appear to be quite pronounced in Trivandrum and Cochin.

2.12 Table 2.9 has earlier revealed that 761 of the total sample households are owners. How many of them are owners due to outright purchase and how many of them are owners due to award of tenurial right (patta) by the government? The data on this are tabulated in table 2.11. It is seen in this table that a large number of households have acquired ownership right due to award of tenurial right. Such households form about 45% of the total owner households in the three cities taken together. The largest number of pattas are found to have been awarded in Calicut (62.89%). In Trivandrum, 55.77% of the owner households reported to have been awarded the pattas. Only in Cochin only 17.50% of the owner households reported to have been awarded pattas by the government.

### **Migration**

2.13 Low level of urbanisation in the state of Kerala is reflected in low level of migration as well. In the slums of the three cities taken together, the number of migrants is small (table 2.12). The migrants constitute only 12.7% of the total sample households in slums of Calicut, Cochin and Trivandrum.

Trivandrum being the state capital, has the highest proportion of migrants in its slums. This is to the extent of 22.3%. In Calicut, the migrant slum households constitute only 10.3% of the total households. Cochin has the least number of migrants (8.4%) despite its being a major port and also a trading centre.

2.14 Where from have these households migrated? The distribution of migrants according to places of migration is presented in table 2.13. It is seen from this table that only in Calicut, the people have migrated from states other than Kerala. A little more than one-fourth (25.6%) of the migrant families have migrated from other states. This is mainly due to a pronounced trade and commerce in spices in the city and also its being near to the state of Karnataka and to some extent even to part of Pondicherry and Tamil Nadu. Trivandrum and Cochin do not have any migrants from other states. Trivandrum has a maximum number of migrants (48.3%) from other districts of Kerala. In Cochin as well, 46.7% of the households have migrated from districts other than Cochin. Only Calicut has a maximum number of migrants (50%) from within the district of Calicut itself.

2.15 Analysis of migrants according to the duration of stay (table 2.14) suggests that a very high proportion of migrants in all the three cities migrated long ago. In Cochin, 83.3% of the migrants have been staying in the city for more than 15 years. Migration in relatively recent years (less than five years), is small (table 2.14).

Reasons for Migration :

2.16 The analysis of migrants according to the reason for migration in the three cities reveals that a very large number of them have migrated to the three cities in search of economic opportunities. The proportion of such migrants in the three cities taken together comes to 42.5% (table 2.15). If landlessness is included as a reason for migration in search of better economic opportunities, as much as 60.6% of the migrants have been compelled to migrate because of economic reasons. Migration due to marriage constitutes the second very important reason for the demographic shift. Almost the same trend is visible in the three cities individually as well. Economic reasons (in search of employment and landlessness) account for the migration of a very substantial proportion of migrant households in the three cities individually. Other reasons for migration, besides marriage, include breaking up of joint family, better business prospects etc.

Intra-City Migration :

2.17 An attempt was made to understand the mobility of slum dwellers from one place to another within the same city in search of dwelling place. Table 2.16 reveals that an overwhelming proportion of slum households in the three cities taken together happens to live in the same slum cluster. This comes to about 55% of the total sample households. Amongst the three cities, in Cochin and Trivandrum, a large number of slum households are found to have migrated to the present slum cluster from within the city. The proportion of such households in Cochin is 54.4%

and in Trivandrum 45.4%. Only in Calicut, only about one-third of the slum households are found to have migrated from other localities of the city itself.

2.18 Why have they shifted to the present locations? The reasons for this are tabulated in table 2.17. It is seen in this table that 53.6% of the households in the three cities have shifted to the present slum clusters due to lack of land of their own to put up a shelter. Another 11.4% have settled down due to proximity to the work centre. About 8% of the households said that they moved to the present location due to break-up of joint family. If this is included in landlessness as the reason for moving to the present slum clusters, about 62% of the households have moved due to lack of land.

2.19 In the three cities individually also the reasons for moving to the present locations conform to the reasons for doing so in the three cities taken together. In Cochin, more than two-third of the households who moved from other locations are found to have been compelled by the lack of land. In Calicut and Trivandrum, it explains the movement of only about one-third of households. Willingness to live near the work place seems to have motivated about 21% of the households in shifting to the present slum clusters in Calicut.

### **Education**

2.20 A very high level of literacy in the state of Kerala as compared to other states of Indian Union is reflected in the slums of the three cities as well. The percentage of literates



in the three cities taken together comes to 80.3 which is a very high level of literacy amongst the slum dwellers (table 2.18). Amongst the three cities, the slums of Cochin have the highest level of literacy which is to the extent of 80.7%. In Calicut, the level of literacy is almost equivalent to the average for the three cities. The slums in Trivandrum have a literacy to the extent of 79.8% which is lower than the average for the three cities.

2.21 What is the level of educational attainment of the slum dwellers? A look at table 2.18 reveals that more than one-third of the slum population in the three cities taken together (34.9%) have attained education up to primary school level. A little more than one-fifth (22.4%) are found to have received education upto 8th standard and 13.9% are matriculates. Only 14% of the slum dwellers in the three cities taken together are found as only literates who can just read and write. Amongst the three cities, Cochin has the largest proportion of slum population (41.4%) having education upto primary school level as compared to Calicut (38.9%) and Trivandrum (18.7%). However, it is in Trivandrum where a little less than one-third of the slum population (31%) have education upto matriculation. Cochin with 22.9% is next to it. It is interesting to note that there are graduates as well in the slums. The sample slums in the cities of Cochin and Trivandrum have 9 graduates each and in Calicut, the number of graduates is found to be 3. The sample slums in Calicut have even the post-graduates amongst the slum dwellers!

2.22        Though the level of literacy amongst the slum dwellers is very high, the number of children actually going to schools constitutes a small proportion of the total number of children in the school going age group (5 to 14 years). This is obvious from table 2.19. On an average, only about 42% of the children in the age-group 5-14 years are found going to school in the three cities taken together. Barring Trivandrum, where more than 72% of the children are going to school in this age-group, in Calicut and Cochin only about one-third of the children are found going to school.

Table 2.1  
Distribution of Households according to Religion  
in the Three Cities

City	Religions				Total
	Christianity	Hinduism	Islam	Others	
<u>Calicut</u>					
No.	4	85	291	-	380
%	1.05	22.37	76.58	-	100.00
<u>Cochin</u>					
No.	72	122	166	-	360
%	20.00	33.89	46.11	-	100.00
<u>Trivandrum</u>					
No.	65	180	13	2	260
%	25.00	69.23	5.00	0.77	100.00
<u>Total</u>					
No.	141	387	470	2	1000
%	14.10	38.70	47.00	0.20	100.00

Source : NIUA, Household Survey , 1990

Table 2.2  
Distribution of Households According to Caste

City	Caste			Total
	Scheduled caste	Scheduled tribe	Other	
<u>Calicut</u>				
No.	25	9	346	380
%	6.6	2.4	91.0	100.0
<u>Cochin</u>				
No.	9	4	347	360
%	2.5	1.1	96.4	100.0
<u>Trivandrum</u>				
No.	137	9	114	260
%	52.7	3.5	43.8	100.0
<u>Total</u>				
No.	171	22	807	1000
%	17.1	2.2	80.7	100.0

Source : NIUA, Household Survey, 1990.

Table 2.3

Distribution of Households according to Size

City	Size group of households (Number of members)											Total	Average size of family
	1	2	3	4	5	6	7	8	9	10	11+		
Calicut	2 (0.5)	23 (6.1)	45 (11.8)	55 (14.5)	74 (19.5)	57 (15.0)	44 (11.6)	30 (7.9)	22 (5.8)	11 (2.9)	17 (4.5)	380 (100.0)	5.7
Cochin	1 (0.3)	13 (3.6)	30 (8.3)	54 (15.0)	85 (23.6)	63 (17.6)	35 (9.7)	25 (6.9)	19 (5.3)	10 (2.8)	25 (7.0)	360 (100.0)	6.1
Trivandrum	0 (0.0)	6 (2.3)	32 (12.3)	51 (19.6)	67 (25.8)	40 (15.4)	24 (9.2)	10 (3.8)	8 (3.1)	12 (4.6)	10 (3.9)	260 (100.0)	5.6
Total	3 (0.3)	42 (4.2)	107 (10.7)	160 (16.0)	226 (22.6)	160 (16.0)	103 (10.3)	65 (6.5)	49 (4.9)	33 (3.3)	52 (5.2)	1000 (100.0)	5.8

Note : Figures in parentheses indicate percentage to the total.

Source : NIUA, Household Survey, 1990.

Table 2.4

Household Size by Religion in the Three Cities

City/Religion	Size group of households											Total
	1	2	3	4	5	6	7	8	9	10	11+	
<u>Calicut</u>												
Christianity	-	-	3 (75.00)	1 (25.00)	-	-	-	-	-	-	-	4 (100.00)
Hinduism	-	5 (5.88)	16 (18.82)	17 (20.00)	27 (31.76)	11 (12.94)	3 (3.53)	2 (2.35)	2 (2.35)	2 (2.35)	-	85 (100.00)
Islam	2 (0.69)	18 (6.19)	26 (8.93)	37 (12.71)	47 (16.15)	46 (15.81)	41 (14.09)	28 (9.62)	20 (6.87)	9 (3.09)	17 (5.84)	291 (100.00)
Others	-	-	-	-	-	-	-	-	-	-	-	0
Total	2 (0.53)	23 (6.05)	45 (11.84)	55 (14.47)	74 (19.47)	57 (15.00)	44 (11.58)	30 (7.89)	22 (5.79)	11 (2.89)	17 (4.47)	380 (100.00)
<u>Cochin</u>												
Christianity	1 (1.39)	4 (5.56)	7 (9.72)	14 (19.44)	17 (23.61)	14 (19.44)	8 (11.11)	4 (5.56)	-	1 (1.39)	2 (2.78)	72 (100.00)
Hinduism	-	4 (3.28)	13 (10.66)	23 (18.85)	31 (25.41)	16 (13.11)	12 (9.84)	7 (5.74)	6 (4.92)	3 (2.46)	7 (5.74)	122 (100.00)
Islam	-	5 (3.01)	10 (6.02)	17 (10.24)	37 (22.29)	33 (19.88)	15 (9.04)	14 (8.43)	13 (7.83)	6 (3.61)	16 (9.64)	166 (100.00)
Others	-	-	-	-	-	-	-	-	-	-	-	-
Total	1 (0.28)	13 (3.61)	30 (8.33)	54 (15.00)	85 (23.61)	63 (17.5)	35 (9.72)	25 (6.94)	19 (5.28)	10 (2.78)	25 (6.94)	360 (100.00)
<u>Trivandrum</u>												
Christianity	-	2 (3.08)	12 (18.46)	8 (12.31)	14 (21.54)	14 (21.54)	3 (4.62)	3 (4.62)	3 (4.62)	4 (61.5)	2 (3.08)	65 (100.00)
Hinduism	-	4 (2.22)	20 (11.11)	39 (21.67)	51 (28.33)	24 (13.33)	17 (9.44)	6 (3.33)	4 (2.22)	7 (3.89)	8 (4.44)	180 (100.00)
Islam	-	-	-	3 (23.08)	2 (15.38)	2 (15.38)	4 (30.77)	1 (7.69)	-	1 (7.69)	-	13 (100.00)
Others	-	-	-	1 (50.00)	-	-	-	-	1 (50.00)	-	-	2 (100.00)
Total	-	6 (2.31)	32 (12.31)	51 (19.62)	67 (25.77)	40 (15.38)	24 (9.23)	10 (3.85)	8 (3.08)	12 (4.62)	10 (3.85)	260 (100.00)

Source : NIUA, Household Survey, 1990.

Note : Figures in parentheses indicate the percentage to the total.

Table 2.5

No. of Females Per 1000 Males in Kerala, the three Districts  
of Calicut, Cochin and Trivandrum

State/District	Number of		
	Male	Female	Female per 1000 males
Kerala state	12527767	12925913	1032
Kerala urban	2360350	2410925	1021
<u>Calicut district</u>			
Total	1111409	1133856	1020
Calicut urban	303874	306358	1008
Calicut city (slum areas)	1093	1078	986
<u>Cochin District</u>			
Total	1269174	1266120	998
Cochin urban	503147	499745	993
Cochin city (slum areas)	1065	1136	1066
<u>Trivandrum District</u>			
Total	1279150	1316962	1030
Trivandrum urban	324985	330776	1018
Trivandrum city (slum areas)	732	720	984

Source: (i) Census of India.  
(ii) NIUA, Household Survey, 1990.

Table 2.6  
Distribution of Slum Dwellers according to  
Sex in the three Cities

City	Male	Female	Total
Calicut	1093 (50.3)	1079 (49.7)	2172 (100.0)
Cochin	1066 (48.4)	1135 (51.6)	2201 (100.0)
Trivandrum	732 (50.3)	722 (49.7)	1454 (100.0)
Total	2891 (49.6)	2936 (50.4)	5827 (100.0)

Note : Figures in parenthesis indicate percentage to the total.  
Source: NIUA, Household Survey, 1990.



Table 2.7  
Distribution of Slum Population by Age in the three Cities

City	Age									Total
	0-4	5-9	10-14	15-24	25-34	35-44	45-54	55-59	60+	
Calicut	95 (4.4)	232 (10.7)	269 (12.4)	572 (26.3)	378 (17.4)	272 (12.5)	169 (7.8)	53 (2.4)	132 (6.1)	2172 (100.0)
Cochin	190 (8.6)	207 (9.4)	234 (10.6)	582 (26.4)	378 (17.2)	251 (11.4)	167 (7.6)	71 (3.2)	121 (5.5)	2201 (100.0)
Trivandrum	146 (10.0)	116 (8.0)	144 (9.9)	371 (25.5)	252 (17.3)	170 (11.7)	121 (8.3)	50 (3.4)	84 (5.8)	1454 (100.0)
Total	431 (7.4)	555 (9.5)	647 (11.1)	1525 (26.2)	1008 (17.3)	693 (11.9)	457 (7.8)	174 (3.0)	337 (5.8)	5827 (100.0)

Note : Figures in parentheses indicate percentage to the total.  
Source: NIUA, Household Survey, 1990.

Table 2.8  
Distribution of Slum Dwellers according to Age and Sex

Age groups	Sex				Total	%
	Male	%	Female	%		
0-4	224	52.0	207	48.0	431	7.4
5-9	285	51.4	270	48.6	555	9.5
10-14	348	53.8	299	46.2	647	11.1
15-24	708	46.4	817	53.6	1525	26.2
25-34	517	51.3	491	48.7	1008	17.3
35-44	348	50.2	345	49.8	693	11.9
45-54	205	44.9	252	55.1	457	7.8
55-59	90	51.7	84	48.3	174	3.0
60+	166	49.3	171	50.7	337	5.8
Total	2891		2936		5827	

Source : NIUA, Household Survey, 1990.

Table 2.9  
Distribution of Households according to Tenure Status

City	Tenure status							
	Tenant		Owner		No response		Total	
	No.	%	No.	%	No.	%	No.	%
Calicut	27	7.11	349	91.84	4	1.05	380	100.0
Cochin	145	40.28	215	59.72	-	-	360	100.0
Trivandrum	35	13.46	197	75.77	28	10.77	260	100.0
Total	207	20.70	761	76.10	32	3.20	1000	100.0

Source : NIUA, Household Survey, 1990.

Table 2.10

Distribution of Tenants according to Status of Tenancy

City	Tenancy				Ownership				No res- ponse	Total
	Ist	IInd	Any other	Total	Ist	IInd	Any other	Total		
Calicut	25 (6.6)	1 (0.3)	1 (0.3)	27 (7.1)	316 (83.2)	31 (8.2)	2 (0.5)	349 (91.8)	4 (1.1)	380 (100.0)
Cochin	104 (28.9)	36 (10.0)	5 (1.4)	145 (40.3)	94 (26.1)	39 (10.8)	82 (22.8)	215 (59.7)	-	360 (100.0)
Trivandrum	26 (10.0)	9 (3.5)	-	35 (13.5)	149 (57.3)	44 (16.9)	4 (1.5)	197 (75.8)	28 (10.8)	260 (100.)
Total	155	46	6	207	559	114	88	761	32	1000

Note : Figures in parentheses indicate percentage to the total.

Source : NIUA, Household Survey, 1990.

Table 2.11  
Distribution of Households according to Award of  
Pattas and Purchase

City	Families awarded pattas		Purchased		Others		Total	
	No.	%	No.	%	No.	%	No.	%
Calicut	239	62.89	110	28.95	31	8.16	380	100.0
Cochin	63	17.50	152	42.22	145	40.28	360	100.0
Trivandrum	145	55.77	52	20.00	63	24.23	260	100.0
Total	447	44.70	314	31.40	239	23.90	1000	100.0

Source: NIUA, Household Survey, 1990.

Table 2.12  
Distribution of Households according  
to Domicile Status

City	Domicile status					
	Migrants		Non-migrants		Total	
	No.	%	No.	%	No.	%
Calicut	39	10.3	341	89.7	380	100.00
Cochin	30	8.4	330	91.6	360	100.00
Trivandrum	58	22.3	202	77.7	260	100.00
Total	127	12.7	873	87.3	1000	100.00

Source: NIUA, Household Survey, 1990.

Table 2.13  
Distribution of Migrants according to  
Place of Migration

Place of Migration	Calicut		Cochin		Trivandrum	
	No.	%	No.	%	No.	%
From within the state	6	15.4	14	46.7	28	48.3
From within the same district	23	59.0	15	50.0	22	37.9
From other states	10	25.6	1	3.3	8	13.8
Total number of migrants	39	100.0	30	100.0	58	100.0
Non migrants	341	-	330	-	202	-
Total	380	-	360	-	260	-

Source: NIUA, Household Survey, 1990.

Table 2.14  
Distribution of Migrants according to  
Duration of Stay in the City

Duration of stay in the city (years)	City					
	Calicut		Cochin		Trivandrum	
	No.	%	No.	%	No.	%
< 5	4	10.3	1	3.3	4	6.9
6-10	3	7.7	2	6.7	-	-
11-15	4	10.3	2	6.7	9	15.5
16+	28	71.8	25	83.3	45	77.6
Total	39	100.0	30	100.0	58	100.0
Non-migrants	341	-	330	-	202	-
Total	380	-	360	-	260	-

Source : NIUA, Household Survey, 1990.



Table 2.15

Distribution of Migrants according to  
Reasons for Migration

Reasons for Migration	City						Total	
	Calicut		Cochin		Trivandrum			
	No.	%	No.	%	No.	%	No.	%
Employment	14	35.8	11	36.7	29	50.0	54	42.5
Landlessness	3	7.7	11	36.7	9	15.5	23	18.1
Family debt	-	-	3	10.0	-	-	3	2.4
Official transfer	-	-	-	-	1	1.7	1	0.8
Social discrimination	3	7.7	-	-	-	-	3	2.4
Break up of joint family	4	10.3	2	6.7	1	1.7	7	5.5
Religious, communal, political or legal disputes	2	5.1	-	-	-	-	2	1.6
Education	-	-	-	-	-	-	-	-
Marriage	11	28.2	3	10.0	13	22.4	27	21.3'
To accompany family	-	-	-	-	3	5.2	3	2.4
Better business prospects	2	5.2	-	-	2	3.4	4	3.1
Natural disaster	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-
Total	39	100.0	30	100.0	58	100.0	127	100.0
Non-migrants	341	-	330	-	202	-		
Total	380	-	360	-	260	-		

Source: NIUA, Household Surcey, 1990.

Table 2.16

Distribution of Households according to  
Duration of Stay in the Slum Cluster

Duration of stay (years)	City						Total
	Calicut		Cochin		Trivandrum		
	No.	%	No.	%	No.	%	
< 5	57	41.6	53	27.0	21	17.8	131
6-10	33	24.1	33	16.8	11	9.3	77
11-15	21	15.3	40	20.4	16	13.6	77
16+	26	19.0	70	35.7	70	59.3	166
Total	137	100.0	196	100.0	118	100.0	451
Total who did not move	243	-	164	-	142	-	549
Grand total	380	-	360	-	260	-	1000

Source: NIUA, Household Survey, 1990.

Table 2.17

Distribution of Households according to  
Reasons for Moving to the Cities

Reasons for migration	City							
	Calicut		Cochin		Trivandrum		Total	
	No.	%	No.	%	No.	%	No.	%
Employment	24	21.4	15	7.7	9	7.9	48	11.4
Landlessness	37	33.0	149	76.4	40	35.1	226	53.6
Family debt	5	4.5	6	3.1	1	0.9	12	2.8
Official transfer	9	8.9	-	-	-	-	9	2.4
Social discrimination	1	0.9	1	0.5	2	1.8	4	0.9
Break of joint family	14	12.5	12	6.2	8	7.0	34	8.1
Religious, communal political or legal disputes	-	-	1	0.5	4	3.5	5	1.2
Education	-	-	1	0.5	-	-	1	0.2
Marriage	1	0.9	3	1.5	11	9.6	15	3.8
To accompany family	3	2.7	0	-	5	4.4	8	1.9
Better business prospects	2	1.8	5	2.6	3	2.6	10	2.1
Natural disaster	2	1.8	3	1.5	3	2.6	8	1.9
Others	13	11.6	-	-	28	24.6	41	9.7
<b>Total</b>	<b>111</b>	<b>100.0</b>	<b>196</b>	<b>100.0</b>	<b>114</b>	<b>100.0</b>	<b>421</b>	<b>100.0</b>
Non-migrants	245	-	164	-	144	-	553	-
No response	24	-	-	-	2	-	26	-
<b>Total</b>	<b>380</b>	<b>-</b>	<b>360</b>	<b>-</b>	<b>260</b>	<b>-</b>	<b>1000</b>	<b>-</b>

Source : NIUA, Household Survey, 1990.

Table 2.18

Distribution of Slum Dwellers according to Education

City	Educational Attainment											Total	No. of literates (1-7)	Total population	% literacy
	0	1	2	3	4	5	6	7	NR	NA					
Calicut	329 (15.9)	435 (21.0)	804 (38.9)	343 (16.6)	144 (7.0)	6 (0.3)	3 (0.1)	5 (0.2)	-	103	2069 (100.0)	1740	2169	80.2	
Cochin	261 (12.8)	217 (10.6)	845 (41.4)	468 (22.9)	226 (11.1)	9 (0.4)	-	14 (0.7)	1	160	2040 (100.0)	1777	2201	80.7	
Trivandrum	157 (11.9)	107 (8.1)	248 (18.8)	408 (31.0)	385 (29.2)	9 (0.7)	1 (0.1)	3 (0.2)	3	133	1318 (100.0)	1160	1454	79.8	
Total	747 (13.8)	759 (14.0)	1897 (35.9)	1219 (22.4)	755 (13.9)	24 (0.4)	4 (0.1)	22 (0.5)	4	396	5427 (100.0)	4677	5824	80.3	

0 - Illiterate  
 1 - Literate  
 2 - Primary  
 3 - 6-8 standards  
 4 - Matriculation/Higher secondary  
 5 - Graduate  
 6 - Post-graduate  
 7 - Others  
 NR - No response  
 NA - Not applicable (infants not belonging to school going age).  
 Note: Figures in brackets indicate percentage to the total.  
 Source: NIUA, Household Survey, 1990.

Table 2.19

Number of Children in the Age-Group  
5-14 actually going to School

City	School going age (5-14 yrs)	No. of children actually going to school	
		No.	%
Calicut	501	171	34.13
Cochin	441	142	32.20
Trivandrum	260	188	72.31
Total	1202	501	41.68

Source: NIUA, Household Survey, 1990.

## CHAPTER III

### SHELTER PROFILE

#### Area Occupied

3.1 In the three cities taken together, on an average, more than 50% of the households are occupying less than 25 sq mts of land. About 15% of the sample households occupy more than 152 sq mts of land area (table 3.1). Another 12.3% of the households occupy an area of 25 to 40 sq mts. The remaining about 21% of the households are occupying land areas varying from 41 sq mts to 151 sq mts. A very large number of slum households in Trivandrum seems to be occupying very large area of land. As many as half the sample households in Trivandrum are occupying more than 152 sq mts of land. As many as 89% of the total households are living in an area of more than 56 sq mts of land.

3.2 The situation seems to be acute in Calicut. Table 3.1 reveals that 95.3% of the slum households are living in less than 25 sq mts of land area. In Cochin also a little more than two fifth (41.1%) of the households are occupying less than 25 sq mts of land. One-fourth of households (25.3%) are occupying 25 to 40 sq mts of land. Another 7.5% are living in a land area of 41 to 56 sq mts. The remaining 26% of the households are occupying more than 56 sq mts of land. 5% of the total sample households in Cochin are found to be living in more than 152 sq mts of land.

### Structural Condition

3.3 An attempt was made to know the type of structures of the dwelling units occupied by the slum households. Information was therefore collected in terms of pucca, semi-pucca and katcha structures. A structure, for the purpose of this study, has been treated as pucca if the walls and roofs are pucca. If either of the two is pucca, the structure is treated as semi-pucca and the dwelling units having walls and roof as katcha are treated as katcha structures. The structural condition of dwelling units is presented in table 3.2. A look at this table reveals that a very large proportion (57%) of the total dwelling units are either pucca or semi-pucca. The remaining 43% of the dwelling units are Katcha. However, amongst the three cities, in Trivandrum only 3% of dwelling units are pucca. Semi-pucca structures constitute 58.8% of the total dwelling units. 38.1% of the dwelling units are katcha. In both Calicut and Cochin, about 17% of the dwelling units are pucca. Whereas in Calicut semi-pucca structures constitutes 39.5% of the total dwelling units, in Cochin, 36.7% of the structures are found to be semi-pucca. Katcha structures in Calicut and Cochin constitute 43.2% and 46.4% of the total dwelling units respectively.

3.4 Do the area occupied and the type of structure have any relationship between them? Are the dwelling units located on large areas structurally better off than those on smaller areas of land? A look at table 3.3 indicates some relationship between the two. Though out of 148 dwelling units which have more than 152 sq mts of land, only 9.5% belong to pucca category.

However, pucca and semi-pucca structures taken together constitute as much as 73% of the total dwelling units in this category. In the lower category, that is dwelling units occupying less than 25 sq mts, about 50% of the structures are katcha, 35.3% semi-pucca and only 15.4% pucca. There is observed some relationship between the area occupied and semi-pucca structures in the three cities. Thus in the three cities taken together, the proportion of the semi-pucca structures is found increasing along with the increase in the area occupied. Thus, larger the land area occupied by the dwelling units, better is the type of structure.

Type of Structure by Use :

3.5 Is there any relationship between the use of structures and structural quality? Table 3.4 shows that the proportion of katcha structures in the houses or hutments used for non-residential purposes is relatively smaller. Such structures, by and large, are of semi-pucca type. 47.6% of the residential cum commercial and 83.3% of residential cum industrial units are of semi-pucca type.

Type of Structure by Ownership :

3.6 It is hypothesised that the pattern of ownership determines the type of structure. A household will perhaps bring about improvement in the structural conditions of the dwelling units if the land belongs to him. The structural conditions of dwelling units according to the type of ownership is presented in table 3.5. It does not show any relationship between the ownership of land and the type of structures. Out of 761



dwelling units reported as owned by the sample households, about 56% belong to the pucca and semi-pucca categories. As regards the 207 tenanted dwelling units which must also be owned by someone, about 62% of them are either pucca or semi-pucca.

3.7 It could also be hypothesised that longer the period of duration of the household in the particular place, better would be the structural condition of the dwelling units. However, a look at table 3.5 does not establish any relationship between the two. In all the categories of periods of duration, around 50% of the total dwelling units are found to be of semi-pucca type except the duration category of 15-19 years and less than one year. Thus irrespective of the period of duration, the structural condition of a very large number of dwelling units are found to be pucca and semi-pucca.

#### Use of Dwelling Units

3.8 The dwelling units in the slums of the three cities are substantially used for residential purposes. A little more than 94% of the dwelling units are actually used for residential purpose (table 3.7). A little more than 4% are used for residential and commercial purposes and 1.2% of the dwelling units are used for residential and industrial purposes. Non-residential use seems to be in vogue only in the slums of Trivandrum where 12.7% of dwelling units are used for both residential and commercial purposes and a little more than 4% for residential and industrial uses. In Calicut and Cochin, more than 98% of the dwelling units are put to residential use.

### Shelter Improvement

3.9 An attempt was made to understand the extent of improvement in housing conditions. The respondents were therefore asked to indicate if they have brought about improvement in their housing conditions since they started living in the present dwelling unit. The findings are tabulated in table 3.8. It is seen in this table that around one-third of the sample households have improved their dwelling units in the three cities.

3.10 Maximum number of improvements is seen in the slums of Trivandrum where about 63% of the total sample households have improved their shelter. In Cochin, a little over one-third (34.2%) of the households have improved thier houses. Only in Calicut, the improvement process is found slow as only about 14% of the slum households reported to have brought about improvement in thier shelter.

3.11 The analysis in table 3.8 is based on improvement brought about by the households since they started living in the present dwelling units. With a view to know the scale of improvement brought about recently, the improved dwelling units are tabulated in table 3.9 according to the year of improvement. It is seen from this table that about 57% of the total improved dwelling units in the three cities were improved in the last four years. Another 14.2% were improved in the last 5 to 9 years. In the three cities individually as well, quite a large number of sample households are found to have brought about improvement in their dwelling units in recent years. In Calicut, about 47% of

the improvements were carried on in the last five years. The percentage of such houses in Cochin is 51.2 and in Trivandrum even higher, that is 65%. It thus indicates that the slum dwellers are constantly trying to bring about improvement in their structures. This explains the prevalence of a very large proportion of dwelling units in the three cities belonging to semi-pucca and pucca types.

3.12 This is further corroborated by table 3.10. It is seen in this table that the improvements have been brought about to a very large extent in the katcha and semi-pucca structures. As much as 67.2% of the katcha and 56.5% of semi-pucca structures have been improved upon in the three cities in the last four years. As compared to this, improvements have been brought about in the last four years only in 35.8% of the pucca structures.

#### **Nature of Improvement**

3.13 The nature of improvement brought about in the dwelling unity is tabulated in table 3.11. A look at this table reveals a varied type of improvements carried out in the dwelling units. But three types of improvements are found quite conspicuous. Improvement of either the roof or wall or floor forms the first type of modification which is found to have been brought about in the largest proportion (38.5%) of improved houses in the three cities. Another 26.6% of the improved dwelling units have been reconstructed from katcha to semi-pucca or from semi-pucca to pucca. In another about 27% of the improved properties, improvement has been confined to repairs involving rethatching, white wash and other minor maintenances.

3.14 Amongst the three cities, it is in Cochin where the largest proportion of improved houses (41.6%) have undergone complete reconstruction from katcha to semi-pucca and from semi-pucca to pucca. Another 30.4% of the improved houses involve only repairs and maintenance by way of rethatching and white wash. Yet another 20% of the improved houses have undergone improvement and modification of either the floor, wall or the roof. In Calicut, the largest proportion of improved houses (42.9%) have involved only repairs and maintenance. Improvement of only the wall or roof or floor has been carried out in about one-third of the improved dwelling units. This has been carried out in about 55% of the improved dwelling units in Trivandrum. Thus barring the slums of Cochin, reconstruction from katcha to pucca and semi-pucca and from semi-pucca to pucca is found relatively less in number.

3.15 Who are the people who have brought about improvement and modification in their dwelling units? Do they have better income levels? The type of improvement according to the area occupied is tabulated in table 3.12. Area occupied has been taken here as a proxy for income. It is seen from this table that there does not exist any relationship between the two. Reconstruction is prevalent in all the size categories of dwelling units presently occupied by the slum dwellers. So is the case with other types of improvements.

3.16 The type of improvement undertaken by the households belonging to different income group is presented in table 3.13. This table also does not show any relationship between income and

the nature of improvement. The largest number of reconstruction from katcha to other types is found to have occurred in the income groups of Rs 201 to Rs 1000. Improvement of any one of the wall, roof and floor is found to have been done by a large number of households having an income of Rs 201 to Rs 1400. It thus suggests that income and the area occupied is not at all instrumental in impelling the households to go for improvement. It is the sheer necessity to live in a wholesome shelter that motivates the slum dwellers to bring about improvement in their dwelling units.

#### **Funding of Improvement**

3.17 The respondents were asked to indicate the sources from which they raised funds for bringing about improvements in their houses. The responses given by them is tabulated in table 3.14. A look at the table indicates that more than three-fourth of the households who improved their shelter have financed it themselves. Out of the remaining one-fourth households, about 12% of them financed the improvement with government assistance and another about 12% raised funds from other sources which include assistance from friends and relatives. Self-help in shelter improvement is thus found to be a dominant feature in the three cities together. This is found to be dominant in every aspect of shelter improvement whether it is reconstruction, improvement of either the wall, roof or floor or addition of room and repairs and maintenance.

Table 3.1

Area Occupied by Dwelling Units

Area in sq mts.	Calicut		Cochin		Trivandrum		Total	
	No.	%	No.	%	No.	%	No.	%
< 25	362	95.3	148	41.1	9	3.5	519	51.9
26 - 40	15	3.9	91	25.3	17	6.5	123	12.3
41 - 56	-	-	27	7.5	2	0.8	29	2.9
57 - 72	1	0.3	25	6.9	13	5.0	39	3.9
73 - 88	1	0.3	24	6.7	32	12.3	57	5.7
89 - 104	-	-	9	2.5	12	4.6	21	2.1
105 - 120	-	-	1	0.3	3	1.2	4	0.4
121 - 136	-	-	14	3.9	30	11.5	44	4.4
137 - 151	1	0.3	3	0.8	12	4.6	16	1.6
152 +	-	-	18	5.0	130	50.0	148	14.8
Total	380	100.00	360	100.00	260	100.00	1000	100.0

Source: NIUA, Household Survey, 1990.

Table 3.2

Type of Structure of Dwelling Units

Type of dwelling units	Calicut		Cochin		Trivandrum		Total	
	NO.	%	No.	%	No.	%	No.	%
Pucca	66	17.4	61	16.9	8	3.1	135	13.5
Semi Pucca	150	39.5	132	36.7	153	58.8	435	43.5
Katcha	164	43.2	167	46.4	99	38.1	430	43.0
Total	380	100.0	360	100.0	260	100.0	1000	100.0

Source: NIUA, Household Survey, 1990.

Table 3.3

Distribution of Dwelling Units according to  
Area Occupied and Type of Structure

Area occupied sq mts.	Pucca		Semi Pucca		Kutcha		Total	
	No.	%	No.	%	No.	%	No.	%
< 25	80	15.4	183	35.3	256	49.3	519	100.00
26-40	19	15.4	60	48.8	44	35.8	123	100.00
41-56	1	3.4	14	48.3	14	48.3	29	100.00
57-72	4	10.3	20	51.3	15	38.5	39	100.00
73-88	8	14.0	25	43.9	24	42.1	57	100.00
89-104	2	9.5	10	47.6	9	42.9	21	100.00
105-120	1	25.0	-	-	3	75.0	4	100.00
121-136	5	11.4	18	40.9	21	47.7	44	100.00
137-151	1	6.3	11	68.8	4	25.0	16	100.00
152+	14	9.5	94	63.5	40	27.0	148	100.00
Total	135	13.5	435	43.5	430	43.0	1000	100.00

Source: NIUA, Household Survey, 1990.



Table 3.4

Type of Structure by Use

Use	Pucca		Semi pucca		Kutchha		Total	
	No.	%	No.	%	No.	%	No.	%
Residential	130	13.8	403	42.7	410	43.5	943	100.00
							(94.3)	
Residential cum Commercial	5	11.9	20	47.6	17	40.5	42	100.00
							(4.2)	
Residential cum Industrial	-	-	10	83.3	2	16.7	12	100.00
							(1.2)	
Others	-	-	2	66.7	1	33.3	3	100.00
							(0.3)	
Total	135	13.5	435	43.5	430	43.0	1000	100.00

Source: NIUA, Household Survey, 1990.

Table 3.5

Type of Structure according to Ownership

Type of ownership	Structure Households							
	Pucca		Semi Pucca		Kutchha		Total	
	No.	%	No.	%	No.	%	No.	%
Tenant (1-3)	40	19.3	88	42.5	79	38.2	207 (20.7)	100.00
Owner (4-6)	94	12.4	331	43.5	336	44.2	761 (76.7)	100.00
No Response	1	3.1	16	50.0	15	46.9	32 (3.2)	100.00
<b>Total</b>	<b>135</b>	<b>13.5</b>	<b>435</b>	<b>43.5</b>	<b>430</b>	<b>43.0</b>	<b>1000</b>	<b>100.00</b>

Source: NIUA, Household Survey, 1990.

Table 3.6

Distribution of Households according to  
Duration of Stay and Type of Structure

Duration of stay (years)	Type of Structure							
	Pucca		Semi pucca		Kutchha		Total	
	No.	%	No.	%	No.	%	No.	%
< 1	-	-	1	100.00	-	-	1	100.00
2-4	1	16.7	3	50.0	2	33.3	6	100.00
5-9	1	25.0	2	50.0	1	25.0	4	100.00
10-14	2	15.4	7	53.8	4	30.8	13	100.00
15-19	1	10.0	2	20.0	7	70.0	10	100.00
20+	13	14.3	46	50.5	32	35.2	91	100.00
Total	18	14.4	61	48.8	46	36.8	125	100.00
No response	-		-		2		2	
Not applicable	117		374		382		873	
Grand total	135		435		430		1000	

Source: NIUA, Household Survey, 1990.

Table 3.7

Distribution of Dwelling Units according to Use

Use	Calicut		Cochin		Trivandrum		Total	
	No.	%	No.	%	No.	%	No.	%
Residential	373	98.2	354	98.3	216	83.1	943	94.3
Residential cum Commercial	5	1.3	4	1.1	33	12.7	42	4.2
Residential cum Industrial	1	0.3	-	-	11	4.2	12	1.2
Others	1	0.3	2	0.6	-	-	3	0.3
Total	380	100.00	360	100.00	260	100.00	1000	100.00
%	38.0		36.0		26.0		100.00	

Source: NIUA, Household Survey, 1990.

Table 3.8

No. of Dwelling Units Improved

Type	Calicut		Cochin		Trivandrum		Total	
	No.	%	No.	%	No.	%	No.	%
Improved	52	13.7	123	34.2	163	62.7	338	33.8
Not improved	328	86.3	237	65.8	97	37.3	662	66.2
Total	380	100.00	360	100.00	260	100.00	1000	100.00
	38.00		36.00		26.00		100.00	

Source: NIUA, Household Survey, 1990.

Table 3.9

No. of Dwelling Units Improved with  
Year of Improvement

Year of improvement	Calicut		Cochin		Trivandrum		Total	
	No.	%	No.	%	No.	%	No.	%
< 1	2	3.6	14	10.7	6	3.6	22	6.3
2-4	24	43.6	53	40.5	102	61.4	179	50.9
5-9	15	27.3	17	13.0	18	10.8	50	14.2
10-14	4	7.3	17	13.0	20	12.0	41	11.6
15-19	3	5.5	9	6.9	9	5.4	21	6.0
20+	7	12.7	21	16.0	11	6.6	39	11.1
Total	55	100.00	131	100.00	166	47.2	352	100.00
	15.6		37.2		47.2		100.00	
Not applicable	325		229		94		648	

Source: NIUA, Household Survey, 1990.

Table 3.10

No. of Improved Dwelling Units according to Type of Structure

No. of dwelling units improved (years)	Type of structure							
	Pucca		Semi pucca		Kutchha		Total	
	No.	%	No.	%	No.	%	No.	%
< 1	4	7.5	9	5.1	9	7.4	22	6.3
2-4	15	28.3	91	51.4	73	59.8	179	50.9
5-9	10	18.9	25	14.1	15	12.3	50	14.2
10-14	8	15.1	23	13.0	10	8.2	41	11.6
15-19	6	11.3	9	5.1	6	4.9	21	6.0
20+	10	18.9	20	11.1	9	7.4	39	11.1
Total	53	100.00	177	100.00	122	34.7	352	100.00
%	15.1		50.3		34.7		100.00	
Not applicable	82		258		308		648	

Source: NIUA, Household Survey, 1990.

Table 3.11  
Nature of Improvement

Nature of improvement	Calicut		Cochin		Trivandrum		Total	
	No.	%	No.	%	No.	%	No.	%
Reconstruction from kutchha to semi pucca & semi pucca to pucca	9	18.4	52	41.6	28	17.4	89	26.6
Addition of room	2	4.1	10	8.0	6	3.7	18	5.4
Improvement of any one (modification roof, wall, floor)	16	32.7	25	20.0	88	54.7	129	38.5
Addition of latrine/ bathroom/ kitchen	-	-	-	-	2	1.2	2	0.2
Repairs/ maintenance, rethatching and white wash	21	42.9	38	30.4	31	19.3	90	26.9
Fixtures/ fittings	1	2.0	-	-	6	3.7	7	2.1
Any other	-	-	-	-	-	-	-	-
Total	49	100.00	125	100.00	161	100.00	335	100.00
%	14.6		37.3		48.1		100.00	
Not applicable	331		235		99		665	

Source: NIUA, Household Survey, 1990.



Table 3.12

Nature of Improvement according to the  
Area Occupied by Dwelling Units

Area occupied sq mts.	Nature of Improvement						No res- pon- se	Total	Not app- li- cable	Grand total
	1	2	3	4	5	6				
< 25	27 (30.3)	9 (10.0)	27 (30.3)	-	25 (28.1)	1 (1.2)	2	89 (100.0)	428	519
26-40	15 (31.9)	2 (4.3)	17 (36.2)	-	12 (25.5)	1 (2.1)	-	47 (100.0)	76	123
41-56	2 (33.3)	-	1 (16.7)	-	3 (50.0)	-	-	6 (100.0)	23	29
57-72	8 (34.8)	1 (4.3)	13 (56.3)	-	1 (4.3)	-	-	23 (100.0)	16	39
73-88	7 (21.9)	-	19 (59.4)	1 (3.1)	5 (15.6)	-	-	32 (100.0)	25	57
89-104	2 (22.2)	-	3 (33.3)	-	4 (44.4)	-	-	9 (100.0)	12	21
105-120	-	-	1 (25.0)	-	2 (50.0)	1 (25.0)	-	4 (100.0)	-	4
121-136	5 (17.9)	2 (2.1)	9 (32.1)	-	10 (35.7)	2 (7.1)	1	28 (100.0)	15	44
137-151	3 (27.3)	-	4 (36.4)	-	3 (27.3)	1 (9.1)	-	11 (100.0)	5	16
152+	20 (23.3)	4 (4.7)	35 (40.7)	1 (1.2)	25 (29.1)	1 (1.2)	-	86 (100.0)	62	148
Total	89 (26.6)	18 (5.4)	129 (38.5)	2 (0.6)	90 (26.9)	7 (2.1)	3	335	662	1000

- 1 - Reconstruction from kutcha to semi-pucca & semi-pucca to pucca.  
 2 - Addition of room.  
 3 - Improvement/modification of either the wall, roof or floor.  
 4 - Addition of latrine/bathroom/kitchen.  
 5 - Repairs and maintenance, rethatching & white washing.  
 6 - Fixtures fittings.

Source: NIUA, Household Survey, 1990.

Table 3.13

Nature of Improvement of Shelter according to Income Group

Household Income	Nature of Improvement						Total	N.A.	Grand total
	1	2	3	4	5	6			
< 100	2	-	4	-	10	-	16	22	38
%	(12.5)		(25.0)		(62.5)		(100.0)		
101-200	4	-	3	-	3	-	10	28	38
%	(40.0)		(30.0)		(30.0)		(100.0)		
201-400	11	2	21	1	16	2	53	206	259
%	(20.8)	(3.8)	(39.6)	(1.9)	(30.2)	(3.8)	(100.0)		
401-600	22	3	28	-	21	-	74	161	235
%	(29.7)	(4.1)	(37.8)		(28.4)		(100.0)		
601-800	17	4	26	-	15	1	63	85	148
%	(27.0)	(6.3)	(41.3)		(23.8)	(1.6)	(100.0)		
801-1000	12	2	14	1	10	1	40	60	100
%	(30.0)	(5.0)	(35.0)	(2.5)	(25.0)	(2.5)	(100.0)		
1001-1200	5	-	6	-	3	-	14	19	33
%	(35.7)		(42.9)		(21.4)		(100.0)		
1201-1400	3	2	10	-	2	-	17	25	42
%	(17.6)	(11.8)	(58.8)		(11.8)		(100.0)		
1401-1600	4	1	3	-	7	-	15	11	26
%	(26.7)	(6.7)	(20.0)		(46.7)		(100.0)		
1601-1800	3	-	5	-	2	1	11	4	15
%	(27.3)		(45.5)		(18.2)	(9.1)	(100.0)		
1801-2000	1	-	3	-	3	1	8	5	13
%	(12.5)		(37.5)		(37.5)	(12.5)	(100.0)		
2001+	8	5	12	-	5	1	31	22	53
%	(25.8)	(16.1)	(38.7)		(16.1)	(3.2)	(100.0)		
Total	92	19	135	2	97	7	352	648	1000

- 1 - Reconstruction from kutcha to semi-pucca & semi-pucca to pucca.  
 2 - Addition of room.  
 3 - Improvement/modification of either the wall, roof or floor.  
 4 - Addition of latrine/bathroom/kitchen.  
 5 - Repairs and maintenance, rethatching & white washing.  
 6 - Fixtures & fittings.  
 N.A. - Not Applicable

Table 3.14

Nature of Improvement according to Sources of Funding

Source of funding	Nature of Improvement													
	1		2		3		4		5		6		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Gove. Credit or grant	14	15.22	1	5.26	18	13.33	-	-	7	7.22	-	-	40	11.36
Own effort	68	73.91	16	84.21	110	81.48	2	100.0	69	71.13	6	85.71	271	76.99
Others' assistance	10	10.87	2	10.53	7	5.19	-	-	21	21.65	1	14.29	41	11.65
Total	92	100.0	19	100.0	135	100.0	2	100.0	97	100.0	7	100.0	352	100.0

- 1 - Reconstruction from kutcha to semi-pucca & semi-pucca to pucca.
- 2 - Addition of room.
- 3 - Improvement/modification of either the wall, roof or floor.
- 4 - Addition of latrine/bathroom/kitchen.
- 5 - Repairs and maintenance, rethatching & white washing.
- 6 - Fixtures fittings.

Source: NIUA, Household Survey, 1990.

## CHAPTER IV

### ECONOMIC PROFILE

4.1 The sample survey of households in the slums of Trivandrum, Cochin and Calicut reveals a better employment situation in the slums as compared to the overall employment situation in the urban settlements of Kerala as a whole and also in the three cities individually. The sample slums in the three cities have a population of 5827. Out of this, 1699 are workers and 4127 are non-workers (table 4.1). For the remaining one member in a Calicut slum, the household respondent did not offer any answer. Thus the participation rate amongst the slum population in the three cities taken together comes to 29.16. This is higher than the participation rate of the total urban population of the State of Kerala (24.86). The participation rates in the cities of Trivandrum, Cochin and Calicut, according to 1981 Census, are 25.49, 26.07 and 22.71 respectively (table 4.2). In Trivandrum, there are 506 workers in the sample slums out of a population of 1454 which gives a participation rate of 34.80. This is not only higher than the participation rates in the urban areas of Kerala as a whole and in the three cities individually, but is also the highest amongst the sample slums of the three cities. In Cochin, there are 599 workers out of a population of 2201. In Calicut, there are 594 workers out of a sample population of 2172. The participation rates in the slums of three cities are thus not only higher than the average for all the urban areas of the state but is even higher than the

participation rates obtaining in the cities of Cochin (26.07) and Calicut (22.71).

4.2 Non-working population according to types is presented in table 4.3. It should be obvious from this table that non-workers consist of students, domestic workers and housewives, disabled pensioners, too young to work, those seeking job, doing nothing, old and apprentices.

4.3 Data on workers and the types of economic activities they are engaged in, have been tabulated in this study following the Census of India's National Classification of occupation with some modification in view of the preponderance of a particular type of occupations in the slums. The data collected from the household survey revealed that Administrative, Executive and Managerial Workers under the National Classification of Occupation (NCO) are not to be found in the slums. Therefore, this category has been dispensed with in tabulation of occupation. Secondly, the "Service Workers" category of the NCO has been subdivided into (a) skilled workers and (b) unskilled workers. Thirdly, the "Farmers, Fisherman, Hunters" etc. category of the NCO has been modified to have only the fishermen due to the prevalence of fishermen in the sample slums of the three cities.

#### **Type of Workers**

4.4 Classification of workers according to type of occupation (table 4.4) reveals that in all the sample slums in the three cities, more than three-fifth (61.6%) of the working population

are unskilled workers. It includes loaders and unloaders, domestic servants, maids and related house keeping service workers, watchmen, chowkidars, gate keepers and other unskilled labourers. The cities of Trivandrum, Cochin and Calicut being the coastal cities, the second largest group after the unskilled workers are the fishermen who constitute about 14% of the labour force in the sample slums of the three cities. Other types of occupational groups are sale workers (5%), production and related workers (3.8%),\* workers not classified elsewhere (7.8%), skilled workers (3.2%), clerical workers (2.2%) and professional and technical workers (2.3%).

4.5 Amongst the three cities, the unskilled workers are predominant in Calicut (71.5%) and Cochin (69.4%) as Calicut happens to be a centre of trade and commerce and Cochin has a port where a large number of workers are engaged as loaders and unloaders. The number of unskilled workers in Trivandrum is relatively less (40.7%) as it is the capital city and has a preponderance of government jobs. This is reflected in the highest number of clerical workers in Trivandrum (5.3%) amongst the three cities. Fishermen are the largest in number in Calicut (21.5%) and Trivandrum (13.2%). In Cochin, only 7.5% of the workers are engaged in fishing. Next to unskilled workers, Trivandrum has the largest proportion of workers (15.2%) working as diverse type of labour which is not classified elsewhere. It is interesting to note that even though Calicut is the centre of trade, it is in Trivandrum where 10% of workers are working as sale workers doing specialised jobs. In Calicut, it is

negligible (0.7%). It is again in Trivandrum where amongst the three cities, the largest number of workers are engaged in productive activities (7.3%).

4.6 Male, Female and Child Workers : Analysis of workers by sex and age indicates that there is the dominance of male workers in all the sample slums in the three cities (table 4.5). In the three cities taken together, more than 82% of the workers are male (1400). Female workers (291) constitute only 17 per cent of the total working force. It is gratifying to note that the child labour is almost negligible as in the three cities together, there are only eight children working for a livelihood out of which five are in Calicut, two in Cochin and one in Trivandrum. Amongst the three cities, Calicut has the smallest number of female workers (48) which constitutes only 8% of the total working force of the sample slums in this city. Only Trivandrum has more than one-fourth female workers (137) of the total working force (506) in the sample slums of this city. In Cochin, only about 18% of the total working slum population is female.

4.7 The female workers are, by and large, working as unskilled workers, and in fisheries in the three cities. In Calicut and Cochin, about 74% to 85% of the female workers are working as unskilled labour. In Trivandrum, however, only a little more than one-third of the female workers are engaged as unskilled workers. Some of the working women are also working as sale workers and skilled workers in the sample slums of this city. The working children (only eight in the three cities) are also working as unskilled labour and fishermen.

#### Earners by Religion

4.8 The analysis of sample households in the three cities in Chapter II has revealed that the three cities taken together have the maximum proportion of Muslims (47%). The analysis of earners by religion, however, reveals that even though Muslims constitute the largest proportion of total earners (43.8%), it is the Hindus who are dominating in the white collar jobs like Professional and Technical, Clerical and Business and Sale jobs (table 4.6). They are dominating even in skilled jobs. The Muslims are dominating as fishermen and in unskilled jobs. Christians and Muslims together constitute about 94% of the total workers engaged as fishermen. Next to fisheries, the Christians are also conspicuous in number in business and sale and production and related jobs.

#### Monthly Income

4.9 The data on household income are presented in table 4.7. The household income has been computed by aggregating the incomes of all the earners in the household. The accruing incomes were disclosed by the respondents themselves. During the course of interviews with the respondents, it was observed that there was a tendency on the part of the respondents to hesitate in disclosing the income earned by them and the income reported by them, seemed to be rather on the lower side than the prevailing wage rates in the three cities. On persistent probing, the respondents (the casual wage earners in particular) attributed it to the lesser number of days in a month on which they are able to get actually employed. It is



worth noting that the income reported by the respondent households is direct cash income and does not include any indirect income.

4.10 A look at table 4.7 reveals a skewed distribution of income in the sample slums of the three cities taken together. About 56% of the slum households in the three cities have an income of less than Rs 600/- per month. Another about 29% of the households have monthly income of Rs 601/- to 1200/- and about 9.8% of the households have an income of Rs 1201 to 2000 per month. The number of households having an income of more than Rs 2000 constitutes 5.40% of the total number of households

4.11 Amongst the three cities, the slums in Calicut seem to have even more skewed distribution of income. As many as about 79% of the slum households have a monthly income of less than Rs 600. Another 17% have an income of Rs 601 to Rs 1200 per month and only 4% have a household income of Rs 1201 to Rs 2000. There is hardly any family having an income of more than Rs 2000 per month in Calicut slums. In Cochin as well, there exists a skewed distribution of income amongst the slum households but not as skewed as in Calicut. 48.17% of the households have a monthly income of less than Rs 600. Another 36.26% have monthly family income of Rs 601 to Rs 1200 and 11.32% have monthly income of Rs 1201 to Rs 2000. 15 families in Cochin slums constituting 4.25% of the total sample households have monthly income of more than Rs 2000. Only the slums in Trivandrum present a different pattern of income distribution amongst the slum households. Roughly about one-third of sample households (32.8%) have income of less than Rs 600 per month. Another 35.6% of the households

have an income of Rs 601 to Rs 1200 per month and about 16% have an income of Rs 1201 to Rs 2000 per month. In Trivandrum, 15.2% of the slum households have a monthly income of more than Rs 2000.

4.12 The analysis of average household income thus reveals a great deal of variation in the slums of three cities. In Trivandrum, the slum households have the highest average income of Rs 1107 per month. The average household income in Cochin is Rs 764 and it is the lowest in Calicut which is about Rs 484.

#### Poverty Level

4.13 The official national poverty line for the urban areas is a per capita monthly income of Rs 122 at 1984-85 prices. Assuming an average family size of five, the official poverty line for the households has been fixed at an annual household income of Rs 7300 (a monthly income of about Rs 610).\* Accordingly, as many as about four-fifths of the total slum households in Calicut are found living below the poverty line. This in the case of Cochin and Trivandrum, is 48.17% and 32.8% respectively. As against this, the proportion of urban population below the poverty line in the country as a whole and in Kerala is 27.7% and 30.1% respectively. Apparently, the level of poverty in the slums of Calicut, Cochin and Trivandrum seems much serious despite a relatively better participation rate.

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\* NIUA, Approach to Urban Poverty : A position Note, Research study November 27, 1988.

#### Number of Earners and Household Income

4.14 The number of earners in the households is presented in table 4.8 for all the three cities. Out of 982 households, (who answered the question on earners), more than half (56.9%) are single earner households. A little more than one-fourth (27.9%) of the households have two earners and 9.6% have three earners. Only 34 slum households in the three cities have four earners. The number of households having more than four earners is still less, that is, 21 only. Single earner families apparently have low incomes. A look at table 4.8 reveals that the single earner households are concentrated upto an income of Rs 1000. The proportion declines thereafter. On the other hand, the multi-earner families belong to higher income groups.

4.15 The number of earners in the sample slums of the three cities individually is presented in table 4.9. The same trend is discernible from this table as well. Calicut has the largest number of single earner families amongst the three cities. Average monthly income per earner which has been worked out separately, indicates that there does not exist as wide a variation in the three cities as is found in the case of average household income. The average income per earner in Calicut is about Rs 309 which is the lowest amongst the three cities. In Cochin, it is only marginally higher at Rs 450 and in Trivandrum it is Rs 547.

### **Household Income and Family Size**

4.16 Household income and family size have been tabulated in table 4.10 for the sample slums of the three cities taken together as also for the three cities separately. It reveals that the proportion of households having large families increases with household income. Thus for the three cities taken together, the percentage of families having more than 7 members is increasing along with increase in the household income. This increases from 9.5% in the income group of Rs 201 to Rs 400 to 46% in the income range of Rs 1801 to 2000 and then marginally declines to 41.5% for the income range of more than Rs 2000. The proportion of families having upto only two members is found to be declining from 22.5% in the monthly income range of Rs 101-200 to around 3% in the higher income brackets. The trend, by and large, holds good in the three cities individually as well.

### **Dependency Ratio**

4.17 How many family members, on an average, each earner has to support economically? The dependency ratio (ratio of workers to non-workers) for the sample slums of all the three cities together comes to 2.43 which suggests that each worker has to support about 2.43 members. Only in Trivandrum, the dependency ratio is found to be less (1.87) than this average for the three cities. This is one of the important reasons for a higher average household income in the sample slums of Trivandrum. This for Calicut and Cochin is 2.65 and 2.67 respectively, as is obvious from table 4.11.

#### **Family Income and Caste**

4.18 An attempt was made in the survey to know the earnings of the depressed castes like the Scheduled Caste (SC) and Scheduled Tribes (ST). The data have been presented in table 4.12 for these castes separately alongwith the monthly household earnings of other castes. It is interesting to note that the proportion of earners belonging to SC and ST precisely follows the proportion of these two castes in the total number of households (table 2.2). However, except the slums of Trivandrum, the levels of earnings of the SC and ST in Calicut and Cochin are to be lower. In Calicut, the SC families earn upto Rs 800 per month only. The household income in Cochin for the SC families is up to Rs 1400 per month. Only in Trivandrum, 71% of the SC households have a monthly income of more than Rs 2000. The ST in Calicut have a monthly earnings of upto Rs 1000 and upto Rs 1200 in Cochin. In Trivandrum again the ST are found to be distributed in all the income ranges except the income range of Rs 1400-2000.

#### **Monthly Expenditure by Income Groups**

4.19 Distribution of households according to monthly income and monthly expenditure is tabulated in table 4.13. It suggests that quite a sizeable number of households are incurring expenditure which is in excess of their incomes. Such households are found in all the income groups except the income bracket of Rs 1801-2000. In the income group of less than Rs 100 as many as 10 out of 11 households reported incurring higher expenditure than their income. In the next income range (Rs 101-200) 50% of

the households are spending more than their income. In the income range of Rs 201-400. 59 households (out of 263) reported spending more. In the income range of Rs 401-600 more than one-fourth of families are found doing so. In all, as many as 221 households in the various income ranges reported spending more than their income. This comes to 22.50% of the total households who reported their monthly income.

4.20 The reasons for the imbalance between the income and expenditure are two-fold. First, the inadequate income would be a compelling factor to either go for borrowing debts or adhere to dissavings for meeting the expenditure requirements. When asked persistently to explain this phenomenon, they said that the "meagre earnings" compel them to meet the expenditure requirements from any source whether it is by way of borrowings or by using the past savings. Another factor may be a tendency on the part of respondent households to under-report their incomes. In view of these, which factor is instrumental in this phenomenon can not be said with certainty. As is analysed subsequently in this Chapter, in all, 932 families reported taking recourse to borrows which is much higher than 221 households who are found overspending.

4.21 What is the proportion of households whose spendings are in line with their incomes? A look at the table reveals that there is still a very large section of such households. The proportion of such households is found to be systematically increasing along with the increase in income range. Thus, in the

income group of Rs 101 to Rs 200, just about 50% of the households are spending up to Rs 200. In the next income range, the proportion of such households is about 81%. In the income range of Rs 401-600, about 74% of the households are found spending upto Rs 600. The proportion goes on increasing to about 95% in the income group of Rs 1201-1400. Such families are to the extent of about 88% in the income range of Rs 1401 to 1600 and about 93% in the next income range.

4.22 The analysis of households who are spending up to only 50% of their incomes suggests that in the income range of Rs 101-200, only 5% of the households are spending up to 50% of their incomes. In the next income group, there are about 31% of such households. The proportion increases to about 29% in the income range of Rs 401 to 600. It then falls to about 30% in the income range of Rs 601-800 and then rises again to about 42%. In the income ranges of Rs 1001 to Rs 1200 and Rs 1201 to Rs 1400 there are about 30% to 40% of the households who spend upto 45.24 of their incomes. In the higher income range of Rs 1401 - 1600, there are about 50% such households. This drops to about 46% in the income range of Rs 1601 to 1800. In the income range of Rs 1801 to 2000, there are about 69% of households who are spending up to 50% of their income. Thus roughly about one-third of the total households in the various income groups are spending up to 50% of their incomes. They are thus able to save about half of their monthly income.

4.23 Distribution of households according to monthly income and expenditure in the sample slums of Calicut, Cochin and

Trivandrum is presented in tables 4.14 to 4.16. table 4.14 shows that in Calicut, 19 slum households are found spending more than their income on the monthly basis. This phenomenon is observed up to a monthly income level of Rs 600. Of them, 9 households reported an income of up to Rs 200 per month and two households upto Rs 200-400 per month. The remaining 8 households belong to the monthly income group of Rs 401 to Rs 600. Barring these 19 households, the remaining sample households are found incurring a monthly expenditure which is very well within their economic means. Of them, 157 households are spending up to 50% of their monthly income. Thus about 41% of the total households who reported their income (379) are spending up to half of their monthly income.

4.24 In Cochin (table 4.15), as many as 97 households reported spending more than their monthly income. Such households belong to all the monthly income groups except Rs 1601 and above. Only about 94 households are found spending up to 50% of their income. This comes to a little over one-fourth (27%) of the total repoding sample households in Cochin. In Trivandrum, slum (table 4.16), as many as 94 households reported spending more than their income. They are also found dispersed in all the income groups except the high income brackets of more than Rs 1801 per month. Thus about 38% of the sample households reported spending more than their monthly income. A small number of households (about 48) are spending upto 50% of their monthly income.



### Expenditure on Specific Items

4.25 The expenditure incurred by the slum household on various items in the three cities taken together and separately is presented in tables 4.17 to 4.18 (a, b and c). table 4.17 shows that more than three-fifth of the sample households in the slums of the three cities are spending only upto Rs 300 per month on food. In fact as many as about 41% of the households are spending only up to Rs 200 per month on food. Only a little over one-fifth of the households are spending more than Rs 500 per month on food. A yet very substantial segment of slum households (95.6%) is spending upto Rs 100 on shelter. Clothing accounts for less than Rs 100 per month for about 83% of the slum households. Service like water, electricity, transport, education and health also accounts for less than Rs 100 per month for about 59% of the slum households. Another about 20% of the households are spending between Rs 101 to Rs 200 per month on services which is on a higher side.

4.26 Amongst the three cities, in Calicut slums, about 93.5% of the households reported spending up to Rs 300 (table 4.18) on food items. In Cochin, relatively less number of slum households are spending more than Rs 300 per month. Only about 48% of the slum households are found spending up to Rs 300 per month on food in Cochin slums. About one-fourth of the sample households are spending more than Rs 500 per month on food items. In Trivandrum, still higher proportion (47.2%) of the households are spending more than Rs 500 per month on food. This is again due to a relatively higher level of income in Cochin and Trivandrum.

However, shelter accounts for only upto less than Rs 100 per month for a very large number of slum households in the three cities. The percentage of such families in Calicut is 97 and in the slums of Cochin and Trivandrum, it is 96 and 92.8 respectively. Expenditure on services presents a great deal of variation in the three cities. Thus in Calicut, about 89% of the households are spending only up to Rs 100 per month. In Cochin, the number of such households constitutes only about 51% and in Trivandrum it is only about 34%. In Trivandrum a very large number of households (35.4%) are spending between Rs 101 and Rs 300 per month on services.

4.27 The analysis of expenditure pattern on various items of expenditure thus suggests that the expenditure is related to income levels. Higher the income levels, larger is the proportion of households who are spending higher amounts on them. Table 4.19 shows that the expenditure on food accounts for a lion's share of total expenditure incurred by each income group. It varies from 61% for the households with a monthly income of Rs 100 to 58% for those having a monthly income of more than Rs 2000. In between, only in the monthly income groups of Rs 601-800, Rs 1001-1400, and Rs 1601-1800, the proportion of expenditure is less than 58%. Thus on, an average, about 59% of the total expenditure incurred by all the households goes to food items. Shelter accounts for only about 6% of the total expenditure of all the income groups. Only the households in the income group of Rs 601-800 and Rs 1001-1200 per month are found spending about 15% of their total expenditure on shelter. The

households belonging to the income group of Rs 1201-1400 are spending 9.5% of their total expenditure on shelter. The other income groups are spending very little (varying from 1% to a little over 3%) of their total expenditure on it. Clothing accounts for a little more proportion of total expenditure. It varies between 4.6% for the households having more than Rs 2000 of income per month to 12.5% for the households with income group of Rs 1401-1600. On an average, it accounts for 9% of the total expenditure of all the households.

4.28 It has been brought out by several surveys that the proportion of total expenditure on food declines alongwith an increase in income.\* Is it so in the lums of the three cities as well? A look at tables 4.20 to 4.22 also suggest almost the similar trend though Trivandrum presents a different situation. Even in the slums of Calicut where the income levels are the lowest amongst the three cities, the proportion of total expenditure on food declines from 67.8% in the monthly income group of Rs 101-200 to 53% in the income group of Rs. 801-1000 but again increases to 63% in the next income group. It thus again declines (table 4.20). In the slums of Cochin also the proportion of total expenditure on food declines from 82% in the case of households with less than Rs 100 of monthly income Rs 1801-2000.

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\* Sarvekshana, Journal of NSSO, 38th Round; see also NIUA, Approach to Urban Poverty: A Position Note, 1988.

4.29 Services, which is another important item of expenditure, interestingly accounts for more than one-fifth (21.8%) of the total expenditure of all the income groups. The households in the income group of less than Rs 100 per month reported spending as much as 38% of their total expenditure on services.. This seems to be very high indeed. Other income groups which are spending more than the average (21.8%) are Rs 101-400, Rs 801-1000, Rs 1201-1400, Rs 1601-1800 and more than Rs 2000. Thus the households in the three cities are spending about 28% of their total expenditure on shelter and services.

4.30 The proportion of expenditure on various items in the sample slums of the three cities individually is presented in tables 4.20 to 4.22.

4.31 Table 4.20 shows that the average expenditure of all the income groups on food items in Calicut is about 58% of the total monthly expenditure. The average expenditure on shelter comes to about 4% which is less than the average (6.2%) for the three cities taken together. Only the households in the income range of Rs 1201-1400 and Rs 1401-1600, are incurring expenditure on shelter which is higher than the average for the three cities. The proportion of expenditure on services is also lower (16.2%) than the average (21.8%) for the three cities. The proportion of total expenditure on services by the various income groups varies from 9.1% in the income group of Rs 1401-1600 to 17.2% in the income group of Rs 201-400. Expenditure on clothings is, however, higher than the average expenditure by the slum households in the three cities.

4.32 In Cochin slums (table 4.21), the proportion of expenditure on food is around 64% of the total expenditure for all the income groups which is a bit higher than the average for the three cities. The expenditure on shelter is also higher (7.3%) than what it is in Calicut. It is also higher also than the average expenditure on shelter for the three cities. The expenditure on services is just about the same (21.6%) as is the average for the three cities. This in Trivandrum, where the income level is the highest amongst the three cities, is also the highest (24.8%). The households in the income group of less than Rs 100 per month is, however, reported spending as high as 52% of their total expenditure on services! For other income groups, it varies from about 15% to 37% (table 4.22).

4.33 The analysis of expenditure pattern in the sample slums of the three cities thus shows that in Calicut, the households, on an average, are spending about 20% of their total expenditure on shelter and services. This in Cochin is about 30% and about 31% in Trivandrum.

#### **Expenditure on Services**

4.34 The proportion of total expenditure on different services is presented in table 4.23 for the sample slums of the three cities together and in tables 4.24 to 4.26 for the three cities separately. table 4.23 shows that amongst all the components of services, the average expenditure on health constitutes the highest proportion of total expenditure on services of all the slum households. This is to the extent of

about 54% of the total expenditure on services. Education accounts for about one-fourth (24.7%) of the total expenditure on services. The average expenditure on transport constitutes about 12% of the total expenditure on services. The expenditure on electricity accounts for only 5.6% of the expenditure on services which seems to be on a higher side, and water gets the lowest proportion, that is 0.5% of the total money spent on services.

4.35 Tables 4.24 to 4.26 depict that about 50% to 60% of the total expenditure on services is being spent by the slum households on health in Calicut, Cochin and Trivandrum. The highest proportion of expenditure on health is discernible in Calicut (60.2%) and the lowest (49.7%) in Trivandrum. Thus, interestingly, the proportion of expenditure on health is found inversely related to the level of income. Education is next to health and also accounts for 17.2% of the total expenditure on services in Calicut, 23.5% in Cochin and 28.2% in Trivandrum. Expenditure on transport constitutes about 11% of expenditure on services in Calicut, 10.5% in Cochin and about 13% in Trivandrum. Expenditure on water accounts for the lowest proportion of total expenditure on services in the three cities individually.

#### **Monthly Savings**

4.36 With a view to know the propensity to save of the households, the respondent households were asked to indicate their average monthly savings. Almost all the respondent households in the first instance, used to reply their inability to save due to "meagre income" and "high cost" of living. However, on persistent probing, they offered answers to this

question. The responses are tabulated in table 4.27. It reveals a very low propensity to save on the part of slum households. In Calicut, not a single slum household even in the higher income groups is found to be saving on the monthly basis. A very high proportion of households with low incomes (about 89% below a monthly income of Rs 800) explains the inability of the slum households to save. But as referred to earlier, even the higher income groups did not indicate that they are able to save on monthly basis. In Cochin, only 36 households (out of 353 responding households) are found to be in a position to save. This constitutes only about 10% of the total sample households in this city. As many as 32 out of them are able to save only upto Rs 1 to 50 per month. Thus an overwhelming proportion of total number of households who are actually saving, is in a position to save little. Another two households are able to have between Rs 51 to Rs 100 and the remaining one household is saving from Rs 101 to 150 per month.

4.37 In Trivandrum, the propensity to save does not seem to be any better. Here as well as many as 90% of the total responding slum households are not in a position to save. Out of 25 households who are able to save, ten households are able to save Rs 1-50 per month. Another three households are able to save Rs 51-100. A lone household belongs to the monthly saving category of Rs 101-150 and four households are in a position to save from Rs 151 to Rs 200 per month. The remaining seven households are able to save more than Rs 200 per month.

### Accumulated Savings

4.38 Low propensity to save among slum households is also reflected in their total accumulated savings. table 4.28 indicates that the slum households in Calicut, who are not in a position to save, do not have any accumulated savings. In Cochin, (table 4.29), out of 353 who households who revealed their monthly income, again 7 households did not offer any response on the extent of accumulated savings. Thus out of 346 household, only 17 households said that they had some accumulated savings. Only four of these 17 households have accumulated savings of more than Rs 501. Another two have an accumulated savings of only Rs 401 to Rs 500. The remaining 11 households have less than Rs 400 accumulated savings. In Trivandrum, only 22 (out of 250 households who disclosed their incomes) are found to have accumulated savings (table 4.30). Out of them 8 have accumulated savings to the extent of more than Rs 501. A lone household indicated to have a saving of Rs 401 to Rs 500 and the remaining 13 households have accumulated savings of less than Rs 300 only.

### **Household Debt**

4.39 The respondent households were asked to indicate if they adhere to borrowing. The response given by the sample households indicates that a very large number of households take recourse to borrowing. A look at table 4.31 reveals that as many as 932 households take recourse to borrowing. Thus about 95% of the respondent households who answered this question are found to borrow money. Of them 328 households said that they adhere to



borrowing "regularly" and another 604 households said that they borrow money only "occasionally". Only 50 households said that they never resort to borrowings who belong to all the income groups (from less than Rs 100 to Rs 2000 and above). The households who are borrowing regularly, are also distributed in all income groups, though a large number of them are concentrated in the income groups of Rs 201 to 600. The largest number of borrowers, however, are found in the income group of Rs 201-400. After that the number of regular borrowers is found to taper off along with the increase in monthly income until the income group of Rs 2001 and more. The households borrowing occasionally are also found spread in all the income groups.

4.40 Amongst the three cities, the largest number of borrowers are found in Calicut (table 4.32). As many as 373 households (out of 379) said that they adhere to borrowing. The number of such households in Cochin and Trivandrum is 327 (out of 360) and 232 (out of 260) respectively. The total number of regular borrowers in each city seems to be less than that of the occasional borrowers. In Calicut slums, the households borrowing only occasionally have an income of up to Rs 2000 per month. In other cities, both the occasional borrowers and regular borrowers are spread in all the income groups.

4.41 Reasons for Borrowing : What is it that the households have to borrow for? The frequency distribution of households according to reasons for borrowing is given for the three cities together in table 4.33 and also for the three cities separately in tables 4.34 to 4.36. It is seen from table 4.33 that in all

the sample slums of the three cities taken together, about 89% of the households, who are compelled to borrow, do so to meet the household expenditure needs. Other reasons do not seem to be very important and critical in taking recourse to borrowing. Amongst these, illness accounts for the borrowing of about six per cent of the slum households in the three cities. It has been mentioned earlier that about 221 households have been found spending more than their incomes. table 4.33, however, suggests that a larger number of households borrowing to meet their day to day expenditure needs. In Calicut and Cochin slums as well (table 4.34 and 4.35) around 90 to 94% of the slum households who adhere to borrowing do so to meet the household expenditure needs. Only in Trivandrum, only about 77% of the borrowers take recourse to borrowing to meet the household expenditure need (table 4.36). Illness and running of business together explain the borrowings of about 17% of the borrowing households. Thus in all the three cities, a very large number of households are found to be indulging in borrowings and again a very large proportion of them do so in order to meet the day-to-day expenditure needs.

4.42        Sources of Borrowing : The sources of borrowing as revealed by the borrowing households are presented in table 4.37. It shows that more than three-fourth of the borrowers borrow from money lenders and friends. In the three cities individually, these two sources are found dominant. In Cochin, as much as about three-fourths of the borrowers borrow from money lenders and about 27% from friends.

4.43 Security against borrowing : The analysis of sources of borrowing has shown that a very large proportion of households borrow from informal sources like money lenders and friends which does not involve any security to be pledged for raising the loan. table 4.38 therefore shows that about four-fifth of borrowers borrow without any security. 13% of the borrowers raise loans by pledging the ornaments. It should be obvious from this table that pledging of ornaments happens to be the major type of security for borrowing.

#### **Distance Travelled and the Mode of Transport**

4.44 Of the 1690 workers, 1590 workers answered to be question on distance and the mode of transport used in travelling to their work places. Of them, 36 workers are working in their dwelling units itself. Of the remaining 1554 workers, only 6 workers in the sample slums of the three cities are commuting a distance of less than one km. A very large number of 1497 workers have to travel a distance of 1 to 10 kms for attending to their work (table 4.38). 29 workers are commuting a distance of 11 to 20 kms and 15 workers travel a distance of 21 to 50 kms. Another 6 workers are travelling a distance of 51 to 76 kms. There is only one worker who is travelling a distance of more than 77 kms.

4.45 Amongst the three cities, in the sample slums of Calicut also as many as 584 workers constituting about 99% are of the total workers are commuting a distance of 1 to 10 kms (table 4.39). In Cochin slums also as many as 535 workers (96%) are

travelling a distance of 1 to 10 kms (table 4.40). In Trivandrum slums, however, 378 workers (93%) out of 406 are travelling this distance. Thus in the slums of the three cities a substantial number of workers are travelling up to 10 kms.

#### Mode of Transport

4.46 The analysis of the mode of transport used by the workers in the three cities indicates that about 71% of them travel to work places on foot. Another about 8% of workers use bicycles as a mode of conveyance and about 18% of the workers travel by bus (table 4.38). The remaining workers are using other diverse types of transport. The proportion of workers travelling by foot in Calicut, Cochin and Trivandrum as well is very large. It is to the extent of about 82%, 72% and 54% respectively (tables 4.39 to 4.41). Next comes the users of bus. The largest number of bus users are found in the sample slums of Trivandrum (28%). The proportion of bus users in the slums of Cochin and Calicut is 19% and 9.5% respectively. The users of bi-cycle are the largest in number (13.5%) in Trivandrum slums as compared to Calicut (8%) and Cochin (4.3%).

4.47 Thus a very large number of workers in the sample slums of the three cities are commuting a distance of about 10 kms and a very large proportion of them are travelling to their work places on foot.

Table 4.1

Distribution of Slum Population into Workers and Non-Workers

Workers	Calicut		Cochin		Trivandrum		Total	
	No.	%	No.	%	No.	%	No.	%
Workers	594	27.4	599	27.2	506	34.8	1699	29.2
Non workers	1577	72.6	1602	72.8	948	65.2	4127	70.8
No response	1	-	-	-	-	-	-	-
Total	2172	100.0	2201	100.0	1454	100.0	5827	100.0

Source: NIUA, Household Survey, 1990.

Table 4.2

Participation Rate in Urban Kerala, the Cities of  
Trivandrum, Cochin, Calicut and the Sample Slums  
of the three Cities, 1981

Particulars	Kerala	Cities of		
		Trivandrum	Cochin	Calicut
1. Urban population	4771275	499531	513249	394447
2. No. of workers	1186120	127346	133826	89580
3. Participation rate	24.86	25.49	26.07	22.71
4. Population of sample slums	-	1454	2201	2172
5. No. of workers	-	506	599	594
6. Participation rate	-	34.80	27.21	27.35

Source: Computed from the Census of India, 1981.

Table 4.3

Distribution of Non-workers according to type

Non-workers	Male		Female		Total	
	No.	%	No.	%	No.	%
1. Students	610	52.1	561	49.9	1171	100.00
2. Domestic workers	23	2.2	1036	97.8	1059	100.00
3. Disabled	20	66.7	10	33.3	30	100.00
4. Pensioners	12	63.2	7	36.8	19	100.00
5. Too young	209	52.1	192	47.9	401	100.00
6. Seeking job	402	54.6	334	45.4	736	100.00
7. Doing nothing	153	28.5	363	71.5	536	100.00
8. Old	49	29.9	115	70.1	164	100.00
9. Apprentice	7	77.8	2	22.2	9	100.00
Total	1485	36.00	2640	64.0	4125	100.00
No response	-	-	1	-	1	-
Not applicable	-	-	1	-	1	-
Grand total	1485	36.0	2640	64.0	4127	100.00

Source: NIUA, Household Survey 1991.

Table 4.4

\* Workers according to Type of Occupation

Type of occupation	Calicut	Cochin	Trivandrum	Total
1. Profesional & technical workers	20 (3.4)	9 (1.5)	10 (2.0)	39 (2.3)
2. Clerical & related workers	1 (0.2)	10 (1.7)	27 (5.3)	38 (2.2)
3. Sale workers	4 (0.7)	31 (5.2)	50 (10.0)	85 (5.0)
4. Fishermen	128 (21.5)	45 (7.5)	67 (13.2)	240 (14.1)
5. Skilled workers	6 (1.0)	16 (2.7)	32 (6.3)	54 (3.2)
6. Unskilled workers	425 (71.5)	416 (69.4)	206 (40.7)	1047 (61.6)
7. Production and related workers	2 (0.3)	25 (4.2)	37 (7.3)	64 (3.8)
8. Other types not elsewhere classified	8 (1.3)	47 (7.8)	77 (15.2)	132 (7.8)
Total	594 (100.0)	599 (100.0)	506 (100.0)	1699 (100.0)

Note: Figures in bracket indicate the percentage.  
Source: NIUA, Household Survey, 1990.



Table 4.5

Distribution of Workers according to Sex and Age

Occupation	Calicut				Cochin				Trivandrum				Total			
	Male	Female	Child	Total	Male	Female	Child	Total	Male	Female	Child	Total	Male	Female	Child	Total
1. Professional & technical workers	18	2	-	20	2	7	-	9	6	4	-	10	26	13	-	39
%	3.33	4.2	-	3.4	0.4	6.6	-	1.5	1.6	2.9	-	2.0	1.9	4.5	-	2.3
2. Clerical & related workers	1	-	-	1	6	4	-	10	22	5	-	27	29	9	-	38
%	0.2	-	-	0.2	1.2	3.8	-	1.7	6.0	3.6	-	5.3	2.1	3.1	-	2.2
3. Sale workers	4	-	-	4	31	-	-	31	23	27	-	50	58	27	-	85
%	0.7	-	-	0.7	6.3	-	-	5.2	6.3	19.7	-	10.0	4.1	9.3	-	5.0
4. Fishermen	122	5	1	128	39	6	-	45	50	16	1	67	211	27	2	240
%	22.6	10.4	20.0	21.5	7.9	5.7	-	7.5	13.6	11.7	100.0	13.2	15.1	9.3	25.0	14.1
5. Skilled workers	6	-	-	6	10	5	1	16	16	16	-	32	32	21	1	54
%	1.1	-	-	1.0	2.0	4.7	50.0	2.7	4.3	11.7	-	6.3	2.3	7.2	12.5	3.2
6. Unskilled workers	380	41	4	425	337	78	1	416	156	50	-	206	873	169	5	1047
%	70.2	85.4	80.0	71.5	68.6	73.6	50.0	69.4	42.4	36.5	-	40.7	62.4	50.1	62.5	61.6
7. Production and related workers	2	-	-	2	23	2	-	25	27	10	-	37	52	12	-	64
%	0.4	-	-	0.3	4.7	1.9	-	4.2	7.3	7.3	-	7.3	3.7	4.1	-	3.8
8. Other types not elsewhere classified	8	-	-	8	43	4	-	47	68	9	-	77	119	13	-	132
%	1.5	-	-	1.3	8.8	3.8	-	7.8	18.5	6.6	-	15.2	8.5	4.5	-	7.8
Total	541	48	5	594	491	106	2	599	368	137	1	506	1400	291	8	1699
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

\* below 14 years of age including male and female children.

Source: NIUA, Household Survey, 1990.

Table 4.6  
Distribution of Earners according to Religion  
in the Three Cities

Type of occupation	Religion								Total	
	Christianity		Hinduism		Islam		Others			
	No.	%	No.	%	No.	%	No.	%	No.	%
1. Professional & technical workers	3	7.7	30	76.9	6	15.4	-	-	39	100.0
2. Clerical & related workers	6	15.8	28	73.7	3	7.9	1	2.6	38	100.0
3. Sale workers	20	23.5	37	43.5	27	31.8	1	1.2	85	100.0
4. Fishermen	85	35.4	14	5.8	141	58.8	-	-	240	100.0
5. Skilled workers	6	11.1	37	68.5	10	18.5	1	1.9	54	100.0
6. Unskilled workers	103	9.8	420	40.1	524	50.1	-	-	1047	100.0
7. Production & related workers	15	23.4	40	62.5	8	12.5	1	1.6	64	100.0
8. Other types not elsewhere classified	25	18.9	82	62.1	25	19.0	-	-	132	100.0
Total	263	15.5	688	40.5	744	43.8	4	0.2	1699	100.0

Source : NIUA, Household survey, 1991.

Table 4.7  
Distribution of Households according to Monthly Income  
in the Sample Slums of the Three Cities

Income group (Rs )	Calicut			Cochin			Trivandrum			Total		
	Household	%	Cumulative percentage	Household	%	Cumulative percentage	Household	%	Cumulative percentage	Household	%	Cumulative percentage
< 100	-	-	-	5	1.42	1.42	6	2.4	2.40	11	1.12	-
101-200	20	5.28	5.28	14	3.97	5.39	6	2.4	4.80	40	4.07	5.19
201-400	166	43.80	49.08	66	18.70	24.09	31	12.4	17.20	263	26.78	31.97
401-600	113	29.82	78.90	85	24.08	48.17	39	15.6	32.80	237	24.13	56.10
601-800	38	10.03	88.93	66	18.70	66.87	41	16.4	49.20	145	14.77	70.87
801-1000	22	5.80	94.73	47	13.31	80.18	35	14.0	63.20	104	10.59	81.46
1001-1200	5	1.32	96.05	15	4.25	84.43	13	5.2	68.40	33	3.36	84.82
1201-1400	8	2.10	98.15	20	5.66	90.09	14	5.6	74.00	42	4.28	89.10
1401-1600	4	1.06	99.21	12	3.40	93.49	10	4.0	78.00	26	2.65	91.75
1601-1800	1	0.26	99.47	6	1.70	95.19	8	3.2	81.20	15	1.53	93.28
1801-2000	2	0.53	100.0	2	0.56	95.75	9	3.6	84.80	13	1.32	94.60
2001+	-	-	-	15	4.25	100.0	38	15.2	100.0	53	5.40	100.0
Total	379	100.0	100.0	353	100.0	100.0	250	100.0	100.0	982	100.0	100.0
No response	1	-	-	7	-	-	10	-	-	18	-	-
Grand total	380	100.0	100.0	360	100.0	100.0	260	100.0	100.0	1000	100.0	100.0

Source : NIUA, Household survey, 1990

Table 4.8

Households Monthly Income and Number of Earners in the Sample  
Slums of Calicut, Cochin and Trivandrum

Income group	Total number of earners						Total
	0	1	2	3	4	4+	
< 100	-	11	-	-	-	-	11
	-	100.0	-	-	-	-	100.0
101-200	-	37	3	-	-	-	40
	-	92.5	7.5	-	-	-	100.0
201-400	-	236	2	2	-	-	263
	-	89.7	9.5	0.8	-	-	100.0
401-600	-	139	35	10	3	-	237
	-	58.6	35.9	4.2	1.3	-	100.0
601-800	-	63	57	20	4	1	145
	-	43.4	39.3	13.8	2.8	0.7	100.0
801-1000	-	44	44	11	5	-	104
	-	42.3	42.3	10.6	4.8	-	100.0
1001-1200	-	7	14	8	2	2	33
	-	21.2	42.4	24.2	6.1	6.1	100.0
1201-1400	-	11	15	10	1	5	42
	-	26.2	35.7	23.8	2.4	11.9	100.0
1401-1600	-	6	8	3	4	5	26
	-	23.1	30.8	11.5	15.4	19.2	100.0
1601-1800	-	2	5	7	1	-	15
	-	13.3	33.3	46.7	6.7	-	100.0
1801-2000	-	2	5	3	3	-	13
	-	15.4	38.5	23.1	23.1	-	100.0
2001+	-	1	13	20	11	8	53
	-	1.9	24.5	37.7	20.8	15.1	100.0
Total	-	559	274	94	34	21	982*
	-	56.9	27.9	9.6	3.5	2.1	100.0

\* Does not include 18 households who did not offer any response.

Source: NIUA, Household Survey, 1990.

Table 4.9

Household Monthly Income and Number of Earners in the three Cities Separately

Income group	Calicut							Cochin							Trivandrum						
	No. of earners							No. of earners							No. of earners						
	0	1	2	3	4	4+	Total	0	1	2	3	4	4+	Total	0	1	2	3	4	4+	Total
< 100	-	-	-	-	-	-	-	-	5	-	-	-	-	5	-	6	-	-	-	-	6
	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	100.0	-	-	-	-	100.0
101-200	-	19	1	-	-	-	20	-	13	1	-	-	-	14	-	5	1	-	-	-	6
	-	95.0	5.0	-	-	-	100.0	-	92.9	7.1	-	-	-	100.0	-	83.3	16.7	-	-	-	100.0
201-400	-	152	13	1	-	-	166	-	60	6	-	-	-	66	-	24	6	1	-	-	31
	-	91.6	7.8	0.6	-	-	100.0	-	90.9	9.1	-	-	-	100.0	-	77.4	19.4	3.2	-	-	100.0
401-600	-	50	57	4	2	-	113	-	63	18	3	1	-	85	-	26	10	3	-	-	39
	-	44.2	50.4	3.5	1.8	-	100.0	-	74.1	21.2	3.5	1.2	-	100.0	-	66.7	25.6	7.7	-	-	100.0
601-800	-	7	15	14	2	-	38	-	31	29	3	2	1	66	-	25	13	3	-	-	41
	-	18.4	39.5	36.8	5.3	-	100.0	-	47.0	43.9	4.5	3.0	1.5	100.0	-	61.0	31.7	7.3	-	-	100.0
801-1000	-	1	14	4	3	-	22	-	24	18	4	1	-	47	-	19	13	3	1	-	35
	-	4.5	63.6	18.2	13.6	-	100.0	-	51.1	38.3	8.5	2.1	-	100.0	-	54.3	34.3	8.6	2.9	-	100.0
1001-1200	-	-	-	2	2	1	5	-	1	8	5	-	1	15	-	6	6	1	-	-	13
	-	-	-	40.0	40.0	20.0	100.0	-	6.7	53.3	33.3	-	6.7	100.0	-	46.2	46.2	7.7	-	-	100.0
1201-1400	-	1	3	1	1	2	8	-	5	7	6	-	2	20	-	5	5	3	-	1	14
	-	12.5	37.5	12.5	12.5	25.0	100.0	-	25.0	35.0	30.0	-	10.0	100.0	-	35.7	35.7	21.4	-	7.1	100.0
1401-1600	-	-	1	-	1	2	4	-	1	4	2	3	2	12	-	5	3	1	-	1	10
	-	-	25.0	-	25.0	50.0	100.0	-	8.3	33.3	16.7	25.0	16.7	100.0	-	50.0	30.0	10.0	-	10.0	100.0
1601-1800	-	-	1	-	-	-	1	-	-	2	3	1	-	6	-	2	2	4	-	-	8
	-	-	100.0	-	-	-	100.0	-	-	33.3	50.0	16.7	-	100.0	-	25.0	25.0	50.0	-	-	100.0
1801-2000	-	-	-	-	2	-	2	-	-	1	1	-	-	2	-	2	4	2	1	-	9
	-	-	-	-	100.0	-	100.0	-	-	50.0	50.0	-	-	100.0	-	22.2	44.4	22.2	11.1	-	100.0
2001+	-	-	-	-	-	-	-	-	-	3	5	3	4	15	-	1	10	15	8	4	38
	-	-	-	-	-	-	-	-	-	20.0	33.3	20.0	26.7	100.0	-	2.6	26.3	39.5	21.1	10.5	100.0
Total	-	230	105	26	13	5	379	-	203	97	32	11	10	353	-	126	72	26	10	6	250
	-	60.7	27.7	6.9	3.4	1.3	100.0	-	57.5	27.5	9.1	3.1	2.8	100.0	-	50.0	28.8	14.4	4.0	2.4	100.0
No response	1	-	-	-	-	-	1	7	-	-	-	-	-	7	10	-	-	-	-	-	10
Grand total	1	230	105	26	13	5	380	7	203	97	32	11	10	360	10	126	72	26	10	6	260

Source: NIUA, Household Survey, 1990.

Table 4.10

Distribution of Households according to Household Monthly Income and Household Size

Income group	Total size of family					Calicut					Cochin					Trivandrum				
	1-2	3-4	5-7	7+	Total	1-2	3-4	5-7	7+	Total	1-2	3-4	5-7	7+	Total	1-2	3-4	5-7	7+	Total
< 100	1	4	6	-	11	-	-	-	-	-	1	1	3	-	5	-	3	3	-	6
	9.1	36.4	54.5	-	100.0	-	-	-	-	-	20.0	20.0	60.0	-	100.0	-	50.0	50.0	-	100.0
101-200	9	15	16	-	40	6	9	5	-	20	2	4	8	-	14	1	2	3	-	6
	22.5	37.5	40.0	-	100.0	30.0	45.0	25.0	-	100.0	14.3	28.6	57.2	-	100.0	16.7	33.3	33.3	-	100.0
201-400	18	90	130	25	263	13	57	76	20	166	4	21	38	3	66	1	12	16	2	31
	6.8	34.3	49.4	9.5	100.0	7.8	34.4	45.8	12.0	100.0	6.1	31.8	57.6	4.5	100.0	3.2	38.7	51.7	6.4	100.0
401-600	7	66	119	45	237	4	29	57	23	113	2	24	42	17	85	1	13	20	5	39
	3.0	27.9	50.3	18.8	100.0	3.5	25.6	50.5	20.4	100.0	2.4	28.2	49.4	20.0	100.0	2.6	33.3	51.3	12.9	100.0
601-800	3	40	73	29	145	-	5	19	14	38	3	17	36	10	66	-	18	18	5	41
	2.1	27.5	50.3	20.0	100.0	-	13.1	50.0	36.9	100.0	4.5	25.8	54.5	15.2	100.0	-	43.9	43.9	12.2	100.0
801-1000	3	19	52	30	104	1	-	8	13	22	1	8	22	16	47	1	11	22	1	35
	2.9	18.1	49.9	29.1	100.0	4.5	-	36.3	59.2	100.0	2.1	17.0	46.8	34.1	100.0	2.9	31.4	62.8	2.9	100.0
1001-1200	1	5	16	11	33	-	-	2	3	5	-	2	6	7	15	1	3	8	1	13
	3.0	15.2	48.5	33.3	100.0	-	-	40.0	60.0	100.0	-	13.4	40.0	46.6	100.0	7.7	23.1	61.6	7.7	100.0
1201-1400	1	6	21	14	42	1	-	3	4	8	-	3	9	8	20	-	3	9	2	14
	2.4	14.2	50.0	33.3	100.0	12.5	-	37.5	50.0	100.0	-	15.0	45.0	40.0	100.0	-	21.4	64.0	14.3	100.0
1401-1600	1	1	13	11	26	-	-	2	2	4	-	1	5	6	12	1	-	5	4	10
	3.8	3.8	50.0	42.4	100.0	-	-	50.0	50.0	100.0	-	8.3	41.6	50.1	100.0	10.0	-	50.0	40.0	100.0
1601-1800	-	8	2	5	15	-	-	1	-	1	-	1	3	2	6	-	4	1	3	8
	-	53.3	13.4	33.3	100.0	-	-	100.0	-	100.0	-	16.7	50.1	33.3	100.0	-	50.0	12.5	37.5	100.0
1801-2000	-	1	6	6	13	-	-	1	1	2	-	-	1	1	2	-	1	4	4	9
	-	7.7	46.2	46.2	100.0	-	-	50.0	50.0	100.0	-	-	50.0	50.0	100.0	-	11.1	44.4	44.4	100.0
2001+	-	7	24	22	53	-	-	-	-	-	-	-	6	9	15	-	7	18	13	38
	-	13.2	45.3	41.5	100.0	-	-	-	-	-	-	-	40.0	60.0	100.0	-	18.4	47.4	34.2	100.0
Total	44	259	481	198	982	25	100	174	80	379	13	82	179	79	353	6	77	128	39	250
	4.5	26.4	49.0	20.1	100.0	6.6	26.4	45.8	21.2	100.0	3.7	23.2	50.7	22.4	100.0	2.4	30.8	51.2	15.6	100.0
No response	1	8	8	1	18	-	-	1	-	1	1	2	4	-	7	-	6	3	1	10
Grand total	45	267	489	199	1000	25	100	175	80	380	14	84	183	79	360	6	83	131	40	260

Source: NIUA, Household Survey, 1990.

Table 4.11

Dependency Ratio in the Sample Slums of three Cities

City	Workers	Non-workers	Dependency ratio
Calicut	594	1577	2.65
Cochin	599	1602	2.67
Trivandrum	506	948	1.87
Total	1699	4127	2.43

Source: NIUA, Household Survey, 1990.

Table 4.12

Distribution of Households According to Household Monthly Income and Caste

Income group	Total				Calicut				Cochin				Trivandrum			
	SC	ST	Other	Total	SC	ST	Other	Total	SC	ST	Other	Total	SC	ST	Other	Total
< 100	5	-	6	11	0	0	0	0	0	0	5	5	5	0	1	6
	45.5	-	54.5	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	83.3	0.0	16.7	100.0
101-200	5	1	34	40	2	0	18	20	0	0	14	14	3	1	2	6
	12.5	2.5	85.0	100.0	10.0	0.0	90.0	100.0	0.0	0.0	100.0	100.0	50.0	16.7	33.3	100.0
201-400	24	6	233	263	11	4	151	166	2	1	63	66	11	1	19	31
	9.1	2.3	88.6	100.0	6.6	2.4	91.0	100.0	3.0	1.5	95.5	100.0	35.5	3.2	61.3	100.0
401-600	25	4	208	237	7	3	103	113	1	1	83	85	17	0	22	39
	10.5	1.7	87.8	100.0	6.2	2.7	91.2	100.0	1.2	1.2	97.6	100.0	43.6	0.0	56.4	100.0
601-800	28	5	112	145	4	1	33	38	3	1	62	66	21	3	17	41
	19.3	3.4	77.2	100.0	10.5	2.6	86.8	100.0	4.5	1.5	93.9	100.0	51.2	7.3	41.5	100.0
801-1000	23	2	79	104	0	1	21	22	2	0	45	47	21	3	13	35
	22.1	1.9	76.0	100.0	0.0	4.5	95.5	100.0	4.3	0.0	95.7	100.0	60.0	2.9	37.1	100.0
1001-1200	7	2	24	33	0	0	5	5	0	1	14	15	7	1	5	13
	21.2	6.1	72.7	100.0	0.0	0.0	100.0	100.0	0.0	6.7	93.3	100.0	53.8	7.7	38.5	100.0
1201-1400	8	1	33	42	0	0	8	8	1	0	19	20	7	1	6	14
	19.0	2.4	78.6	100.0	0.0	0.0	100.0	100.0	5.0	0.0	95.0	100.0	50.0	7.1	42.9	100.0
1401-1600	6	0	20	26	0	0	4	4	0	0	12	12	6	0	4	10
	23.1	0.0	76.9	100.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	60.0	0.0	40.0	100.0
1601-1800	4	0	11	15	0	0	1	1	0	0	6	6	4	0	4	8
	26.7	0.0	73.3	100.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	50.0	0.0	50.0	100.0
1801-2000	6	0	7	13	0	0	2	2	0	0	2	2	6	0	3	9
	46.2	0.0	53.8	100.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	66.7	0.0	33.3	100.0
2001+	27	1	25	53	0	0	0	0	0	0	15	15	27	1	10	38
	50.9	1.9	47.2	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	71.1	2.6	26.3	100.0
Total	168	22	792	982	24	9	346	379	9	4	340	353	135	9	106	250
	17.1	2.2	80.7	100.0	6.3	2.4	91.3	100.0	2.5	1.1	96.3	10.0	54.0	3.6	42.4	100.0
No response	3	-	15	18	1	-	-	1	0	0	7	7	2	0	8	10
Grand total	171	22	807	1000	25	9	346	380	9	4	347	360	137	9	114	260

Source: NIUA, Household Survey, 1990.



Table 4.13

Distribution of Households According to the Monthly Income and Monthly Expenditure in the Sample Sources of Three Cities

Income group	Monthly Expenditure												
	0-100	101-200	201-400	401-600	601-800	801-1000	1001-1200	1201-1400	1401-1600	1601-1800	1801-2000	2000+	Total
< 100	1	2	2	2	2	1	1	-	-	-	-	-	11
	9.1	18.2	18.2	18.2	18.2	9.1	9.1	-	-	-	-	-	100.0
101-200	2	18	16	2	1	-	-	-	1	-	-	-	40
	5.0	45.0	40.0	5.0	2.5	-	-	-	2.5	-	-	-	100.0
201-400	7	74	133	31	9	10	3	2	1	1	1	1	263
	2.7	28.1	50.6	8.0	3.4	3.8	1.1	0.8	0.4	0.4	0.4	0.4	100.0
401-600	-	20	96	59	32	16	6	1	1	2	1	3	237
	-	8.4	40.5	24.9	13.5	6.8	2.5	0.4	0.4	0.8	0.4	1.3	100.0
601-800	-	2	42	38	30	11	9	3	3	1	1	5	145
	-	1.4	29.0	26.2	20.7	7.6	6.2	2.1	2.1	0.7	0.7	3.4	100.0
801-1000	-	1	20	21	23	18	7	8	-	2	-	4	104
	-	1.0	19.2	20.2	22.1	17.3	6.7	7.7	-	1.9	-	3.8	100.0
1001-1200	-	-	4	6	6	3	5	3	1	2	1	3	33
	-	-	12.1	18.2	18.2	9.1	15.2	9.1	3.0	6.1	3.0	6.1	100.0
1201-1400	-	1	7	6	9	11	3	3	-	1	-	1	42
	-	2.4	16.7	14.3	21.4	26.2	7.1	7.1	-	2.4	-	2.4	100.0
1401-1600	-	-	-	9	4	3	1	2	4	1	-	2	26
	-	-	-	34.6	15.4	11.5	3.8	7.7	15.4	3.8	-	7.7	100.0
1601-1800	-	-	2	2	2	2	1	1	4	-	-	1	15
	-	-	13.3	13.3	13.3	13.3	6.7	6.7	24.7	-	-	6.7	100.0
1801-2000	-	-	1	2	3	3	-	1	2	1	-	-	13
	-	-	7.7	15.4	23.1	23.1	-	7.7	15.4	7.7	-	-	100.0
2001+	-	-	4	3	10	6	5	9	3	4	1	8	53
	-	-	7.5	5.7	18.9	11.3	9.4	17.0	5.7	7.5	1.9	15.1	100.0
Total	10	118	327	171	131	84	41	33	20	15	5	27	982
	1.0	12.0	33.3	17.4	13.3	8.6	4.2	3.4	2.0	1.5	0.5	2.7	100.0
No response	-	1	3	4	3	5	-	1	1	-	-	-	18
Grand total	10	119	330	175	134	89	41	34	21	15	5	27	1000

Source: NIUA, Household Survey, 1990.

Table 4.14

Distribution of Slum Households according to Monthly Income and Monthly Expenditure in Calicut

Income group	Monthly Expenditure											Total	
	0-100	101-200	201-400	401-600	601-800	801-1000	1001-1200	1201-1400	1401-1600	1601-1800	1801-2000		2000+
< 100	-	-	-	-	-	-	-	-	-	-	-	-	-
101-200	-	11	9	-	-	-	-	-	-	-	-	-	20
201-400	6	55.0	45.0	-	-	-	-	-	-	-	-	-	100.0
401-600	3.6	36.1	98	2	-	-	-	-	-	-	-	-	166
601-800	-	60	59.0	1.2	-	-	-	-	-	-	-	-	100.0
801-1000	-	15	63	27	6	1	1	-	-	-	-	-	113
1001-1200	-	13.3	55.8	23.9	5.3	0.9	0.3	-	-	-	-	-	100.0
1201-1400	-	1	21	12	4	-	-	-	-	-	-	-	38
1401-1600	-	2.6	55.3	31.6	10.5	-	-	-	-	-	-	-	100.0
1601-1800	-	-	5	7	7	3	-	-	-	-	-	-	22
1801-2000	-	-	22.7	31.8	31.8	13.6	-	-	-	-	-	-	100.0
2001+	-	-	2	2	1	-	-	-	-	-	-	-	5
Total	-	-	40.0	40.0	20.0	-	-	-	-	-	-	-	100.0
No response	-	1	3	1	1	1	-	1	-	-	-	-	8
Grand total	-	12.5	37.5	12.5	12.5	12.5	-	12.5	-	-	-	-	100.0
Total	6	88	202	55	20	6	1	1	-	-	-	-	379
No response	-	1	-	-	-	-	-	-	-	-	-	-	1
Grand total	6	89	202	55	20	6	1	1	-	-	-	-	380

Source: NIIA, Household Survey, 1990.

Table 4.15

Distribution of Slum Households according to Monthly Income and Monthly Expenditure in Cochin

Income group	Monthly Expenditure												
	0-100	101-200	201-400	401-600	601-800	801-1000	1001-1200	1201-1400	1401-1600	1601-1800	1801-2000	2000+	Total
< 100	1	-	2	-	2	-	-	-	-	-	-	-	5
	20.0	-	40.0	-	40.0	-	-	-	-	-	-	-	100.0
101-200	1	6	5	2	-	-	-	-	-	-	-	-	14
	7.1	42.9	35.7	14.3	-	-	-	-	-	-	-	-	100.0
201-400	1	13	30	11	4	4	1	-	1	-	-	1	66
	1.5	19.7	45.5	16.7	6.1	6.1	1.5	-	1.5	-	-	1.5	100.0
401-600	-	5	28	24	21	5	1	1	-	-	-	-	85
	-	5.9	32.9	28.2	24.7	5.9	1.2	1.2	-	-	-	-	100.0
601-800	-	1	16	18	15	5	4	2	1	1	-	3	66
	-	1.5	24.2	27.3	22.7	7.6	6.1	3.0	1.5	1.5	-	4.5	100.0
801-1000	-	1	11	10	6	7	4	4	-	1	-	3	47
	-	2.1	23.4	21.3	12.8	14.9	8.5	8.5	-	2.1	-	6.4	100.0
1001-1200	-	-	2	3	3	2	1	-	1	1	1	1	15
	-	-	13.3	20.0	20.0	13.3	6.7	-	6.7	6.7	6.7	6.7	100.0
1201-1400	-	-	3	2	5	5	1	2	-	1	-	1	20
	-	-	15.0	10.0	25.0	25.0	5.0	10.0	-	5.0	-	5.0	100.0
1401-1600	-	-	-	5	1	1	-	1	2	-	-	2	12
	-	-	-	41.7	8.3	8.3	-	8.3	16.7	-	-	16.7	100.0
1601-1800	-	-	-	1	2	1	-	1	1	-	-	-	6
	-	-	-	16.7	33.3	16.7	-	16.7	16.7	-	-	-	100.0
1801-2000	-	-	1	-	1	-	-	-	-	-	-	-	2
	-	-	50.0	-	50.0	-	-	-	-	-	-	-	100.0
2001+	-	-	1	2	2	2	1	1	3	3	-	-	15
	-	-	6.7	13.3	13.3	13.3	6.7	6.7	20.0	20.0	-	-	100.0
Total	3	26	99	78	62	32	13	12	9	7	1	11	353
	0.8	7.4	28.0	22.1	17.6	9.1	3.7	3.4	2.5	2.0	0.3	3.1	100.0
No response	-	-	3	2	1	-	-	1	-	-	-	-	7
Grand total	3	26	102	80	63	32	13	13	9	7	1	11	360

Source: NIUA, Household Survey, 1990.

Table 4.16

Distribution of Slum Households according to Monthly Income and Monthly Expenditure in Trivandrum

Income group	Monthly Expenditure												
	0-100	101-200	201-400	401-600	601-800	801-1000	1001-1200	1201-1400	1401-1600	1601-1800	1801-2000	2000+	Total
< 100	-	2	-	2	-	1	1	-	-	-	-	-	6
	-	33.3	-	33.3	-	16.7	16.7	-	-	-	-	-	100.0
101-200	1	1	2	-	1	-	-	-	1	-	-	-	6
	16.7	16.7	33.3	-	16.7	-	-	-	16.7	-	-	-	100.0
201-400	-	1	5	8	5	6	2	2	-	1	1	-	31
	-	3.2	16.1	25.8	16.1	19.4	6.5	6.5	-	3.2	3.2	-	100.0
401-600	-	-	5	8	5	10	4	-	1	2	1	3	39
	-	-	12.8	20.5	12.8	25.6	10.3	-	2.6	5.1	2.6	7.7	100.0
601-800	-	-	5	8	11	6	5	1	2	-	1	2	41
	-	-	12.2	19.5	26.8	14.6	12.2	2.4	4.9	-	2.4	4.9	100.0
801-1000	-	-	4	4	10	8	3.0	4	-	1	-	1	35
	-	-	11.4	11.4	28.6	22.9	8.6	11.4	-	2.9	-	2.9	100.0
1001-1200	-	-	-	1	2	1	4	3	-	1	-	1	13
	-	-	-	7.7	15.4	7.7	30.8	23.1	-	7.7	-	7.7	100.0
1201-1400	-	-	1	3	3	5	2	-	-	-	-	-	14
	-	-	7.1	21.4	21.4	35.7	14.3	-	-	-	-	-	100.0
1401-1600	-	-	-	2	2	1	1	1	2	1	-	-	10
	-	-	-	20.0	20.0	10.0	10.0	10.0	20.0	10.0	-	-	100.0
1601-1800	-	-	1	1	-	1	1	-	3	-	-	1	8
	-	-	12.5	12.5	-	12.5	12.5	-	37.5	-	-	12.5	100.0
1801-2000	-	-	-	-	2	3	-	1	2	1	-	-	9
	-	-	-	-	22.2	33.3	-	11.1	22.2	11.1	-	-	100.0
2001+	-	-	3	1	8	4	4	8	-	1	1	8	38
	-	-	7.9	2.6	21.1	10.5	10.5	21.1	-	2.6	2.6	21.1	100.0
Total	1	4	26	38	49	46	27	20	11	8	4	16	250
	0.4	1.6	10.4	15.2	19.6	18.4	10.8	8.0	4.4	3.2	1.6	6.4	100.0
No response	-	-	-	2	2	5	-	-	1	-	-	-	10
Grand total	1	4	26	40	51	51	27	20	12	8	4	16	260

Source: NIIA, Household Survey, 1990.

Table 4.17

Distribution of Households according to Monthly Expenditure  
Incurred on Various item of Expenditure in the Sample  
Slums of the three Cities

Items of expenditure	Monthly Expenditure (Rs )						Total
	<100	101-200	201-300	301-400	401-500	500+	
Food	102	306	186	84	97	207	982
	10.4	31.2	18.9	8.6	9.9	21.1	100.0
Shelter	939	16	6	1	3	17	982
	95.6	1.6	0.6	0.1	0.3	1.7	100.0
Clothing	819	102	34	12	5	10	982
	83.4	10.4	3.5	1.2	0.5	1.0	100.0
Recreation	973	3	3	1	-	2	982
	97.1	0.3	0.3	0.1	-	0.2	100.0
Services	518	174	73	37	32	39	873
	59.3	19.9	8.4	4.2	3.7	4.5	100.0
Misc.	967	10	1	1	1	2	982
	98.5	1.0	0.1	0.1	0.1	0.2	100.0

Source: NIUA, Household Survey, 1990.

Table 4.18a

Distribution of Household according to Monthly Expenditure incurred on various Items in Calicut

Items of expenditure	Calicut						Total
	<100	101-200	201-300	301-400	401-500	500+	
Food	76	217	61	14	9	2	379
	20.1	57.3	16.1	3.7	2.4	0.5	100.0
Shelter	368	10	1	-	-	-	379
	97.1	2.6	0.3	-	-	-	100.0
Clothing	303	53	21	2	-	-	379
	79.9	14.0	5.5	0.5	-	-	100.0
Recreation	375	2	2	-	-	-	379
	98.9	0.5	0.5	-	-	-	100.0
Services	270	31	2	-	1	-	304
	88.8	10.2	0.7	-	0.3	-	100.0
Misc	379	-	-	-	-	-	379
	100.0	-	-	-	-	-	100.0

Source: NIUA, Household Survey, 1990.

Table 4.18b

Distribution of Household according to Monthly Expenditure incurred on various Items in Cochin

Items of expenditure	Cochin						Total
	<100	101-200	201-300	301-400	401-500	500+	
Food	18	67	85	54	42	87	353
	5.1	19.0	24.1	15.3	11.9	24.6	100.0
Shelter	339	2	4	1	1	6	353
	96.0	0.6	1.1	0.3	0.3	1.7	100.0
Clothing	319	20	6	6	-	2	353
	90.4	5.7	1.7	1.7	-	0.6	100.0
Recreation	353	-	-	-	-	-	353
	100.0	-	-	-	-	-	100.0
Services	165	89	39	14	6	13	326
	50.6	27.3	12.0	4.3	1.8	4.0	100.0
Misc	346	7	-	-	-	-	353
	98.0	2.0	-	-	-	-	100.0

Source: NIUA, Household Survey, 1990.

Table 4.18c

Distribution of Household according to Monthly Expenditure incurred on various Items in Trivandrum

Items of expenditure	Trivandrum						Total
	<100	101-200	201-300	301-400	401-500	500+	
Food	8 3.2	22 8.8	40 16.0	16 6.4	46 18.4	118 47.2	250 100.0
Shelter	232 92.8	4 1.6	1 0.4	-	2 0.8	11 4.4	250 100.0
Clothing	197 78.8	29 11.6	7 2.8	4 1.6	5 2.0	8 3.2	250 100.0
Recreation	245 98.0	1 0.4	1 0.4	1 0.4	-	2 0.8	250 100.0
Services	83 34.2	54 22.2	32 13.2	23 9.5	25 10.3	26 10.7	243 100.0
Misc	242 96.8	3 1.2	1 0.4	1 0.4	1 0.4	2 0.8	250 100.0

Source: NIUA, Household Survey, 1990.

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Table 4.19

Expenditure Incurred on Different Items of Expenditure by the Slum Households  
of Various Income Groups in the Sample Slums of the three Cities

Income groups	Expenditure on various items													
	Food		Shelter		Clothing		Recreation		Services		Misc.		Total	
	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%
0-100	3500	61.7	-	-	-	-	3	0.10	2171	38.3	-	-	5674	100.0
101-200	7475	67.5	125	1.1	1280	11.6	35	0.3	2115	19.1	50	.5	11080	100.0
201-400	55048	61.3	2825	3.2	9721	10.8	980	1.1	20670	23.0	518	0.6	89762	100.0
401-600	70635	58.1	3859	3.2	15425	12.7	2146	1.8	26295	21.6	3125	2.6	121485	100.0
601-800	57675	54.1	16060	15.1	8767	8.2	850	.8	20519	19.2	2820	2.6	106691	100.0
801-1000	50460	62.3	3475	4.3	7035	8.7	1435	1.8	18359	22.7	255	.3	81019	100.0
1001-1200	20380	56.0	5385	14.8	2082	5.7	612	1.7	7622	20.9	328	.9	36409	100.0
1201-1400	19360	57.0	3240	9.5	2020	5.9	730	2.2	8341	24.6	260	.8	33951	100.0
1401-1600	17300	65.0	265	1.0	3325	12.5	125	0.5	4644	17.5	945	3.6	26604	100.0
1601-1800	8844	57.4	350	2.3	1200	7.8	500	3.2	4516	29.3	-	-	15410	100.0
1801-2000	8350	69.8	50	0.4	1090	9.1	75	0.6	2352	19.7	50	0.4	11967	100.0
2000+	42715	58.2	2402	3.3	3410	4.6	7550	10.3	16429	22.4	900	1.2	73406	100.0
<b>Total</b>	<b>361742</b>	<b>59.0</b>	<b>38036</b>	<b>6.2</b>	<b>55355</b>	<b>9.0</b>	<b>15041</b>	<b>2.5</b>	<b>134033</b>	<b>21.8</b>	<b>9251</b>	<b>1.5</b>	<b>613458</b>	<b>100.0</b>

Source: NIUA, Household Survey, 1990.



Table 4.20

Expenditure Incurred on Various Items of Expenditure by the Households in Various Income Groups in the Slums of Calicut

Income group	Total actual monthly expenditure (in Rs )						Total
	Food	Shelter	Clothing	Recreation	Service	Misc.	
0-100	-	-	-	-	-	-	-
101-200	2830	125	530	10	682	-	4177
	67.8	3.0	12.7	0.2	16.3	-	100.0
201-400	23545	1440	6310	795	6668	-	38758
	60.7	3.7	16.3	2.1	17.2	-	100.0
401-600	23115	1115	9085	860	6681	85	40941
	56.5	2.7	22.2	2.1	16.3	0.2	100.0
601-800	9105	495	3370	525	2389	120	16004
	56.9	3.1	21.1	3.3	14.9	0.7	100.0
801-1000	6625	525	2495	850	1938	50	12483
	53.1	4.2	20.0	6.8	15.5	0.4	100.0
1001-1200	1375	85	250	100	332	28	2170
	63.4	3.9	11.5	4.6	15.3	1.3	100.0
1201-1400	2160	480	955	285	791	-	4671
	46.3	10.3	20.4	6.1	16.9	-	100.0
1401-1600	1800	250	375	25	250	50	2750
	65.5	9.1	13.6	0.9	9.1	1.8	100.0
1601-1800	150	-	50	-	50	-	250
	60.0	-	20.0	-	20.0	-	100.0
1801-2000	600	50	150	50	150	-	1000
	60.0	5.0	15.0	5.0	15.0	-	100.0
2000+	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Total	71305	4565	23570	3500	19931	333	123204
	57.9	3.7	19.1	2.8	16.2	0.3	100.0

Source: NIUA, Household Survey, 1990.

Table 4.21

Expenditure Incurred on Various Items of Expenditure by the Households in Various Income Groups in the Slums of Cochin

Income group	Total actual monthly expenditure (in Rs )						Total
	Food	Shelter	Clothing	Recreation	Service	Misc.	
0-100	1900	-	-	-	405	-	2305
	82.4	-	-	-	17.6	-	100.0
101-200	2745	-	150	25	823	50	3793
	72.4	-	4.0	0.7	21.7	1.3	100.0
201-400	18493	635	1386	150	6643	308	27615
	67.0	2.3	5.0	0.5	24.1	1.1	100.0
401-600	28570	729	2540	226	10022	540	42627
	67.0	1.7	6.0	0.5	23.5	1.3	100.0
601-800	28700	11870	3245	300	9999	900	55014
	52.2	21.6	5.9	0.5	18.2	1.6	100.0
801-1000	25975	1200	2180	405	8148	205	38113
	68.2	3.1	5.7	1.1	21.4	0.5	100.0
1001-1200	9580	200	800	75	4378	250	15283
	62.7	1.3	5.2	0.5	28.6	1.7	100.0
1201-1400	10400	2460	750	170	4733	200	18713
	55.6	13.1	4.0	0.9	25.3	1.1	100.0
1401-1600	8700	15	1800	100	2262	445	13322
	65.3	0.1	13.5	0.8	17.0	3.3	100.0
1601-1800	4114	100	450	50	959	-	5673
	72.5	1.8	7.9	0.9	16.9	-	100.0
1801-2000	700	-	-	-	415	-	1115
	62.8	-	-	-	37.2	-	100.0
2000+	12800	300	225	75	3089	50	16539
	77.4	1.8	1.4	0.4	18.7	0.3	100.0
Total	152677	17509	13526	1576	51876	2948	240112
	63.6	7.3	5.6	0.7	21.6	1.2	100.0

Source: NIUA, Household Survey, 1990.

Table 4.22

Expenditure Incurred on Various Items of Expenditure by the Slums Households in Various Income Groups in Trivandrum

Income group	Total actual monthly expenditure (in Rs )						Total
	Food	Shelter	Clothing	Recreation	Service	Misc.	
0-100	1600	-	-	3	1766	-	3369
	47.5	-	-	0.1	52.4	-	100.0
101-200	1900	-	600	-	610	-	3110
	61.1	-	19.3	-	19.6	-	100.0
201-400	13010	750	2025	35	7359	210	23389
	55.6	3.2	8.7	0.1	31.5	0.9	100.0
401-600	18950	2015	3800	1060	9592	2500	37917
	50.0	5.3	10.0	2.8	25.3	6.6	100.0
601-800	19870	3695	2152	25	8131	1800	35673
	55.7	10.4	6.0	0.1	22.8	5.0	100.0
801-1000	17860	1750	2360	180	8273	-	30423
	58.7	5.8	7.8	0.5	27.2	-	100.0
1001-1200	9425	5100	1032	437	2912	50	18956
	49.7	26.9	5.4	2.3	15.4	0.3	100.0
1201-1400	6800	300	315	275	2817	60	10567
	64.4	2.8	3.0	2.6	26.7	0.5	100.0
1401-1600	6800	-	1150	-	2132	450	10532
	64.6	-	10.9	-	20.2	4.3	100.0
1601-1800	4580	250	700	450	3507	-	9487
	48.3	2.6	7.4	4.7	37.0	-	100.0
1801-2000	7050	-	940	25	1787	50	9852
	71.6	-	9.5	0.3	18.1	0.5	100.0
2001+	29915	2102	3185	7475	13340	850	56867
	52.6	3.7	5.6	13.1	23.5	1.5	100.0
Total	137760	15962	18259	9965	62226	5970	250142
	55.1	6.4	7.3	4.0	24.8	2.4	100.0

Source: NIUA, Household Survey, 1990.

Table 4.23

Expenditure Incurred by the Slum Households on Various Items of Services  
in Various Income Groups in the Three Cities

Income groups	Expenditure on various services													
	Health		Education		Transportation		Electricity		Water charges		Any other		Total	
	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%
0-100	1311.00	60.4	631.00	29.1	19.00	0.9	40.00	1.8	-	-	170.00	7.8	2171.00	100.00
101-200	1125.00	53.2	600.00	28.4	165.00	7.8	175.00	8.3	40.00	1.9	10.00	0.5	2115.00	100.00
201-400	12504.00	60.5	4504.00	21.8	1900.00	9.2	1355.00	6.6	156.00	0.8	251.00	1.2	20670.00	100.00
401-600	14092.00	53.6	5769.00	21.9	2403.00	9.1	2098.00	8.0	233.00	0.9	1700.00	6.5	26295.00	100.00
601-800	10970.00	53.5	5409.00	26.4	2215.00	10.8	1329.00	6.5	82.00	0.4	514.00	2.5	20519.00	100.00
801-1000	9935.00	54.1	4892.00	26.6	1990.00	10.8	774.00	4.2	153.00	0.8	615.00	3.4	18359.00	100.00
1001-1200	3285.00	43.1	3070.00	40.3	840.00	11.0	252.00	3.3	-	-	175.00	2.3	7622.00	100.00
1201-1400	4542.00	54.5	1995.00	23.9	1336.00	16.0	261.00	3.1	2.00	neg.	205.00	2.5	8341.00	100.00
1401-1600	2330.00	50.2	1337.00	28.8	615.00	13.2	352.00	7.6	10.00	0.2	-	-	4644.00	100.00
1601-1800	1100.00	24.4	1410.00	31.2	1635.00	36.2	201.00	4.5	-	-	170.00	3.8	4516.00	100.00
1801-2000	1656.00	70.4	280.00	11.9	264.00	11.2	98.00	4.2	4.00	0.2	50.00	2.1	2352.00	100.00
2000+	9520.00	57.9	3250.00	19.8	2298.00	14.0	576.00	3.5	20.00	0.1	765.00	4.7	16429.00	100.00
Total	72370.00	54.0	33147.00	24.7	15680.00	11.7	7511.00	5.6	700.00	0.5	4625.00	3.5	134033.00	100.00

Source: NIUA, Household Survey, 1990.

Table 4.24  
Expenditure Incurred on Various Items of Services by the  
Slum Households in Calicut

Income groups	Expenditure on various services													
	Health		Education		Transportation		Electricity		Water charges		Any other		Total	
	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%
0-100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
101-200	395	57.9	80	11.7	95	13.9	72	10.6	40	5.9	-	-	682	100.00
201-400	3900	58.5	1271	19.0	775	11.6	618	9.3	79	1.2	25	0.4	6668	100.00
401-600	4085	61.2	911	13.6	730	10.9	807	12.1	128	1.9	20	0.3	6681	100.00
601-800	1366	57.2	554	23.2	221	9.2	156	6.5	42	1.8	50	2.1	2389	100.00
801-1000	1330	68.6	297	15.3	188	9.7	73	3.8	50	2.6	-	-	1938	100.00
1001-1200	250	75.3	50	15.1	15	4.5	17	5.1	-	-	-	-	332	100.00
1201-1400	395	49.9	150	19.0	145	18.3	101	12.8	-	-	-	-	791	100.00
1401-1600	150	60.00	50	20.00	50	2.0	-	-	-	-	-	-	250	100.00
1601-1800	25	50.00	25	50.0	-	-	-	-	-	-	-	-	50	100.00
1801-2000	100	66.7	35	23.3	15	10.00	-	-	-	-	-	-	150	100.00
2000+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	11996	60.2	3423	17.2	2234	11.2	1844	9.3	339	1.7	95	0.5	19931	100.00

Source: NIUA, Household Survey, 1990.

Table 4.25  
Expenditure Incurred on Various Items of Services by the  
Slum Households in Cochin

Income groups	Expenditure on various services													
	Health		Education		Transportation		Electricity		Water charges		Any other		Total	
	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%
0-100	195	48.1	150	37.0	-	-	40	9.9	-	-	20	4.9	405	100.00
101-200	300	36.5	340	41.3	70	8.5	103	12.5	-	-	10	1.2	823	100.00
201-400	4409	66.4	880	13.2	709	10.7	598	9.0	7	0.1	40	0.6	6643	100.00
401-600	5509	55.0	2620	26.1	709	7.1	929	9.3	105	1.0	150	1.5	10022	100.00
601-800	6536	65.4	1370	13.7	1109	11.1	858	8.6	17	0.2	109	1.1	9999	100.00
801-1000	4185	51.4	2440	29.9	854	10.5	546	6.7	103	1.3	20	0.2	8148	100.00
1001-1200	1580	36.1	2285	52.2	400	9.1	113	2.6	-	-	-	-	4378	100.00
1201-1400	2562	54.1	1310	27.7	756	16.0	105	2.2	-	-	-	-	4733	100.00
1401-1600	1505	66.5	172	7.6	350	15.5	225	9.9	10	0.4	-	-	2262	100.00
1601-1800	430	44.8	150	15.6	120	12.5	109	11.5	-	-	150	15.6	959	100.00
1801-2000	350	84.3	50	12.1	-	-	15	3.6	-	-	-	-	415	100.00
2000+	1875	60.7	405	13.1	390	12.6	259	8.4	10	0.3	150	4.9	3089	100.00
Total	29436	56.7	12172	23.5	5467	10.5	3900	7.5	252	0.5	649	1.3	51876	100.00

Source: NIUA, Household Survey, 1990.

Table 4.26

Expenditure Incurred on Various Items of Services by the  
Slum Households in Trivandrum

Income groups	Expenditure on various services													
	Health		Education		Transportation		Electricity		Water charges		Any other		Total	
	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%	(in Rs )	%
0-100	1116	63.2	481	27.2	19	1.1	-	-	-	-	150	8.5	1766	100.00
101-200	430	70.5	180	29.5	-	-	-	-	-	-	-	-	610	100.00
201-400	4195	57.0	2353	32.0	416	5.6	139	1.9	70	1.0	186	2.5	7359	100.00
401-600	4498	46.9	2238	23.3	964	10.0	362	3.8	-	-	1530	16.0	9592	100.00
601-800	3068	37.7	3485	42.9	885	10.9	315	3.9	23	0.2	355	4.4	8131	100.00
801-1000	4420	53.4	2155	26.0	948	11.5	155	1.9	-	-	595	7.2	8273	100.00
1001-1200	1455	50.0	735	25.2	425	14.6	122	4.2	-	-	175	6.0	2912	100.00
1201-1400	1585	56.2	535	19.0	435	15.4	55	2.0	2	0.1	205	7.3	2817	100.00
1401-1600	675	31.6	1115	52.3	215	10.1	127	6.0	-	-	-	-	2132	100.00
1601-1800	645	18.4	1235	35.2	1515	43.2	92	2.6	-	-	20	0.6	3507	100.00
1801-2000	1206	67.5	195	10.9	249	13.9	83	4.7	4	0.2	50	2.8	1787	100.00
2000+	7645	57.3	2845	21.3	1908	14.3	317	2.4	10	0.1	615	4.6	13340	100.00
Total	30938	49.7	17552	28.2	7979	12.8	1767	2.8	109	0.2	3881	6.3	62226	100.00

Source: NIUA, Household Survey, 1990.

Table 4.27  
Distribution of Households According to Monthly Income and Monthly Savings in the  
Sample Slum of the three Cities

Income groups	Monthly savings										Grand total			
	0-0	1-50	51-100	101-150	151-200	200+	Total	Calicut	Triuvan-	Calicut				
	Cochin	Cochin	Cochin	Cochin	Cochin	Cochin	Cochin	drum	drum	drum	Cochin	drum		
0-100	-	5	6	-	-	-	-	-	-	-	-	5	6	11
	-	100.00	100.00	-	-	-	-	-	-	-	-	-	-	-
101-200	20	13	6	1	-	-	-	-	-	-	-	20	14	6
	100.00	92.9	100.00	7.1	-	-	-	-	-	-	-	166	66	31
201-400	166	61	29	5	2	-	-	-	-	-	-	166	66	31
	100.00	92.4	93.5	7.6	6.5	-	-	-	-	-	-	113	85	39
401-600	113	81	36	4	1	-	-	-	-	-	-	113	85	39
	100.0	95.3	92.3	4.7	2.6	-	-	-	-	-	-	38	66	41
601-800	38	58	40	7	-	-	-	-	-	-	-	38	66	41
	100.0	87.9	97.6	10.6	-	-	-	-	-	-	-	22	47	35
801-1000	22	41	35	5	-	-	-	-	-	-	-	22	47	35
	100.0	87.2	100.0	10.6	-	-	-	-	-	-	-	5	15	13
1001-1200	5	13	11	1	1	-	-	-	-	-	-	5	15	13
	100.0	86.7	84.6	6.7	7.7	-	-	-	-	-	-	8	20	14
1201-1400	8	18	12	2	1	-	-	-	-	-	-	8	20	14
	100.0	90.0	85.7	10.0	7.7	-	-	-	-	-	-	8	20	14

Contd. ....



1401-1600	4	10	8	-	2	-	-	-	-	-	-	-	-	-	-	4	12	10	26
	100.0	83.3	80.0	-	16.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1601-1800	1	6	3	-	-	-	-	-	-	-	-	-	-	-	-	1	6	8	15
	100.0	100.0	37.5	-	-	25.0	-	-	12.5	-	-	-	-	-	-	12.5	-	-	-
1801-2000	2	1	7	-	1	-	-	-	-	-	-	-	-	-	-	2	2	9	13
	100.0	50.0	77.8	-	50.0	11.1	-	-	-	-	-	-	-	-	-	11.1	-	-	-
2001+	-	11	32	-	4	2	-	-	-	-	-	-	-	-	-	3	-	15	38
	-	73.3	84.2	-	26.2	5.3	-	-	-	-	-	-	-	-	-	7.9	-	-	-
-----																			
Total	379	318	225	-	32	10	-	2	3	-	1	1	1	0.3	0.4	-	4	-	7
	100.0	90.1	90.0	-	9.1	4.0	-	0.6	1.2	-	0.3	0.4	-	-	-	-	1.6	-	-
-----																			
N.R.	1	6	10	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	7
	100.0	100.0	100.0	-	100.0	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	100.0
-----																			
Grand Total	380	324	235	-	33	10	-	2	3	-	1	1	1	-	-	4	-	7	380
	100.0	90.1	90.0	-	9.1	4.0	-	0.6	1.2	-	0.3	0.4	-	-	-	-	-	-	250
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Source : NIUA, Household Survey, 1990.

Table 4.28

Accumulated Savings of the Household According to Monthly Income in Calicut

Income group	Accumulated savings							Total
	0 - 0	0-100	101-200	201-300	301-400	401-500	500+	
0-100		-		-	-	-	-	-
101-200	20	-	-	-	-	-	-	20
	100.0	-	-	-	-	-	-	-
201-400	166	-	-	-	-	-	-	166
	100.0	-	-	-	-	-	-	100.0
401-600	113	-	-	-	-	-	-	113
	100.0	-	-	-	-	-	-	100.0
601-800	38	-	-	-	-	-	-	38
	100.0	-	-	-	-	-	-	100.0
801-1000	22	-	-	-	-	-	-	22
	100.0	-	-	-	-	-	-	100.0
1001-1200	5	-	-	-	-	-	-	5
	100.0	-	-	-	-	-	-	100.0
1201-1400	8	-	-	-	-	-	-	8
	100.0	-	-	-	-	-	-	100.0
1401-1600	4	-	-	-	-	-	-	4
	100.0	-	-	-	-	-	-	100.0
1601-1800	1	-	-	-	-	-	-	1
	100.0	-	-	-	-	-	-	100.0
1801-2000	2	-	-	-	-	-	-	2
	100.0	-	-	-	-	-	-	100.0
2001+	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Total	379	-	-	-	-	-	-	379
	100.0	-	-	-	-	-	-	100.0

Source : NIUA, Household Survey, 1990.

Table 4.29

Accumulated Savings of the Slum Households According to  
Monthly Income in Cochin

Income group (Rs )	Accumulated savings								Total
	0 - 0	0-100	101-200	201-300	301-400	401-500	501+	NR	
0-100	5	-	-	-	-	-	-	-	5
	100.0	-	-	-	-	-	-	-	100.0
101-200	13	1	-	-	-	-	-	-	14
	92.2	7.1	-	-	-	-	-	-	100.0
201-400	64	-	-	-	-	1	-	1	66
	98.5	-	-	-	-	1.5	-	-	100.0
401-600	83	-	-	-	-	1	-	1	85
	98.8	-	-	-	-	1.2	-	-	100.0
601-800	60	-	-	3	-	-	2	1	66
	92.3	-	-	4.6	-	-	3.1	-	100.0
801-1000	43	-	1	-	1	-	1	1	47
	93.5	-	2.2	-	2.2	-	2.2	-	100.0
1001-1200	13	-	1	-	-	-	-	1	15
	92.9	-	7.1	-	-	-	-	-	100.0
1201-1400	17	-	1	-	-	-	1	-	20
	89.5	-	5.3	-	-	-	5.3	-	100.0
1401-1600	11	-	-	1	-	-	-	-	12
	91.7	-	-	8.3	-	-	-	-	100.0
1601-1800	6	-	-	-	-	-	-	-	6
	100.0	-	-	-	-	-	-	-	100.0
1801-2000	2	-	-	-	-	-	-	-	2
	100.0	-	-	-	-	-	-	-	100.0
2001+	12	-	1	1	-	-	-	1	15
	85.7	-	7.1	7.1	-	-	-	-	100.0
Total	329	1	4	5	1	2	4	7	353
	93.2	0.3	1.2	1.4	0.3	0.6	1.2	1.9	100.

Table 4.30

Accumulated Saving of the Slum Households According to  
Monthly Income in Trivandrum

Income group	Accumulated savings							Total
	0 - 0	0-100	101-200	201-300	301-400	401-500	501+	
0-100	6	-	-	-	-	-	-	6
	100.0	-	-	-	-	-	-	100.0
101-200	6	-	-	-	-	-	-	6
	100.0	-	-	-	-	-	-	100.0
201-400	29	2	-	-	-	-	-	31
	93.5	6.5	-	-	-	-	-	100.0
401-600	36	1	-	1	-	1	-	39
	92.3	2.6	-	2.6	-	2.6	-	100.0
601-800	40	-	-	-	-	-	1	41
	97.6	-	-	-	-	-	2.4	100.0
801-1000	34	-	1	-	-	-	-	35
	97.1	-	2.9	-	-	-	-	100.0
1001-1200	11	1	-	-	-	-	1	14
	84.6	7.7	-	-	-	-	7.7	100.0
1201-1400	13	-	-	-	-	-	1	14
	92.9	-	-	-	-	-	7.7	100.0
1401-1600	8	-	-	1	-	-	1	8
	80.0	-	-	10.0	-	-	10.0	100.0
1601-1800	3	2	2	-	-	-	1	8
	37.5	25.0	25.0	-	-	-	12.5	100.0
1801-2000	7	-	-	-	-	-	2	9
	77.8	-	-	-	-	-	22.2	100.0
2001+	35	2	-	-	-	-	1	38
	92.1	5.3	-	-	-	-	2.6	100.0
Total	228	8	3	2	-	1	8	250
	91.2	3.2	1.2	0.8	-	0.4	3.2	100.0
N.B.	10	-	-	-	-	-	-	10
Grand Total	238	8	3	2	-	1	8	260

Table 4.31

Number of Households Adhering to Borrowing According to Income Group in the three Cities taken together

Income group (Rs )	Adhering to borrowing							
	Never		Regularly		Occasionally		Total	
	No.	%	No.	%	No.	%	No	%
0-100	1	2.0	4	1.2	6	1.0	11	1.1
101-200	1	2.0	16	4.9	23	3.8	40	4.1
201-400	9	18.0	117	35.7	137	22.7	263	26.8
401-600	6	12.0	84	25.6	147	24.3	237	24.1
601-800	11	22.0	37	11.3	97	16.1	145	14.8
801-1000	7	14.0	25	7.6	72	11.9	104	10.6
1001-1200	2	4.0	12	3.7	19	3.1	33	3.4
1201-1400	3	6.0	11	3.4	28	4.6	42	4.3
1401-1600	4	8.0	3	0.9	19	3.1	26	2.6
1601-1800	2	4.0	4	1.2	9	1.5	15	1.5
1801-2000	1	2.0	1	0.3	11	1.8	13	1.3
2001+	3	6.0	14	4.3	36	6.0	53	5.4
Total	50	100.0	328	100.0	604	100.0	982	100.0
No Response	-	-	13	-	5	-	18	
Grand Total	50	-	341	-	609	-	1000	

Source : NIUA, Household Survey, 1990.

Table 4.32

Households Adhering to Borrowing According to Income Group  
in the Sample Slums of Calicut, Cochin and Trivandrum

Income group	Adhering to borrowing												Grand total
	Never			Regularly			Occassionally			Total			
	Calicut	Cochin	Trivan- drum	Calicut	Cochin	Trivan- drum	Calicut	Cochin	Trivan- drum	Calicut	Cochin	Trivan- drum	
0-100	-	-	1	-	2	2	-	3	3	-	5	6	11
%	-	-	5.56	-	2.99	2.30	-	1.15	2.07	-	1.42	2.40	1.12
101-200	-	1	-	12	1	3	8	12	3	20	14	6	40
%	-	3.85	-	6.90	1.49	3.45	4.02	4.62	2.07	5.28	3.97	2.40	4.07
201-400	1	6	2	85	16	16	80	44	13	166	66	31	263
%	16.67	23.08	11.11	48.85	23.88	18.39	40.20	16.92	8.97	43.80	18.70	12.40	26.78
401-600	-	3	3	51	18	15	52	64	21	113	85	39	237
%	-	11.54	16.67	29.31	26.87	17.24	26.13	24.62	14.48	29.82	24.08	15.60	24.13
601-800	3	7	1	9	12	16	26	47	24	38	66	41	145
%	50.0	26.92	5.56	5.17	17.91	18.39	13.07	18.08	16.55	10.03	18.70	16.40	14.77
801-1000	-	5	2	11	5	9	11	37	24	22	47	35	104
%	-	19.23	11.11	6.32	7.46	10.34	5.53	14.23	16.55	5.80	13.31	14.00	10.59
1001-1200	-	2	-	4	3	5	1	10	8	5	15	13	33
%	-	7.69	-	2.30	4.48	5.75	0.50	3.85	5.52	1.32	4.25	5.20	3.36
1201-1400	1	1	1	2	4	5	5	15	8	8	20	14	42
%	16.67	3.85	5.56	1.15	5.97	5.75	2.51	5.77	5.52	2.11	5.67	5.60	4.28
1401-1600	1	1	2	-	-	3	3	11	5	4	12	10	26
%	16.67	3.85	11.11	-	-	3.45	1.51	4.23	3.45	1.06	3.40	4.00	2.65
1601-1800	-	-	2	-	2	2	1	4	4	1	6	8	15
%	-	-	11.11	-	2.99	2.30	0.50	1.54	2.76	0.26	1.70	3.20	1.53
1801-2000	-	-	1	-	-	1	2	2	7	2	2	9	13
%	-	-	5.56	-	-	1.15	1.01	0.77	4.83	0.53	0.57	3.60	1.32
2001+	-	-	3	-	4	10	-	11	25	-	15	38	53
%	-	-	16.67	-	5.97	11.49	-	4.23	17.24	-	4.25	15.20	5.40
Total	6	26	18	174	67	87	199	260	145	379	353	250	982
%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: NIUA, Household Survey, 1990.

Table 4.33

Distribution of Borrowers according to the Principal Reasons for Borrowing in the Three Cities taken together

Income group	Reasons for borrowing						Total	N.A.
	H.H. Expenses	Ceremonies	Illness	Travel	Business	Any other		
0-100	7	-	1	1	1	-	10	1
%	70.0	-	10.0	10.0	10.0	-	100.0	-
101-200	34	1	3	1	-	-	39	1
%	87.2	2.6	7.7	2.6	-	-	100.0	-
201-400	234	4	14	-	2	-	254	9
%	92.2	1.6	5.5	-	0.8	-	100.0	-
401-600	209	5	14	-	2	1	231	6
%	90.5	2.2	6.1	-	0.9	0.4	100.0	-
601-800	125	2	2	-	4	1	134	11
%	93.3	1.5	1.5	-	3.0	0.7	100.0	-
801-1000	85	3	8	-	-	1	97	7
%	87.6	3.1	8.2	-	-	1.0	100.0	-
1001-1200	27	1	3	-	-	-	31	2
%	87.1	3.2	9.7	-	-	-	100.0	-
1201-1400	32	-	4	-	3	-	39	3
%	82.1	-	10.3	-	7.7	-	100.0	-
1401-1600	20	-	-	-	1	1	22	4
%	90.9	-	-	-	4.5	4.5	100.0	-
1601-1800	10	2	-	-	1	-	13	2
%	76.9	15.4	-	-	7.7	-	100.0	-
1801-2000	10	-	2	-	-	-	12	1
%	83.3	-	16.7	-	-	-	100.0	-
2001+	37	-	9	1	1	2	50	3
%	74.0	-	18.0	2.0	2.0	4.0	100.0	-
Total	830	18	60	3	15	6	932	68
%	89.1	1.9	6.4	0.3	1.6	0.6	100.0	-
N.R.	15	3	-	-	-	-	-	-
Grand total	845	21	60	3	15	6	932	68

Source: NIOA, Household Survey, 1990.

Table 4.34

Distribution of Borrowers according to the Principal Reasons for Borrowing in Calicut

Income group	Reasons for borrowing							Total	N.A.
	H.H. Expenses	Ceremonies	Illness	Travel	Business	Any other			
0-100	-	-	-	-	-	-	-	-	-
%	-	-	-	-	-	-	-	-	-
101-200	18	1	1	-	-	-	20	-	-
%	90.0	5.0	5.0	-	-	-	100.0	-	-
201-400	154	3	8	-	-	-	165	1	-
%	93.4	1.8	4.8	-	-	-	100.0	-	-
401-600	109	-	4	-	-	-	113	-	-
%	96.5	-	3.5	-	-	-	100.0	-	-
601-800	22	1	1	-	-	-	35	3	-
%	94.3	2.9	2.9	-	-	-	100.0	-	-
801-1000	22	-	-	-	-	-	22	-	-
%	100.0	-	-	-	-	-	100.0	-	-
1001-1200	5	-	-	-	-	-	5	-	-
%	100.0	-	-	-	-	-	100.0	-	-
1201-1400	7	-	-	-	-	-	7	1	-
%	100.0	-	-	-	-	-	100.0	-	-
1401-1600	3	-	-	-	-	-	3	1	-
%	100.0	-	-	-	-	-	100.0	-	-
1601-1800	1	-	-	-	-	-	1	-	-
%	100.0	-	-	-	-	-	100.0	-	-
1801-2000	2	-	-	-	-	-	2	-	-
%	100.0	-	-	-	-	-	100.0	-	-
2001+	-	-	-	-	-	-	-	-	-
%	-	-	-	-	-	-	-	-	-
Total	354	5	14	-	-	-	373	6	-
%	94.9	1.3	3.7	-	-	-	100.0	-	-
N.B.	-	1	-	-	-	1	-	-	-
Grand total	354	-	14	-	-	-	374	6	-

Source: NIUA, Household Survey, 1990.



Table 4.35

Distribution of Borrowers according to the Principal Reasons for Borrowing in Cochin

Income group	Reasons for borrowing						Total	N.A.
	H.H. Expenses	Ceremonies	Illness	Travel	Business	Any other		
0-100	5	-	-	-	-	-	5	-
%	100.0	-	-	-	-	-	100.0	-
101-200	10	-	2	1	-	-	13	1
%	76.9	-	15.4	7.7	-	-	100.0	-
201-400	55	1	3	-	1	-	60	6
%	91.7	1.7	5.0	-	1.7	-	100.0	-
401-600	72	4	6	-	-	-	82	3
%	87.8	4.9	7.3	-	-	-	100.0	-
601-800	57	-	-	-	1	1	59	7
%	96.6	-	-	-	1.7	1.7	100.0	-
801-1000	35	2	5	-	-	-	42	5
%	83.3	4.8	11.9	-	-	-	100.0	-
1001-1200	13	-	-	-	-	-	13	2
%	100.0	-	-	-	-	-	100.0	-
1201-1400	18	-	1	-	-	-	19	1
%	94.7	-	5.3	-	-	-	100.0	-
1401-1600	11	-	-	-	-	-	11	1
%	100.0	-	-	-	-	-	100.0	-
1601-1800	6	-	-	-	-	-	6	-
%	100.0	-	-	-	-	-	100.0	-
1801-2000	2	-	-	-	-	-	2	-
%	100.0	-	-	-	-	-	100.0	-
2001+	13	-	2	-	-	-	15	-
%	86.7	-	13.3	-	-	-	100.0	-
<b>Total</b>	<b>297</b>	<b>7</b>	<b>19</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>327</b>	<b>26</b>
<b>%</b>	<b>90.8</b>	<b>2.1</b>	<b>5.8</b>	<b>0.3</b>	<b>0.6</b>	<b>0.3</b>	<b>100.0</b>	<b>-</b>
<b>N.B.</b>	<b>7</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>7</b>	<b>-</b>
<b>Grand total</b>	<b>304</b>	<b>7</b>	<b>19</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>334</b>	<b>-</b>

Source: NIUA, Household Survey, 1990.

Table 4.36

Distribution of Borrowers according to the Principal Reasons for Borrowing in Trivandrum

Income group	Reasons for borrowing						Total	N.A.
	H.H. Expenses	Ceremonies	Illness	Travel	Business	Any other		
0-100	2	-	1	1	1	-	5	1
%	40.0	-	20.0	20.0	20.0	-	100.0	-
101-200	6	-	-	-	-	-	6	-
%	100.0	-	-	-	-	-	100.0	-
201-400	25	-	3	-	1	-	29	2
%	86.2	-	10.3	-	3.4	-	100.0	-
401-600	28	1	4	-	2	1	36	3
%	77.8	2.8	11.1	-	5.6	2.8	100.0	-
601-800	35	1	1	-	3	-	40	1
%	87.5	2.5	2.5	-	7.5	-	100.0	-
801-1000	28	1	3	-	-	1	33	2
%	84.8	3.0	9.1	-	-	3.0	100.0	-
1001-1200	9	1	3	-	-	-	13	-
%	69.2	7.7	23.1	-	-	-	100.0	-
1201-1400	7	-	3	-	3	-	13	1
%	53.8	-	23.1	-	23.1	-	100.0	-
1401-1600	6	-	-	-	1	1	8	2
%	75.0	-	-	-	12.5	12.5	100.0	-
1601-1800	3	2	-	-	1	-	6	2
%	50.0	33.3	-	-	16.7	-	100.0	-
1801-2000	6	-	2	-	-	-	8	1
%	75.0	-	25.0	-	-	-	100.0	-
2001+	24	-	7	1	1	2	35	3
%	68.6	-	20.0	2.9	2.9	5.7	100.0	-
Total	179	6	27	2	13	5	232	18
%	77.2	2.6	11.6	0.9	5.6	2.2	100.0	-
N.B.	8	2	-	-	-	-	10	-
Grand total	187	8	27	2	13	5	242	18

Source: NIUA, Household Survey, 1990.

Table 4.37

Distribution of Borrowers according to the Sources of Boorowing

City	Sources of borrowing								Total
	1	2	3	4	5	6	7	8	
Calicut	149	57	16	6	5	127	13	-	373
%	39.9	15.3	4.3	1.6	1.3	34.0	3.5	-	100.0
Cochin	186	4	3	10	18	87	15	4	327
%	56.9	1.2	0.9	3.1	5.5	26.6	4.6	1.2	100.0
Trivandrum	67	3	4	8	17	108	18	7	232
%	28.9	1.3	1.7	3.4	7.3	46.6	7.8	3.0	100.0
Total	402	64	23	24	40	322	46	11	932
%	43.1	6.7	2.5	2.6	4.3	34.6	4.9	1.2	100.0

- 1 Money Lender
- 2 Grocer
- 3 Employer
- 4 Chit Fund
- 5 Bank
- 6 Friends
- 7 Relatives
- 8 Any other

Source: NIUA, Household Survey, 1990.

Table 4.38

Securities against which loans were raised in  
Calicut, Cochin and Trivandrum

City	Securities					
	No security	Ornament	Any other	Total	N.A.	N.R.
Calicut	334	37	2	373	6	1
%	89.5	9.9	0.5	100.0		
Cochin	260	52	15	327	26	7
%	79.5	15.9	4.6	100.0		
Trivandrum	149	35	41	225	18	17
%	66.2	15.6	18.2	100.0		
Total	743	124	58	925	50	25
%	80.3	13.4	6.3	100.0		

Source: NIUA, Household Survey, 1990.

Tanle 4.39

Distribution of Workers according to Distance Travelled  
and the Mode of Transport in  
Calicut, Cochin and Trivandrum

Distance travelled (in km)	Mode of transport					Total
	By foot	Cycle	Rickshaw/ Tanga	Bus	Others	
Less than 1	5	-	-	-	1	6
%	83.3	-	-	-	16.7	100.0
1-10	1093	121	7	246	30	1497
%	73.0	8.1	0.5	16.4	2.0	100.0
11-20	6	4	-	18	1	29
%	20.7	13.8	-	62.1	3.4	100.0
21-50	1	2	-	9	3	15
%	6.7	13.3	-	60.0	20.0	100.0
51-76	-	-	-	2	4	6
%	-	-	-	33.3	66.7	100.0
77+	-	-	-	1	-	1
%	-	-	-	100.0	-	100.0
Total	1105	126	7	276	39	1554
%	71.1	8.2	0.5	17.8	2.5	100.0

Source: NIUA, Household Survey, 1990.

Table 4.40

Distribution of Workers according to Distance Travelled  
and the Mode of Transport in Calicut

Distance travelled	Mode of transport					Total
	By foot	Cycle	Rickshaw/ Tanga	Bus	Others	
Less than 1 %	-	-	-	-	-	-
1-10 %	480 82.2	48 8.2	2 0.3	54 9.2	-	584 100.0
11-20 %	2 100.0	-	-	-	-	2 100.0
21-50 %	1 33.3	-	-	1 33.3	1 33.3	3 100.0
51-76 %	-	-	-	1 100.0	-	1 100.0
77+ %	-	-	-	-	-	-
Total %	483 81.9	48 8.1	2 0.3	56 9.5	1 0.2	590 100.0

Source: NIUA, Household Survey, 1990.

Table 4.41

Distribution of Workers according to Distance  
Travelled and the Mode of Transport in Cochin

Distance travelled	Mode of transport					Total
	By foot	Cycle	Rickshaw/ Tanga	Bus	Others	
Less than 1 %	1 100.0	- -	- -	- -	- -	1 100.0
1-10 %	397 74.2	23 4.3	- -	91 17.0	24 4.5	535 100.0
11-20 %	3 16.7	1 5.6	- -	13 72.2	1 5.6	18 100.0
21-50 %	- -	- -	- -	2 66.7	1 33.3	3 100.0
51-76 %	- -	- -	- -	- -	1 100.0	1 100.0
77+ %	- -	- -	- -	- -	- -	- -
Total %	401 71.9	24 4.3	- -	106 19.0	27 4.6	558 100.0

Source: NIUA, Household Survey, 1990.

Table 4.42

Distribution of Workers according to Distance Travelled  
and the Mode of Transport in Trivandrum

Distance travelled	Mode of transport					Total
	By foot	Cycle	Rickshaw/ Tanga	Bus	Others	
Less than 1	4	-	-	-	1	5
%	80.0	-	-	-	20.0	100.0
1-10	216	50	5	101	6	378
%	57.1	13.2	1.3	26.7	1.6	100.0
11-20	1	3	-	5	-	9
%	11.1	33.3	-	55.6	-	100.0
21-50	-	2	-	6	1	9
%	-	22.2	-	66.7	11.1	100.0
51-76	-	-	-	1	3	4
%	-	-	-	25.0	75.0	100.0
77+	-	-	-	1	-	1
%	-	-	-	100.0	-	100.0
Total	221	55	5	114	11	406
%	54.4	13.5	1.2	28.1	2.7	100.0

Source: NIUA, Household Survey, 1990.



## CHAPTER V

### SERVICE PROFILE

5.1 Accessibility to services is a major factor in any slum upgradation programme. Are the basic services available to all the slum dwellers? What is the level of existing services? Are the slum households in a position to afford the civic services? Are the slum dwellers satisfied with the levels of services? These are some of the vital aspects for formulation of slum upgradation programme. We, therefore, discuss the accessibility and the levels of various services especially water, sanitation, electricity and health in this chapter for gaining insight into the questions posed above.

#### **Water Supply**

5.2 The household survey reveals that the slum dwellers are depending on a number of sources for water supply. These include water taps, handpumps, wells, tubewells, rivers and ponds. It is interesting to note from table 5.1 that the slum dwellers are using these various sources for different uses viz. drinking, bathing and washing of clothes and utensils. Tapped water supply is found to be used by the slum dwellers extensively for drinking purposes. In Cochin, the entire sample slum households reported using this source for drinking purposes. The proportion of such households in Calicut and Trivandrum is about 99% and 90% respectively. Even for other purposes like bathing and washing, the tapped water supply is found to be a very popular source in the slums of all the three cities. In Calicut, around 80% of the

households are using this source for purposes other than drinking as well. In Cochin whereas 83% of the households use it for bathing, relatively lesser number of households (around 75%) are using it for washing of clothes and utensils. In Trivandrum, the number of such households is only around 50%.

5.3 What is the status of the sources of water used by the slum dwellers? What is the proportion of slum households having private connection and of those using water from community sources? Table 5.2 contains frequency distribution of sample households in the three cities according to private and community sources. It should be obvious from this table that in the three cities taken together, a minuscule proportion (5.3%) of the total sample households are found drawing water from the private sources. As many as 916 households out of a sample household of 1000 constituting 91.6% of the sample are drawing water from community sources. Only about 3% of the sample households are drawing water from both sources. Amongst the three cities, Cochin has still smaller proportion (4.2%) of the total households drawing water from private sources. In Calicut, around 6% of the households belong to this category whereas in Trivandrum, such households constitute only 5.3% of the total sample household in this city.

5.4 Table 5.2 thus reveals that an overwhelming proportion (91.6%) of the total sample households are depending for water on the community sources.

### Paying for Water

5.5 We have seen in table 5.2 that only 53 households (5.3%) in the sample slums of the three cities are using water from private sources. Do they pay for it? A look at table 5.3 reveals that out of 53 such families, 5 did not offer any response. Of the remaining 48 households, 34 are making payment for water used, and the remaining 14 households do not pay anything for it. The number of households paying for water in Calicut, Cochin and Trivandrum is 16, 13 and 5, respectively. How much do they pay for it? Table 5.4 reveals that barring only three households in Calicut who are paying more than Rs 20 per month, others are paying only up to Rs 20 per month in all sample slums of the three cities. In Cochin, 12 households are paying only up to Rs 11 per month. In Trivandrum, two families pay even less than Rs 2 per month.

### Community Water Sources

5.6 We have earlier seen that an overwhelming proportion of households are drawing water from community sources. How far is the community source located from their dwelling units? The response given by the sample households is tabulated in table 5.5. A look at this table suggests that the slum households are advantageously placed so far as the distance of the community source of water is concerned. In the sample slums of all the three cities taken together, a little less than three-fourth (72.2%) of the households who use this source are within a distance of less than 50 feet. So fetching water from such a short distance does not appear to be a problem for a very large

number of slum households. However, the situation does not seem to be that happy in Trivandrum sample slums where the proportion of such households is less (67.9%) than the average for the three cities. About 19 to 23% of the households dependent on community source, have to fetch water in the three cities from a distance of 51 to 100 feet. Only about 7% of the households have to bring water from a distance of more than 100 feet. Amongst the three cities, the number of such families is only 4 in Calicut. In Cochin and Trivandrum, the number of such households is 27 and 30, respectively.

5.7 An attempt was made to know the time being spent in waiting for water at the public standposts which are the main sources of community water supply. In the preceding paragraph, we have seen that a very large number of households have community water tap near their houses. However, a significant proportion of them reported that they have to wait for an hour and even more. The proportion of such families in the sample slums of the three cities taken together is 37.3% (table 5.6). The problem seems to be acute especially in Cochin where 58% of the households drawing water from community source reported to spend more than an hour before their turn comes for fetching of water. In Calicut, again 37.4% of such households reported waiting for an hour and more. The situation does not seem to be difficult in Trivandrum slums where only 18 households reported a waiting time of more than an hour. However, table 5.6 reveals that in Cochin, only about one fifth (21.8) of the households have to wait for less than half an hour. In Trivandrum, the

proportion of such families is 83.8% whereas in Calicut it is about 2.6%. This suggests that in Trivandrum, the household - public stand post ratio is better than that of Calicut and Cochin.

#### Adequacy of Water Supply

5.8 With a view to know the adequacy of water supply, the respondent households were asked to indicate if the water supply is adequate or deficient. The perception of households is tabulated in table 5.7. It is obvious from this table that a little less than half of such households (48%) said that water supply is adequate. The remaining 52% of them pointed a number of reasons for inadequate water supply. These include long queues, short duration of water supply, long distances from the dwelling units and low pressure. Some of them also mentioned some personal problems which adversely affect the storing of enough water. These include "lack of enough containers" to store water and "not enough member in the family" who could collect sufficient water and store it. About one-third of households (33%) in the three cities felt that the water problem is due to short duration of water supply. In Calicut, more than half of the households using community water source (54.7%) attributed the inadequacy of water supply to short duration. In Cochin, the number of such households is 21.7% and in Trivandrum, this reason is attributed to by 16.4% of such households. Long queues appear to be another important reason in Cochin where about one-fourth of the households using community sources attributed the inadequacy of water supply to this reason. This does not appear

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to be a reason in Trivandrum due to a better household and public stand post ratio. Table 5.6 has earlier revealed that a large proportion of households have to wait for long at the public stand posts. However, long waiting does not seem to be an important reason for inadequacy of water supply (table 5.7).

Willingness to have private connection

5.9 The households using community source of water were asked if they would like to have a private connection to avoid the inconvenience presently faced by them. Table 5.8 indicates that more than two-third (68.2%) of them revealed their preference to go for private connection. In Trivandrum, about four-fifth of the households are keen to have private connection. In Cochin, only 65.2% of such households want to have it. In Calicut, still a lower proportion (63%) of the households desire to have private connection. This great deal of variation in the number of households desiring to go for private connection is explained by the income distribution pattern in the three cities as analysed in Chapter IV. The income level in Trivandrum is the highest amongst the slum dwellers of the three cities and it is the lowest in Calicut.

5.10 In sum, the analysis of water supply situation suggests not a happy situation as a very large proportion of households in the slums are found depending on community source where again a large number of them have to wait for long period of time for fetching water. Moreover, more than half of the households in the slums of the three cities do not get adequate water. It is worth mentioning that the sample survey of improved slums as



analysed in the Preliminary Report has also earlier come to the same conclusion.

### **Sanitation**

5.11 Besides water, availability of latrine is yet another basic amenity. The analysis of availability of latrine in the sample slums of the three cities indicates that only a little over one-third (37.4%) of the total sample households in the three cities have private latrines (table 5.9). The remaining 62.6% of the households do not have latrine of their own and hence they are taking recourse to various other means. About one-fourth of the total sample households (25.8%) are found using community latrines provided by public agency. About one-third of them reported using open space and the remaining about 4% of the households said that they are using some other means.

5.12 Amongst the three cities, the largest number of slum dwellers are found to have private latrine in Trivandrum (57.7%). In Cochin, it is 38.6%. In Calicut, the smallest number of households have private latrines. In Calicut slums, only about 22% of the households have the private latrines. Perhaps this explains the defecation on open space in Calicut by the largest number of households (61.6%) amongst the three cities. Community latrines are used by the largest number of families in Cochin (38.3%).

5.13 The households (258 in number) using community latrines were asked to indicate the distance of community latrines from their dwelling units. Of the 244 households who offered answer

to this question, as many as 157 (64.3%) in the slums of the three cities taken together said that the distance is less than 50 feet (table 5.10). A little over one-fourth (26.6%) of them said that the community latrines were at a distance of 51 to 100 feet. Thus for a very substantial number of households who are using community latrines (about 91%) the community latrines are located within a distance of less than 100 feet. Even in the three cities individually, the community latrines are located very much near the dwelling units of the slum households. About 90 to 94% of the households have the community latrines within a distance of less than 100 feet. Thus though a small proportion of total slum households have the benefit of community latrines, the households who are using them (258 households) have them located near their dwelling units. They were again asked to indicate if they used it regularly and if not the reasons for it. A look at table 5.11 reveals that out of 258 households in the three cities together, 233 of them said that they were using it regularly. The remaining 25 households in the slums of the three cities said that they do not use the community latrines regularly. Of them, 14 said that it is due to overcrowdedness that they are not able to use and 8 households attributed it to lack of water.

Reasons for not having Private Latrines

5.14 Table 5.9 has earlier revealed that 62.6% of the households in the sample slums of the three cities do not have private latrines. They were asked to reveal reasons for it. Table 5.12 shows that the largest proportion of such households

(72%) do not have private latrines because it is "expensive". Another about 10% of them said that they are just not interested in having a latrine for the exclusive use of their family. They, however, did not mention specific reason for this. Another about 9% of the households do not have private latrine because the land on which they are presently residing is not owned by them. Another about 7% of the households attributed it to the lack of enough space for installation of a private latrine.

5.15 A closer look at this table reveals that in Calicut slums the high cost of private latrines has been attributed to by the largest number of households amongst the three slums. It is to the extent of 87%. The number of such households in Cochin is lower (60.2%) than this and in Trivandrum, it is the lowest (55.4%). This again conforms to the income levels obtaining in the slums of the three cities.

#### Affordability to have latrine

5.16 The households who do not presently have latrines of their own, were asked to indicate the amount of money they could afford in as down payment and in instalments for installation of private latrines. Table 5.13 shows that in the slums of the three cities together, 529 households out of 607 (87%) can afford to pay upto Rs 200 as lump sum. Another about 6% of the households indicated an affordability of Rs 201 to Rs 400. Only 13 families said that they could pay between Rs 401 to Rs 600 in one go and 9 households are ready to pay Rs 801 to Rs 1000 as a single payment. Amongst the three cities, in Calicut, 86% of the

slum household are ready to pay upto Rs 200 in lump sum. The proportion of such families in Cochin is 90%. In Trivandrum, about 83% of the households who do not have private latrines are ready to pay upto Rs 200 in a single instalment. It is interesting to note that in the sample slums of Trivandrum as heavy as 8 households indicated their readiness to pay more than Rs 2000 as a down payment. Thus the affordability to pay in one go seems to be very low in the all the three cities.

5.17 As regards the affordability to pay in monthly instalments, table 5.14 shows a fairly good level of affordability to instal private latrine. In the slums of the three cities together, as many as 97% of the households not having private latrines are ready to pay upto Rs 50 per month towards the installation charges of private latrines. Interestingly in Calicut, despite the lowest income level, all the 294 households expressed their readiness to pay up to Rs 50 per month. In Cochin, there are such families to the extent of 98% and in Trivandrum which has the highest income levels, about 86% of the households are in a position to pay upto Rs 50 per month. There are 8 families in Trivandrum who are ready to pay even upto more than Rs 290 per month for installation of private latrines.

#### **Bath Room**

5.18 The analysis of responses given by the households in the sample slums of the three cities indicates that just about 50% of them have their private bath rooms. How do the other half of the households manage? Table 5.15 shows that 60 households

constituting only 6% of the total sample in the slums of the three cities share the bath room jointly. Another 9.5% of them use the community bath rooms where ever they exist in their slum settlements. About 16% of the households take their bath at the community stand post itself and a miniscale proportion of 46% take bath just in the back of their house or in the make-shift bathing places.

5.19 Amongst the three cities, more than half of the households of Calicut (59.2%) and Cochin (56.4%) have private bath rooms. In case of Trivandrum slums, more than one-fourth of the households (27.4%) have private bath rooms.

5.20 Calicut slums, a considerable number of households (36.1%) use public stand posts for bathing while very few households of Calicut slums either use the community bath rooms or share private bath rooms (table 5.16). In case of Cochin slums, slightly less than one-fourth of the households (23.9%) use community bath rooms while some of the households (11.7%) share bath rooms amongst them. About 5.3% take their bath on the back of their houses. More than a half of the households of Trivandrum slums use other modes for bathing purpose. Nearly 10.4% and 6.9% of the households take their bath on the back of the house and use public stand posts, respectively.

5.21 Respondents were also asked about the regular use of community bath rooms. Out of 95 slum households of the two cities (Calicut and Cochin), 85.3% reported that they used community bathrooms regularly.

5.22 In case of Cochin slums, more than 87% of the households were found using community bath rooms frequently. Around 8% and 4.7% of the households reported that they did not use them regularly because the community latrines remain crowded and dirty. In Calicut slums, out of 9 households, 6 households mentioned that they used community latrines regularly while the remaining three households (who were not regular users gave different reasons as given in table 5.16.

#### Garbage Disposal

5.23 Slum households of the three cities were asked about the garbage disposal system prevailing in their settlements. A majority of the households (84.2%) of Calicut slums reported that they just the throw garbage out side their houses (table 5.17). About 7.6% of the households are found in a habit of throw garbage on the streets and 4.7% use other modes. Very few households (3.4%) are using municipal rubbish bins because these are very few in number. In case of Cochin slums, about half of the respondents mentioned that they throw the garbage on the streets. Another 28.6% throw it outside their houses. A small fraction of households in Cochin said that the garbage is collected by the sweepers. Some of the households said that they throw the garbage in the river, canal, sea etc.

5.24 In Trivandrum slums, 39 households throw it outside their houses, 10.8% on to the streets, 4.2 per cent dispose it in the river, canal or sea etc. Only 14.7% of the households reported reported that they use municipal rubbish bins. About 29 per cent of the households are found using other modes.

5.25 Thus altogether, more than half of the households in the three cities just throw the garbage out side their houses. Slightly less than-one fourth (23.8%) throw it on to the streets and 10% take recourse to other modes. Less than 10% of the households reported that they use municipal rubbish bins. Very few households, ranging from 0.7 to 2.3 per cent, give the garbage to the sweepers, put it in to the river, canal, sea or burned the garbage. (table 5.17)

### **Health**

5.26 An attempt was made to understand the utilisation pattern of health services available in or around the slum clusters. The distribution of slum households, according to the use of health facilities, is given in table 5.18. It is worth mentioning in this regard that the total number of households using different health facilities, will not add up to the sample size because some of the households are using more than one health facility. The total given in table 5.18 thus relates to the total number of facilities.

5.27 Table 5.18 shows that in all the sample slums of the three cities, 286 households are using government hospitals. 246 households are using private hospitals as well. Amongst the three cities, the entire sample household in Calicut (380) is using the government hospitals only. They do not use any other facility like private hospitals, private practitioners etc. A low level of household income perhaps explains this phenomenon in Calicut slums. As mentioned earlier in Chapter IV, about 79% of the households in Calicut slums earn upto Rs 600 per month.

5.28 In Cochin, a significant number of households (289) is using the services of government hospitals. 71 households are using the private hospitals also and 24 households are able afford services of private physicians.

5.29 The use of such expensive health facilities is also directly related to the earning capacity of the slum dwellers. As mentioned earlier, 36.2% and 15.6% of the earners in Cochin slums earn in the range of Rs 600-1200 and Rs 1200-2000 per month, respectively.

5.30 The utilisation pattern of health services in the slums of Trivandrum is somewhat different from Calicut and Cochin slums. In Trivandrum, slum households are using a number of health facilities, viz, government hospitals, private hospitals, ESIS dispensaries, private doctors, health workers, Anganwadi Nurse Midwife (ANM) (coming to centres), Vaid/Hakim and voluntary organisations. Here it is worth noting that a large proportion of households is dependent upon private hospitals. The relatively higher income levels in Trivandrum slums (as mentioned in Chapter IV, 32.8 per cent of the earners earn upto Rs 600, 35.6 per cent earn Rs 600-1200 and 31.6 per cent earn Rs 1200-2000 per month) explains the utilisation pattern of health services in the slums of Trivandrum.

5.31 In sum, one can infer that barring Trivandrum slums, a large number of slum dwellers in Calicut and Cochin are dependent upon government hospitals due to their poor economic conditions. Table 5.19 shows the distribution of slum households according to



the number of health facilities used by them. It is clear from the table that around half of the households in Trivandrum slums use more than one health facility. It may again be attributed to the high affordability of Trivandrum slum dwellers. About 40 per cent of the households (who use the services of government hospitals) in Trivandrum slums are found dissatisfied with the services of government hospital. Perhaps, it may be another reason for using more than one health facility.

5.32 Table 5.20 indicates the perception of slum dwellers about the adequacy of services in the government hospitals. In the sample slums of Calicut, a majority of households (91.84%) are satisfied with the services of government hospital. Out of the remaining 8 per cent, i.e. 31 households, 26 households did not offer any response, while three households and two households complained about the long waiting in government hospital and indifferent behaviour of doctors, respectively.

5.33 About 62.98% of the households of Cochin slums are found satisfied with the services of government hospital. Out of 107 dissatisfied households, 82 households (76.64%) did not offer any response. Nearly 72% of the households (who responded) mentioned the indifferent behaviour of doctors as the only reason for their dissatisfaction. One-fifth of the households reported that one has to wait for long in the government hospital.

5.34 In case of Trivandrum slums, around 60% of the households are satisfied with the services of government hospital. Out of 63 dissatisfied households, 24 households

(38.9%) did not respond. About 28 % of the households (who responded) mentioned that the government hospitals were very far from their dwelling units. Nearly, one-fifth of the households (20.5%) complained about the indifferent behaviour of doctors. Long waiting in government hospital is one of the problems mentioned by another one-fifth of the households. Slightly more than one-fifth of the households gave other reasons of their dissatisfaction. About 5% of the households said that the timing of government hospital overlaps with their working hours.

5.35 Altogether, around three-fourth of the slum households (75.67%) in the three cities are found satisfied with the services of government hospitals. Out of 201 dissatisfied households, 132 households (65.67%) did not respond. About 40 per cent of the respondents who responded, complained about the indifferent behaviour of doctors. Nearly 23% of the households referred to the long waiting time in government hospitals. Around 17% of the households mentioned that the government hospital was very far from their dwelling units. Only three households (4.3%) said that the hospital timings overlap with their working hours. A considerable number of households (14.5%) gave other reason for their dissatisfaction.

#### Suggestions to Improve Health Facilities

5.36 The slum households were asked to suggest ways and means of improving the health facility. In all the three cities only 297 households in the slums (out of a total sample of 1000 households) offered suggestions for improving the health

facilities (table 5.21). About three-fourth of them suggested to create more health facilities. In Calicut and Cochin where a very large number of households are using government hospitals, about 91% of the households who offered suggestions wanted to have more health facilities. In Trivandrum the number of such households is only about 36%. The other suggestion offered was to change the timings of hospitals as the present timings clash with their working hours. 59 households in the sample slums of three cities offered a variety of other suggestions.

### **Electricity**

5.37 The data arising out of the household survey reveal that only a little over one-third (34.6%) of the households in the three cities have electricity (table 5.22). As many as 654 households (out of 1000) do not have electricity. Amongst the three cities, the slums in Calicut have the lowest proportion of households with electricity. Only about 22% of the slum households in Calicut have electricity at the moment. In Cochin the proportion of such households is a little higher (40.8%) than this. In Trivandrum, the proportion of slum dwellers is the highest (44.2%) amongst the three cities. However, some of the families presently do not have separate meters. They are managing with combined meters. There are in all 86 such households in the three cities.

5.38 Slum respondents, who are having electricity connections with meter, were asked about the average electricity charges paid by them in a month. A majority of the respondents in Trivandrum (85.1%) and Calicut (83.3%) slums stated that they

are paying less than Rs 25/- per month while the corresponding figure in case of Cochin is 56.8%. Slightly more than one-third of the respondents in Cochin paid electricity charges in the range of Rs 25-50 per month, While around 7%are paying in the range of Rs 51-75. A considerable number of respondents in Calicut (15.5%) and Trivandrum (12.3%) is paying in the range of Rs 25-50 per month.

5.39 Thus altogether, a majority of the respondents in the three cities are paying less than Rs 25 per month as electricity charges. Less than one-fourth of the respondents (23.1%) are paying in the range of Rs 25-50. Very few respondents are paying in the range of Rs 51-75, Rs 76-100 and Rs 126.150.

Table 5.1

Distribution of Households according to the sources of water drawn for different uses

Sources of Water	Calicut				Cochin				Trivandrum			
	Drinking	Bathing	Washing clothes	Washing utensils	Drinking	Bathing	Washing clothes	Washing utensils	Drinking	Bathing	Washing clothes	Washing utensils
1. Tap	376	314	321	316	360	300	278	273	235	136	133	146
%	(98.9)	(82.6)	(84.5)	(83.2)	(100.0)	(83.3)	(77.2)	(75.8)	(90.4)	(52.3)	(51.2)	(56.2)
2. Hand Pump	1	30	27	28	-	7	8	9	-	-	-	-
%	(0.3)	(7.9)	(7.1)	(7.4)	-	(1.9)	(2.2)	(2.5)	-	-	-	-
3. Well	2	33	29	33	-	52	72	77	25	93	99	97
%	(0.5)	(8.7)	(7.6)	(8.7)	-	(14.4)	(20.0)	(21.4)	(9.6)	(35.8)	(38.1)	(37.3)
4. River	-	-	-	-	-	-	1	-	-	9	8	3
%	-	-	-	-	-	-	(0.3)	-	-	(3.5)	(3.1)	(1.2)
5. Tubewell	-	1	2	2	-	-	-	-	-	-	-	-
%	-	(0.3)	(0.5)	(0.5)	-	-	-	-	-	-	-	-
6. Pond	-	1	-	-	-	1	1	1	-	15	15	10
%	-	(0.3)	-	-	-	(0.3)	(0.3)	(0.3)	-	(5.8)	(5.8)	(3.8)
7. Any other	1	1	1	1	-	-	-	-	-	7	5	4
%	(0.3)	(0.3)	(0.3)	(0.3)	-	-	-	-	-	(2.7)	(1.9)	(1.5)
Total	380	380	380	380	360	360	360	360	260	260	260	260
%	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source : NIUA, Household Survey, 1990

Table 5.2

Households drawing water from Private and Community Sources

Source of Water	Calicut		Cochin		Trivandrum		Grand Total	
	No	%	No	%	No	%	No	%
Private Sources	22	5.8	15	4.2	16	6.2	53	5.3
Public (Community & Water Supply)	358	94.2	345	95.8	213	81.9	916	91.6
Both	-	-	-	-	31	11.9	31	3.1
Total	380	100.0	360	100.0	260	100.0	1000	100.0

Source : NIUA, Household Survey, 1990

Table 5.3

No. of Households paying for the use of water from Private Sources

City	If paying for water used		No Response	Not applicable	Total	Total
	Yes	No				
Calicut	16	6	-	358	22	380
%	(72.7)	(27.3)			(100.0)	
Cochin	13	2	-	345	15	360
%	(86.7)	(13.3)	-		(100.0)	
Trivandrum	5	6	5	244*	11	260
%	(45.5)	(54.5)			(100.0)	
Total	34	14	5	947	48	1000
%	(70.8)	(29.2)			(100.0)	

\* Include 31 households who use both Private and Public Community Water Supply, but do not pay for it.

Source : NIUA, Household Survey, 1990.

Table 5.4

Distribution of Households who pay for water according to the amount paid for month

City	Amount paid (Rs)										Grand Total	
	<2	3-5	6-8	9-11	12-14	15-17	18-20	21+	N.R.	N.A.		Total
Calicut	-	1	1	5	-	2	4	3	-	364	16	380
	-	(6.3)	(6.3)	(31.3)	-	(12.5)	(25.0)	(18.8)				
Cochin	-	1	7	4	-	-	1	-	-	347	13	360
	-	(7.7)	(53.8)	(30.8)	-	-	(7.7)	-	-			
Trivandrum	2	1	1	1	-	-	-	-	5	250	5	260
	(40.0)	(20.0)	(20.0)	(20.0)	-	-	-	-				
Total	2	3	9	10	-	2	5	3	5	961	34	1000
	(5.9)	(8.8)	(26.5)	(29.4)	-	(5.9)	(14.7)	(8.8)				

N.R. - No Response

N.A. - Not applicable

Source : NIVA, Household Survey, 1990



Table 5.5

Distribution of Households using water from Community sources  
according to the distance of the Water Source from the Dwelling Units

City	Distance of Water Source if not Private (in feet)					Total	Total	Grand Total
	<50	51-100	101+	N.A.	N.R.			
Calicut	270 (75.4)	84 (23.5)	4 (1.1)	22	-	358 (100.0)	22	380
Cochin	248 (71.9)	70 (20.3)	27 (7.8)	15	-	345 (100.0)	15	360
Trivandrum	163 (67.9)	47 (19.6)	30 (12.5)	16	4	240 (100.0)	20	260
Total	681 (72.2)	201 (21.3)	61 (6.5)	53	4	943 (100.0)	57	1000

Note - Figure in brackets indicate the percentage to total

N.A. - Not Applicable

N.R. - No Response

Source : NIUA, Household Survey, 1990.

Table 5.6  
Time spent in waiting for water

City	Time Spent in Minutes										Total	Total	Grand Total
	0	1-10	11-20	21-30	31-40	41-50	51-60	61+	N.R.	N.A.			
Calicut	-	20	2	70	-	-	132	134	-	22	358	22	380
%	-	(5.6)	(0.6)	(19.5)	-	-	(36.9)	(37.4)	-	(100)			
Cochin	22	25	14	14	-	3	67	200	-	15	345	15	360
%	(6.4)	(7.2)	(4.1)	(4.1)	-	(0.9)	(19.4)	(58.0)	-	(100)			
Trivandrum	31	65	52	53	2	6	13	18	4	16	240	20	260
%	(12.9)	(27.1)	(21.7)	(22.1)	(0.8)	(2.5)	(5.4)	(7.5)		(100)			
Total	53	110	68	137	2	9	212	352	4	53	943	57	1000
%	(5.6)	(11.7)	(7.2)	(14.5)	(0.2)	(1.0)	(22.4)	(37.3)					

N.R. - No Response

N.A. - Not Applicable

Source : NIUA, Household Survey, 1990.

Table 5.7

Households Perception of adequacy of Water Supply  
and reasons for inadequate water

City	Reasons for inadequate water supply								Total
	1	2	3	4	5	6	7	8	
Calicut	129	18	2	196	3	6	4	-	358
%	(36.0)	(5.0)	(0.6)	(54.7)	(0.8)	(1.7)	(1.1)	-	(100)
Cochin	144	79	5	75	3	6	32	1	345
%	(41.7)	(23.0)	(1.4)	(21.7)	(1.0)	(1.7)	(9.2)	(0.3)	(100)
Trivandrum	182	10	11	40	-	-	1	-	244*
%	(74.6)	(4.1)	(4.5)	(16.4)			(0.4)		(100)
Total	455	107	18	311	6	12	37	1	947
%	(48.0)	(11.2)	(1.9)	(33.0)	(0.6)	(1.3)	(4.0)	(0.1)	(100)

\* Include 31 Households who use both community and private water supply

Note : 1. No. & % of H.Hs. getting adequate water

Reasons for inadequate water supply

2. Long queues
3. Not enough containers
4. Short duration of supply
5. To far to go often
6. Not enough member to collect water
7. Low pressure
8. Any other

Source : NIUA, Household Survey, 1990

Table 5.8

Distribution of Households using water from Community Sources according to their willingness to go for a private connection

City	Private connection needed				N.R.	N.A.	Total of (Yes & No)	Total (N.A. + N.R.)	Grand Total
	Yes		No						
	No	%	No	%					
Calicut	228	63.7	130	36.3	-	22	358 (100)	22	380
Cochin	225	65.2	120	34.8	-	15	345 (100)	15	360
Trivandrum	187	79.6	48	20.4	9	16	235 (100)	25	260
Total	640	68.2	298	31.8	9	53	938 (100)	62	1000

N.R. - No Response

N.A. - Not Applicable

Source : NIUA, Household Survey, 1990

Table 5.9

Distribution of Households according to availability of  
Private and Community Latrines

City	No. & % of H.Hs. having private latrine	Household using			Total
		Community Latrine	Open Space	Any Other	
Calicut	85	61	234	-	380
%	(22.4)	(16.1)	(61.6)	-	(100.0)
Cochin	139	138	58	25	360
%	(38.6)	(38.3)	(16.1)	(6.9)	(100.0)
Trivandrum	150	59	37	14	260
%	(57.7)	(22.7)	(14.2)	(5.4)	(100.0)
Total	374	258	329	39	1000
%	(37.4)	(25.8)	(32.9)	(3.9)	(100.0)

Source : NIUA, Household Survey, 1990.

Table 5.10

Distribution of Household using Community latrine according to the Distance of Latrine from their Dwelling Units

City	Distance from Dwelling Unit (in feet)									Grand Total
	<50	51-100	101-150	151-200	201+	Total	N.B.	N.A.	Total	
Calicut %	14 (23.7)	39 (66.1)	6 (10.2)	-	-	59 (100)	2	319	61	380
Cochin %	102 (76.7)	18 (13.5)	10 (7.5)	2 (1.5)	1 (0.8)	133 (100)	5	222	138	360
Trivandrum %	41 (78.8)	8 (15.4)	2 (3.8)	1 (1.9)	-	52 (100)	7	201	59	260
Total %	157 (64.3)	65 (26.6)	18 (7.4)	3 (1.2)	1 (0.4)	244 (100.0)	14	742	258	1000

N.B. - No Response

N.A. - Not Applicable

Source : NIUA, Household Survey, 1990

Table 5.11

Distribution of Households according to the use of Community Latrines

City	No. & % of H.Hs. using Commu- nity latrine regularly	Reasons for not using							Total	Total	Grand Total
		Over crow- ded	Lack of water	Lack of privacy	Very far	Any other	Not appli- cable	Total			
Calicut %	47 (77.0)	8 (13.1)	6 (9.8)	-	-	-	319	61 (100.0)	319	380	
Cochin %	128 (92.8)	6 (4.3)	2 (1.4)	1 (0.7)	1 (0.7)	-	222	138 (100.0)	222	360	
Trivandrum %	58 (98.3)	-	-	-	-	1 (1.7)	201	59 (100.0)	201	260	
Total %	233 (90.3)	14 (5.4)	8 (3.1)	1 (0.4)	1 (0.4)	1 (0.4)	742	258 (100.0)	742	1000	

Source : NUA, Household Survey, 1990.

Table 5.12

Households not willing to have Private Latrine  
according to reasons

City	Reasons for not having pvt latrine									Grand Total
	1	2	3	4	5	6	7	N.A.	Total	
Calicut	25	257	12	-	-	1	-	85	295	380
%	(8.5)	(87.1)	(4.1)			(0.3)			(100.0)	
Cochin	24	133	38	-	1	25	-	139	221	360
%	(10.9)	(60.2)	(17.2)		(0.4)	(11.2)			(100.0)	
Trivandrum	11	61	7	1	-	20	10	150	110	260
%	(10.0)	(55.4)	(6.4)	(1.0)		(18.2)	(9.1)		(100.0)	
Total	60	451	57	1	1	46	10	374	626	1000
%	(9.6)	(72.0)	(9.1)	(0.2)	(0.2)	(7.3)	(1.6)		(100.0)	

N.A. - Not Applicable

- Codes :
1. Not interested to have a latrine for the exclusive use of their family
  2. Experience
  3. Do not own land
  4. Lack of information
  5. No water to maintain it
  6. No space
  7. Any other

Source : NIUA, Household Survey, 1990



Table 5.13

Affordability to pay for installation of Private Latrines in Lump sum

City	Affordability to pay													Grand total		
	0-200	201-400	401-600	601-800	801-1000	1001-1200	1201-1400	1401-1600	1601-1800	1801-2000	2001+	N.R.	N.A.	Total	Total	
Calicut	254	21	7	1	7	-	-	-	-	3	1	1	85	294	86	380
%	(86.4)	(7.1)	(2.4)	(0.3)	(2.4)					(1.0)	(0.3)			(100.0)		
Cochin	198	14	2	-	2	-	-	-	-	-	4	1	139	220	140	360
%	(90.0)	(6.4)	(1.0)		(1.0)						(1.7)			(100.0)		
Trivandrum	77	2	4	-	-	-	-	1	-	1	8	17	150	93	167	260
%	(82.8)	(2.2)	(4.3)					(1.1)		(1.1)	(8.6)			(100)		
Total	529	37	13	1	9	-	-	1	-	4	13	19	374	607	393	1000
%	(87.1)	(6.1)	(2.1)	(0.2)	(1.5)			(0.2)		(0.7)	(2.1)			(100.0)		

N.R. - No Response

N.A. - Not applicable

Source : NIUA, Household Survey, 1990.

Table 5.14

Affordability to pay for installation of Private Latrine  
on monthly basis

City	Affordability to pay on monthly basis (Rs)									Grand total	
	<50	51-100	101-151	151-201	201-250	251+	N.R.	N.A.	Total		Total
Calicut	294	-	-	-	-	-	1	85	294	86	380
%	(100.0)								(100.0)		
Cochin	216	2	1	-	-	1	1	139	220	140	360
%	(98.0)	(1.0)	(0.5)			(0.5)			(100.0)		
Trivandrum	84	5	1	-	-	8	12	150	98	162	260
%	(85.7)	(5.0)	(1.0)			(8.2)			(100.0)		
Total	593	7	2	-	-	9	14	374	612	388	1000
%	(97.0)	(1.1)	(0.3)			(1.5)			(100.0)		

N.R. - No Response

N.A. - Not applicable

Source : NIUA, Household Survey 1990.

Table 5.15

Distribution of Households according to availability of Private and Community Bath room

City	Households having Private Bath room	Jointly	Community	Public Stand-post	Others	Back of the house/ Make shift	Not Appli-cable	Total	Total	Grand total
Calicut	225	8	9	137	1	-	-	-	380	380
%	(59.2)	(2.1)	(2.4)	(36.1)	(0.3)				(100.0)	
Cochin	203	42	86	7	3	19	-	-	360	360
%	(56.4)	(11.7)	(23.9)	(1.9)	(0.8)	(5.3)			(100.0)	
Trivandrum	71	10	-	18	133	27	1	1	259	260
%	(27.4)	(3.9)	-	(6.9)	(51.4)	(10.4)	-	-	(100.0)	
Total	499	60	95	162	137	46	1	1	999	1000
%	(49.9)	(6.0)	(9.5)	(16.2)	(13.7)	(4.6)	-	-	(100.0)	

Source : NIUA, Household Survey 1990.

Table 5.16

Distribution of households according to the use of Community bathrooms

City	Households using Community Bath room regularly	Reasons for not using them regularly									Total	Total	Grand total
		Lack of water	Over crow- ded	Dirty	Lack of privacy	Not req- uired	Very far	Any other	Not appli- cable	Total			
Calicut %	6 (66.7)	1 (11.1)	1 (11.1)	1 (11.1)	-	-	-	-	371	9 (100.0)	371	380	
Cochin %	75 (87.2)	-	4 (4.7)	7 (8.1)	-	-	-	-	274	86 (100.0)	274	360	
Trivandrum %	-	-	-	-	-	-	-	-	260	-	260	260	
Total %	81 (85.3)	1 (1.1)	5 (5.3)	8 (8.4)	-	-	-	-	905	95 (100.0)	905	1000	

Source : NIUA, Household Survey 1990

Table 5.17

Places used for Disposal of Garbage

City	Households having municipal rubbish bin	On street	In front of House	Give it to Sweeper	Other	Put it in the river/canal/sea	Burning of garbage	No response	Total	Total	Grand total
Calicut %	13 (3.4)	29 (7.6)	320 (84.2)	-	18 (4.7)	-	-	-	380 (100.0)	-	380
Cochin %	42 (11.7)	181 (50.3)	103 (28.6)	14 (3.9)	7 (1.9)	12 (3.3)	1 (0.3)	-	360 (100.0)	-	360
Trivandrum %	38 (14.7)	28 (10.8)	101 (39.0)	-	75 (29.0)	11 (4.2)	6 (2.3)	1	259 (100.0)	1	260
Total %	99 (9.3)	238 (23.8)	524 (52.5)	14 (1.4)	100 (10.0)	23 (2.3)	7 (0.7)	1	999 (100.0)	1	1000

Source : NIUA, Household Survey, 1990

Table 5.18

Use of Various Health Facilities by the Slum Dwellers

City	Codes										Total
	1	2	3	4	5	6	7	8	9	10	
Calicut	380	-	-	-	-	-	-	-	-	-	380
Cochin	289	71	2	24	-	-	5	-	1	-	392
Trivandrum	157	175	4	28	30	40	1	5	-	4	444
Total	826	246	6	52	30	40	6	5	1	4	1216

Note :

1. Govt. Hospital
2. Private Hospital
- 3.ESIS dispensary
4. Private doctor
5. Health workers
6. ANM (coming to Anganwadi Centre)
7. Vaid/Hakim
8. Voluntary Organisation
9. Maternity Centre
10. Any other (Specify)

Source : NIUA, Household Survey 1990.

Table 5.19

Distribution of Households according to the  
Number of Health Facilities used by them

City	No. of Health Facilities				No Res- ponse	Total	Grand total
	1	2	3	4			
Calicut %	380 (100.0)	-	-	-	-	380	380
Cochin %	339 (94.2)	20 (5.6)	1 (0.3)	-	-	360	360
Trivandrum %	132 (51.0)	75 (29.0)	51 (19.7)	1 (0.4)	1	259	260
Total %	851 (85.2)	95 (9.5)	52 (5.2)	1 (0.1)	1	999	1000

Source : NIUA, Household Survey 1990.

Table 5.20

Households' Perception of adequacy of Services in the Government Hospital

City	No. of H.Hs. using it regularly	No. of H.Hs. satisfied with it	Problems faced by the Households					No Res- ponse	Total	Total	Grand total
			1	2	3	4	5				
Calicut %	380	349	-	2 (40.0)	3 (60.0)	-	-	26	5 (100.0)	26	31
Cochin %	289	182	1 (4.0)	18 (72.0)	5 (20.0)	1 (4.0)	-	82	25 (100.0)	82	107
Trivandrum %	157	94	2 (5.1)	8 (20.5)	8 (20.5)	11 (28.2)	10 (25.6)	24	39 (100.0)	24	63
Total %	826	625	3 (4.3)	28 (40.6)	16 (23.2)	12 (17.4)	10 (14.5)	132	69 (100.0)	132	201

Note :

1. Timings overlaps with working hours
2. Indifferent behaviour of doctor/health workers
3. Longo waiting
4. Very far
5. Any other

Source : NIUA, Household Survey 1990.



Table 5.21

Suggestions to improve Health Facilities

City	Suggestions			Total
	More faci- lities required	Timings should be changed	Any other (specify)	
Calicut %	22 (91.7)	2 (8.3)	-	24 (100.0)
Cochin %	173 (91.5)	8 (4.2)	8 (4.2)	189 (100.0)
Trivandrum %	30 (35.7)	3 (3.6)	51 (60.7)	84 (100.0)
Total %	225 (75.8)	13 (4.4)	59 (19.9)	297 (100.0)

Source : NIUA, Household Survey 1990.

Table 5.22

Household having Electricity connection

City	No. of Households having Electricity connection			Total
	With Meter	Combined Meter	No connection	
Calicut %	69 (18.2)	15 (3.9)	296 (77.9)	380 (100.0)
Cochin %	85 (23.6)	62 (17.2)	213 (59.2)	360 (100.0)
Trivandrum %	106 (40.8)	9 (3.5)	145 (55.8)	260 (100.0)
Total %	260 (26.0)	86 (8.6)	654 (65.4)	1000 (100.0)

Source : NIUA, Household Survey 1990.

Table 5.23

Distribution of Households with Electricity according to average amount paid per month

(In Rs)

City	<25	26-50	51-75	76-100	101-125	126-150	151-175	176-200	201+	Not applicable	Total	Grand total
Calicut %	70 (83.3)	13 (15.5)	-	1 (1.2)	-	-	-	-	-	296	84 (100.0)	380
Cochin %	84 (56.8)	53 (35.8)	10 (6.8)	-	-	1 (0.7)	-	-	-	212	148 (100.0)	360
Trivandrum %	97 (85.1)	14 (12.3)	3 (2.6)	-	-	-	-	-	-	146	114 (100.0)	260
Total %	251 (72.5)	80 (23.1)	13 (3.8)	1 (0.3)	-	1 (0.3)	-	-	-	654	346 (100.0)	1000

Source : NIUA, Household Survey 1990.

## CHAPTER VI

### COMMUNITY PARTICIPATION PROFILE

6.1 Community's participation and self-help in the development programme happens to be a crucial variable for its successful implementation. Many a programme goes awry on account of the lack of people's participation. Slum Improvement and upgradation Programme touches upon the cutting edge level of the community and hence in order to be effective, it all the more requires to be based on participatory development approach so that the plans and programmes are in proper relationship with the community's needs and aspiration and are able to attract people's cooperation and involvement in implementation. With this end in view, an attempt was made in the household survey to comprehend the extent of community's participation in financing of improvement either directly or through associations and voluntary organisations. The extent of participation of the local community in improvement programme is analysed in the following paragraphs.

#### **Participation in Improvement of Dwelling Units**

6.2 An attempt was made by the survey team to know if the households would like to contribute towards the improvement and upgradation of their dwelling units under the slum improvement programme. The slum households were therefore asked if they would like to contribute in the upgradation of their shelter in monetary or physical terms.

Monetary Contribution

6.3 It is evident from table 6.1 that a majority of slum households (about 70%) in the sample slums of the three cities taken together are not in a position to contribute in monetary terms. The largest proportion of such households (85.4%) is found in the slums of Cochin, followed by Calicut (61.7%) and Trivandrum (58.9%). The remaining 30% of the households in the sample slums of the three cities are, however, willing to contribute different amounts.

6.4 In Calicut, 144 slum households (out of 376 households who answered this question), are willing to make monetary contribution. 38 households constituting about 10% of the total respondent households (376) are willing to pay up to Rs 50. Another 32 households are ready to pay up to Rs 51-100 and 20 households are ready to pay more than Rs 500. Seven households are ready to pay up to Rs 101-150, 16 up to Rs 151-200. 21 households are in a position to pay Rs 201-250 and another five households from Rs 251-300. In Cochin, only 52 households are in a position to contribute money. Of them, 14 households are in a position to pay up to Rs 50. Another three households are willing to pay only Rs 51-100. Eleven households are ready to pay Rs 451-500, and 18 households more than Rs 500. In Trivandrum sample slums, only 85 households (about 40%) are willing to contribute in monetary terms. 22 households can pay only upto Rs 50. However, 37 households are in a position to pay more than Rs 500. It must be noted that the monetary contribution is not on the monthly basis. It is the down payment

as a single shot monetary contribution towards shelter upgradation. Thus a substantial proportion of households in the three cities are not in a position to pay for shelter upgradation.

#### Manpower Contribution

6.5 As compared to the monetary contribution, a very large section of the sampel households indicated their willingness to pay by way of working for their shelter upgradation. The number of hours for which the slum households will like to work is tabulated in table 6.2. The table shows that as many as 779 households in the three cities (about 80%) are willing to contribute their physical labour. A very large proportion of them (322 households) are willing to work for more than 20 hours a week. Amongst the three cities, the largest proportion of slum households who willing to contribute their labour are found in Calicut (about 85%). 74 households are willing to work from 1 to 5 hours a week. 91 households are willing to work for more than 20 hours a week. In Cochin, about 74% of the households are willing to contribute their physical labour. The largest number of 102 households are willing to work for more than 20 hours. However, as many as 98 households are not ready to contribute more than 5 hours a week. In Trivandrum slums, about 79% households are willing to contribute their physical labour. The highest number of 130 households are in a position to work for more than 20 hours a week.

6.6 It should be thus obvious from table 6.2 that though, a very large section of slum households are willing to contribute

in the form of physical labour, the actual number of hours they are willing to work is quite on the lower side. 457 households in the three cities are willing to work up to only 20 hours a week which amounts to less than three hours a day on an average.

#### **Community's Participation in Slum Upgradation**

6.7 The households living in slums in the three cities were asked to indicate if they are willing to contribute towards the improvement and upgradation of their settlements by providing the basic minimum services and amenities. The response given by them is tabulated in tables 6.3 and 6.4

#### Monetary Contribution

6.8 Table 6.3 shows that out of a sample household of 1000 in the three cities, only 960 answered to the question relating to monetary contribution for upgradation of shelter. A very substantial proportion of them (about 85%) have showed their inability to give any monetary contribution, Out of 146 households who are willing to contribute only 44 of the are willing to pay more than Rs 200. In Calicut, as many as 90% of the slum households have expressed their inability to pay for service upgradation. The proportion of such households in Cochin and Trivandrum are about 88% and 70% respectively. Even the few households who are in a position to contribute, the actual amount to be contributed is very less. As many as 67 households in the three cities (out of 146) are willing to pay only up to Rs 50.

Manpower Contribution

6.9 As in the case of shelter upgradation, a very large section of the slum households in the three cities (about 80%) are found willing to contribute their physical labour in the upgradation of their slum settlements (table 6.4). Of them, the largest number of 223 households are willing to work for more than 20 hours a week. But another large number of 199 slum households are not willing to work for more than five hours a week. Amongst the three cities, in Calicut, about 84% of the households are willing to contribute their physical labour. 86 households are willing to work for only up to 5 hours a week. 67 households are ready to work from six to ten hours and 32 households are willing to work for eleven to fifteen hours. 108 households are willing to work between 16-20 hours a week and only 24 households are ready to work for more than 20 hours. In Cochin, only three-fourth of the households have agreed to work for upgradation of services. Of 270 such families, 94 households have said that they can work only up to five hours a week. In Trivandrum again, a very large number of families (83%) have been found willing to work for slum upgradation. 43% of the households are willing to work for more than 20 hours.

6.10 Thus barring the sample slums of Trivandrum, the number of households willing to work for more than 20 hours a week is small.



### Participation in Upkeep and Maintenance

6.11 Upkeep and maintenance of upgraded services is a vital aspect in a programme of shelter upgradation for, the lack of maintenance results in deterioration and dereliction of services provided. Are the slum households willing to participate in the upkeep and maintenance of upgraded services in their settlements?

#### Monetary Contribution

6.12 Table 6.5 shows that in the sample slums of the three cities taken together, as many as 81% of them are not willing to give any monetary contribution in the upkeep and maintenance of upgraded services. Of the remaining 140 households, more than half of them (74 families) are willing to pay up to Rs 50 per annum. Amongst the three cities, only in Trivandrum, 44 households (out of 79 who are willing to give monetary contribution), are willing to pay up to Rs 50 per annum and another 13 households are willing to pay from Rs 51 to 100 per annum. In Calicut and Cochin, only 17 and 13 households are willing to pay up to Rs 50 per annum. Thus a very large proportion of slum households in the sample slums of the three cities are not in a position to contribute any money for the upkeep and maintenance of services.

#### Manpower Contribution

6.13 It is interesting, however, to note that a majority of the slum households (91%) in the sample slums of the three cities are interested in contributing their physical labour towards the upkeep and maintenance of services (table 6.6). Amongst the

slums of the three cities, almost all the households (97.8%) in Calicut slums and 93% of households in Cochin slums are ready to give physical contribution while the corresponding proportion of households in Trivandrum slums is around 80%.

6.14 It is interesting to note that 42.7% of households in Trivandrum and 33.9% in Cochin slums are ready to offer their services for more than 20 hours in a week while 33.3% of households in Calicut slums are willing to spare themselves for 16-20 hours in a week. The physical labour for 6-10 hours in a week is mentioned by about one-fifth of the households in the slums of each city.

6.15 It should thus be obvious from the preceding analysis that the slum dwellers of the three cities are more willing to give their physical contribution towards the upkeep and maintenance of upgraded services. In the sample slums of Trivandrum, however, a substantial number of households are willing to give monetary contribution for this.

6.16 In sum, a substantial proportion of the slum households in the cities of Calicut, Cochin and Trivandrum do not seem to be willing to contribute in monetary terms either for the upgradation of their shelter, settlement, services and amenities or for the upkeep and maintenance of the upgraded services in their settlements. However, a very large proportion of them are ready to contribute their labour for these. About 80% of the households in the three cities are willing to contribute their labour for the upgradation of their shelter and services. About

91% of the households are ready to do so for upkeep and maintenance of services to be upgraded. Even in Trivandrum, where the income levels are higher, a very large number of slums households have not showed their willingness to contribute their mite in terms of money for the aforesaid purposes. The spirit of self-help in improving the slum conditions is thus lacking to a very great extent. This could be perhaps to some extent due to the persistent assumption amongst the slum dwellers that whatever is to be provided by the public agencies have to be provided free. Provision of urban services to the weaker sections of the society without any system of cost recovery even in a rudimentary form over a very long period of time has perhaps reinforced the idea and attitude of getting the service free.

#### **Suggestions for Ensuring Community's Participation in Maintenance of Service**

6.17 Operations and maintenance of services being a vital component of slum upgradation programme, the sample slum households were persistently asked to give their suggestions for ensuring community's participation in it. However, only 211 households in the sample slums of the three cities came out with suggestions. Their suggestions are presented in table 6.7. In all, 116 (55%) households have suggested that the community's participation has to be ensured by involving the voluntary organisations. All the 116 such households belong to Calicut. Another 23 households have suggested to form associations of slum dwellers which could be involved in the upkeep and maintenance of services. Of them, 19 belong to Calicut and only four to

Trivandrum. Another 28 households think that the operation and maintenance of services could be ensured by making available adequate finance at the disposal of formal organisations of slum communities. Almost all such households hail from Calicut. Thus the slum communities could not give definite responses to the question of ensuring community's involvement in upkeep and maintenance of slum upgradation. In Cochin, in particular, only two households have responded to this question. The reason for this seems to be the fact that no formal organisation of the slum communities have as yet emerged in the slums of this city to do social work and organise the slum communities. The Preliminary Report submitted earlier, has also revealed that barring the trade union activities, the formal organisations of slum communities have not yet emerged to do something for improvement and upgradation of slums.

#### **Willingness to Move**

6.18 As the improvement of slum inevitably involves relocation of some of the households, an attempt was made to elicit the opinion of the respondent households regarding their willingness to move from the present sites. The responses given by them are tabulated in table 6.8. It suggests that as many as 655 households constituting 65.5% of the total sample in the slums of the three cities are not willing to shift from their existing locations. The largest proportion of the total sample households are not willing to shift in Calicut (79.4%). The number of such families in Cochin and Trivandrum is 185 (51.4%) and 169 (65%) respectively.

6.19 On further probing about the reasons for not shifting, more than half (53.3%) of the unwilling households in the sample slums of the three cities said that they are not willing to go to the new locations due to dislocation of their work. Cochin has the highest number of such households (60%) followed by Calicut (57.5%) and Trivandrum (53.3%). A little less than one-fourth (23.7%) of the households stated that the shifting to new locations will bring about disruption in the well established social network of which they are an important part. The remaining 23% of the households gave varied reasons for their unwillingness to shift. These include dislocation of children's education, difficulties in adjusting to the new environment, disruption in the existing close location of dispensaries and hospitals, markets etc. A general apathy to go from the existing locations is reported by as many as 56 households constituting 8.5% of the total households who are not willing to move.

Willingness to pay for shifting

6.20 The households who are, however, ready to move from their existing locations were asked to indicate the amount they will be able to pay towards the cost of land and the cost of construction on new locations. It is evident from table 6.9 that a very large proportion (58.20%) of the 345 households in the sample slums of the three cities who are ready to move from existing locations are in a position to afford up to Rs 1000 towards the cost of land. Amongst the three cities, in Cochin as many as 75.3% of the households who are willing to shift belong to this category. In Trivandrum and Calicut, the proportion of

such households is 66.7% and 16.5% respectively. It is interesting to note that despite the lowest level of income in Calicut slums, the largest proportion (40.5%) of the households have expressed their willingness to pay more than Rs 10000 towards the price of land. The proportion of such households in Cochin and Trivandrum is only 7.4% and 11.1% respectively.

6.21 The willingness of the households to pay for the cost of construction on the new locations is presented in table 6.10. In the three cities taken together, a little less than two-third of the households reported to afford up to Rs 1000 towards the cost of construction. Only 27 households are found in a position to pay for more than Rs 10,000 for this. Amongst the three cities, as many as 82.7% of the households in Cochin are in a position to pay only up to Rs 1000. There are 54 such households (80.6%) in Trivandrum. Calicut presents a bit different scenario. Here, out of 79 families who reported their willingness to move to new locations, 39 (around 50%) are in a position to pay between Rs 2001 to Rs 5000. There are 11 families in Calicut who have expressed their willingness to pay between Rs 10001 to Rs 12000 and three families are willing to pay between Rs 14001 to 15000.

Table 6.1

Distribution of Households according to willingness to give monetary contribution towards the Improvement of their Shelter

City	Monetary Contribution (in Rs)												Total	Not as cert- ained	No res- ponse	Grand Total
	NIL	1- 50	51- 100	101- 150	151- 200	201- 250	251- 300	301- 350	351- 400	401- 450	451- 500	501+				
Calicut	232	38	32	7	16	21	5	-	1	1	3	20	376	-	4	380
%	(61.7)	(10.1)	(8.5)	(1.9)	(4.3)	(5.6)	(1.3)	-	(0.3)	(0.3)	(0.8)	(5.3)	(100.0)	-		
Cochin	305	14	3	-	4	-	2	-	-	-	11	18	357	-	3	360
%	(85.4)	(3.9)	(0.8)	-	(1.1)	-	(2.6)	-	-	-	(3.1)	(5.0)	(100.0)	-		
Trivandrum	122	22	9	4	6	2	1	-	-	-	4	37	207	36	17	260
%	(58.9)	(10.6)	(4.3)	(1.9)	(2.9)	(1.0)	(0.5)	-	-	-	(1.9)	(17.9)	(100.0)			
Total	659	74	44	11	26	23	8	-	1	1	18	75	940	36	24	1000
%	(70.1)	(7.9)	(4.7)	(1.2)	(2.8)	(2.4)	(0.9)	-	(0.1)	(0.1)	(1.9)	(8.0)	(100.0)			

Source : NIUA, Household Survey, 1990.

Table 6.2

Distribution of Households according to willingness to contribute physical labour towards Shelter Upgradation

City	Physical Contribution (hrs. in a week)						Total	Not ascer- tained	No res- ponse	Grand Total
	NIL	1-5	6-10	11-15	16-20	21+				
Calicut	56	74	26	39	91	90	376	-	4	380
%	(14.9)	(19.7)	(6.9)	(10.4)	(24.2)	(23.9)	(100.0)			
Cochin	93	98	49	11	7	102	360	-	-	360
%	(25.8)	(27.2)	(13.6)	(3.1)	(1.9)	(28.3)	(100.0)			
Trivandrum	50	10	26	13	13	130	242	4	14	260
%	(20.7)	(4.1)	(10.7)	(5.4)	(5.4)	(53.7)	(100.0)			
Total	199	182	101	63	111	322	978	4	18	1000
%	(20.3)	(18.6)	(10.3)	(6.4)	(11.3)	(33.0)	(100.0)			

Source : NIUA, Household Survey, 1990.



Table 6.3

Distribution of Households according to the willingness to give monetary contribution towards the upgradation of basic services and amenities

City	Monetary Contribution (in Rs)										Total	Not ascertained	No response	Grand Total
	NIL	1-25	26-50	51-75	76-100	101-125	126-150	151-175	176-200	201+				
Calicut	339	18	6	-	-	-	-	-	-	13	376	-	4	380
%	(90.2)	(4.8)	(1.6)	-	-	-	-	-	-	(3.5)	(100.0)			
Cochin	316	8	5	-	7	-	-	-	2	20	358	-	2	360
%	(88.3)	(2.2)	(1.4)	-	(2.0)	-	-	-	(0.6)	(5.6)	(100.0)			
Trivandrum	159	19	11	-	14	-	2	-	10	11	226	15	19	260
%	(70.4)	(8.4)	(4.9)	-	(6.2)	-	(0.9)	-	(4.4)	(4.9)	(100.0)			
Total	814	45	22	-	21	-	2	-	12	44	960	15	25	1000
%	(84.8)	(4.6)	(2.3)	-	(2.2)	-	(0.2)	-	(1.3)	(4.6)	(100.0)			

Source : NIUA, Household Survey, 1990

Table 6.4

Distribution of Households according to willingness to contribute Physical Labour towards the Upgradation of Basic Services

City	Physical Contribution (hrs. in a week)						Total	Not ascertained	No response	Grand Total
	NIL	1-5	6-10	11-15	16-20	21+				
Calicut %	59 (15.7)	86 (22.9)	67 (17.8)	32 (8.5)	108 (28.7)	24 (6.4)	376 (100.0)	-	4	380
Cochin %	90 (25.0)	97 (26.9)	56 (15.6)	13 (3.6)	10 (2.8)	94 (26.1)	360 (100.0)	-	-	360
Trivandrum %	44 (18.0)	16 (6.6)	46 (18.9)	21 (8.6)	12 (4.9)	105 (43.0)	244 (100.0)	2	14	260
Total %	193 (19.7)	199 (20.3)	169 (17.2)	66 (6.7)	130 (13.3)	223 (22.8)	980 (100.0)	2	18	1000

Source : NIOA, Household Survey, 1990.

Table 6.5

Distribution of Households according to willingness to give  
Monetary contribution towards upkeep and maintenance of services

City	Monetary Contribution (in Rs)												Total	Not ascertained	No response	Not applicable	Grand Total
	NIL	1- 50	51- 100	101- 150	151- 200	201- 250	251- 300	301- 350	351- 400	401- 450	451- 500	501+					
Calicut	255	17	-	1	-	-	-	-	-	-	-	2	275	-	15	90	380
%	(92.7)	(6.2)	-	(0.4)	-	-	-	-	-	-	-	(0.7)	(100.0)				
Cochin	228	13	6	-	2	-	1	-	-	-	10	9	269	-	2	89	360
%	(84.8)	(4.8)	(2.2)	-	(0.7)	-	(0.4)	-	-	-	(3.7)	(3.3)	(100.0)				
Trivandrum	121	44	13	1	5	1	1	1	-	-	4	9	200	14	25	21	260
%	(60.5)	(22.0)	(6.5)	(0.5)	(2.5)	(0.5)	(0.5)	(0.5)	-	-	(2.0)	(4.5)	(100.0)				
Total	604	74	19	2	7	1	2	1	-	-	14	20	744	14	42	200	1000
%	(81.2)	(9.9)	(2.6)	(0.3)	(0.9)	(0.1)	(0.3)	(0.1)	-	-	(1.9)	(2.7)	(100.0)				

Source : NIUA, Household Survey, 1990

Table 6.6

Distribution of Households according to willingness to contribute Physical Labour in upkeep and maintenance of services

City	Physical Contribution (hrs. in a week)						Total	Not ascer- tained	No res- ponse	Not appli- cable	Grand Total
	NIL	1- 5	6- 10	11- 15	16- 20	21+					
Calicut %	6 (2.2)	31 (11.2)	58 (21.0)	60 (21.7)	92 (33.3)	29 (10.5)	276 (100.0)	-	14	90	380
Cochin %	19 (7.0)	82 (30.3)	58 (21.4)	10 (3.7)	10 (3.7)	92 (33.9)	271 (100.0)	-	-	89	360
Trivandrum %	42 (19.7)	13 (6.1)	43 (20.2)	15 (7.0)	9 (4.2)	91 (42.7)	213 (100.0)	1	25	21	260
Total %	67 (8.8)	126 (16.6)	159 (20.9)	85 (11.2)	111 (14.6)	212 (27.9)	760 (100.0)	1	39	200	1000

Source : NIUA, Households Survey, 1990

Table 6.7

Distribution of Households according to Suggestions  
given for ensuring Community's Participation in  
maintenance of services

City	Suggestions for involving the Community						Total
	1	2	3	4	5	6	
Calicut	116	19	1	-	27	-	163
%	(71.2)	(11.7)	(0.6)	-	(16.6)	-	(100.0)
Cochin	-	-	-	-	-	2	2
%	-	-	-	-	-	(100.0)	(100.0)
Trivandrum	-	4	15	5	1	21	46
%	-	(8.7)	(32.6)	(10.9)	(2.2)	(45.7)	(100.0)
Total	116	23	16	5	28	23	211
%	(55.0)	(10.9)	(7.6)	(2.4)	(13.3)	(10.9)	(100.0)

Codes

1. Involving the Voluntary Organisation
2. Forming of association by slum dwellers
3. Imparting education to slum dwellers & increasing awareness
4. Employment opportunities
5. Availability of adequate finance
6. Any other

Source : NIUA, Household Survey, 1990.

Table 6.8

Distribution of Households who are not willing to move according to the reasons for not moving

City	Reasons for not moving								No Response	Total
	1	2	3	4	5	6	7	8		
Calicut	173	88	1	13	25	-	-	1	-	301
%	(57.5)	(29.2)	(0.3)	(4.3)	(8.3)	-	-	(0.3)	-	(100.0)
Cochin	111	17	4	19	6	-	1	27	2	185
%	(60.0)	(9.2)	(2.2)	(10.3)	(3.2)	-	(0.5)	(14.6)		(100.0)
Trivandrum	65	50	11	24	3	1	1	14	3	169
%	(38.5)	(29.6)	(6.5)	(14.2)	(1.8)	(0.6)	(0.6)	(8.3)		(100.0)
Total	349	155	16	56	34	1	2	42	5	655
%	(53.3)	(23.7)	(2.4)	(8.5)	(5.2)	(0.2)	(0.3)	(6.4)		(100.0)

Codes

1. Dislocation of work
2. Dislocation of community link
3. Dislocation of children's education
4. General apathy
5. Lack of interest in new environment
6. Distance of dispensary/hospital
7. Distance of market
8. Any other (specify)

Source : NIUA, Household Survey, 1990

Table 6.9

Distribution of Households according to their willingness to pay for the cost of land

City	Amount willing to pay															Not asc- erta- ined	No res- pon- se	Total
	<1000 2000	1001- 2000	2001- 3000	3001- 4000	4001- 5000	5001- 6000	6001- 7000	7001- 8000	8001- 9000	9001- 10000	10001- 12000	12001- 13000	13001- 14000	14001- 15000	15001+			
Calicut	13	6	5	1	14	4	1	3	-	-	21	-	-	8	3	-	-	79
%	(16.5)	(7.6)	(6.3)	(1.3)	(17.7)	(5.1)	(1.3)	(3.8)	-	-	(26.6)	-	-	(10.1)	(3.8)	-	-	(100.0)
Cochin	122	11	2	5	6	1	-	3	-	-	8	-	-	3	1	-	13	162
%	(75.3)	(6.8)	(1.2)	(3.1)	(3.6)	(0.6)	-	(1.9)	-	-	(4.9)	-	-	(1.9)	(0.6)	-	-	(100.0)
Trivandrum	42	4	2	-	7	1	-	-	-	-	2	-	-	1	4	14	14	63
%	(66.7)	(6.3)	(3.2)	-	(11.1)	(1.6)	-	-	-	-	(3.2)	-	-	(1.6)	(6.3)	-	-	(100.0)
Total	177	21	9	6	27	6	1	6	-	-	31	-	-	12	8	14	27	304
%	(58.2)	(6.9)	(3.0)	(2.0)	(8.9)	(2.0)	(0.3)	(2.0)	-	-	(10.2)	-	-	(3.9)	(2.6)	-	-	(100.0)

Source : NIUA, Household Survey, 1990.

Table 6.10

Distribution of Households according to their willingness to pay for the cost of Construction

City	Amount willing to pay															Not asc- erta- ined	No res- pon- se	Total
	<1000 2000	1001- 2000	2001- 3000	3001- 4000	4001- 5000	5001- 6000	6001- 7000	7001- 8000	8001- 9000	9001- 10000	10001- 12000	12001- 13000	13001- 14000	14001- 15000	15001+			
Calicut	10	6	5	1	14	4	1	3	-	-	21	-	-	8	3	-	-	79
%	(16.5)	(7.6)	(6.3)	(1.3)	(17.7)	(5.1)	(1.3)	(3.8)	-	-	(26.6)	-	-	(10.1)	(3.8)	-	-	(100.0)
Cochin	122	11	2	5	6	1	-	3	-	-	8	-	-	3	1	-	13	162
%	(75.3)	(6.8)	(1.2)	(3.1)	(3.6)	(0.6)	-	(1.9)	-	-	(4.9)	-	-	(1.9)	(0.6)	-	-	(100.0)
Trivandrum	42	4	2	-	7	1	-	-	-	-	2	-	-	1	4	14	14	63
%	(66.7)	(6.3)	(3.2)	-	(11.1)	(1.6)	-	-	-	-	(3.2)	-	-	(1.6)	(6.3)	-	-	(100.0)
Total	177	21	9	6	27	6	1	6	-	-	31	-	-	12	8	14	27	304
%	(58.2)	(6.9)	(3.0)	(2.0)	(8.9)	(2.0)	(0.3)	(2.0)	-	-	(10.2)	-	-	(3.9)	(2.6)	-	-	(100.0)

Source : NIUA, Household Survey, 1990.

## CHAPTER - VII

### SUMMARY AND CONCLUSIONS

#### Household Profile

##### Religion :

7.1 Islam is the dominant religion amongst the households in the sample slums of the three cities taken together. More than three-fourth of slum dwellers in Calicut and a little less than half of them in Cochin belong to Islam. In Trivandrum, however, the Hindus are in large number (more than two-third). Whereas the slums in Calicut and Cochin have Hindus as the second largest group, in Trivandrum, it is the Christianity which is the second largest religion.

##### Caste :

7.2 An overwhelming number (80.7%) of slum dwellers in the three cities belong to castes other than SC and ST. Only Trivandrum has the concentration of SC to the extent of 52.7%. In other cities, the number of SC and ST is only nominal.

##### Household Size :

7.3 The mean household size in the three cities is 5.8. Amongst the three cities, the slum households in Calicut has an average family size of 5.7. This in Cochin, is 6.1 and in Trivandrum 5.6. Trivandrum has a very large number of slum households (60%) with less than 5 members. This in Cochin is 50.89. In Cochin, 6.9% of the slum households have more than 10 family members. This in the case of Calicut and Trivandrum is 4.5% and 3.8% respectively.



7.4 Amongst the followers of various religions, the Christians have the least number of households with more than 5 family members. The Muslims have the largest family size among the followers of the three religions.

Sex :

7.5 The number of females per 1000 males in the slums of Cochin (1066) is not only higher than that of the slums of Calicut (986) and Trivandrum (984) but is also higher than that of the Kerala State as a whole (1032).

Age :

7.6 In all the three cities, about two-third of total population belong to economically active age-group (15 to 59 years). The proportion of population in the age-group of more than 59 years is around 6% in all the three cities, while the number of people upto 14 years of age is a little more than one-fourth of the total slum population in the three cities. The distribution of slum dwellers according to age-group and sex suggests that due to prevalence of larger number of females in the three cities, the females in the age-group 15-59 constitute 73.6% of the total female population as compared to 70.36% for the males.

Tenure Status :

7.7 The data reveal that a large proportion of the sample households (76.10%) in the three cities are owners. Around one-fifth (20.70%) are living in slums as tenants and the remaining 3.20% of the households did not offer any response. Of all the

three cities, Calicut has the highest number of owner households (91.84%), followed by Trivandrum (75.77%) and Cochin (59.72%). As regards tenants, Cochin with 40.28% of slum households as tenants has the highest number of tenant households living in slums.

7.8 The data on the nature of tenancy reveal the prevalence of multiple tenancy system though on a small scale. Of the total tenant households, hardly one-fourth (25.12%) happen to be the secondary tenants. In other words, they are living there in shelters, which have been let out again by the principal tenants.

7.9 In the slums of the three cities, about three-fourth (73.46%) are owners on the basis of first ownership. Around 15% households have purchased from the first purchaser. Amongst all the three cities, the sale and purchase of shelter in slums appear to be quite pronounced in Trivandrum and Cochin.

7.10 A larger number of households (45%) in the three cities have acquired ownership right due to awarding of tenurial right. The largest number of pattas are found to have been awarded in Calicut (62.89%), followed by Trivandrum (55.77%) and Cochin (17.50%).

Migration :

7.11 Low level of urbanisation in the state of Kerala is reflected in low level of migration in the slums of the three cities. Trivandrum being the state capital, has the highest proportion (22.3%) of migrants in the slums. In Calicut the migrant slum households constitute 10.3% of the total households.

Cochin has the least number of migrants (8.4) despite its being a major port and also a trading centre.

7.12 Analysis according to the places of migration suggests that only in Calicut, a little more than one-fourth (25.6%) of the migrant family have migrated from states other than Kerala. This is mainly due to a pronounced trade and commerce in spices in the city and also its being near to the state of Karnataka and to some extent even to part of Pondicherry and Tamil Nadu. Trivandrum has a maximum number of migrants (48.3%) from other districts of Kerala. In Cochin as well, 46.7% of the households have migrated from districts other than Cochin. Only Calicut has a maximum number of migrants (50%) from within the district of Calicut itself.

7.13 The distribution of migrants according to duration of stay suggests that a very high proportion of migrants in all the three cities migrated long ago. In Cochin, 83.3% of the migrants have been staying in the city for more than 15 years.

Reasons for Migration :

7.14 A large number of households have migrated to the three cities because of economic reasons (in search of employment and landlessness). Migration due to marriage constitutes the second very important reason. Breaking up of joint family, better business prospects etc. are other reasons for migration.

Intra-city Migration :

7.15 The analysis reveals virtual absence of inter-city migration as a large number of households in Cochin (54.4%) and Trivandrum (45.4%) are found to have migrated to the present slum cluster from within the city. In Calicut, only one-third of the slum households are found to have migrated from other localities of the city itself.

7.16 About 53.6% of the households in the three cities have shifted to the present slum cluster due to lack of land of their own. Another 11.4% have settled down due to break-up of joint family.

Education :

7.17 A very high level of literacy in the state of Kerala is reflected in the slums of the three cities as well. The percentage of literates in the three cities taken together comes to 80.3%. Amongst the three cities, Cochin has the highest level of literacy (80.7%).

7.18 The analysis reveals that more than one-third of the slum population (34.9%) in the three cities have attained education upto primary school level. A little more than one-fifth (22.4%) are found to have received education upto 8th standard and 13.9% are matriculates.

7.19 It is interesting to note that the slums of Cochin and Trivandrum have 9 graduates each and in Calicut, the number of graduates is 3. The sample slums in Calicut have even the post-graduates amongst the slum dwellers.

7.20 Though the level of literacy amongst the slum dwellers is very high, the number of children actually going to schools constitutes a small proportion (42%) of the total number of children in the school going age groups (5 to 14 years). Barring Trivandrum, where more than 72% of children are going to school in this age group, in Calicut and Cochin only about one-third of the children are going to school.

### **Shelter Profile**

#### Area Occupied :

7.21 In the three cities taken together, more than 50% of the households are occupying less than 25 sq mts of land. Barring the slums in Trivandrum, a very large number of dwelling units in Calicut and Cochin are small in size. In Calicut, as much as 94% of the households are living in less than 25 sq mtrs of land area as compared to about 41% in Cochin. In Trivandrum, about 50% of the households occupy more than 152 sq msts of land.

#### Structural Conditions :

7.22 In Trivandrum, only 3% of dwelling units are pucca as against 17% in Calicut and Cochin. The proportion of semi-pucca structures in Calicut, Cochin, and Trivandrum is 39.5%, 36.7% and 58.8% respectively. Trivandrum has about 46% of structures as Katcha. This in Cochin and Calicut is 38% and 43% respectively. The extent of area occupied and the type of structures is found related with each other. In the three cities taken together, the proportion of semi-pucca structures is increasing along with the increase in the area occupied by the dwelling units. Larger the

land area occupied by the dwelling units, better is the type of structures.

Type of Structures by Ownership :

7.23 It is generally hypothesised that the pattern of ownership determines the type of structure. A household is supposed to bring about improvement in the dwelling units if the ownership right vests with it. The data collected from the sample slums of the three cities, however, do not show any relationship between the ownership of land and the type of structures.

Use of Dwelling Units :

7.24 The dwelling units in the slums are substantially used for residential purposes. A little more than 94% of the dwellings units in the slums of the three cities are used for residential purposes. Non-residential use seems to be in vogue only in the slums of Trivandrum where 12.7% of the dwelling units are used for residential-cum-commercial purposes.

Shelter Improvement :

7.25 Around one-third of the sample households in the three cities have brought about improvement in their dwelling units. A maximum number of improvement is seen in the slums of Trivandrum (63%). In Cochin, a little over one-third of the households have improved their dwelling units. Only in Calicut, the improvement process is found slow as only 14% of the slum households have improved their dwelling units.

7.26 About 57% of the total improved dwelling units in the three cities were improved in the last five years. In Calicut, about 47% of the improvement were carried on in the last five years. The percentage of such houses in Cochin is 51.2 and in Trivandrum even higher (65%). Thus, the slum dwellers are constantly trying to bring about improvement in their structures. This explains the prevalence of a large number of pucca and semi-pucca buildings. This is corroborated also by the fact that the improvements have been brought to a very large extent in the katcha and semi-pucca structures. As much as 67.2% of the katcha and 56.5% of semi-pucca structures have been improved upon in the three cities in the last four years.

Nature of Improvement :

7.27 Broadly three types of improvements have been brought about in the dwelling units. Improvement of either the roof or wall or floor forms the first type of modification which has been brought about in the largest proportion (38.5%) of improved houses in the three cities. Another 26.6% of the improved dwelling units have been reconstructed from katcha to semi-pucca or from semi-pucca to pucca. In another about 27% of the improved properties, improvement has been confined to repairs involving rethatching, white wash and other minor maintenances.

7.28 The analysis of improvement brought about and the income levels of such households does not reveal any relationship between the two. Improvement has been brought about in all the income groups.

Funding of Improvement :

7.29 Self-help in shelter improvement happens to be a dominant feature in the three cities together. About three-fourth of the households who improved their shelter have financed it themselves. About 12% improvements have been financed with government assistance and another 12% by raising funds from friends and relatives.

**Economic Profile**

7.30 Out of the total population of 5827 in the sample slums of the three cities, 1699 are workers which suggests a participation rate of 29.16. Thus, the participation rate in the sample slums is not only higher than that of all the urban centres (24.86) of the state but is even higher than the participation rates obtaining in the cities of Calicut, Cochin and Trivandrum.

7.31 More than three-fourth of the working population are unskilled workers like loaders, unloaders, domestic servants, maids and related housekeeping service workers etc. All the three cities being the coastal towns, the second largest group of workers are the fishermen who constitute about 14.% of the labour force. Other types of occupational groups are sale workers, production and related workers, skilled workers, clerical, professional and technical workers. Male workers are dominant (82%) amongst the workers in the slums of the three cities. Female workers constitute only 17% of the total working force. Child labour is negligible as there are only 8 children who are working in the slums of the three cities.



Earners by Religion :

7.32 Even though Muslims constitute the largest proportion of total earners (43.8%), the white collar jobs are dominated by Hindus. They are dominating even in skilled jobs. Muslims are dominating in fisheries and unskilled jobs. Christians and Muslims together constitute about 94% of the total workers engaged in fisheries. Christians are also conspicuous in number in business and sale and production and related jobs.

Monthly Income :

7.33 Income distribution in the sample slums of the three cities is highly skewed. The most skewed distribution of income is found in Calicut where 79% of the households have a monthly income of less than Rs 600. Another 17% have an income of Rs. 600 to 1200 per month and only 4% have more than Rs 2000 of monthly income. In Cochin, 48.17% of the households have a monthly income of less than Rs 600. Another 36% have an income of Rs. 601 to 1200 and 11.32% have an income of 1201 to 2000. In Trivandrum one-third of sample households have an income of less than Rs 600 per month. Another 35.6% belong to the monthly income group of Rs 601-1200 and 16% to Rs 1201 to 2000. 15% of the households in the sample slums have a monthly income of more than Rs 2000. Four-fifth of the total slums households in Calicut, 48.17% in Cochin and 32.8% in Trivandrum are living below the poverty line.

Household Income and Family Size :

7.34 The proportion of households with large family is found increasing along with the household income. In the three cities taken together, the percentage of families having more than 7 members is increasing along with the increase in income. This of increases from 9.5% in the income group of Rs 201 to 400 to 46% in the income range of Rs 1801 to 2000 and then marginally declines to 41.5% for the income range of more than Rs 2000.

Dependency Ratio :

7.35 The dependency ratio in the slums of the three cities together is 2.43 which suggests that each worker has to support about 2.43 members. Only in Trivandrum, the dependency ratio is less (1.87) than the average for the three cities.

Family Income and Caste :

7.36 The proportion of earners belonging to SC and ST precisely follows the proportion of SC and ST in the total number of households. However, except in the slums of Trivandrum, the levels of earnings of SC and ST in Calicut and Cochin is low. In Calicut, SC earn upto Rs 800 per month only. This in Cochin is upto Rs 1400 per month. Only in Trivandrum, 71% of the SC families have monthly earnings of more than Rs 2000. The ST in Calicut have monthly earnings of upto Rs 1000 and upto Rs 1200 in Cochin. In Trivandrum, ST are found distributed in all the income ranges except in the income range of Rs 1400-2000.

Monthly Expenditure by Income Group :

7.37 Quite a sizeable number of households are incurring expenditure which is more than their income. In all the sample slums of the three cities, there are 221 such households. Inadequate income of these families perhaps is a compelling factor to either incur debts or adhere to dissavings for meeting the expenditure needs. Roughly, about one-third of the total households in the various income groups are spending upto 50% of their income.

Expenditure on Specific Items :

7.38 More than three-fifth of sample households in the slums of the three cities are spending only upto Rs 300 per month on food. In fact, as many as 41% of the households are spending only upto Rs 200 per month on food. Only a little over one-fifth of the households are spending more than Rs 500 per month on food. 95.6% of the households are spending upto Rs 100 on shelter per month. Clothing accounts for less than Rs 100 per month for about 83% of the slum households. Services like water, electricity, transport, education and health also accounts for less than Rs 100 per month for about 59% of the slum households. The analysis of the actual proportion of expenditure spent on various items of expenditure suggests that a lion's share of total expenditure incurred goes to food. It varies from 61% of the total expenditure for the households with a monthly income of Rs 100 to 58% for those having a monthly income of more than Rs 2000. In between, only in the monthly income group of Rs 601-800, Rs 1001-1400 and Rs 1601-1800, the proportion of expenditure

is less than 58%. Thus, on an average, about 59% of the total expenditure incurred by all the households is spent on food. Shelter accounts for only about 6% of the total expenditure of all the income groups. Clothing accounts for about 9% of the total expenditure of all the households. Services account for more than one-fifth (21.8%) of the total expenditure of all the income groups.

Monthly Savings :

7.39 The propensity to save is very low in the sample slums. In Calicut, not a single household reported to save on the monthly basis. In Cochin, only 36 households (out of 353) reported to be in a position to save. As many as 32 of them are able to save only upto Rs 50 per month. In Trivandrum, the propensity to save does not appear to be any better. As many as 90% of the total households are not in a position to save. Low propensity to save is also reflected in low total accumulated savings. In Cochin, out of 346 reporting households, only 17 have accumulated savings. Of them, 4 households have an accumulated savings of more than Rs 501. In Trivandrum which has the highest level of income, only 22 (out of 250) are found to have accumulated savings. Only 8 of them have an accumulated saving of more than Rs 501.

Household Debt

7.40 About 95% (932) of the sample households have resorted to borrowing. Of them, 35.20% have borrowed on the regular basis and 64.80% have to borrow only occasionally. The largest number

of borrowers belong to the income group of Rs 201-400. After that the number of regular borrowers is found to be tapering off along with increase in monthly income. As many as 89% of the households are compelled to borrow to meet the household expenditure needs. Other reasons for borrowing include, illness in the family and running of small scale economic activity. More than three-fourth of the households borrow from money lenders and friends and relatives.

### **Service Profile**

#### Water Supply

7.41 The household survey reveals that the slum dwellers are depending on a number of sources for water supply, viz, water taps, hand pumps, well, tubewells, rivers and ponds. Tapped water supply is found to be used by the slum dwellers extensively for drinking purposes. Even for other purposes like bathing and washing, the tapped water supply is found to be a very popular source in the slums of the three cities.

7.42 The frequency distribution of sample households in the three cities according to private and community sources reveals that a minuscule proportion (5.3%) of the total sample households are found drawing water from private sources. An overwhelming proportion (91.6%) of the sample households are drawing water from community sources, while only 3% are drawing water from both sources.

Paying for Water:

7.43 In the sample slums of the three cities, only 53 households are using water from private sources. Out of such 53 families, 5 did not offer any response regarding the payment for water used. Of the remaining 48 households 34 are making payment for water used, and the remaining 14 households do not pay anything for it. Barring only three households in Calicut who are paying more than Rs 20 per month, others are paying only upto Rs.20 per month in all sample slums of the three cities. In Cochin, 12 households are paying only upto Rs 11 per month. In Trivandrum, two families pay even less than Rs 2 per month.

Community Water Sources:

7.44 The slum households are in a very happy situation so far as the distance of community source of water is concerned. In the sample slums of all the three cities taken together, a little less than three-fourth (72.2%) of the households are within a distance of less than 50 feet. However, the situation does not seem to be that happy in Trivandrum sample where the proportion of such households is less (67.9%) than the average of the three cities.

7.45 A significant proportion (37.3%) of the respondents in the slums of the three cities reported that they have to wait for an hour and even more at public stand posts. The problem seems to be more acute especially in Cochin where 58% of the households drawing water from community source reported to spend more than an hour before their turn comes for fetching of water. In

Cochin, one-fifth (21.8%) of the households have to wait for less than half-an-hour. In Trivandrum, the proportion of such families is 83.8% whereas in Calicut, it is about 2.6%. This suggests that in Trivandrum, the household-public stand post ratio is better than that of Calicut and Cochin.

Adequacy of Water Supply:

7.46 A little less than half of the households (48%) said that water supply is adequate. The remaining 52% of them pointed out a number of reasons for inadequate water supply. About one-third of households (33%) in the three cities felt that the water problem is due to short duration of water supply. In Calicut, more than a half (54.7%) of the households attributed the inadequacy of water supply to short duration. Long queues appear to be another important reason in Cochin where about one-fourth of the households attributed the inadequacy of water supply to this reason. This does not appear to be a reason in Trivandrum due to a better household and public stand post ratio.

Willingness to have Private Connection:

7.47 More than two-third (68.2%) of the households (who are using community sources of Water) revealed their preference to go for private connection. In Trivandrum, about fourth-fifth of the households are keen to have private connection. In Cochin, only 65.2% of such households want to have it. In Calicut, a still lower proportion (63%) of the households desires to have private connection.

7.48 In sum, the analysis of water supply suggests not a happy situation as a very large proportion of households in the slums are found depending on community sources where again a large number of them have to wait for long period of time for fetching water. Moreover, more than half of the households in the slums of the three cities do not get adequate water.

#### Sanitation

7.49 Amongst the sample slums of the three cities, only a little over one-third (37.4%) of the total sample households have private latrines. About one-fourth of the total sample households (25.8%) are using community latrines. Nearly, one-third of them reported using open space and remaining about 4% said that they are using some other means.

7.50 Amongst the three cities, the largest number of slum dwellers are found to have private latrines in Trivandrum (57.7%). Calicut slums has the smallest number of households (22%) who have private latrines. Perhaps this explains the defecation on open space in Calicut by the largest number of households (61.6%) amongst the three cities. Community latrines are used by the largest number of families in Cochin (38.3%).

7.51 In the sample slums of the three cities, about 91% of the households have the community latrines within a distance of less than 100 feet. Even amongst the cities individually, the community latrines are located very much near to their dwelling units. Of the 258 households (who are using community latrines), 233 households (90.31%) use community latrines regularly. The



remaining 25 households in the slums of the three cities said that they are unable to use them due to over crowdedness and lack of water.

Reasons for not having Private Latrines:

7.52 The largest proportion of households (72%) in the sample slums of the three cities do not have private latrines due to its being "expensive". In Calicut slums, the expensiveness of private latrines has been attributed to by the largest number of households amongst the three slums.

Affordability to have Latrine:

7.53 In the slums of the three cities together, 529 households out of 607 (87%) can afford to pay upto Rs 200 in lump sum. A closer look at this reveals that the affordability to pay in lump sum seems to be very low in all the three cities.

7.54 As regards the affordability to pay in monthly instalments, the data show a fairly good level of affordability to instal private latrine. In the slums of the three cities together, as many as 97% of the households not having private latrines are ready to pay up to Rs 50 per month. Interestingly in Calicut, despite the lowest income level, all the 294 households expressed their readiness to pay upto Rs 50 per month.

Bath Room:

7.55 About half of the households in the sample slums of the three cities have private bathroom. Of the other half of the households, 46% take bath just in the back of their houses or

make-shift bathing places. Nearly 16% of the households take their bath at the public stand posts while 9.5% use the community bathroom. Only 6% of them share bathroom jointly.

7.56 Out of 95 slum households of the two cities (Calicut and Cochin) 85.3% use community bathrooms regularly. Most of the remaining households did not use them regularly because the community latrines remain over crowded and dirty.

Garbage Disposal:

7.57 In the sample slums of the three cities, more than half of the households just throw the garbage outside their houses, slightly less than one-fourth (23.8%) throw it on the streets and 10% take recourse to other modes. Less than 10% of the households use municipal rubbish bin. Which have been provided in a few slums only.

Health:

7.58 Barring Trivandrum slums, a larger number of slum dwellers in Calicut and Cochin are dependent upon government hospital due to their poor economic condition. Around a half of the households in Trivandrum slums use more than one health facility. It may be attributed to the high affordability of Trivandrum slum dwellers.

7.59 Regarding the adequacy of services in the government hospitals, around three-fourth of the slum households (75.67%) in the three cities are found satisfied with the services of government hospitals. About 40% of the respondents, who responded, complained about the indifferent behaviour of

doctors. Nearly 23% of the households referred to the long waiting time in the government hospitals. Around 17% of the households mentioned that the government hospitals were very far from their dwelling units. The remaining households gave other reasons for their dissatisfaction.

Suggestions to Improve Health Facilities:

7.60 Three-fourth of households (who offered suggestions) suggested to create more health facilities. The other suggestion offered was to change the timings of hospitals as the present timings clash with their working hours. Some hospitals in the sample slums offered a variety of other suggestions.

**Electricity**

7.61 A little over one-third (34.6%) of the households in the three cities have electricity. Amongst the three cities, the slums in Calicut have the lowest proportion (22%) of households with electricity. This proportion in Trivandrum is the highest (44.2%) amongst the three cities.

7.62 Slum respondents, who are having electricity with meter, were asked about the average electricity charges paid by them in a month. A majority of the respondents in the three cities are paying less than Rs 25 per month as electricity charges. Less than one-fourth of the respondents (23.1%) are paying in the range of Rs 25-50. Very few respondents are paying in the range of Rs.51-75, Rs 76-100 and Rs 126-150.

Community Participation Profile

7.63 Effectuation of the objectives of slum improvement and upgradation programme calls for adopting a participatory approach. An attempt was therefore made during the household survey to know the extent of Community's Participation in financing of improvement of their own dwelling units, upgradation of services in their slum settlements and upkeep and maintenance of upgraded services. The responses given by the sample houses in the cities of Calicut, Cochin and Trivandrum suggest that a very large segment of slum dwellers do not seem to be willing to contribute in monetary terms. About 80% of the households in the three cities are willing to contribute only their labour for the upgradation of their shelter and services. About 91% of the households are ready to do so for the upkeep and maintenance of services to be upgraded. Even in Trivandrum, where the incomes are higher, a very large number of slum households have not showed their willingness to contribute their mite in terms of money for the aforesaid purpose. The spirit of self-help in improving the slum conditions is thus lacking to a very great extent.

Suggestions for Community Participation:

7.64 Operations and maintenance of services being a vital component of slum upgradation programme, the sample households were persistently asked to give suggestions for ensuring community's participation. However, only 211 households in the sample slums of the three cities came out with suggestions. About 55% of them (116 households) suggested to involve the

voluntary organisations. Another 23 households have suggested to form associations of slum dwellers which could be involved in the upkeep and maintenance of services. Another 28 households think that the upkeep and maintenance of services could be ensured by making available adequate finance at the disposal of formal organisations of slum community. It is worth noting that only two respondents in Cochin answered to this question. The reason for this seems to be the fact that no formal organisation of slum communities have as yet emerged in the slums of this city to do social work and organise the slum communities.

#### Willingness to Move

7.65 The improvement programme will involve dislocation of some of the households. The respondents were therefore asked if they were willing to move from their existing locations. As many as 655 slum households (out of 1000) in the three cities are not willing to shift from their present locations. The largest proportion of the total sample households (79.2%) who are not willing to shift, belong to Calicut, the number of such families in Cochin and Trivandrum is 185 (51.41%) and 169 (65%) respectively. More than half (53.3%) of the unwilling households in the three cities did not want to shift due to the dislocation it will bring about in their work. Cochin has the highest number of such households (60%) followed by Calicut (57.5%) and Trivandrum (53.3%). Another a little less than one-fourth (23.7%) of the households do not want to shift as it will disrupt the otherwise well established social network. The remaining 23% of the households gave varied reasons like dislocation of

children's education, lack of interest in view environment, disruption in the existing nearness to dispensaries and hospitals, markets etc.

Willingness to Pay for Shifting

7.66 Of the small sections of slum households who are willing to shift to the new locations, as many as 75.3% of them in Cochin are willing to pay up to Rs 1000 towards the cost of land. In Trivandrum and Calicut the proportion of such households is 66.7% and 16.5% respectively. It is interesting to note that despite the lowest level of income in Calicut slums, the largest proportion (40.5%) of the households have expressed their willingness to pay more than Rs 10,000 towards the price of land. The proportion of such households in Cochin and Trivandrum is only 7.4% and 11.1% respectively.

7.67 As regards the willingness to pay for the cost of construction, 82.7% of the households in Cochin who are willing to shift are in a position to pay only up to Rs 1000. There are 57 such households in Trivandrum. In Calicut, out of 79 families who reported their willingness to move to new locations, 39 are in a position to pay from Rs 2001 to Rs 5000. There are 11 families in Calicut slums who have expressed their willingness to pay between Rs 10001 to Rs 12000 and three families are willing to pay from Rs 14001 to Rs 15000.

### Conclusions

The important findings of the household survey has been highlighted in the preceding paragraphs. What are the main conclusions of this survey? Are the slum dwellers poor in an economic sense? Do they have financial cushions in the shape of savings? Are they really deprived of the basic civic services and amenities? If so, what is the extent of deprivation? Are they willing to contribute towards the upgradation of their shelter and services? If so what is the extent of their contribution and in which form? What is their preception of dislocation involved in slum relocation? How crucial is the question of dislocation? These are some of the critical questions to be answered to have a flavour of the socio-economic condition of slum dwellers as also for policy intervention. Therefore even at the cost of repeatation it will be worth while to have a look on these aspects of the socio-economic life of the slum dwellers.

#### Economic condition:

The data on cash earnings of the slum households in the three cities have revealed that a substantial proportion of them are poor in economic sense. In Calicut, for example, about four-fifth of the total slum households are living below the national poverty line as compared to 30% for the state of Kerala. In Cochin, about 48.17% of the households are poor while in Trivandrum only about a third of the slum households are below the poverty line. They do not seem to have a financial cushion in the shape of savings. In Calicut not a single slum household

is able to save nor any of the slum households has accumulated savings. In Cochin, only 36 households (out of 353 responding households) are in a position to save and only 17 households reported to have some accumulated savings. In Trivandrum, which has the highest income level amongst the slum households of the three cities, only 10% of the sample households are in a position to save.

#### Deprivation of Services

A very large number of slum households are deprived of services. Around 95% of the slum households in the three cities are depending on the community water supply system. In Calicut 54% of the household are not satisfied with the adequacy of water supply. In Cochin and Trivandrum, however, only 21% and 16% of the households are dissatisfied with water supply. About 78% of the households in Calicut are deprived of private latrine. In the slums of Cochin and Trivandrum, the number of such household is about 61% and 42%. Private bath room is available only with 59% of the households in Calicut and 56.4% in Cochin. In Trivandrum, 73% of the households do not have a bath room of their own.

#### Self-Help

The findings of the survey has revealed that most of the slum households are not willing to contribute in monetary terms for the upgradation of shelter and services and the upkeep and maintenance of upgraded services. However, a majority of the households are willing to contribute their mite in terms of their physical labour.



Perception about Dislocation

As much as two-third of the slum households in the three cities are not willing to shift from their existing locations. The disruption in work opportunities and the work-home-relationship involved in slum relocation is looming large in the minds of slum households. More than 53% of the households who are not willing to move from existing locations, indicated dislocation of their work as the main reason. Other reasons given include dislocation of children's education, difficulties in adjusting to the new environment, disruption in the existing close locations of dispensaries and hospitals, markets etc.