



C  
O  
N  
T  
R  
I  
B  
U  
T  
I  
O  
N  
S

**SPATIAL PATTERNS OF RESIDENCE AND  
WORK IN DELHI  
WITH SPECIAL REFERENCE TO THE  
LOCATION STRATEGIES  
OF PAVEMENT DWELLERS**

**Véronique Dupont**

*Contributions CSH 97/1*

**CENTRE DE SCIENCES HUMAINES  
New Delhi**

**SPATIAL PATTERNS OF RESIDENCE AND  
WORK IN DELHI  
WITH SPECIAL REFERENCE TO THE  
LOCATION STRATEGIES  
OF PAVEMENT DWELLERS**

**Véronique Dupont**

***Contributions CSH 97/1***

Ce document de travail entre dans le cadre de l'axe de recherche du CSH : "Dynamiques urbaines".

This working paper is part of the CSH research theme on "Urban dynamics".

Adresse de l'auteur / Author's address : Centre de Sciences Humaines  
2, Aurangzeb Road  
New Delhi 110 011  
India

## CONTRIBUTIONS

Contributions est une collection de documents de travail, notes de lecture et résultats préliminaires de recherche publiée en anglais ou en français. Toute proposition de publication (résultats d'études de terrain, analyses conceptuelles, etc.) est la bienvenue et fera l'objet d'une évaluation par le CSH.

Copies et informations supplémentaires concernant la publication sont disponibles auprès de Mme Uma Krishnan, Responsable publications, CSH à l'adresse suivante :

(en Inde)  
2 Aurangzeb Road, New Delhi 110011 - Inde

(de France)  
Service culturel de l'Ambassade de France en Inde  
abs Valise diplomatique  
128bis, rue de l'Université  
75351 Paris Cedex 07 - France

Tél.: (91 11) 301 62 59 / 301 41 73  
Fax: (91 11) 301 84 80  
e-mail: [public@csh.delnet.ernet.in](mailto:public@csh.delnet.ernet.in)

Contributions is a collection of working papers, book reviews and preliminary research findings published in English or in French. Proposals for publication (results of fieldwork, conceptual analysis, etc.) are welcome and will be appraised by the CSH.

Additional copies and information regarding publications are available from Ms. Uma Krishnan, Publications In-charge, CSH at the following address :

2 Aurangzeb Road  
New Delhi 110011 - India

Tel.: (91 11) 301 62 59 / 301 41 73  
Fax: (91 11) 301 84 80  
e-mail: [public@csh.delnet.ernet.in](mailto:public@csh.delnet.ernet.in)

Les opinions émises dans ces papiers n'engagent que les auteurs.  
The opinions put forth in these papers are solely those of the authors.

## Contributions

SARKAR P., "Growth and terms of trade: a north-south macroeconomic framework", *Contributions CSH 96/1*, New Delhi.

DASGUPTA B., "Debt burden, net outward transfer and sustainable debt : theoretical and empirical analysis", *Contributions CSH 96/2*, New Delhi.

HARASTY C., "Réconcilier l'économie et le social: réinterprétation d'un vieux débat. Note de lecture sur l'ouvrage de Jean DREZE et Amartya SEN, *India : economic development and social opportunity*, Oxford University Press, Delhi 1995", *Contributions CSH 96/3*, New Delhi.

LANDY F., "Finalités, logiques, stratégies : rationalité et objectifs des exploitations paysannes tropicales. un exemple d'Inde du Sud", *Contributions CSH 96/4*, New Delhi.

JAHANBEGLOO R., "La vérité de Gandhi", *Contributions CSH 96/5*, New Delhi.

AUDINET P., FAGES E., "Finances publiques et développement : la question de l'énergie en Inde", *Contributions CSH 96/6*, New Delhi.

MAHIAS M.-C., "Les sciences et les techniques traditionnelles en Inde", *Contributions CSH 96/7*, New Delhi.

DORIN B., "Lutte contre la pauvreté et la malnutrition en Inde : des modèles de mise en œuvre et d'évaluation à l'épreuve", *Contributions CSH 96/8*, New Delhi.

\*\*\*

DUPONT V., "Spatial patterns of residence and work in Delhi with special reference to the location strategies of pavement dwellers", *Contributions CSH 97/1*, New Delhi.

## RESUME / SUMMARY

Localisation résidentielle et activités économiques de la population de Delhi. Une illustration à travers les stratégies de localisation de sans-logis.

Cette contribution explore le modèle de distribution spatiale des lieux de résidence et de travail de la population de Delhi ; elle approfondit ensuite l'exemple des stratégies de localisation des sans-logis.

La carte des densités résidentielles correspond dans l'ensemble au modèle classique caractérisé par de fortes densités dans le centre ville et des valeurs décroissantes vers la périphérie, tandis que les taux d'accroissement de la population suivent nettement un modèle centrifuge. Les trois principales fonctions économiques de la capitale - administrative, commerciale et industrielle - ont engendré des schémas distincts de localisation résidentielle pour les actifs employés dans ces différents secteurs, avec une division entre les parties nord et sud de la ville.

La vieille ville occupe une position spéciale : elle se caractérise par des densités de population extrêmement élevées (en dépit de leur tendance à la baisse) associées à une concentration notoire d'entreprises industrielles et commerciales. Cette prolifération d'activités économiques a attiré une population flottante de travailleurs migrants masculins, la plupart non qualifiés, et dont l'insertion résidentielle reste des plus précaires. Les contraintes financières constituent certes l'arrière-plan de la situation de sans abri ; cependant les pratiques résidentielles des sans-logis ne doivent pas être conçues uniquement comme la conséquence d'un processus d'exclusion de l'accès à un logement en ville. Il faut également apprécier la logique économique de migrants individuels qui s'efforcent de maximiser les envois d'argent à leur famille restée au village en réduisant au minimum leurs dépenses de logement et de transport. Ainsi priorité est donnée à un emplacement près du lieu de travail ou du lieu d'embauche journalière. Pour les travailleurs précaires, de fait, une meilleure proximité entre lieu de couchage et source d'emplois accroît souvent leur probabilité de trouver du travail. La condition des sans-logis doit être ainsi appréhendée en relation avec leurs besoins et priorités.

+++

This paper explores the spatial patterns of residence and work of the population in Delhi, with special reference to the location strategies of the houseless people in Old Delhi.

The pattern of population density gradients is broadly in accordance with the classical model characterised by high densities in the urban centre, and decreasing values towards the periphery, whereas the population growth rate follows a clearly centrifugal pattern. The three main economic functions of the capital city - administrative, commercial and industrial - have generated very distinct residential patterns for the concerned workers with a broad division between the southern and northern parts.

The Old City deserves a special mention for its extremely high population densities, notwithstanding their decreasing trend, associated with a notorious concentration of commercial and manufacturing enterprises. This proliferation of economic activities has attracted a floating population of male migrant workers, most of them unskilled, and whose residential integration is extremely precarious. Although financial constraints form the background of the shelterless situation, the residential practices of pavement dwellers and night shelter inmates should not be seen only as the consequence of a process of exclusion from access to a dwelling. One should also appreciate the economic rationales of individual migrants who try to maximise remittances to their families in the village by cutting down on their housing and transport expenses. Priority is therefore given by them to a location near the workplace or near the labour market. For casual labourers, in fact, proximity between the sleeping place and the source of employment opportunities often increases their probability of getting daily work. Thus the condition of the houseless has to be seen in relation to their needs and priorities.

## Acknowledgements

The author is a demographer at the French Institute of Scientific Research for Development through Co-operation (ORSTOM, Dépt. *Sociétés, Urbanisation, Développement*, 213 Rue Lafayette, 75480 Paris cedex 10, France), associated with the *Centre de Sciences Humaines*, New Delhi.

The research for this paper is part of a study on the patterns of population mobility in the metropolitan area of Delhi. This is a collaborative project between ORSTOM which financed the study, and the *Centre de Sciences Humaines* and the Institute of Economic Growth (Delhi) both of which provided institutional, logistical and intellectual support. We are most grateful to these institutions for their assistance and co-operation. This project has also received financial support from the CNRS (*Action Concertée en Sciences Sociales ORSTOM-CNRS* as part of a collective research programme on the city of Delhi, and programme *PIR-Villes* for a comparative analysis of residential practices in Delhi and Bogota).

Sincere thanks are also due to the team of field investigators and research assistants who helped in collecting, coding and editing the data.

An earlier version of this contribution was presented for the workshop on 'Social Policy and City Planning' at the School of Planning and Architecture, Delhi, on the 13th December 1996. It draws on some selected findings of two papers:

- DUPONT (V.), MITRA (A.) - "Population distribution, growth and socio-economic spatial patterns in Delhi. Findings from the 1991 census data". *Demography India*, 1995, Vol. 24, N° 1 & 2, pp. 101-132.

- DUPONT (V.), TINGAL (D.) - "Residential and economic practices of pavement dwellers in Old Delhi", Paper presented to the 14th European Conference on Modern South Asian Studies, Copenhagen, 21-24 August, 1996, 34 p. mimeo.

The digitized maps (Maps n° 1 to 6) were prepared by Risk Management Systems (Delhi), and Maps n° 7 & 8 by Dhananjay Tingal.

# **SPATIAL PATTERNS OF RESIDENCE AND WORK IN DELHI WITH SPECIAL REFERENCE TO THE LOCATION STRATEGIES OF PAVEMENT DWELLERS**

## **1. INTRODUCTION**

The development of a metropolis like Delhi, with several millions of inhabitants, raises crucial and specific problems in terms of urban administration. Furthermore, the rate of demographic growth, despite its slow down, remains quite significant, which compounds the task of town planners. Thus, the population of Delhi has increased from 1.4 million in 1951 to 8.4 million in 1991, with an annual growth rate passing from 5.1 % during the 1951-61 decade to 3.9 % during the 1981-91 decade.

Given the ineluctable geographical spread of the urban agglomeration which goes along with its demographic expansion, understanding the spatial pattern of population distribution and growth, as well as the socio-economic differentiation of the urban space, seems to be an indispensable prerequisite for any attempt at town planning. For example, the provision of adequate urban services, and to start with housing, would require a detailed knowledge of the population characteristics according to its residential location within the agglomeration; the planning of an appropriate system of transportation responding to the needs of the daily commuters should rely on a preliminary study of the residential spatial pattern of the different segments of the working force as related to the location of the various urban economic activities and main sources of employment.

In this respect, it may be interesting to recall here that two of the main objectives of the Master plan of Delhi, since its elaboration in 1962, were precisely : a) to provide a reasonable level of services and amenities to the population and b) to achieve an optimum location of work centres in relation to housing, both to secure balanced development and to minimise transport needs.

In this context, the purpose of this paper is to explore the spatial patterns of residence and work of the population in Delhi. Our first objective is to analyse the residential pattern of the different categories of workers in relation with the location of the main economic activities, in order to detect patterns of close association between work place and residence, or on the contrary patterns of separation. Then, we shall focus on an under-privileged segment of the urban population, the houseless people in Old Delhi, and investigate their location strategies: this will allow us to highlight a specific pattern of proximity between living and working places, and

hence to draw some lessons for the formulation of adequate housing policies and poverty alleviation programmes. Beforehand, a preliminary presentation of the spatial pattern of population distribution and growth in Delhi, showing also the particular position of Old Delhi, will enable us to set down the general context of the development of this city.

The findings related to the socio-economic and spatial distribution of the population in Delhi are based on the analysis of the census data issued from the 1991 Primary Census Abstract<sup>1</sup>. The findings pertaining to the houseless in Old Delhi are based on primary data from our own socio-economic surveys carried out in January-February 1996<sup>2</sup>.

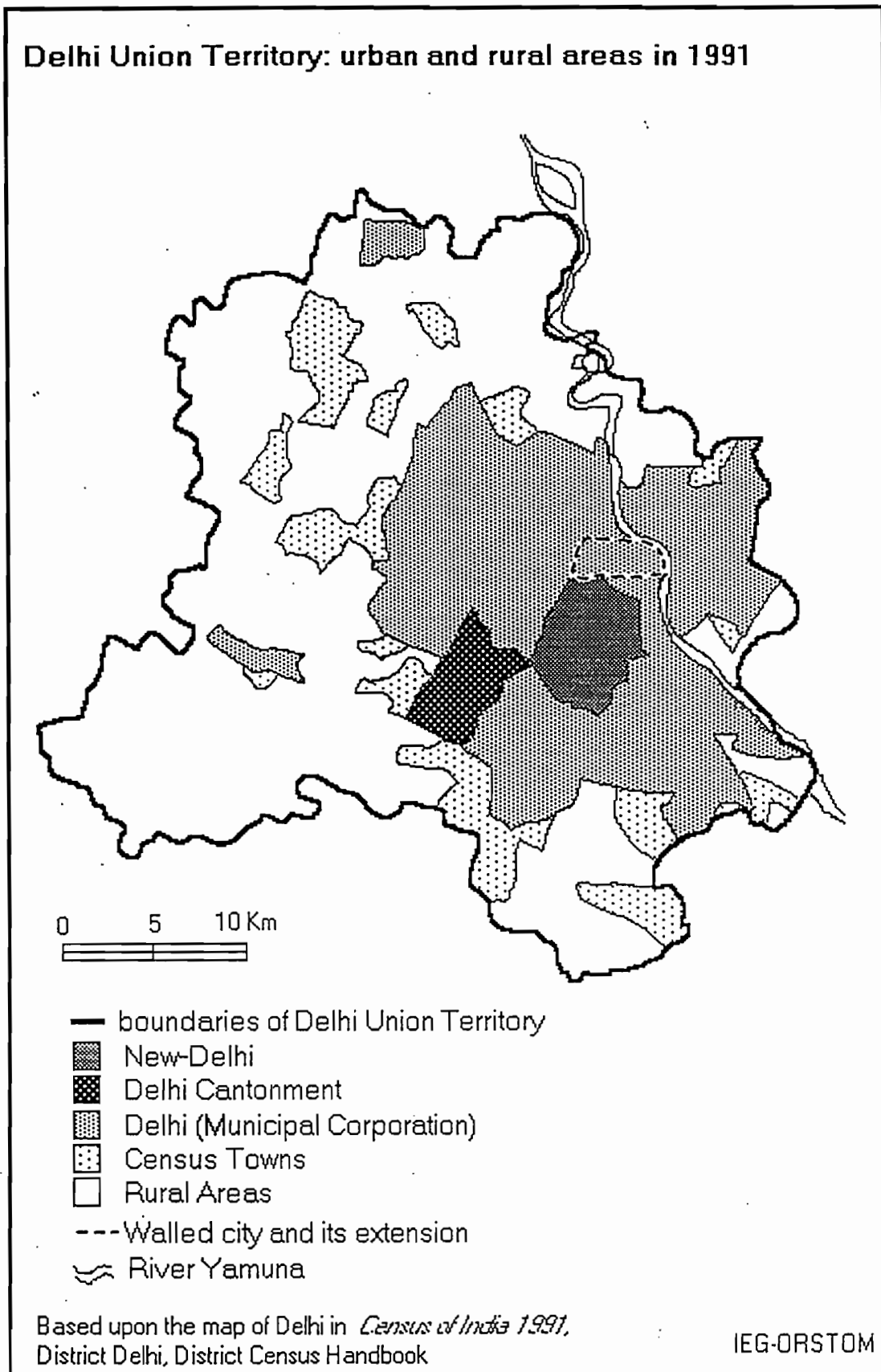
---

<sup>1</sup> For more details on the methodology, see: DUPONT & MITRA, 1995.

<sup>2</sup> See below note 8, and for more details see: DUPONT & TINGAL, 1996.



Map 1



## 2. SPATIAL PATTERN OF POPULATION DISTRIBUTION AND GROWTH

The distribution of the population among the main components of the Delhi National Capital Territory is given in Table 1, while Map 1 shows the boundaries of their respective areas.

Table 1. Delhi National Capital Territory: population and area in 1991

		POPULATION		AREA	
		N°.	%	Sq. km	%
Delhi Urban Agglomeration (U.A.)	Delhi (Municipal Corporation)	7206704	76.50	431.09	29.07
	New Delhi	301297	3.20	42.74	2.88
	Cantonment	94393	1.00	42.97	2.90
	Census towns in U.A.	816690	8.67	107.48	7.25
Census towns	out of U.A.	52541	0.56	61.06	4.12
Rural area		949019	10.07	797.66	53.79
Total		9420644	100.00	1483.00	100.00
Delhi U.A.		8419084	89.37	624.28	42.10
Total urban		8471625	89.93	685.34	46.21
Total rural		949019	10.07	797.66	53.79
Total		9420644	100.00	1483.00	100.00

Source: 1991 Census

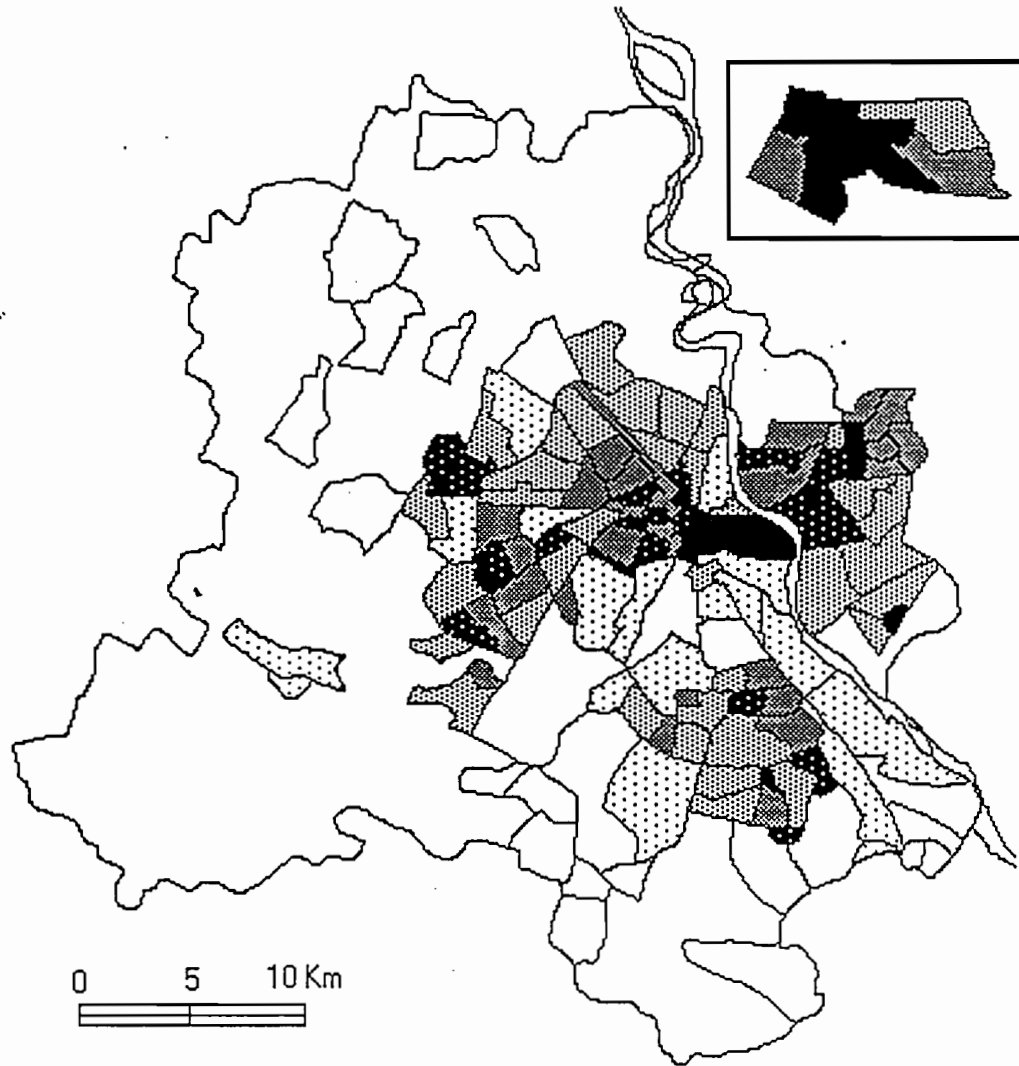
### Population density

In 1991 the Territory of Delhi had an average population density of 63.5 persons per hectare, rising to 135 in the Delhi urban agglomeration as a whole. As shown in Map 2, the pattern of population density exhibits heavy concentration of population in certain urban pockets, and relatively sparse population in others, these wide variations of the densities being also reflected by a high value of the coefficient of variation (108 per cent). Thus, almost half of the total urban population is concentrated in 66 census divisions (out of 149) accounting for only 18 per cent of the total urban area.

The highest residential densities are registered in Old Delhi, the walled city built by the Mughals in the 17th century; there the average density is 616 persons per hectare, with a maximum of 1596 in one division. The old city comprises also an impressive concentration of commercial and small-scale industrial activities, showing a mixed land use pattern typical of traditional Indian cities.

Map 2

### Population density in different zones of Delhi Union Territory in 1991



Population density in 1991 (number of inhabitants per hectare)

	4 to 49		200 to 299
	50 to 99		300 to 499
	100 to 199		500 to 1700

Average for Delhi Union Territory: 63.5

Based on 1991 Census data

IEG-ORSTOM

Densities are also high in Shahdara, in the north-east across the river Yamuna, which received a major influx of refugees from Pakistan after the Partition and developed as a satellite town of Delhi. On the other hand, New Delhi has a density of only 70 persons per hectare, with a minimum of 35 in one charge; further, Delhi cantonment, which includes military land and the international Airport, records an even lower density of 22 persons per hectare.

The classical model of population density gradients, characterised by high densities in the urban core, and a sharp decline towards the periphery, and whose “original causes (...) can be summed up in three words: protection, prestige, and proximity” (BRUSH, 1977: 65), has largely survived in Delhi. Yet, some pockets of high population density are also noticeable in the western sector and in the south-east.

### **Rate of population growth**

The pattern of growth in Delhi between 1981 and 1991 was “clearly centrifugal” (Map 3), hence in continuation with the trend already highlighted by Brush (1986: 127) for the 1961-71 decade. Noteworthy, this centrifugal trend extends beyond the limits of the urban agglomeration, since the population growth between 1981 and 1991 was faster in the rural hinterland than in Delhi’s urban agglomeration: 9.6 per cent per year as against 3.8 per cent respectively (within the boundaries of the urban agglomeration and the rural area as per in 1991). As already noticed by Bose (1993:160) “this reflects the spillover of urban Delhi”. These figures should be compared to the annual rate of natural growth during the same period, that is approximately 2.1 per cent in Delhi National Capital Territory, which hence indicates the correlative importance of net immigration. It appears that the rural hinterland has attracted a large number of migrants, coming from other States, or who left the Delhi urban agglomeration in search of less congested and/or cheaper places to stay.

A more detailed examination of the differential pattern of growth within the urban agglomeration shows considerable variations (the coefficient of variation reaches 136 per cent). The highest growth rates were recorded in certain divisions of the outskirts, with annual rates above 10 per cent, up to a maximum of 35 per cent (in Rohini). Two distinct processes could generate the particularly rapid growth of the peripheral urban zones: new in-migrants coming from other States or - in lower proportion - from Delhi hinterland and who found such areas more accessible to settle down; and natives of Delhi or migrants of longer standing living previously in inner zones of the urban agglomeration, and who moved to new residential sites. However, specific surveys would be required in order to evaluate the respective contribution of the two types of population moves.

On the other hand, absolute decrease in population, indicating important net out-migration, has occurred in the old city and some adjoining divisions, which correspond to a highly densely populated area. The population deconcentration from the old urban core was first noticeable during the 1961-1971 decade in certain areas (BRUSH, 1986), and it has continued and spread since then. The degradation of the housing stock and the congestion of the area has pushed part of the better off sections of the population to move their residence from the Walled City, in search of better housing conditions in less congested areas. However, the low-income group people, in particular, tenants who benefit from very low rent due to the rent control policies, are more inclined to stay since they would not be able to find alternative accommodation elsewhere in the urban agglomeration for such minimal cost. At the same time, the Walled City has recorded a dramatic increase in the number of its commercial establishments (shops, workshops, warehouses and wholesale markets) as well as manufacturing workshops, including noxious industries and hazardous trades. For example, the number of registered commercial establishments increased by 700 per cent in two decades, from 22,000 units in 1961 up to 155,000 units in 1981 (DDA, 1993). Moreover, as rightly underlined by Mehra (1991: 50), the official statistics underestimate the extent of the growth of economic activities, since the latter do not include the informal sectors of employment. While the deconcentration of the population from the urban core is in line with one of the proposals of the Delhi Master Plan - although the extent of the population decrease remains far below the objective initially stated<sup>3</sup> -, the proliferation of commercial and industrial activities, especially noxious industries and hazardous trades, is on the other hand in contradiction with the objectives of the Plan. This shows the limitations of the attempts at urban planning in the Old City.

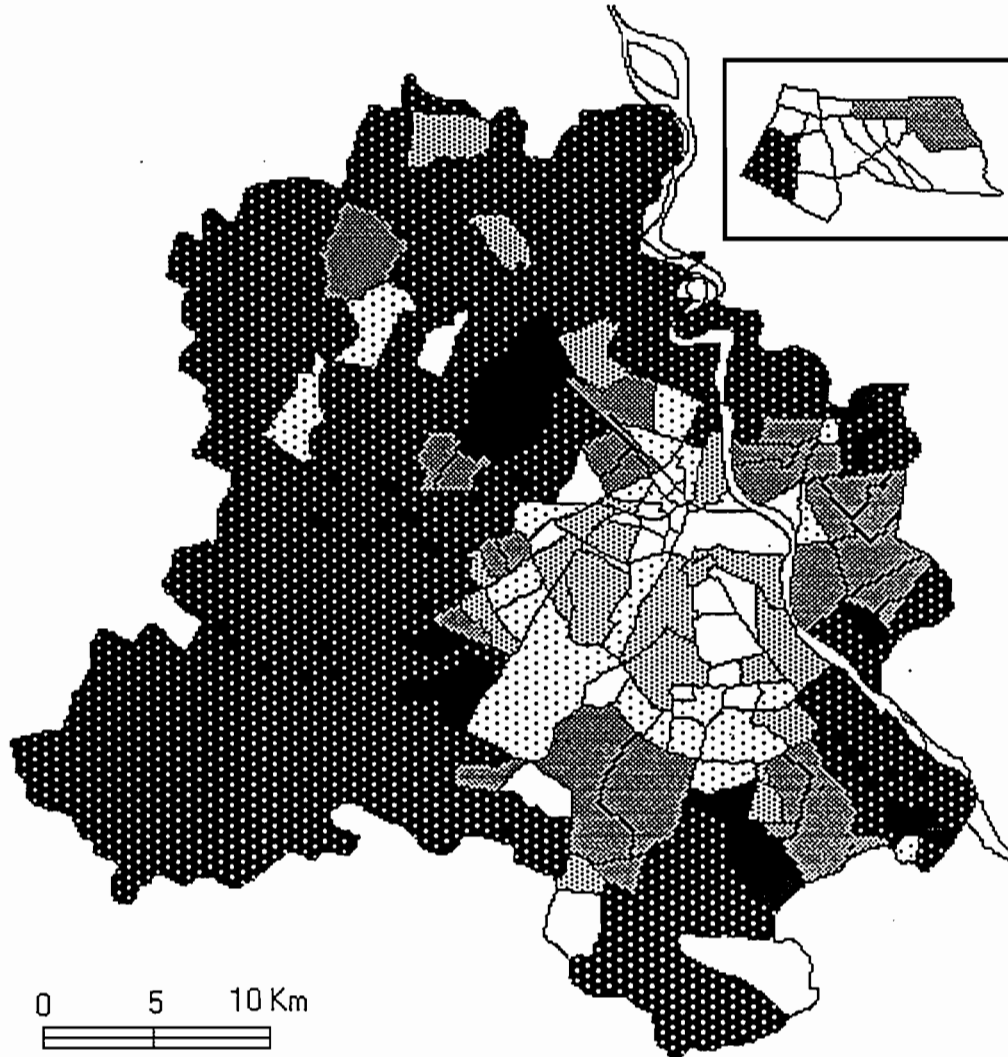
In order to understand better the logic of the spatial pattern of population growth, it is interesting to test statistically the relationship between growth rate and density: the two variables are negatively related although the extent of association is moderate (correlation coefficient = - 0.292). Nevertheless, this suggests that high population densities tend to act as a deterrent for new dwellers, or tend even to induce exit moves towards less crowded areas.

---

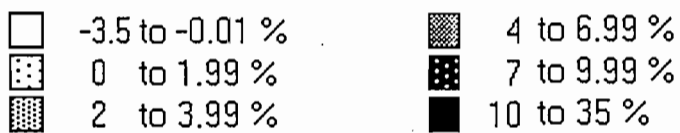
<sup>3</sup> For example, at the time of the preparation of the Delhi Master Plan (1958-59), the planning division 'A', which includes the Walled City and its extension, contained a population of 607,000, and Delhi Master Plan projected that its population in 1981 be reduced to 322,600. "The population of this division according to 1991 census is 616,000 indicating that the dedensification proposals of Delhi Master Plan could not be realised" (JAIN, 1996: 85).

Map 3

**Annual growth rate of the population from 1981 to 1991 in different zones of Delhi Union Territory**



Annual growth rate of the population from 1981 to 1991 (in percentage)



Average for Delhi Union Territory: 4.24%

Based on 1981 and 1991 Census data

IEG-DRSTOM

Beyond that, the pattern of population distribution and growth should be related to the land-use pattern, availability and price of land or residential house, accessibility to employment opportunities and urban services. If this last factor contributes to explain the centripetal force of the past, the actual centrifugal tendency is certainly associated to the scarcity of land for new residential constructions and its consequent appreciating value in the central areas, whereas the less congested peripheral zones can provide more affordable housing possibilities, or more accessible sites for squatting. The expansion of the urban periphery is the outcome of a combination of attempts at planning by the Delhi Development Authority (in charge of the implementation of the Master Plan and of land development) and of private initiatives and responses. For example many group housing societies have built residential colonies in east Delhi, in the trans-Yamuna area, on land initially allotted by the Delhi Development Authority and made available to them on lease hold. At the same time, the tremendous increase of private means of transportation in the capital has allowed the development of residential colonies in the urban fringes, including posh ones - especially in the south -, for those who can afford the price of daily commuting by car to a distant work place, or who can compensate for the transport cost by cheaper housing cost. The Delhi Development Authority has also been striving to decongest the old city and to clear the capital of squatter settlements by relocating them in organised "resettlement colonies", far out from the city centre, in the peripheral zones (PUGH, 1990: 176); this policy has however had mitigated results.

### 3. SPATIAL PATTERNS OF RESIDENCE AND WORK

This section examines the pattern of spatial distribution of the workers according to their industrial category, and attempts to relate it to the location of the main economic activities in the urban agglomeration. A preliminary presentation of the outlines of the employment structure in Delhi National Capital Territory as a whole will help to replace the detailed analysis at the level of the census division in its contextual background (Table 2).

#### Employment structure

Table 2. Delhi National Capital Territory : Percentage distribution of main workers by industrial category in 1991

Industrial category	Males	Females	Total
Agriculture, livestock, mining, quarrying	2.86	2.67	2.84
Household industry	1.40	1.50	1.41
Manufacturing non household ind.	24.69	10.48	23.22
Construction	8.00	6.09	7.80
Trade, commerce	25.22	12.54	23.91
Transport, communication	8.90	3.13	8.30
Other services	28.93	63.59	32.52
Total	100.00	100.00	100.00
Total number of workers	2660967	307410	2968377

Source: 1991 Census

In 1991 almost one third of the total (main) working population was engaged in community, social and personal services, which reflects the role of Delhi as the national capital with major administrative functions. The public sector is Delhi's largest employer<sup>†</sup>. Then the two most equally important employment sectors appear to be 'trade and commerce' and 'non-household manufacturing and processing industry', which occupied respectively 24 per cent and 23 per cent of the work force. This is to be related to the long-standing place of Delhi as a chief trade centre for north-west India, and to its increasing role as an industrial centre.

---

<sup>†</sup> See United Nations (1986: 14): In 1981, the public sector employed more than half a million persons (542,000 or 28 per cent of the work force). Corresponding figures for the 1991 census were not yet published at the time of the writing of this paper.



Regarding first the rural/urban differentiation of the employment structure, what should be underlined is not the expected higher share of the primary sector in rural Delhi (19 per cent as against 1.3 per cent in urban Delhi)<sup>5</sup>, but the fact that, by Indian standards, this share remains remarkably low. In 1991, the primary sector occupied 83 per cent of the all-India rural population, and still 15 per cent of the urban population. Hence, the areas in Delhi Union Territory still qualified as rural exhibit a sectorial employment structure which resembles more to that of urban areas. This again reveals a process of metropolisation around the capital, already noticed in terms of population growth, and now corroborated in terms of economic characteristics.

To analyse the intra-urban differentiation of the employment structure, the focus will be on the major three economic functions of the capital, administrative, commercial and industrial. A first look at the maps showing the respective percentages of workers in 'community, social and personal services' (here after: 'services'; Map 4), 'trade and commerce' (Map 5) and 'non-household manufacturing and processing industries' (here after: 'manufacturing industries'; Map 6) reveals very distinctive patterns.

### **Residential location of workers employed in community, social and personal services**

The census divisions with higher proportions of workers in services are mostly concentrated in the southern half of the agglomeration (south-east excluded) - (Map 4). In particular, the proportions range between 58 per cent and 77 per cent in New Delhi, and reach a maximum of 84 per cent in Delhi Cantonment (which comprises army quarters). Many colonies were constructed in the southern part of the town to provide housing for the very large numbers of government employees; they have engendered a pattern of residential segregation, not only between the latter and the other workers, but also among the government employees themselves since they were supplied with different categories of housing according to their official status and range of income. This specific feature of the urban landscape, and its consequences in terms of segregation along socio-economic lines, has been already underlined in studies on Delhi (SUNDARAM, 1978: 121; NAGPAUL, 1988: 188), and even qualified as "salaried apartheid" by Mitra (1970, also quoted by NAGPAUL, 1988: 188).

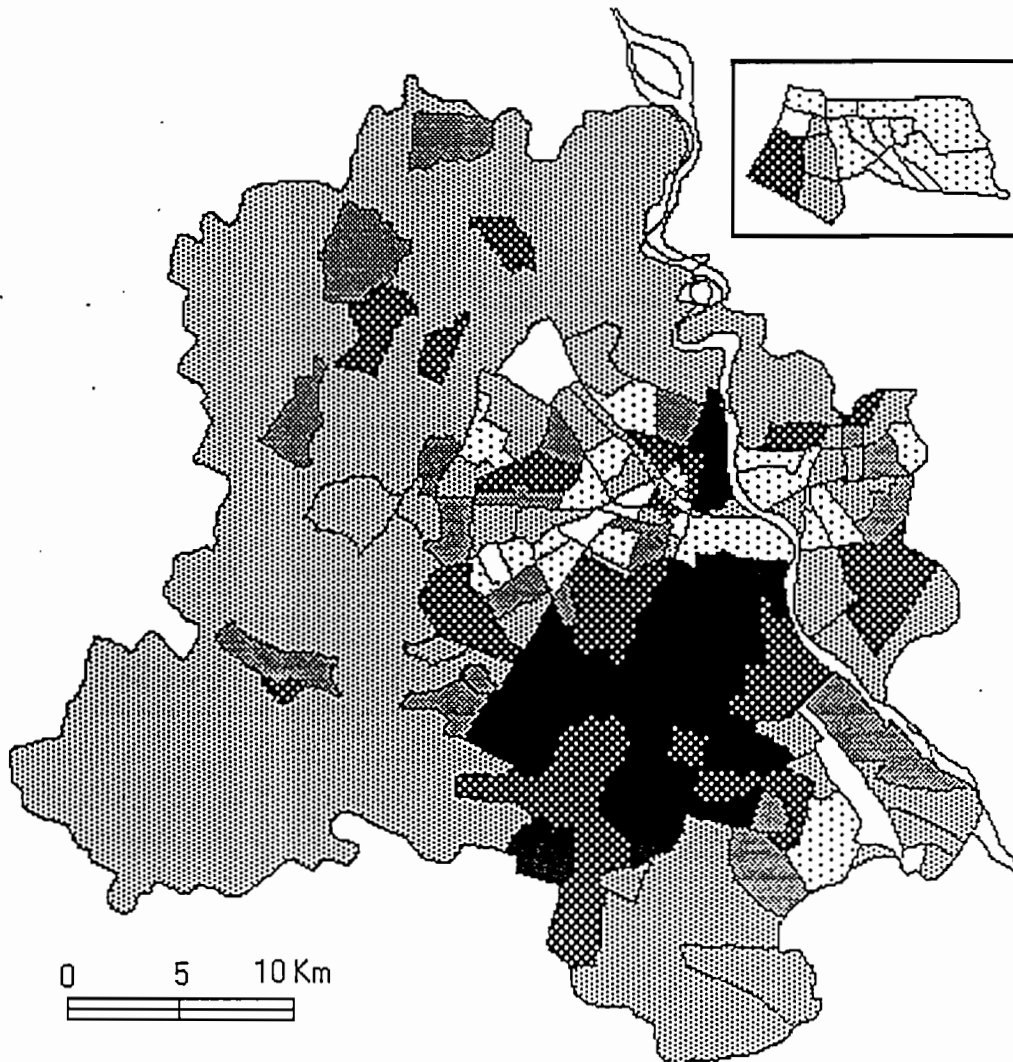
Another striking example in New Delhi of residential clusters for specific types of employees in services is Chanakyapuri with its concentration of foreign embassies. In the north, one census division is also remarkable, that corresponding to the Civil Lines, with its land-use pattern inherited from the British colonisation, and showing 50 per cent of workers in services.

---

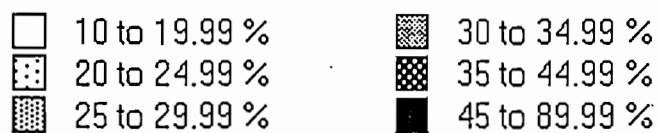
<sup>5</sup> This is mainly at the expenses of 'trade and commerce' (13 per cent of the rural workers), and - to a lesser extent - of 'community, social and personal services' (27 per cent of the rural workers).

Map 4

Percentage of workers in services among total main workers in different zones of Delhi Union Territory in 1991



Percentage of workers in services among total main workers in 1991



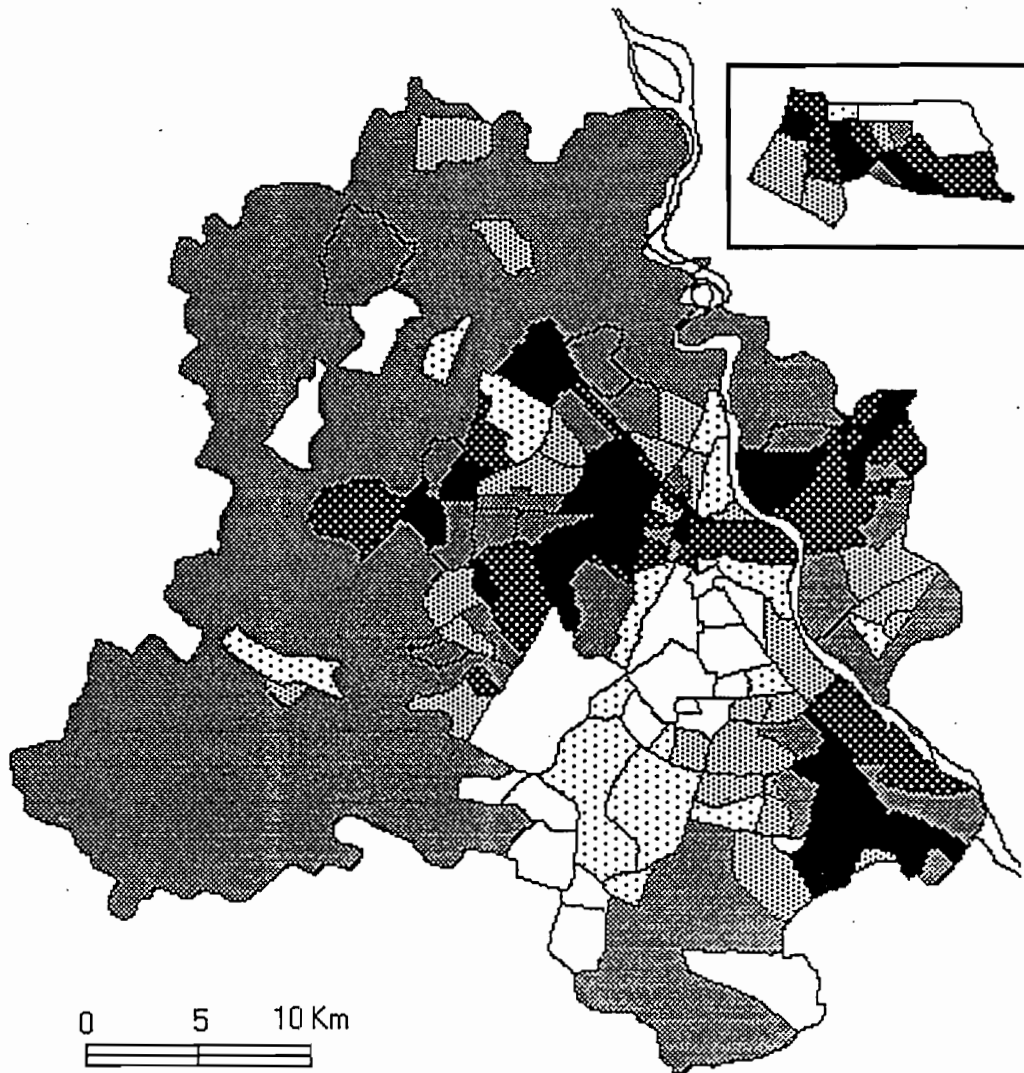
Average for Delhi Union Territory: 32.52 %

Based on 1991 Census data

IEG-ORSTOM

Map 5

**Percentage of workers in manufacturing and processing non-household industry among total main workers in different zones of Delhi Union Territory in 1991**



Percentage of workers in manufacturing and processing non-household industry among total main workers in 1991



Average for Delhi Union Territory: 23.22 %

Based on 1991 Census data

IEG-ORSTOM

## **Residential location of workers in manufacturing industries**

The pattern of spatial concentration of the workers in manufacturing industries is almost the opposite of the preceding one (Map 5): the census divisions with higher proportions of such workers are located in the northern half of the urban agglomeration, as well as in the south-east, in areas having lower proportions of workers in services; and reciprocally. Hence all divisions in New Delhi as well as Delhi cantonment have less than 10 per cent of workers in manufacturing. The coefficient of correlation further verifies the negative association between the two variables, quite evident in the case of male workers ( $r = - 0.75$ ).

The share of manufacturing industries appears to have a very high degree of variation, from 2.5 per cent up to 47 per cent. What is more interesting here is to examine the location of the census divisions having higher proportion of workers in manufacturing industries in relation to the location of the main industrial areas, which reveals a good congruence. Thus, there are important concentrations of industrial workers in the south-east around the large planned Okhla industrial estate; in the west along Najafgarh road, in Naraina, along Rothak road, and in Wazirpur and around; in the north-west along Grand Trunk Karnal road; in the east in Shahdara. Lastly, in Old Delhi, pockets with high proportions of industrial workers correspond not only to the many small-scale industrial units set up in that area, but also to the location of some large ones like the Delhi Cloth Mills, Delhi Flour Mill and Birla Mills<sup>6</sup>. As rightly pointed out by Nagpaul (1986: 189), although "several attempts have been made to relocate some of the old industries functioning in congested parts of Old Delhi", "even today large industrial units (...) continue to function in the most thickly populated residential areas". In connection with this feature, it can be noted that the correlation coefficients reveal a positive association between population densities and the proportions of workers in manufacturing industries across charges ( $r$  being 0.35 and 0.3 in the case of males and females respectively).

Mention can be made here of the second component of manufacturing activities, the household industries. Though the proportion of workers in household manufacturing industries is extremely low, 1.4 per cent for the entire Delhi National Capital Territory, it has a high degree of variability<sup>7</sup>, indicating concentration of this type of activity mainly in certain specific pockets of the city (since by definition household industries are undertaken in the premises of the residential houses). Thus, half of the workers in household industries are concentrated in 28 census divisions accounting only for 16 per cent of the total work force. The point noteworthy is that most of the divisions recording higher proportions of workers in household industries,

---

<sup>6</sup> At least till the recent Supreme Court order of closure of polluting and hazardous industrial units in Delhi, which came into effect on the 30th of November 1996.

<sup>7</sup> The coefficients of variation of household manufacturing are 125.7 per cent and 134 per cent among male and female work force respectively.

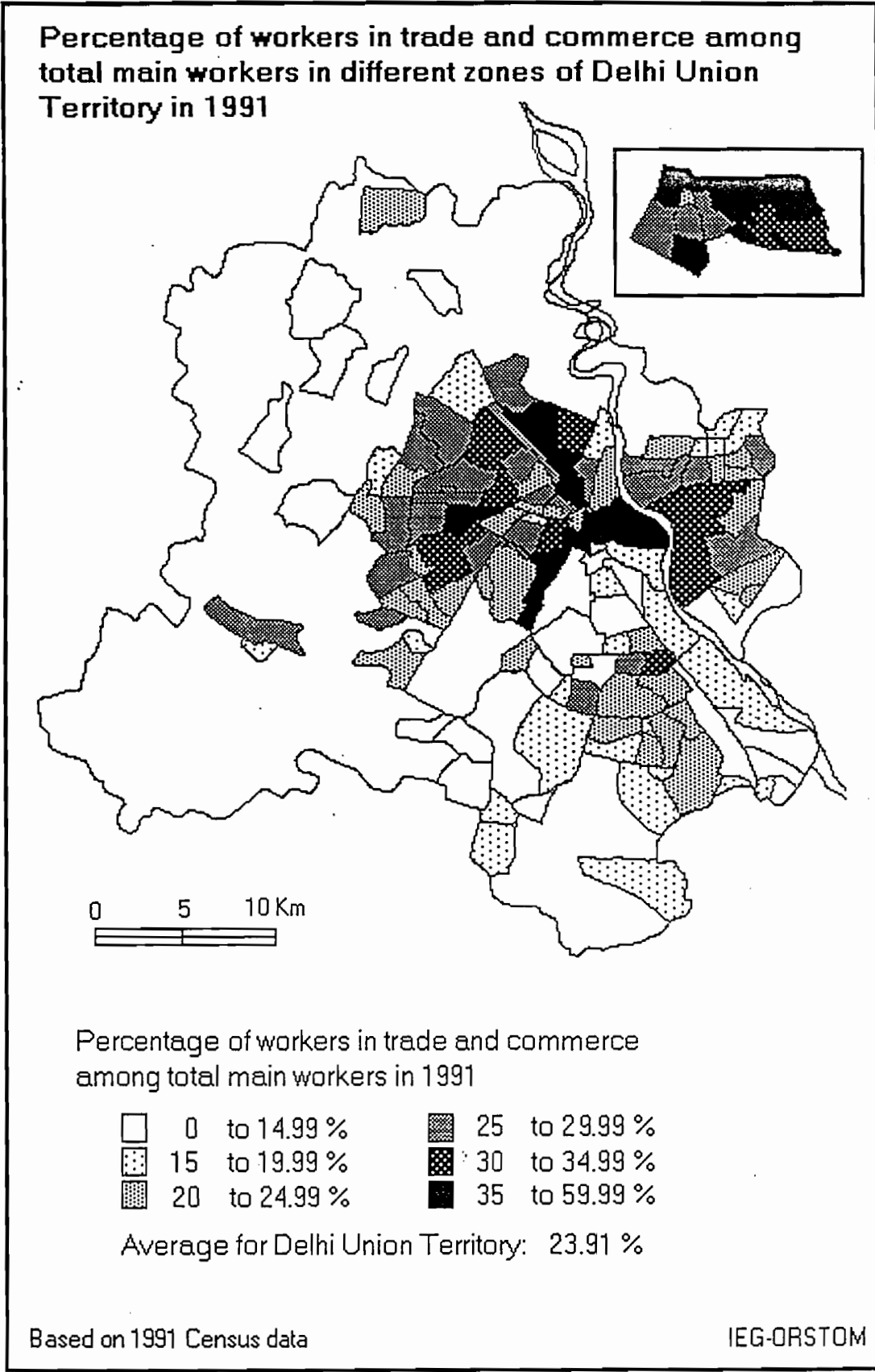
between 5 and 10 per cent, are located in Old Delhi, therefore adding - although to a small extent - to the already underlined congestion of this area.

### **Residential location of workers in trade and commerce**

Turning now to trade and commerce, there is again a clear-cut division between the southern and northern parts of the capital, even more distinct than for services and manufacturing. The higher proportions of workers engaged in trade and commerce are found essentially in areas located north of New Delhi and Delhi Cantonment, and in east Delhi (Map 6). The maximum shares (40 to 56 per cent of the total work force) were recorded in some census divisions of Old Delhi and neighbouring areas, where they are in accordance with the concentration of wholesale business and retail trade: in Chandni Chowk, Sadar Bazar, Pahar Ganj and Karol Bagh, which are also zones of very high population densities. Laxmi Nagar in the east, and Lajpat Nagar, single cluster in the south, provide other examples of concentration of both traders' residences and commercial activities, although to a lesser degree. Otherwise, there is no systematic congruence between work site and residential area as in the case of industrial workers: some major commercial complexes, like Connaught Place in New Delhi and Nehru Place in South Delhi, are located in divisions showing lower or average percentages of workers in trade and commerce.

In fact, the origin of some major residential concentrations of traders and businessmen seems to be linked to the post-partition period, 1948-50, and the massive influx into Delhi of refugees from Pakistan, essentially Punjabis and Sindhis, estimated to be about half a million (RAO & DESAI, 1965). Three main refugee camps were first established in Kingsway in the north, at Tibbia College in Karol Bagh in the central area, and in Shahdara in the east across the river Yamuna; others were later constructed in the west, in Rajinder Nagar, Patel Nagar and Moti Nagar, and in the south in Lajpat Nagar (among others). All the residential areas mentioned here are conspicuous by their higher share of workers in trade and commerce; some of them also developed into flourishing shopping markets (Karol Bagh and Lajpat Nagar, as already pointed out).

Map 6



One feature of the spatial distribution of workers in transport, storage and communication can be indicated here, since these activities are partially connected to trade and commerce. The division showing the highest proportion of such workers, that is 27 per cent of the total work force as compared to 8 per cent on the average for Delhi Territory, is once again located in Old Delhi, more precisely in Chandni Chowk.

### **Specificity of Old Delhi**

The analysis of the socio-economic differentiation of the urban space has highlighted the specificity of Old Delhi with its remarkably high densities of population as well as commercial and manufacturing establishments, and the complexity of its economic structure, with sharp concentrations of workers engaged in manufacturing activities, trade and commerce, or still in transport, and residing in intermingling or neighbouring clusters, in the vicinity of their work place.

The proliferation of commercial and manufacturing activities in the Walled City, as well as related services, which provides a large number of informal job opportunities, has attracted a floating population of male migrant workers whose residential integration remains extremely precarious. Thus at night many of them are found sleeping under the verandas in the bazaar, on the pavements and other open grounds, or in the night shelters run by the Municipality for houseless people.

A range of services specifically oriented towards the needs of this houseless population have also developed. The Government itself, taking cognisance of the plight of the houseless, started constructing night shelters in the early sixties, 6 of them - out of 16 functioning today - being located in the Walled City proper. In the night shelters run by the Municipality, for a nominal rate of Rs. 3 per night, each inmate is provided with a blanket and a ground carpet, and has free access to the toilets and bathrooms usually available in the same building. Some small private entrepreneurs have figured the shelterless situation of so many people as a good business opportunity: they rent out sleeping place and bedding facilities to the pavement dwellers. Quilts on hire are available for an average rate of Rs. 5 per night, and cots with bedding for an average rate of Rs. 15 per night. Yet, a substantial proportion of the pavement dwellers do not avail bedding facilities on rent and sleep under verandas or in open spaces whose access is free - apart from harassment by the police.

Although houseless people can be found in various parts of the urban agglomeration, the heaviest and most conspicuous concentrations of pavement dwellers are found in Old Delhi: the morphological and economic characteristics of the historical core of the capital city explains the specific attraction exerted on a floating population without shelter. The last section of this paper

will focus on the location strategies of this under-privileged segment of the urban population, namely the shelterless population of Old Delhi.

#### **4. RESIDENTIAL AND ECONOMIC PRACTICES OF PAVEMENT DWELLERS IN OLD DELHI**

This section examines the residential and economic practices of the persons deprived of any form of shelter of their own and sleeping at night in the Walled City of Delhi, on the pavements, under the verandas and in other open spaces, or in the night shelters run by the Municipality (see Map 7). The socio-economic surveys that we have conducted with this population<sup>8</sup> allow us to investigate at the micro-level a specific pattern of proximity between living and working places, to highlight the needs and priorities of the houseless people, and hence to draw some lessons for the formulation of appropriate urban housing policies and poverty alleviation programmes. Although the pavement dwellers are generally qualified as "the poorest of the urban poor", barring some rare exceptions<sup>9</sup> the issue of homelessness is generally overlooked in the abundant literature dealing with the urban poor or urbanisation problems<sup>10</sup>, and primary survey data are relatively few<sup>11</sup> as compared to the numerous studies on slum and squatter settlement dwellers. In particular, there is a striking lack of specific studies on pavement dwellers in Delhi<sup>12</sup>.

---

<sup>8</sup> Two types of observations were combined: a statistical survey carried out in January-February 1996, covering a total sample of 248 individuals selected by area sampling from the main concentrations of pavement dwellers and the 6 night shelters run by the Municipality in Old Delhi; and in-depth interviews conducted simultaneously with a sub-sample of 36 individuals randomly selected (for more details, see: DUPONT, TINGAL, 1996).

<sup>9</sup> See for example: ALAM & ALIKHAN (1987), SINGH & SOUZA (1980), SOUZA (1983).

<sup>10</sup> To quote a few among some recent studies: NAGPAUL (1996), GUPTA, KAUL & PANDEY (1993), JAIN (1996), KUNDU (1993), NIUA (1986 & 1989), PERNIA (1994), SURI (1994).

<sup>11</sup> One can however mention: DHAR (1985), JAGANNATHAN & HALDER (1988-a, 1988-b & 1989), ISI (1977), MUKHERJEE S. (1975) for Calcutta ; RAMACHANDRAN (1972), SPARC for Bombay ; ARORA, CHHIBBER (1985) , Bharat Sewak Samaj (1964), DDA (1989), KURUVILLA (1990-91) for Delhi. (This list is not exhaustive)

<sup>12</sup> A direct consequence of the paucity of studies on the houseless people in Delhi is the lack of accurate information on this specific segment of the urban population, and to start with on its total number. As per the 1991 census, the houseless population enumerated in Delhi urban agglomeration was about 50,000, while according to other estimations, it would be 1 % of the total population of Delhi, which would correspond to about 100,000 pavement dwellers in the mid-nineties (see DDA, 1994 and ARORA & CHHIBER, 1985).



Map 7. Location of pavement dwelling areas and night shelters in Old Delhi

0 70 140 210 280 350 MTS

LEGEND

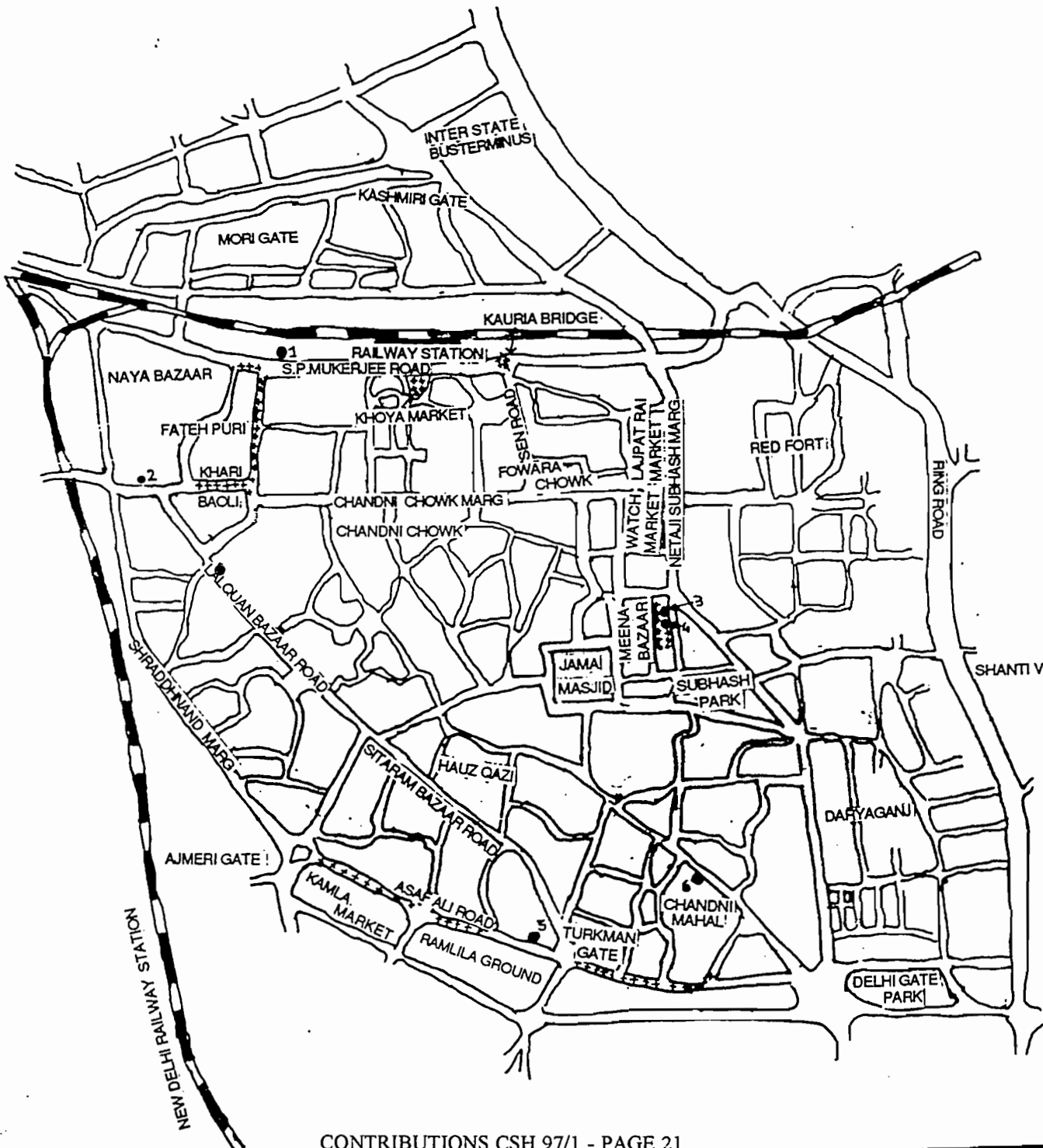


PAVEMENT DWELLERS



NIGHT-SHELTER

- 1 OLD DELHI RAILWAY STATION
- 2 LAHORI GATE
- 3 MEENA BAZAAR - I
- 4 MEENA BAZAAR - II
- 5 TURKMAN GATE
- 6 DELHI GATE



In order to better understand the logic of the residential practices of the pavement dwellers and night shelters' inmates of Old Delhi, some preliminary indications about their socio-economic profile, and more particularly their employment pattern, are indispensable (the following findings being based on our own primary survey data collected in January-February 1996).

## ***SOCIO-ECONOMIC PROFILE***

### **Socio-demographic characteristics**

The first salient feature about the houseless people in Old Delhi is that they are almost exclusively male, living as single individuals (although one third are currently married). Almost all the houseless surveyed (96 %) are migrants, hailing from rural areas, first from Uttar Pradesh, followed by migrants from Bihar. However, living alone and without shelter does not necessarily imply familial vacuum and social marginality. For the majority of the houseless people surveyed in Old Delhi, the family and the native place remain their context of reference, as shown by visits to the family, remittances to home and future plans of returning to the native place (in the coming years or much later). Hence, the shelterless situation of the migrants in the capital is not a deterrent factor of familial solidarity, on the other hand it is often a precondition.

### **Occupational pattern**

One first revealing feature of the houseless' economic strategy is the combination of several occupations during their stay in Delhi<sup>13</sup>. Thus, almost one-third of the respondents have carried on more than one occupation, usually two. These are often alternated according to the changing opportunities of the labour market, in particular according to a seasonal pattern; sometimes different activities are also carried on simultaneously throughout the year. On the other hand, the proportion of houseless not reporting any income generating activity<sup>14</sup> in Delhi remains marginal (2 % of the respondents), these are essentially very recent in-migrants (less than one month) still looking for a job.

---

<sup>13</sup> The occupational pattern of the houseless population of Old Delhi is analysed here on the basis of the total sample of our statistical survey, taking the last twelve months preceding the survey as the period of reference to record all the occupations carried on in Delhi. Hence are excluded from this analysis the occupations carried on during the reference period outside Delhi, for example in the native place or any other place of previous residence.

<sup>14</sup> In this study, beggars are considered as part of the workers, contrary to the convention applied in official statistics like those issued from censuses and National Sample Surveys.

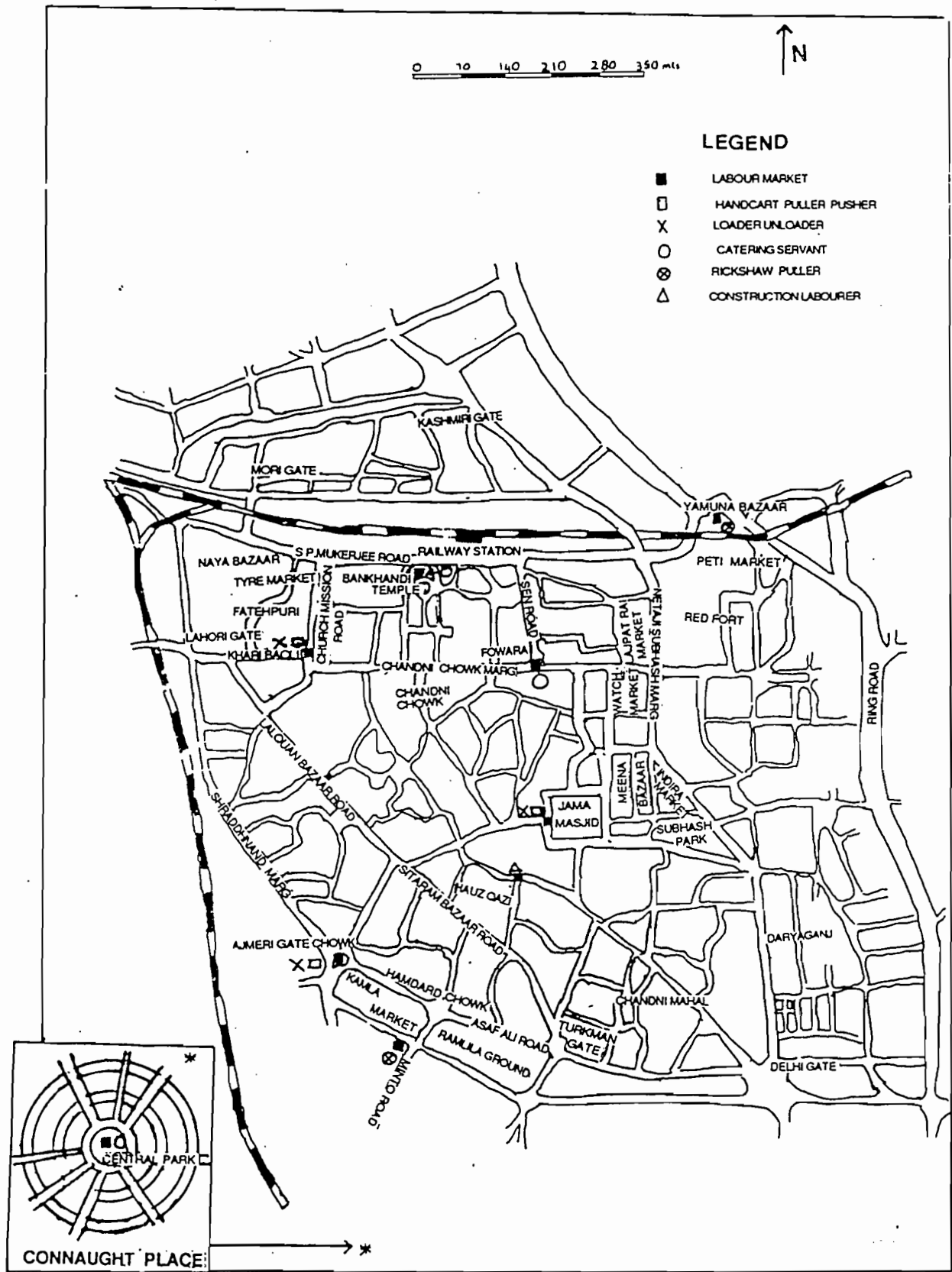
Table 3. Occupational pattern of the houseless population of Old Delhi - 1996.

OCCUPATION	Main occupation		Other occupations		All occupations	
	N <sup>o</sup>	%	N <sup>o</sup>	%	N <sup>o</sup>	%
Clerical workers	2	0.8	-	-	2	0.6
Sales workers (vendors, shop assistants)	10	4.1	1	1.2	11	3.4
Cooks, waiters and related workers	54	22.2	46	56.1	100	30.8
Other service workers (domestic servants, barbers, etc...)	2	0.8	2	2.4	4	1.2
Production workers including mechanics and repairmen	16	6.6	2	2.4	18	5.5
Construction workers including painters	22	9.1	7	8.5	29	8.9
Loaders, unloaders, porters and other material handling workers	21	8.6	10	12.2	31	9.5
Hand cart pushers or pullers	58	23.9	7	8.5	65	20.0
Cycle rickshaw drivers	48	19.8	6	7.3	54	16.6
Other drivers (motor vehicle)	1	0.4	1	1.2	2	0.6
Rag pickers	5	2.1	-	-	5	1.5
Beggars	3	1.2	-	-	3	0.9
Other workers (musician)	1	0.4	-	-	1	0.3
Total	243	100.0	82	100.0	325	100.0
Non workers = 5						
The occupations taken into account include all the occupations carried on in Delhi during the last 12 months preceding the survey. Hence are excluded the occupations carried on during the reference period outside Delhi (for example in the native place or previous place of residence).						
<i>Source: Own sample survey - 1996</i>						

Table 4. Percentage distribution of the houseless population of Old Delhi by industrial category (1996) and comparison with the urban population of Delhi at the 1991 census

INDUSTRIAL CATEGORY	Houseless population of Old Delhi 1996	Male population of Old Delhi 1991	Male urban population of Delhi 1991
	(1)	(2)	(3)
Agriculture, livestock, mining, quarrying	0.0	0.6	1.3
Manufacturing, processing, repairs	6.2	32.0	26.4
Construction	9.0	2.8	7.9
Trade, commerce, restaurants, hotels	28.4	38.3	26.4
Transport, communication	51.9	7.9	8.8
Community, social and personal services	4.5	18.3	29.2
Total	100.0	100.0	100.0
<i>Source: (1) Own sample survey - 1996</i>			
Sample of 243 workers classified by their main occupation (non workers = 5)			
<i>(2) &amp; (3): Census of India 1991, Delhi, Primary Census Abstract.</i>			

Map 8. Location of main economic activities and labour markets in Old Delhi



Examining now the different types of occupations performed (Table 3), the major groups reflect directly the economic functions of Old Delhi (Map 8). There is first the large lot of handcart pullers and pushers transporting goods in or from the wholesale markets of the old city (20 per cent of the respondents are engaged in this work for their main occupation). Loading and unloading activities in the markets, carriage of luggage in the two nearby main railway stations of the capital also provide appreciable employment opportunities for the pavement dwellers. Transport of passengers by cycle rickshaw in a densely populated and very buoyant market area, with two adjoining railway stations and a major inter-state bus terminal, is another activity attracting a significant number of houseless workers (20 per cent of the respondents for their main activity). Altogether, the sector of transport seems to absorb the majority of the houseless workers based in the Walled City (52 per cent of the respondents for their main activity). This appears as a major distinctive characteristic of the occupational structure of this population, as compared to the male population of urban Delhi as a whole, but also to the male population residing in the Walled City: the sector of transport and communication employs only 8 to 9 per cent of the corresponding workers (Table 4).

Another specificity of Old Delhi lies in the many labour markets, in the strict neo-classical sense of the term, which take place in different places of the Walled City. Some of them are specialised in recruiting various types of workers (in particular waiters, cooks and related service workers) for marriage parties and other functions requiring catering services and the set up of temporary tent structures to host large numbers of guests. The demand for this type of workers is submitted to seasonal fluctuations, with peaks corresponding to the most auspicious periods for marriage ceremonies. Such employment opportunities draw many houseless workers, especially for a supplementary seasonal or temporary activity: while the occupational category of waiters, cooks and related service workers<sup>15</sup> accounts for 22 per cent of the main occupations reported by the respondents, it accounts for 56 per cent of the supplementary occupations reported (Table 3).

On the other hand, marginal economic activities which are often associated with the condition of the urban poor, like rag picking and begging, concern only very minor groups of the houseless surveyed in Old Delhi (2 and 1 per cent respectively in the sample). Rag picking is more specifically carried out by children and teenagers.

A significant feature of the occupational pattern of the houseless is the general lack of employment security or lack of guarantee in getting sufficient work. Going daily or periodically to the labour market to get recruited by a contractor or to the wholesale markets and bazaar areas to find assignments, is the common fate of construction workers, service workers for caterers,

---

<sup>15</sup> In the context of the survey, this occupational category corresponds mostly to service workers for caterers, but it also includes cooks, waiters and related workers employed in restaurants and tea stalls.

loaders and unloaders, handcart pushers (helping the main puller and recruited by him), and other casual labourers ... Among the houseless working as employees, only a very small minority have secured salaried jobs. As for self-employed workers like handcart pullers and cycle rickshaw drivers, they have to hire their cart or rickshaw everyday ... without any guarantee about the number of trips - for transport of goods or passengers - they will be able to get. The situation of street vendors, roadside mechanics, and other self-employed in the informal sector, is similar from the viewpoint of precariousness and correlative irregularity in income.

In fact, the combination of several occupations and flexibility in changing work - a rather frequent practice as seen above - is a response to the risk of unemployment and irregularity of work. Although, eventually, most of the houseless surveyed in Old Delhi were not affected by unemployment during last year and, among those who were, only few reported significant unemployment periods, the insecurity of employment and hence the lack of guarantee of regular income, is a critical fact to understand the shelterless situation of these workers (as we shall elaborate in another section).

### **Income, savings and remittances**

At the outset, the houseless workers appear to form a very heterogeneous section of the urban labour force in terms of earned money income:

- the average monthly earnings for the last twelve months preceding the 1996 survey range from Rs. 520 (case of a child rag picker) up to Rs. 4500 (case of a pavement dweller involved in illegal trade combined with other legal occupations);
- and half of the respondents earn between Rs. 1000 and Rs. 2000 per month. Furthermore, intra-occupational income differentials are very large.

With a view to the discussion on urban poverty and houseless population, it is interesting to compare the average monthly earnings of the individuals surveyed with the poverty line. We refer here to the usual official definition (discussed later in this section), namely the level of expenditure required for a daily calorie intake of 2,100 per person in urban areas (as per the norm determined by the Nutrition Expert Group), and estimated at Rs. 310.50 per capita per month at 1995-96 prices<sup>16</sup>. According to this criteria, all the respondents of our sub-sample are above the poverty line<sup>17</sup>, in so far we consider that their earnings are available for their own and

---

<sup>16</sup> This figure is calculated on the basis of the last published official estimate, that is Rs. 209.50 per capita per month in urban areas at 1991-92 prices, converted to present value by applying the index numbers of consumer prices for industrial workers in Delhi for the corresponding period.

<sup>17</sup> The statistical analysis of the entire sample will allow us to determine to what extent this finding can be generalised.

single consumption and they do not have to share them with other family members not living with them in Delhi. Thus, to have a better appraisal of the economic condition of the houseless, some indications about their pattern of savings and remittances are required.

A large majority of the respondents report a saving practice, with a varied range of situations. The saving capacity depends first on the income level, although there is no simple linear relation between the percentage of income saved and the income level. The percentage of income effectively saved depends also on the way of living in Delhi and on the relations maintained with their families.

One strong motivation to save is remittance, and the houseless migrants who contribute financially to the expenses of their families in their native place usually send the entire amount of their savings or most of it. However, all the persons who save more or less regularly do not remit money to their families. In this matter, the circumstances of the migration and the nature of the relations maintained with the family in the place of origin also intervene.

Returning to the question of poverty line, we can consider now the average monthly income available after remittances, which makes the comparison with the level of per capita expenditure corresponding to the poverty line more relevant in order to appraise the economic condition of the houseless population in Old Delhi. This net income shows a range of variation wider than the gross income, from a minimum of Rs. 350 per month (case of a beggar sending more than 50 per cent of his income to his family), to the same maximum of Rs. 4500. The majority of the respondents have a net monthly income ranging between Rs. 500 and Rs. 1500 (as against half between Rs. 1000 and Rs. 2000 as per their gross income). Yet, all the respondents in our sub-sample, including those engaged in marginal economic activities like rag picking and begging, remain above the poverty line of Rs. 310.50 per capita per month, considered as the expenditure required for a daily calorie intake of 2,100 per person in urban areas. Thus, the incomes generated by the houseless interviewed in Old Delhi place them in a position to meet their minimum nutritional requirements. But other basic needs, especially shelter and clothing, which should be also considered in a comprehensive approach of urban poverty, are not necessarily covered. The deprivation of shelter is obvious in the case of the pavement dwellers; as for clothing, the sartorial condition of some of them testifies by itself to the non fulfilled needs. Thus, several respondents acknowledged that they had only one set of clothes, to be worn until the clothes are completely torn and have to be replaced by a new set. Nonetheless, the lack of purchasing power is not the only explanatory factor; the lack of safe place to keep one's belongings is another major problem faced by many houseless people<sup>18</sup>.

---

<sup>18</sup> Some houseless people manage to keep their belongings (and savings) at their work place; others confide them to a shop-keeper or a tea-stall owner's care; or resort to the safekeeping of another acquaintance settled in Delhi under better housing conditions; a few pavement dwellers mentioned the washerman for storing their spare sets of clothes; as for savings only a few respondents keep them in a bank account; .... while other houseless



The official definition of the poverty line, based on a nominal level of calories, has already attracted criticism (NIUA, 1986: 11-12). And our finding that the houseless people surveyed in Old Delhi stay above the poverty line can be considered as another evidence of the limitation of this official definition. A subsequent question arises here: if the pavement dwellers in Delhi - at least a section of them - are above the poverty line, who and where are the "poor" of Delhi, namely the 17 per cent of the population of the capital estimated to be under the poverty line<sup>19</sup> ? Assuming that most of the urban poor are likely to be concentrated in the city slums (NIUA, 1989), it would mean that the houseless people living alone on the pavements in Old Delhi are in a better position to meet their minimum nutritional requirements than many slum dwellers living with their families and having housing accommodations, precarious though they may be. This calls for a better scrutiny of the survival strategy of the pavement dwellers (as it will be developed in the next section).

### **Investment projects**

Projecting now the houseless people into the future, among the migrants who wish to return to their native place, future plans of investments there are frequent, in particular to open a general store or another type of shop in the village, to buy more agricultural land or more generally to invest in agriculture. Some of these investment projects may not be realised, yet some seem viable given the saving capacity of the concerned workers. This shows a definite degree of economic dynamism among certain houseless persons, and conveys an image which is not that of abject poverty, but more of an economic calculation entailing a temporary sacrifice in terms of housing conditions in the city, in order to improve the economic conditions in the native place.

\*

This first investigation of the economic profile of the houseless people in Old Delhi allows us to highlight some significant features. At the outset, this shelterless population proves to be an integral part of the normal metropolitan labour force, which is in accordance with previous studies on pavement dwellers and night shelters' inmates in Delhi (see ARORA & CHHIBBER, 1985: 5). Furthermore, the incomes generated by the houseless workers surveyed place them in the low-income group but above the poverty line, even after taking into account the remittances sent to the family outside Delhi. In proportion to their income level, the saving capacity of the majority of the houseless is also far from being marginal. Remittances to the family and future

---

people have no alternative solution but to keep the very few things they possess with them .....or have no belonging nor saving to look after.

<sup>19</sup> This percentage corresponds to the 1987-88 estimate given in the *Report of the Expert Group on Estimation of Proportion and number of Poor*, Planning Commission, Government of India, July 1993.

plans of investment after returning to the native place are other encouraging indicators of the economic potential of a good number of them. In this respect, the findings of our survey corroborate the conclusions of other studies on the urban poor, as underlined by Kundu (1993: 23): "the thesis regarding economic marginality of the people in urban informal sectors, slum dwellers, pavement dwellers and other is an exaggeration"<sup>20</sup>. Yet, insecurity of employment or uncertainty in getting sufficient work, and hence the lack of guaranteed and regular income, constitute a widespread concern. A last striking fact regarding the economic condition of the houseless people in Old Delhi is the large variety of situations encountered, including very contrasting cases. Thus, qualifying the pavement dwellers as the "poorest of the urban poor" without further distinction appears as a simplistic statement.

### ***LOCATION STRATEGIES***

In this last sub-section, we shall attempt to appraise the elements of constraint and the elements of choice explaining the present shelterless situation of the pavement dwellers surveyed, with an underlying question: is the shelterless situation merely the consequence of a process of exclusion from access to the urban housing system? or does it correspond also to a residential strategy aimed at improving individual or familial economic conditions? Another question pertains to the perennial versus temporary nature of the shelterless situation: is it a transitory stage preceding a better integration in the urban housing system? or does it correspond to a permanent way of life or at least a long lasting one for the duration of the stay in Delhi?

#### **Financial constraints**

Financial constraints are put forward by the large majority of the houseless people interviewed to explain the origin of their shelterless situation. However, the significance of this factor has to be appraised in relation with other contributing factors and to be considered in a long term perspective. The financial constraints are likely to be more stringent at the initial stage of pavement dwelling in particular when it corresponds to the arrival in Delhi, and that the migrant has to get absorbed into the labour market. Then the financial constraints may result not as much from the average level of income than from the lack of guarantee of regular income. This element of uncertainty restrains many casual workers staying on the pavement or in a night shelter to envisage an accommodation on rent even if they have the financial potential for it, because this would entail regular and fixed expenses which cannot be adjusted to the actual

---

<sup>20</sup> Quoted from: LEE (M.), 1986. "The mobilisation of informal sector savings: the USAID experience", paper presented at the International Workshop on Mobilisation of Informal Sector Savings, 8-12 December, Society for

earnings. On the other hand expenses for hiring a quilt or a cot outside or for entrance to a night shelter (for those availing these facilities) are incurred on a daily basis and hence can be easily adjusted to the daily earnings. Even for the houseless with a sufficient saving capacity to rent a room (alone or by sharing it with one or two other workers), priority may be given to remittances to the family or to long term savings for future investment in the native place. In other words, preference may be given to the family's living conditions in the native place over the migrant's living conditions in Delhi, and to future over present. In that case, it cannot be said that there are absolute financial constraints preventing the houseless migrant from renting a room, but rather relative ones resulting from his own choice and priorities. The priority given by the houseless migrants to remittances over their present housing conditions in town does not mean however that they do not fulfil first their own basic needs in terms of food requirements, in order to insure the reproduction of their own work force. This may explain why the houseless workers living alone in Old Delhi are able to stay above the poverty line (as per the definition given above), while it may not be the case for many slum dwellers living with their families.

### **Proximity to the workplace**

Another major factor to understand the shelterless situation of many workers in Old Delhi and the choice of their sleeping place, is the location of their workplace. Better proximity to the place of work or the source of employment opportunities is one of the reasons reported explicitly by certain respondents for staying initially on the pavement or in a night shelter, and more frequently to explain the choice of a specific place to sleep. The actual 'residential' location of the houseless is more revealing than these explicit answers. Thus, most of the respondents interviewed in Old Delhi work in the Walled City itself or in adjoining areas, within a walking distance from their place of sleep, often within 10 minutes walk or less (see Maps 7 & 8). The cost of transportation to commute to the workplace is consequently reduced to nil for them. Even among the respondents who said they exercised preference in their location's choice for the sleeping environment, especially the presence of acquaintances and the facilities available, most of them stay also *de facto* in a walking distance from their place of work or labour market.

The importance of staying close to the source of employment opportunities depends on the type of occupation. For the casual workers having to go daily to a labour market to get recruited, like workers for catering services and construction labourers, this proximity factor appears primordial. In order to get more job offers, and to be in a better position to bargain with the contractors, it is necessary to reach the labour market early morning, and hence not to have to spend time on commuting.

For handcart pullers or pushers and loaders working in market areas, transportation activities do not start very early in the morning (usually at 10) but they often continue till late in the night, which makes it more convenient to sleep in the market itself, and more profitable to get assignments. Since the nature of the work requires intense physical strength, the transportation workers are usually exhausted after long working hours, hence sleeping at the same place (or nearby) enables them to avoid the additional tiredness of commuting. In addition, in the market they can sleep on their handcarts or under the verandas of the buildings, and do not face harassment by the police since they are known to work there.

The position of the cycle rickshaw drivers (whose nature of work is also physically demanding) is mixed. Those keeping their rickshaw at night can sleep on it and have more flexibility in their location's choice within the zone where they ply, providing they can park their rickshaw safely. But for the drivers having to take their rickshaw every morning from the owner's garage, staying in proximity to the garage is also important, as explained by one respondent: *"If you stay far, you have to start early in the morning and do not get proper rest. And if you start late, your work suffers and your income becomes less"*.

Even for the houseless workers whose nature of occupation and mode of recruitment do not require necessarily to stay near the source of employment opportunities, proximity between sleeping place and workplace is sought-after in order to reduce - or cut entirely - transportation expenses for commuting.

### **Residential mobility and duration of stay in Delhi**

Examining the residential mobility in Delhi of the houseless people allows us to highlight some revealing facets of their living conditions. Change of residential location during the year is a frequent practice among the pavement dwellers surveyed in Old Delhi, according to two main reasons.

Seasonal pattern can be first of all observed, with various possible combinations. For example, in summers preference is given to sleeping on open grounds, non covered pavements, road dividers, or in parks; during the rainy season, verandas, night shelters, cots or mattresses on hire in sleeping areas protected with ground and overhead plastic sheets, are more in demand; and in winter preference goes to quilts on hire, night shelters and verandas. For the pavement dwellers who never avail bedding facilities on rent and never go to night shelters, the change of sleeping place may be limited to crossing the road, from a veranda in winter and during the rains to a nearby park in summer, or even to the divider of the same road. Some pavement dwellers have been repeating the same seasonal pattern with the same combination of locations for years.

This flexibility in sleeping places also helps us understand how the pavement dwellers who can afford to spend Rs. 3 per night for access to a night shelter, or Rs. 5 to hire a quilt, up to Rs. 15 for cot and bedding, are not necessarily ready to spend the equivalent monthly amount to rent a room. Whereas taking a room on rent entails regular and fixed expenses throughout the year, resorting to a night shelter or bedding on hire involves daily expenses which can be entirely cut during certain periods of the year.

The second main reason for residential mobility in Delhi is directly related to occupational mobility. The houseless people also adjust the location of their sleeping place according to employment opportunities, to the location of a particular labour market, or to the possibilities of sleeping at the workplace. The rationale behind these changes of residential location is the search for a better proximity to the place of work or the source of potential employment.

On the other hand, there is also a category of houseless people staying in the same night shelter or on the same section of pavement throughout the year (when in Delhi) and for several years, with duration of stay extending in a few remarkable cases up to ten years or more.

Considering now the entire duration of stay in Delhi as houseless, there is a notable proportion of houseless people who have been living under this condition for ten or more than ten years<sup>21</sup> - which does not exclude however regular stays in the native place. For this category of pavement dwellers, and especially for those staying in the same night shelter or sleeping place for many years, or repeating exactly the same seasonal pattern sometimes for the last ten or even fifteen years, their houseless condition seems to be a permanent way of life in Delhi, or for the duration of their working life before the definite return to their native place.

### **Willingness to move and to pay for a dwelling**

Investigating the future plans of the houseless people, in particular their willingness to move and to pay for a dwelling, can bring further elements of answer to the question of the perennial versus transitory nature of the shelterless situation in Delhi.

Among the respondents of our sub-sample, the capacity and willingness to pay for a dwelling varies from zero to Rs. 500 per month<sup>22</sup>, and in terms of percentage of income, from 0 to 35 per cent maximum. However, the willingness to move as expressed through the answers of the

---

<sup>21</sup> In the sub-sample of 36 respondents selected for in-depth interviews, one third have been living in Delhi as houseless since 1985 or before. The actual proportion will have to be confirmed by the statistical analysis of the entire sample.

<sup>22</sup> Barring one exceptional case of Rs. 1400 per month, corresponding again to the government employee already mentioned, who earns a monthly salary of Rs. 4 820.

respondents may remain in a good number of cases abstract wishes, subject to several conditions. The constraints are sometimes so stringent that they make the possibility to move very unlikely. Here we find again the factors whose importance has been already underlined to understand the shelterless situation, namely: financial constraints, regular incomes or even getting a permanent job as a prerequisite to move, dwelling in proximity to the place of work. Among the houseless who have already attempted to move to a proper dwelling (a minority group), the reasons for eventually returning to the pavement or a night shelter are also interesting to point out. Some mentioned difficulties to adjust with other persons with whom they shared the same room, a common way to reduce housing expenses. Others realised that their work and income were suffering from the fact of staying too far from their place of work. Hence, wishes and even actual attempts to move are not sufficient indicators to foresee the shelterless situation of the concerned individuals as a transitory stage preceding a better integration in the urban housing system.

The arguments of the houseless persons who stated that they had no willingness nor intention to move to a better accommodation, and who form an appreciable group, are also revealing in order to appraise the transitory versus perennial nature of the shelterless situation. Interestingly, those reporting a 'zero' willingness to pay for a dwelling are not necessarily those who have no saving capacity and hence no financial potential. In that case, two types of reasons are put forward to explain the lack of willingness to pay for a dwelling. Some pavement dwellers do not intend to stay in Delhi for a long period, and hence would find it irrelevant to take a room on rent. Others give a clear priority to the maximisation of their savings, especially in order to send remittances to their families, and hence try to minimise expenses for housing and transportation, or even to reduce them to zero. Being alone, without their family in Delhi, some of the houseless migrants do not perceive a proper accommodation as a need for them. As a matter of fact, most of the houseless interviewed do not plan to settle in Delhi permanently, but to return one day to their native place or to migrate to another city. Hence they perceive their stay in Delhi as limited in time, even if this transitory situation may eventually last for the duration of their working life<sup>23</sup>, and consequently a dwelling is not perceived as a priority need.

\*

Coming back to the questions raised at the beginning of this section concerning the interpretation of the shelterless situation, we can sum up the main arguments which have emerged at several points from the in-depth interviews with houseless people in Old Delhi. Financial constraints undoubtedly prevent or limit the possibilities of access to a dwelling. Nevertheless this factor has to be considered in combination with other explanatory factors, forming a system in which choice is often present. The residential practices of the majority of

---

<sup>23</sup> ... Or may be even their entire remaining life, in so far the future plan of returning to the native place might

the houseless reveal an economic rationale that aims at maximising savings and remittances to their families in their native place, by minimising their housing and transportation expenses. Proximity between the sleeping place and the place of work provides another important clue in understanding the shelterless option and choice of location by the pavement dwellers. A location near the workplace or the labour market enables them not only to cut their transport expenses but also to avoid a tiring commute. This ensures a proper rest, which is vital for manual workers involved in occupations demanding intense physical strength. In addition, for casual labourers, proximity to the source of employment opportunities also increases the probability of getting daily work. When the logic of staying shelterless in Delhi is an integral part of familial strategies rooted in the native place, priority being given to the economic condition of the family in the village at the expense of the migrants' living conditions in Delhi, then the shelterless situation is likely to last for the duration of their stay in the capital.

The part of rational choice in the residential practices of the houseless people has been highlighted in other studies. For example, in the conclusion of his primary survey of pavement dwellers and night shelters' inmates in Delhi, Kuruvilla states: "The choice of the pavement is mainly for reduction of expenses on housing, proximity to employment opportunities, (....), availability of facilities, services, food and water and maximise savings to send back home. Thus it becomes a deliberate rational decision to live on the pavement" (1991-92: 85-86). Jagannathan and Halder, in their study of the pavement dwellers in Calcutta, also infer: "Pavement dwellers of the main stream vocations have chosen this life style to protect their access to earning opportunities. In addition (...) a substantial proportion are temporary migrants, who remit savings home to the village". Further: "The majority of pavement dwellers live without shelter as a deliberate rational decision, by which the expenditure on housing is reduced to zero" (1988: 1177).

The importance of proximity to the source of livelihood is also emphasised in the two studies quoted above. This factor is crucial not only to understand the residential practices and location choices of the houseless, but more generally of the urban poor<sup>24</sup>. The failure of many attempts to relocate slum and squatter settlement dwellers far from their initial residence is thus due to inadequate consideration for easy physical access to earning opportunities.

## **5. SUMMARY OF MAIN FINDINGS**

This paper has explored the spatial pattern of residence and work of the population in Delhi, with special reference to the location strategies of the houseless people in Old Delhi.

---

be in some cases more mythical than realistic.

<sup>24</sup> See for example: GUPTA, KAUL, PANDEY (1993: 86), SURI (1994: 273), KUNDU (1993: 65).

The pattern of population density gradients is broadly in accordance with the classical model characterised by high densities in the urban centre, and decreasing values towards the periphery, whereas the population growth rate follows a clearly centrifugal pattern. Furthermore, population growth in rural hinterland proved to be higher than in Delhi urban agglomeration, indicating the diffusion of the urbanisation process.

The employment structure of the population in rural areas of the National Capital Territory reflects the urbanisation process at work in the city's hinterland. In the urban agglomeration, the three main economic functions of the capital, administrative, commercial and industrial, have generated very distinct residential patterns for the concerned workers with a broad division between the southern and northern parts. The workers employed in community, social and personal services are more concentrated in the south, whereas workers in trade and commerce or in manufacturing industries are represented in higher proportions in the north. The preferential location of the residences of the former is to be related to the construction in this part of the city of many housing colonies by the government for its employees, which has further engendered a high degree of residential segregation based on income and status. In Old Delhi and its close vicinity, living places and work sites of the traders intermingle, while elsewhere there is no systematic correspondence; some major residential concentrations of traders and businessmen appear to be linked to the location of the refugee camps established after the partition. On the other hand, there is a good congruence between the industrial zones and the main concentrations of industrial workers' living places.

The Old City deserves a special mention, for its extremely high population densities, notwithstanding their decreasing trend, associated with a notorious concentration of commercial and manufacturing enterprises, despite repeated attempts of the Delhi Administration to decongest this area. This proliferation of economic activities has attracted a floating population of male migrant workers, most of them unskilled, and whose residential integration is extremely precarious.

Although they live alone in Old Delhi, the majority of the houseless migrants maintain regular relationships with their families in their native place, which remains their place of reference.

The houseless population of Old Delhi forms an integral part of the metropolitan labour force, which, in terms of income, seems to be able to stay above the poverty line. Yet, the lack of guaranteed and regular income constitutes a general concern. At the same time their saving capacity, remittances and plans of future investment, all represent encouraging indicators of the economic potential of a notable share of the houseless. Finally, the large variety of individual



situations encountered indicates that the houseless are not a single category of 'urban poor', nor are they necessarily 'the poorest of the urban poor'.

Although financial constraints form the background of the shelterless situation, the residential practices of pavement dwellers and night shelter inmates should not be seen only as the consequence of a process of exclusion from access to a dwelling. One should also appreciate the economic rationales of individual migrants who try to maximise remittances to their families in the village by cutting their housing and transport expenses. Priority is therefore given by them to a location near the workplace or near the labour market. For casual labourers, in fact, proximity between the sleeping place and the source of employment opportunities often increases their probability of getting daily work. Thus the condition of the houseless has to be seen in relation to their needs and priorities. This is a prerequisite for formulating appropriate urban housing policies.

## REFERENCES

ALAM (S. Manzoor), ALIKHAN (F.) (eds.), 1987. *Poverty in Metropolitan Cities*, Concept Publishing Company, New Delhi.

ARORA (R.K.), CHHIBBER (A.K.), 1985. "Chilled nights on pavements in Delhi. A socio-economic study of the children staying in ran baseras in winter". Socio-economic division, Slum and Jhuggi-Jhompri Department, Delhi Development Authority, New Delhi, mimeo.

Bharat Sewak Samaj, 1964. "A roof over the head", Delhi School of Social Work, Delhi.

BOSE (A.), 1993. *India and the Asian Population Perspective*. Delhi: B.R. Publishing Corp.

BRUSH (J.), 1977. "Growth and spatial structure of Indian cities", in: NOBEL A.G. and K. DUTT A. K (eds), *Indian Urbanization and Planning, Vehicles of Modernization*. New Delhi: Tata Mc Grow Hill, pp. 64-93.

BRUSH (J.), 1986. "Recent changes in ecological patterns of metropolitan Bombay and Delhi", in: TEWARI V.K., WEISTEIN J.A., RAO V.L.S.P. (eds), *Indian Cities. Ecological Perspectives*, New Delhi, Concept, 1986, pp. 121-149.

DDA, 1989. "Survey of pavement dwellers in Old Delhi", unpublished study, Slum and Jhuggi-Jhompri Department, Delhi Development Authority, New Delhi.

DDA, 1993. *Zonal Plan Walled City*. Draft. Delhi Development Authority, New Delhi.

DDA, 1994. "Programme of night shelters for the homeless in Delhi.", Slum and Jhuggi-Jhompri Department, Delhi Development Authority, New Delhi, mimeo.

DUPONT (V.), MITRA (A.), 1995. "Population distribution, growth and socio-economic spatial patterns in Delhi. Findings from the 1991 census data". *Demography India*, Vol. 24, N° 1&2, pp. 101-132.

DUPONT (V.), TINGAL (D.), 1996. "Residential and economic practices of pavement dwellers in Old Delhi", Paper presented to the 14th European Conference on Modern South Asian Studies, Copenhagen, 21-24 August, 34 p. mimeo.

GANDOTRA (S.R.), 1976. *Houseless in Delhi*, Census of India 1971, Series 27, Delhi, Part X (a), Special study, Government of India, Delhi.

GUPTA (D.B.), KAUL (S.), PANDEY (R.), 1993. *Housing and India's Urban Poor*. Har-Anand Publications, New Delhi.

JAGANNATHAN (N.V.), HALDER (A.), 1988. "Income-housing linkages. A case study of pavement dwellers in Calcutta". *Economic and Political Weekly*, vol XXIII, N° 23 (June 4). pp. 1175-1178.

JAIN (A.K.), 1996. *The Indian Megacity and Economic Reform*. Management Publishing C°, New Delhi.

KUNDU (A.), 1993. *In the Name of the Urban Poor. Access to Basic Amenities*. Sage, New Delhi.

KURUVILLA (J.), 1990-91. "Pavement dwelling in metropolitan cities. Case study Delhi". Thesis, School of Planning and Architecture, Dept. of Housing, New Delhi, Mimeo.

MEHRA (A.K.), 1991. *The Politics of Urban Redevelopment. A Study of Old Delhi*. Sage Publications, New Delhi.

MITRA (A.), 1970. *Delhi. Capital City*. New Delhi: Thomson Press.

NAGPAUL (H.), 1988. "Delhi", in: DOGAN (M.), KASARDA (J.D.), *The Metropolis Era*. Vol. 2. Mega-Cities, Newbury Park: Sage, pp. 184-211.

NAGPAUL (H.), 1996. *Modernisation and Urbanisation in India: Problems and Issues*. Rawat Publications, Jaipur and New Delhi.

NIUA, 1986. *Dimension of Urban poverty. A Situational Analysis*. National Institute of Urban Affairs, Research Study Series N° 25, New Delhi.

NIUA, 1989. *Profile of the Urban Poor: an Investigation into their Demographic, Economic and Shelter Characteristics*. National Institute of Urban Affairs, Research Study Series N° 40, New Delhi.

PERNIA (E.M.) (ed.), 1994. *Urban Poverty in Asia. A Survey of Critical Issues*. Oxford University Press, Hongkong.

PUGH (C.), 1990. *Housing and Urbanisation. A Study of India*. New Delhi: Sage.

RAO (V.K.R.V.), DESAI (P.P.), 1965. *Greater Delhi. A Study in Urbanisation 1940-1957*. Bombay: Asia Publishing House.

SINGH (A. M.), SOUZA (A. de), 1980. *The Urban Poor, Slum and Pavement Dwellers in Major Cities of India*, Manohar, Delhi.

SOUZA (A. de) (ed.), 1983. *The Indian City. Poverty, Ecology and Urban Development*. Manohar, Delhi.

SUNDARAM (K.V.), 1978. "Delhi. The National Capital", in MISRA P.P. (ed), *Million Cities of India*. New Delhi: Vikas, pp. 105-154.

SURI (P.), 1994. *Urban Poor. Their Housing Needs and Governement Response*. Har-Anand Publications, Delhi.

UNITED NATIONS, 1986. *Population Growth and Policies in Mega-Cities. Delhi*. Population Policy Paper N° 7, Dept. of International Economic and Social Affairs, New York: United Nations.

**CENTRE DE SCIENCES HUMAINES**

2, Aurangzeb Road

New Delhi 110011 INDE

Tél. : (91 11) 301 62 59 / 301 41 73

Fax : (91 11) 301 84 80

*de France:*

c/o Service culturel de l'Ambassade de France en Inde

Valise Diplomatique

128bis, rue de l'Université 75351 Paris Cedex 07