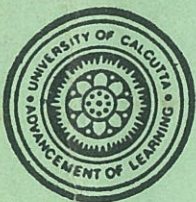


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Contrasting Urban Patterns : West Bengal, Punjab and Kerala

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I. Introduction

For several decades since the independence of the country, urban problems tended to be ignored by both the policy makers and the academic researchers. There was a valid reason for this. India was after all a rural-agricultural country and neither the proportion of urban population nor the level of industrialisation was of high enough order to demand attention. In recent years the attention has begun shifting, not because the rate of urbanisation is spectacular, but because, given the very size of Indian population, even a small proportion is massive in absolute terms. India's urban population is now larger than the total population of one of the largest countries of the world, the United States, though it is only 26% of the population. Urban issues can no longer be ignored.

However, the growing interest in urban issues has not been matched by an in-depth understanding of the processes and patterns of urbanisation. Rather processes and patterns, in plural, because there are indeed several of those at work. This is not surprising, given India's large land mass and population. If the urban pattern is mono-centric in West Bengal, it is pluralistic and diffused in Punjab, and in Kerala we have a pattern that has no parallel in any other state. What explains those differences in pattern? Why one city dominates so thoroughly the life in West Bengal, while there are several cities of similar size in Punjab. If the cities are so large in West Bengal and Maharashtra, what explains their small size in Kerala?

This paper has been prompted by those questions and is seeking tentative answers to those. Tentative because more study is needed to establish more conclusively some of the hypotheses presented in this paper. Nevertheless, whether tentative or not, this paper presents a particular approach towards urban problems that, we feel, deserves serious consideration. An examination of urban patterns can not be solely in terms of what happens only in the cities or towns. Much of what happens in urban areas is decided by what happens elsewhere, that is in the vast rural hinterland. Rural-urban linkages - e.g., terms of trade between industrial-urban and agricultural-rural goods, migration from the villages to the towns, flows of goods and

services as also flows of financial resources - have always been an important component of urban analysis. However, similar concern is not always reflected in the study of urban patterns, though, as we will show, a major explanation, though by no means the only one, of the emergence of such patterns, can be given in terms of land tenure patterns and the pattern and level of agricultural development in an area.

In this paper we put forward the following hypotheses to explain urban pattern in a particular state of India :

(1) There is always a history behind urbanisation. Something happened in a certain way in a certain state, and something else happened in some other state, which have influenced the pattern of urbanisation in two states differently, even when other conditions have been invariant. Ahistorical explanations are incomplete and can be misleading. For example, urbanisation under colonialism tends to be more of a concentrated type than that evolving autonomously.

(2) Ecology delineates the possibilities and limitations for different patterns of urbanisation. Forests, deserts, hilly areas, marshes, plains permit different urbanisation outcomes.

(3) Land tenure system, mode of extraction of surplus and its distribution determine the nature of concentration and diffusion of urban population in a particular context. In the Indian context, *zamindari* system favoured concentration of urban population in a few very large cities, while the areas under *ryotwari* system of land tenure encouraged diffused patterns of urbanisation.

(4) Urbanisation based on agricultural surplus tends to promote a more equal distribution of urban population than one based on industrialisation.

In this paper we are examining those hypotheses in terms of urban patterns in three Indian states - West Bengal, Punjab and Kerala. While in West Bengal urban population is heavily concentrated in Calcutta Metropolis and Durgapore-Asansol industrial complex, in

Punjab one finds a larger number of much smaller cities. In Kerala, distinct from the other two, the rural-urban division is blurred, and the towns are small while the villages are large.

We begin with a comparison of the urban patterns in West Bengal and Punjab in Section II, In Section III we offer explanations for the difference between these two states, in terms of the hypotheses given above. Section IV introduces the main features of the urban pattern in Kerala and in Section V those are explained in terms of historical, ecological, and other factors. Section VI will examine recent tendencies - towards diffusion in West Bengal and concentration in Punjab, and the possibility of an urban explosion in Kerala. Section VII summarises the main conclusions.

II. West Bengal and Punjab : main features

As Table 1 shows, West Bengal and Punjab are very close to one another in terms of their levels of urbanisation. From 1901, for most of the time West Bengal was just ahead. Punjab overtook West Bengal in 1981 and increased the lead in the next Census.

Their similarity ends there. No two states can be more dissimilar in terms of urbanisation pattern. In West Bengal Class I cities with 100000 plus population account for 63% of the urban population, while the corresponding figure for Punjab is a smaller 54%, in 1991 (Table 4). This figure would become almost 82%, if the Calcutta Urban Agglomeration is taken as one unit with all its 129 constituents. From these figures, West Bengal appears to be Calcutta-centric, while Ludhiana, Jullunder and Amritsar are more or less of the same size category, and towns like Patiala are not far behind in case of Punjab. However, the differences were more pronounced in the earlier years, and have been considerably bridged in recent years, as Punjab's urbanisation has surged forward. There were more urban units for the same population in Punjab than in West Bengal, and a larger number of smaller urban centres covered the same population. In 1991, however, these two states have come closer on that count (Table 6). Figures indicate a certain change in the urbanisation pattern in Punjab in the past two decades, for reasons that we will discuss in Section VI (Table 6).

More revealing is the pattern of urbanisation within each of these states. West Bengal can be divided into four regions : region I comprising the five most developed districts in and

around Calcutta Metropolis, region II containing only one district, Burdwan, with a high level of urbanisation and industrialisation, region III consisting of 5 (now 6) backward districts of North Bengal and region IV located on the western side covering 5 districts. Table 5B shows that the vast majority of the urban population are concentrated in region I and, with region II, account for more than four-fifth of the urban population in the state, while the regions of north and western West Bengal account for quite small shares. In contrast, in case of Punjab, the urban population is distributed more evenly, in line with their shares in total population (including both rural and urban) between three regions : region I consisting of 5 districts in the middle belt running from north-west to south-east, that is roughly from Amritsar to Patiala, region II of the four southern districts mainly producing cotton, and region III with three districts in the sub-Himalayan region (Table 5A).

III. Punjab and West Bengal - explanations for contrasting urbanisation patterns.

Let us now try to explain the differences in the urbanisation pattern of these two states in terms of the hypotheses given above.

History and Ecology

First, the historically different experiences of these two states under colonial regime. Bengal, the first colonial foothold, was more important to the British than Punjab. As it was the practice with colonial regimes, they built Calcutta, a port, as their capital and the main node of their colonial economy through which goods were imported and exported and labourers were supplied to other parts of the empire. Other areas in the region were linked with Calcutta by railways and roads, while the transport needs between those areas in the region were ignored. It was often easier to come to Calcutta from a long distance than to visit a neighbouring town. While administrative, legal and economic establishments attracted labour towards the metropolis, another important factor in the periodic accretion to the city's population was the impact of famines which pushed the victims towards the city. Famines, virtually unknown in pre-colonial Bengal villages, became regular visitors from the great famine of 1770 to an equally great famine of 1943. One reason for this periodic occurrence of famines in the British period was that yearly surplus grains preserved in village *dharmagolas* for meeting shortfalls in drought years were now transferred to the towns, industries and army camps to feed their

growing population. This made the village population defenceless when natural calamities like drought or flood struck and led to rural exodus, a large part of which chose Calcutta, the centre of administration and better connected by transport modes, their destination (Dasgupta, 1988).

Another aspect of the colonial regime was the ruthless manner in which the existing structure of urban-industrial Bengal was demolished, leading to large scale de-industrialisation and de-urbanisation and a significant drop in the population of great cities like Dhaka and Murshidabad. Afterwards, a new urban - industrial pattern emerged that was shaped by the colonial masters and was compatible with colonial economic interests, such as jute towns alongside river Ganga, coal mining towns in Asansol, tea plantation towns in North Bengal, railway towns, some towns linked with silk or indigo production, towns around army encampments, and administrative towns. (All these colonial towns were linked with Calcutta to facilitate the flow of goods, services and manpower, but not with their immediate rural hinterland.) These, plus the emergence of a powerful class of absentee landlords that will be discussed below, led to a high level of concentration of urban population in and around Calcutta. (Calcutta was also the main recruiting centre for the export of labourers to tea plantations in Assam, of sugar plantations in the Caribbean islands and, partly, of rail construction workers in Kenya, which linked it with the entire eastern region of the country from where the recruited labourers came. While in the early days workers for Calcutta's industries had to be recruited through *sirdars* sent to the villages, latter labourers began coming on their own. While, even in the early part of this century Calcutta suffered from labour shortage, the problem was virtually solved by the Bengal Famine of 1943, and then by the partition and the refugee movement after 1947.

(In other words, the mono-centric urbanisation pattern of West Bengal today was shaped by colonial interests, and was not an outcome of the interplay of autonomous economic forces at work. Unlike, say, urban development in Europe, which was closely aligned with rural-agricultural development, and led to the emergence of a hierarchy of towns uniformly spread over the space, the urbanisation pattern in Bengal was distorted by colonial presence, and took its present mono-centric form with a massive size difference between Calcutta and the next city in the hierarchy (Patna) in this region. Further, the process of cumulative causation reinforced this tendency for urban concentration and, Census after Census, the share of 100000 plus cities in the total urban population continued to rise. More of new towns and high growth

towns were located in the two major urban regions - Calcutta Urban Agglomeration and Asansol-Durgapur urban complex -while those in the north and the west continued to show the lowest figures in terms of most urban indicators, during 1971-81. In 1971, 34 of the 43 new towns were located either in the districts around Calcutta or in the Asansol-Durgapur industrial-mining area; and in 1981 this area accounted for 62 out of 73 new towns. This area also accounted for 56 out of 72 high growth towns identified in the 1981 census, and 49 of the 74 promoted towns. (Dasgupta, Giri et al). Leaving aside the two most urbanised regions, West Bengal's level of urbanisation was comparable with those for other neighbouring states such as Bihar, Orissa and Assam. Even in 1981 in 7 districts of West Bengal, out of 16, has urbanisation of levels of less than 10 per cent. Of these 6 continued to have less than 10% population even in 1991 (Census of India, 1981).

While West Bengal's urban pattern was exogenously determined, that of Punjab evolved endogenously, not being subjected to colonial distortion. The explanation for absence of colonial interference with the pattern lies in its ecology and economy, which were not considered suitable for furthering colonial interests. Neither could any of its towns be used as ports, nor did it have recognised potential as a mining or plantation region. The main colonial interest in Punjab (and that too in the western part, that is now a part of Pakistan) was in producing surplus food and in recruiting soldiers for its army. The absence of colonial interference proved to be a boon in disguise as its urban economy could grow autonomously and in close alignment with its rural-agricultural hinterland. As a consequence, unlike West Bengal, here the hierarchy of towns is more clearly determined and more uniformly spread over the space.

In cases of both the states, the partition of the country in 1947 had important consequences for urbanisation. In Punjab, the level of urbanisation was low and the rate of growth of urban population was slow for the first half of the 20th century. In fact, the period from 1901 to 1951, covering half a century, was characterised by a fall in the number of towns, some times at a very high rate. Whereas the number of towns in 1901 was quite high at 76, but mostly very small mandi towns, it dropped to 62 in 1911 and 59 in 1921. Though the number of towns recovered somewhat in the next two decades, even in 1941 the number was no more than 75, at a time when, spurred by industrial activities and population growth, in West Bengal towns registered a substantial increase in number. The sudden increase in the number

of towns in 1951 - to 112 from 75 in 1941 - was largely due to the movement of refugees from the Pakistan side of the border following the partition of the country in 1947, and was not in any way connected with a major spurt in non-agricultural economic activities. In West Bengal too a large number of towns came into being following the partition of the country and large scale refugee movement across the international border. The proportion of urban population rose from 20.4% to 23.8% between 1941 and 1951, while the number of towns increased from 97 to 192. Thus this demographic expansion of urban population and the growth in the number of towns is an outcome of the colonial policy of divide and rule in this case. The concentration of refugees in urban areas is, again, understandable, since these were the ones better connected by rail and road network and having some administrative arrangements for looking after the refugees in the initial phase of their migration.

Land Tenure System

The second major difference arose from their differing land tenure systems. In West Bengal the *zamindari* system prevailed since the permanent settlement of 1793, while, for various reasons that should not detain us here, the British administration introduced *ryotwari* system in Punjab. In the former, land was given over to the big landlords at a fixed revenue and in perpetuity, which also covered forests and village commons. The enormous surplus that accrued to a small number of big landlords, owning several villages, made it possible for them to live in style in Calcutta and some other major urban centres, while the administration in the village was looked after by their *nayeb*s and *gomosthas*. The absentee landlords brought with them a large retinue of servants and an enormous purchasing power, which required further migration from villages to meet their demands for goods and services. The landlords became, in effect, the mechanism through which rural surplus was transferred to Calcutta and made the metropolis grow faster than it would have otherwise. In the early part of this century, it may come as a surprise to many, Calcutta was known as 'the city of gardens' and also as 'the city of palaces', because of the role of the landlords played in its economic, social and civic life.

In comparison, in Punjab revenue settlement was made with *ryots*, which literally means ordinary cultivators, though it actually meant the richer section of the peasantry. In other words, land ownership was diffused and did not give rise to the concentration of land,

wealth and purchasing power that was typical of the Bengal countryside. Though in later years some form of landlordism emerged in Punjab too, mainly based on the rich peasants paying revenue and, in turn, collecting rent from their own tenants, the scale of landlordship was small enough not to induce them to migrate and live with a conspicuous life style in the cities. Whereas landlords were absentees in Bengal, in Punjab they stayed in the villages, at most went to the nearby town, or the village of their residence itself became a town in due course. Thus, surplus generated in the countryside stayed in the countryside and was not transferred to the cities in a manner that starved the rural areas of Bengal.

Urbanisation With Agricultural Or Industrial Base

While, as we have noted already, urbanisation under the colonial regime in Bengal corresponded to industrial or commercial interests centering around jute, tea, coal or even silk or indigo, in Punjab it was mainly the spill-over of rural prosperity and took the form of *mandi* settlements. Towns were mainly the places where agricultural goods, foodgrains or vegetables or commercial crops, were traded or stored. (In West Bengal, the relatively low urban development in the northern and western part is largely because of the absence of industries in those districts, while both urban and industrial development is concentrated in the five districts in and around Calcutta metropolis and in Burdwan (Ghosh Roy). Incidentally, even agriculture is more flourishing in the urban-industrial districts in Bengal, and not in the predominantly rural areas of the state, if one measures agricultural development in terms of yield, surplus generation, technology applied, diversification of cropping pattern and other indices. Thus, not only urbanisation in West Bengal was prompted by industrial progress, even its agriculture is more developed in the most urbanised and industrialised districts, a factor that reinforces regional disparities within the state (Dasgupta).)

In contrast, urbanisation in Punjab, until recently, was almost entirely based on the spillover of agricultural prosperity. This was partly reflected also in the higher female-male ratio, of 870 per thousand in urban Punjab compared with 856 per thousand in urban West Bengal. Whereas in case of West Bengal 43 of the 78 new towns in 1981 has a gender ratio of 881 or less, that is less than the national average for the urban areas, accounting for 55% of new towns (Dasgupta, Giri et al), in case of Punjab only 7 out of 29 new towns, that is 24.4% were below that gender ratio. A study by Prabha shows that even in 1961, in about one-third of

the towns, more than 20% of the population were engaged in primary activities, while, on the other hand, in 73% of towns more than half the population were engaged in tertiary activities. Only in 5% of towns secondary sector accounted for more than 40% of the working population (Prabha).

Further, agricultural development is, more or less, uniformly spread in Punjab, unlike West Bengal. As Table 7 indicates, between three major regions - the middle belt of prosperous wheat farmers, the cotton belt of south-west and the foothills in the north-east - differences are not marked in terms of cropping intensity, hired labour use, and the use of irrigation, farm machinery and draft animals. Table 8 further corroborates such finding, also in terms of demographic variables such as family size and number of earners per family. There are, of course, differences in terms of irrigation intensity, region I having 94.53% coverage and region II having 83-88% coverage, but even in the relatively backward region III, the irrigation coverage exceeds 60%, far higher than that for any district in West Bengal. Obviously, region I shows more intensive application of inputs and appear to be richer than region II, and the latter richer than region III, but such differences pale into insignificance compared with the differences that exist between regions in West Bengal. Region II has specialised in cotton production and region III produces more paddy than the other two, while region I is primarily wheat producing, and these three together provide a diversified and balanced picture of agricultural development in Punjab that is unique in India.

IV. Urbanisation in Kerala - main features.

Coming now to Kerala, the third state under study in this paper, the pattern of urbanisation here is distinct and bears no comparison with any other state excepting adjacent parts in Tamilnadu and Karnataka. In fact, Kerala appears to have more in common with the pattern in Sri Lanka and some other South and South-East Asian states than with that in India in general.

Large Villages and Small Towns

First, villages appear to be quite large, while towns are, by Indian standards, quite small. The 1981 Census identified 1331 villages, of which 112 were wholly included in the

towns and 85 were partly included. We have excluded both of these two categories and have concentrated on the remaining 1219 villages, which are not covered by any town. Table 14 indicates average population for Kerala villages compared with those for West Bengal and India as a whole. At 16967 the average for Kerala bears no comparison with the national average and makes a typical Kerala village comparable with a Class IV town (that is between 10000 and 20000 population) in terms of population alone. Table 15 gives the size distribution of villages in Kerala compared to those in West Bengal and India. It shows that only 18 villages contain less than 2000 people and account for less than one-tenth of 1% of the rural population. In fact, 92% of the villages have populations of more than 5000, the cut off point for defining a settlement as a town. Further, there are 38 *mega-villages* with more than 40000 inhabitants, which are comparable with large Class III category of towns by population size alone. In contrast, in West Bengal, 86.41% of villages are of below 2000 strength and another 11.53% of between 2000 and 5000; and only 2% have population exceeding 5000.

Looking at the urban settlements, out of 197 of those, only 7 belong to 100000 plus category, and account for less than 10% of the urban population of the state, according to the 1991 Census. The vast majority of towns (154) belong to categories III and IV, that is between 10000 and 50000 in strength. In this sense the urban pattern in Kerala is most diffused among the three states under investigation in this paper. On the other hand, as in the Punjab case, and unlike West Bengal, the urban system in Kerala is highly unstable. The total number of towns declined from 94 in 1951 to 92 in 1961 and 88 in 1971, but then recorded a sudden increase to 106 in 1981 and 197 in 1991. No less important, the total space in the state is more densely packed by towns - one town per 245 square kilometers - than in any other state, the national average being around 900 square kilometers. In other words, there are more towns to service the rural areas in Kerala than anywhere else in the country (Table 16).

No field-village demarcation

Second, within the village, there is no clear separation of 'villages' from the 'field'. In the rest of the country the villages located on high land to avoid flooding are clearly separated from the low-lying crop zones which require water to thrive. Such distinction makes little sense in a state where trees (coconuts, rubber, areca nuts and so on) on high land dominate the land use pattern and both trees and homesteads stand side by side. A typical

compound in a village consists of both the farm house and the garden. Neither the danger of flooding in the village is high because the undulating terrain takes care of drainage, nor is there the need for low-lying water-accumulating areas for cultivation. Only where paddy is the main item of cultivation, and the fields are stretched to the horizon, e.g., Palghat or Kuttanad, that one finds a landscape that resembles the northern ones. In most other parts paddy fields are mostly narrow strips embroidered by coconuts and other trees on both sides, almost looking like green rivers meandering through the trees. This 'Kerala type' of settlement pattern, however, applies largely to the coastal low land and the adjoining middle-level land, which account for 52% of the land area and 85% of the population. However, like the large paddy tracts, it does not apply to forest areas, which cover 17% of the land, mostly on the eastern part where Western Ghat mountains dominate.

Homogeneous Settlement Pattern

Third, the contrasting cropping and land use patterns in Kerala and virtually the rest of the country leads to another distinguishing feature of Kerala's settlement pattern: a very high degree of homogeneity in the distribution of settlements and also, within a settlement, of trees and homestead. The whole of Kerala, from the northern tip to the sea in the south, looks like one big 'village' or 'town', with hardly anything to distinguish one settlement from another. Urban and rural settlements are in a continuum, making it extremely difficult to establish where one ends and another begins. As a consequence, the definition of a 'village' with its boundaries tends to be somewhat arbitrary and subject to administrative decisions, and not something that can be worked out in terms of natural borders (Chattopadhyay).

By Census definition a 'village' is basically a 'revenue village', that is whose boundaries are demarcated administratively for the purpose of revenue collection and for keeping records. These 'villages' are subdivided into *desoms* in Malabar area, *maris of desom* in Cochin area and *karas* in Travancore area. Of these only *desom* in Malabar are recognised survey units with specific boundaries, whereas the other two are merely conventional units with no specific boundaries. In fact, until 1961, *desoms* in Malabar were recognised as 'villages' for the purpose of Census. From 1961 the Census definitions have been standardised to apply to only 'revenue villages'.

Fourth, though the level of urbanisation is low, according to Census statistics, this is an understatement. Practically the whole of Kerala satisfies the density criterion of urbanisation, and nearly all the villages are over the 5000-population threshold that is needed to be satisfied to describe a settlement as a town. Population density of Kerala, at 695 per square kilometer, is much higher than 400 per square kilometer cut-off point for the urban areas, which on this criterion alone, would make the entire state of Kerala a town. Only the third criterion - of having more than three-fourth of the working population in non-agricultural activities - is not met. But in many villages, a substantial proportion of the earners are involved in fish packaging and processing of rubber, cashew and copra, and various service industries. In fact, reading Census figures for 1971, 1981 and then 1991, one gets the feeling that the rate of urbanisation is speeding up in this state, thanks to a regular and increasing flow of remittances from the Gulf countries and also from those engaged in various occupations within the country.

Even in 1981, the share of urban settlements was a very small 18.74% of the total state population. Unlike other states, migratory movements from rural areas to towns and cities are weak in this state; in fact there is a larger flow of migration towards highland and forest areas where construction and plantation activities are acting as magnets for job-seekers (Chattopadhyay). However, there has been a 60.89% rate of growth of urban population in the following decade, resulting in a 26.44% urban population figure in 1991. It is not inconceivable that in a matter of another two or three decades this criterion would also be satisfied by way of a sudden spurt in non-agricultural activities, thus making practically the whole of Kerala urban.

V. Explanations for the Kerala Type of Urbanisation

Here we are presenting some possible explanations for this highly interesting and unique urban pattern in Kerala, which should be taken as tentative needing further examination on these lines.

Historical Factors

Tucked in one corner of the country, Kerala managed to avoid the political turmoil in the rest of the country for most of the time in its history. This relative insulation was possible

because of the physical barriers created by the Western Ghat mountains, reaching 12000 feet at some points, that only allowed one major entry point at Coimbatore-Palghat gap stretching to about 30 kilometers. The making and breaking of large empires in the country, even in the southern peninsula, left the state unaffected, nor did invasions lead to the setting up of army camps that could lead to population concentration. While elaborate cultural interactions were not unknown - including the trips of Sankaracharya, a great Hindu reformer - nor the diplomatic maneuvers by local kings such as the Zamorin of Calicut or the trade in Arabian horses, it escaped the highly centralised *jaigirdar-mansabdar* based administration of the country by major Indian rulers (Ayyar).

Within the state also, rather than operating under one king, Kerala was divided into three major areas - Malabar, Cochin and Travancore. Their rulers, while occasionally fighting against each other, were mainly local chieftains with their own centres of administration and commerce, nor were they resourceful enough to afford lavish display of power and patronage on a Mughal or Bahamani -Vijaynagar scale that could lead to the emergence of major urban agglomerations.

Though the coastal line of the state is excellent for the purpose of constructing ports, so vital for colonial regimes, the British came to Malabar too late, in the 19th century, by when ports of Bombay, Calcutta and Madras had become fully functional as major centres of trade and commerce. Had the British arrived in this area earlier, one can only conjecture whether they would have been interested in setting up a major port in this area. During the period under British rule only Malabar was directly administered, while the remaining part was indirectly ruled through a British colonial representative overseeing the work of the Raja of Travancore and Cochin. The pre-British European powers, such as the Portuguese and the Dutch, were mainly interested in trade, and kept themselves confined to the coastal forts and the supply line for their trade in the immediate vicinity.

While the mountain barriers virtually shut out the state from the rest of the country, its long coastline helped to maintain close contact with West Asia and Europe, which is also reflected in the religion-wise composition of the population, Muslims and Christians each accounting for more than one-fifth share of the population. The high level of commercialisation of Kerala's agriculture, which also allows for a more diffused type of urbanisation compared

with industry-based urbanisation, has its roots in this long history of commerce with the West (Ayyar).

Ecological Factors

If the historical factors prevented centralised consumption and expenditure from becoming an important factor in Kerala's urbanisation, ecological factors contributed significantly to the homogeneity of the state in terms of a wide range of factors. We have already referred to the role of the mountains and forests as a barrier that prevented the extension of centralised Indian empires to Kerala, and also to the part played by tree crops in the settlement patterns within and between villages. The name Kerala is derived from *kera*, the name for coconuts in Malayalam, which accounts for almost a quarter (23.91%) of the total cropped area and dominates the landscape, towering over the hillocks, waterways and paddy fields. It can be grown practically anywhere in the state, on high grounds near the coast. While coconut trees present the 'rural look', its offshoot, the coir industry, ever present in a Kerala village, gives it an 'urban-look'. Rubber, areca nuts and cashew nuts, along with tea and coffee, and of course spices, are among the other export crops for which Kerala is famous, and which contribute to making Kerala so distinguishable from other states. In comparison, paddy, the major field crop, plays a minor role.

No less important was the role of the long stretch of coastlines played, with numerous coves and bays, that were ideal for the construction of ports. Since virtually any part of the coastline was suitable for ports, the selection was randomly distributed and nearly equally spaced, without any bias in favour of some areas that could lead to concentration.

In addition, the main item of merchandise from the very early period - spices, which were light and valuable and were, therefore, ideal for carrying in small vessels over long distance - was also randomly distributed along the north-south corridor of the state, more or less at the same distance from the coast. Thus, despite a high volume of commercial transactions for hundreds of years, neither the location of ports nor the supply of the main export item created any important bias in favour of some areas or regions to the exclusion of others. The three distinct ecological areas - coastal plains, the middle ground and the

highlands with forests - run more or less as parallel lines along the length of the state, which makes transport and delivery of forest products to the ports easier.

Further, the supply of sweet water is also plentiful, but in the form of a very large number of small streams and rivulets running down the slopes of the Western Ghat mountains towards the sea. Of the 44 rivers all but 3 flow to the west (Chattopadhyay). The absence of long and mighty rivers makes the emergence of major towns specialising in riverine trade, as in West Bengal, unnecessary, while the undulating nature of the terrain eases drainage and helps to avoid flooding that could exclude human habitation. The rainfall too is plenty and uniformly spread, the state having the rare privilege of enjoying two monsoons a year. The cropping pattern being biased in favour of tree crops and others with low water intensity, the rural economy is less dependent on the vagaries of nature compared with states mainly cultivating field crops such as rice and wheat and needing a great deal of water. Neither too much nor too little water encourages urban concentration or excludes urban spread virtually to anywhere in the state, another reason why urban concentration could be avoided.

In more recent years, thanks to the active role the governments played, most of the major infrastructures are accessible from almost any part of the state - e.g., road-railway network, power and water. The average road length is 2 kilometers per square kilometer area, which is highest among Indian states. In addition, social infrastructure is equally evenly spread, e.g. as the inter-district and genderwise figures for education and health show (Chattopadhyay).

Land Tenure System and Industrialisation

Though a system of landlordism emerged in Kerala, these were smaller in scale, compared with Bengal, and were not the absentee type living in urban areas off the surplus appropriated in rural areas. The sharecropping system and sub-infeudation of land rights, that characterised the *zamindari* system of Bengal, and led to concentration of land power in a certain form, were virtually absent in this state. On the other hand, agrarian relations have been more of the capitalist type for a long time, with the agricultural labourers forming the basis of production.

The industries in Kerala are small and highly localised. These are mostly agriculture-based and involve processing of marine, tree and forest products. Unlike West Bengal one does not find large scale industries producing jute or cotton or machines in factories, nor even footloose industries catering to national demand for hosiery products, bicycles and sports goods as in the case of Punjab. This is one more reason why industrialisation has not given rise to urban agglomerations. Among the districts, Quilon, with a number of industries, is at the top, followed at a long distance by Ernakulam which contains Cochin. The growth of Cochin is largely because of the role its port and refinery play, and despite this it is quite a small urban area by the standards of major Indian cities.

VI. Recent Tendencies

So far in our study we have focused on the contrast between mono-centric West Bengal and pluralistic Punjab, and between both on the one hand and Kerala on the other, the latter depicting an unique pattern of urbanisation not witnessed anywhere else in the country. In this section we will examine some of the tendencies that have been revealed by the Census data for 1981 and 1991, which have some bearing on the likely urban pattern in these states in the coming decades.

Kerala : possible urban explosion

In case of Kerala, we have already noted that there is a clear possibility of urban explosion, not so much in terms of what is going to happen on the ground, but statistically, as non-agricultural activities grow in villages and take them beyond the 75% cut off point. The in-remittances from the Gulf countries, sent by the out-migrants, mainly from Mallapuram and other districts of the erstwhile Malabar region, along with the increasing trend towards globalisation of the Indian economy, might prove helpful in this transformation.

West Bengal : tendency towards diffusion

As for West Bengal, it appears that the centralising tendency is weakening. While the Class I cities still dominate the urban pattern and continue to augment their share of urban population, the rate of such accretion has slowed down. Between 1981 and 1991 there has been a tremendous surge in urbanisation in terms of the growth of new towns, 111 of them, a large

number of which is located in areas outside Calcutta Urban Agglomeration and Durgapur-Asansol complex (Table 6). This tendency can be largely explained in terms of a higher and more uniformly spread rate of agricultural development in the state since the early 1980s, thanks to land reform and introduction of panchayati systems from 1978. Since 1983-84, West Bengal has become the state with the highest rate of agricultural growth, registering a 6.7% growth in the following 11 years compared with around 4% in case of Punjab.

On the other hand, the pace of industrialisation has slowed down and a large number of industrial units are sick or subject to lock out or closure. During the 1980s a significant number of towns have come into being in the backward northern region, and in the eastern parts bordering Bangladesh and benefiting from trade, both legal and illegal. While the hitherto dominant areas continue to dominate, their degree of dominance is not what it was a decade or two earlier. Further, boosted by regular elections and better funding arrangements since the late seventies, long before the 74th constitutional amendment and the constitution of the state finance commission, the municipalities are now an important focal point of a variety of administrative and economic activities. While until recently the life in the state, in all its aspects - economic, social, cultural and political - was almost entirely dominated by Calcutta, there is some evidence of dilution of that hold of this great metropolis in recent years.

Punjab : tendency towards urban concentration

In contrast, in Punjab, whose urban pattern is relatively diffused, is showing an increasing tendency towards concentration. The proportion of urban population in Class I towns has gone up from 40.52% to 46.38% during 1971-81, and then to 54.36% in the following decade and the number of class I towns has suddenly jumped from 4 in 1971 to 7 in 1981 and to 9 in 1991 (Table 2). On the other hand, along with a significant increase in the proportion of urban population in the state, the number of towns, which increased from 1951 until 1981, has taken a nose dive, and has declined from 134¹ in 1981 to 120 in 1991 - thus drastically reducing the urban servicing of the rural areas of the state. There are now more

¹ In 1981 there are 29 new towns, all Notified Area Council (NAC), but 16 of these NACs are dissolved just after the Census frame identifying rural and urban area being finalised (Census of India, 1981, *Primary Census Abstract, Punjab*).

population covered per urban unit in Punjab than in West Bengal, despite the overall diffused nature of its urban pattern.

Three possible explanations for this increasing tendency towards concentration of urban population in recent years in Punjab are as follows :

(i.) increasing inequality in the villages, resulting from the deployment of capital by richer farmers, which in turn is leading to transfer of resources from the less developed to the more developed regions;

(ii.) increasing tempo of migration, both inter-state and between districts within the state, converging on the more agriculturally developed districts and bigger cities;

(iii.) increasing role of industrialization as an important factor in the urbanizing process.

We will now examine these factors in turn.

Increasing inequality: The phenomenon of growing rural disparity has been noted by numerous studies on Punjab agriculture. Here we will refer to Table 9, which shows that, while in all the other states the average size of operational holdings has declined in the two decades since 1970-71, largely because of demographic pressure, Punjab's average size has actually increased from 2.88 acres to 3.61 acres. In the latter, the adverse demographic impact on holding size has been mitigated by the transfer of land, presumably from the poorer to the richer holdings, so-much-so that the average size has actually gone up. Table 10 shows that while in West Bengal the marginal and small holdings account for 91% of all holdings, in case of Punjab the figure is a smaller 45%. On the other hand, while marginal and small farmers account for 66% of land in West Bengal, in Punjab their share is a modest 12%. Looking at the figures in another way, the large and medium holdings, accounting for only 6% of holdings of Punjab, control two-thirds of operated land, while in case of West Bengal the corresponding figures are 1.29% and 11%, respectively (Table 9). A study by Mitra and Mukherji shows that, in 1971, out of 11 Punjab districts, only in one the gini coefficient measuring disparity in land ownership was less than 0.50 and in 6 more than 0.55, while, in case of West Bengal only 2 out of 13 covered it exceeded 0.50 (Mitra and Mukherji).

The 37th round of National Sample Survey shows that the proportion of households with more than Rs 100000 of assets is a very small 3.79% in case of West Bengal and a substantial 26.71% in case of Punjab. Further, these households account for around one-sixth of credit in West Bengal and three-fourth of credit in Punjab (Table 11).

Propensity to migrate : In recent years two types of migratory flows are in evidence. First, the in-migration of agricultural labourers from backward rural areas of Bihar and Uttar Pradesh.

Second, what is being facilitated by the first, the out-migration of native rural labour towards the urban areas of Punjab. The in-migrants and out-migrants constitute two distinct groups, with reference to the same prosperous area. While the immigrants are usually landless and poor, and have been pushed out of the rural areas, the peasants with more than 5 acres of land contribute a larger than proportionate share among the out-migrants (Oberoi and Singh).

This combination of large scale in-migration of rural labour with large scale out-migration to towns is best illustrated by the rapid growth of Ludhiana city, with perhaps the richest rural hinterland in the country. A poor third behind Amritsar and Jullunder in terms of population size until 1961, by 1981 it has overtaken Amritsar as the largest city of the state, with a population of 606150. While a part of the explanation for Ludhiana's growth lies in its location, away from the international border, there is no doubt that migration induced by its agricultural prosperity, in both directions, has also played a crucial role in its growth.

Industrial progress: Urbanization, led by agriculture so far, is now also being boosted by industrial activities, in both rural and urban areas. Punjab has already made the transition from subsistence food production to agricultural production for market, and is now on the path of industrialisation (Gosal). In terms of the value of industrial output per head, Punjab and Hararyana occupy the sixth and fifth positions after the four leading industrialized states of the country - Maharashtra, Gujarat, West Bengal and Tamilnadu. In fact, comparison of Punjab with West Bengal shows that while the latter experienced a secular decline between 1951 and 1971 in terms of the number of industrial units, industrial employment and gross value added, during the same period Punjab's industries had gained from strength to strength

Most of these industries are of small scale and footloose type. Being without a rich mineral base, the state has focused on those for which transport costs - either for inputs or for outputs - have no locational bias. At the same time, the policy of freight equalisation, that has hindered industrial progress in mineral -rich states of Eastern region, has helped the state to procure steel and coal at cheap and competitive prices. Industries like hosiery, textiles, sports goods and engineering are flourishing, while most of the industrial units employ less than 10 people.

In addition to the seven cities, a number of new industrial towns are already making their mark, such as Phagwara, Abohar, Gobindagarh, Moga, Malerkota, Ferozepur and Hosiarpur, specializing in various activities. A very high proportion of these industries are located in urban areas, higher than the figure for West Bengal for instance. This is again very important as it points to the future trend. Villages are specializing more and more in agriculture and animal husbandry activities, while the urban areas are looking after the industries. Further, rural areas with some industrial activities are rapidly becoming towns, while industrial towns are growing at a rate faster than the rate for the other types of towns. From the point of view of the future development of the urbanization pattern, such growth in industrial activities, and their consequent increasing influence over the urbanization process, would imply that, over time, urbanization would be more selective and biased in favor of areas with industrial concentration.

Agricultural Prosperity and Urbanisation Induced by Industrialisation: Agricultural prosperity in Punjab is being transmitted into industrial and urban growth via three distinct processes :

- (i) agricultural and rural sector operating as a major market for the industrial goods;
- (ii) agricultural saving being translated into investment in industrial activities by way of banks and other financial institutions, and
- (iii) agriculturists are turning into industrialists and migrating into towns.

Let us now examine these three in turn.

(i) Agriculture as a market for industrial goods. The prosperity of agriculture in Punjab provides the industrialists in that state with a market within the state, which can be used as a base for trying out new goods and then expanding into the markets of other states. While the greater proportion of the industrial output is sold outside the state, and much of the industrial inputs are procured from outside the state, the local market provides them with a floor, and then a springboard for spreading their marketing network to other states. Apart from the agriculturists, the high proportion of out-migrants from the state, working in the army, in transport and other activities all over India and abroad, also generate a demand for the goods of the foot-loose industries, e.g., for transistors, watches, fancy footwear and dresses. The study by Oberoi and Singh also confirms that the uses of remittances from urban areas are heavily consumption-oriented but with little of food and clothing among the consumption items.

(ii) Agricultural surplus being transferred through banks and other financial institutions. Data from various surveys indicate both a very high level of saving and a very low level of utilisation of that saving in the rural areas in the form of investment in farm assets and other related activities. Punjab, with low shares of Indian territory and population, mobilises 10.59% of the total rural saving in the country, and even the level of saving in the semi-urban areas is very high at 8.46% (Table 11). On the other hand, as for the utilisation of that saving, about 19% of the rural households in Punjab actually take loans, while the remaining 81% are self-sufficient in terms of financial resources. Among the farmers the larger the holding the greater is the amount of saving and the smaller is the proportion invested in farm assets., possibly because, for the majority of them, requirements in terms of farm assets have already been met.

The answer to the crucial question, what do they do with the rest of the saving, probably lies in the transfer of their saving to non-rural areas, mediated by the banks and other financial institutions. For rural areas of both Punjab and West Bengal credit-deposit ratios of commercial banks are incredibly low at around 0.44, compared with the average national figure of 0.59. Thus, a substantial part of the deposit mobilized in the rural areas is taken out of these areas for investment elsewhere. The credit-deposit ratios are even lower for both for the semi-urban areas (though less so in case of Punjab). The figures for the urban centres and of the cities, particularly those for Ludhiana and Jullundur are much better, and these are the places where rural savings are probably finding their way into (Table 12).

Table 13 shows that there was a net outflow of Rs. 16.55 crores of resources from the rural sector in Punjab. Figures for 1977-78 show that the net resource outflow from the rural areas amounted to Rs. 30.86 crores by way of banks, and Rs. 3.99 crores by way of cooperatives. The latter is worth noting because in the earlier years the cooperatives actually brought resources into rural areas from outside - Rs. 0.63 crores in 1961-62 and Rs. 4.02 crores in 1971-72. Thus, while in the previous years the cooperatives somewhat compensated for the net outflow of resources by way of banks, now both of the agencies contribute to such net outflows.

(iii) Agriculturists turning into industrialists. There is not much evidence of the agriculturists turning into industrial entrepreneurs in the towns. A major part of the new entrepreneurs who are now engaged in small scale industrial activities were displaced skilled workers from Pakistan or their descendents. As the study by Pandit (1985) shows, the displaced persons from Sialkot in Pakistan were instrumental in setting up the sports industry in Punjab. Similarly were cycle, sewing machine, pipe fitting, utensil, and rubber industries established. A field survey by Pandit confirmed that 30.6% (Patiala-Rajpur) to 88% (Jullundur) of the entrepreneurs were from this particular group. However, their proportion is small among the entrepreneurs producing agricultural implements, machine tools, woolen Hoosier and bolts and nuts. Here one finds a clear difference between Ludhiana and Jullunder, the two major industrial cities in the state; while the refugees constitute about 48.7% in the former, their share is as high as 88% in the latter. Ludhiana, specialising in engineering units and machine tools and also textiles, mainly drew on the skills of the *Ramgharias*, a Sikh caste engaged in work as carpenters and blacksmiths who latter develop themselves into manufacturers.

We have already noted the role of the movement of displaced persons in speeding urbanisation in Punjab, as noted in the 1951 Census. Taking both Punjab and Harayana together, among them 13 lakhs were skilled workers from urban areas, while another one lakh were small landowners who did not find it worthwhile to take up the cultivation of tiny plots offered to them in the rural areas and opted for the urban areas. Both of these groups helped to boost both the proportion of urbanisation and industrial development in this state. Field studies by Pandit revealed that almost nine-tenths of their initial capital came from earnings

from jobs, trade, business, industry and compensations given to refugees, while only 11% was due to income from land, borrowing and other sources. Most of them began their activities on a very small scale, with little capital and mainly relying on their technical skill and knowledge of the trade, and then gradually built up their enterprises. Thus, for the overwhelming majority of them there could be no question of resources being transferred from rural areas to finance industrialisation.

VII. Conclusions

In this concluding section we seek to highlight two issues : (a) what should be an ideal urban pattern, and whether any of the models discussed above, if found desirable, is capable of replication, and (b) whether the analysis undertaken in this paper, to explain urban pattern in terms of historical and ecological factors, land tenure systems and the relative importance of agricultural or industrial development in promoting urbanisation, is replicable to other states and areas.

As for the first issue, the Kerala model, even though desirable, is not easily amenable to replication, largely because of its distinct ecological requirements. Between the other two, the Punjab model, which is closely integrated with rural prosperity and allows for wide diffusion of urbanisation, is both desirable and relatively more amenable to replication. In a sense, the Punjab model shows what could have been the urban pattern in India as a whole had there been no colonial intervention in the development process.

As for the analytical framework used in this paper, it works so well with these three states with distinct patterns that there is ample room for being optimistic about its replicability in understanding urban patterns in other states. It will be a good idea to try it out in different ecologies, such as the semi-desert areas of Rajasthan where the rural settlements can not be large because food (both for humans and animals) is scarce and widely dispersed, but where it is possible to have one or two very large cities to which the rural surplus is transferred, e.g., Jaipur or Udaipur. In fact the desert economies of West Asia and North Africa exhibit such patterns - of having very small rural settlements and very large urban areas accounting for a lion's share of aggregate urban population. Another area for testing this analytical model would be the hilly regions where too settlements can not be large but which probably require large cities in the foothills for handling flow of goods and services, for administration and for transport and trade with other areas.

Table 1: Levels of Urbanisation in West Bengal and Punjab : 1901-1991

| Year | West Bengal | Punjab | India |
|------|-------------|--------|-------|
| 1901 | 12.20 | 12.39 | 10.84 |
| 1911 | 13.06 | 12.08 | 10.29 |
| 1921 | 14.41 | 12.16 | 11.18 |
| 1931 | 15.33 | 14.58 | 11.99 |
| 1941 | 20.40 | 17.26 | 13.86 |
| 1951 | 23.80 | 21.71 | 17.29 |
| 1961 | 24.45 | 23.05 | 17.97 |
| 1971 | 24.75 | 23.73 | 19.90 |
| 1981 | 26.49 | 27.72 | 23.73 |
| 1991 | 27.39 | 29.72 | 25.72 |

Source : 1) S.M.Alam & F.A.Khan (eds.), 1997.
 2) Census of India, 1991, Series 1, Paper 2.

Table 2: Cumulative Shares of Towns of Various Size Classes in 1971-1991 in West Bengal & Punjab

| Population | 1971 | | 1981 | | 1991 | |
|---------------|------|--------|------|--------|------|--------|
| | W.B | Punjab | W.B. | Punjab | W.B. | Punjab |
| Upto 9999 | 0.28 | 0.37 | 0.21 | 0.41 | 0.37 | 0.20 |
| Upto 19999 | 0.57 | 0.67 | 0.47 | 0.67 | 0.63 | 0.57 |
| Upto 49999 | 0.82 | 0.88 | 0.75 | 0.88 | 0.79 | 0.76 |
| Upto 99999 | 0.96 | 0.96 | 0.91 | 0.94 | 0.89 | 0.92 |
| Upto 100,000+ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

Source: 1)B.Dasgupta (ed), 1988.
 2) Census of India,1991, Series 1,Paper 2

Table 3: Cumulative Shares in Total Urban Population of Towns of Various Size Classes in 1971-1991 in West Bengal & Punjab

| Population | 1971 | | 1981 | | 1991 | |
|---------------|------|--------|------|--------|------|--------|
| | W.B. | Punjab | W.B. | Punjab | W.B. | Punjab |
| Upto 9999 | 0.02 | 0.08 | 0.01 | 0.08 | 0.01 | 0.02 |
| Upto 19999 | 0.07 | 0.22 | 0.05 | 0.19 | 0.04 | 0.13 |
| Upto 49999 | 0.17 | 0.44 | 0.12 | 0.40 | 0.12 | 0.26 |
| Upto 99999 | 0.29 | 0.59 | 0.23 | 0.54 | 0.18 | 0.46 |
| Upto 100,000+ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

Source: 1) B.Dasgupta (ed), 1988.
2) Census of India, 1991, Series 1, Paper 2.

Table 4. Size-class Distribution of Urban Population in West Bengal & Punjab : 1971-1991 (in %)

| Town Size Category | West Bengal | | | Punjab | | |
|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | 1971 | 1981 | 1991 | 1971 | 1981 | 1991 |
| Plus 100,000 | 54.91 (15) | 55.49 (24) | 63.21 (42) | 40.52 (4) | 46.38 (7) | 54.16 (10) |
| 50,000-99,999 | 19.38 (31) | 19.72 (39) | 13.52 (35) | 15.84 (8) | 14.39 (10) | 19.91 (18) |
| 20,000-49999 | 13.84 (49) | 11.83 (54) | 10.91 (62) | 22.20 (22) | 20.24 (27) | 12.92 (25) |
| 10,000-19999 | 7.52 (60) | 9.18 (92) | 7.36 (99) | 13.32 (31) | 11.28 (36) | 10.82 (46) |
| 5000-9999 | 4.02 (59) | 3.29 (62) | 4.67 (124) | 6.84 (29) | 6.50 (40) | 1.72 (14) |
| Less than 5000 | 0.33 (9) | 0.49 (20) | 0.33 (20) | 1.28 (12) | 1.21 (14) | 0.47 (7) |
| Total | 100 (223) | 100 (291) | 100 (382) | 100 (106) | 100 (134) | 100 (113) |

Notes: (1) Number of towns for each category is given in paranthesis. (2) These figures are computed taking cities and towns in the Calcutta Urban Agglomeration (C.U.A.) as separate units rather than treating C.U.A. as one urban unit. If C.U.A. is so treated, the figures for 1971, 1981 & 1991 would be 70.98, 76.84, and 81.71 percents, respectively.

Sources : 1) S.M.Alam & F.A.Khan (ed.)
2) Census of India, 1981, Series 1, Paper 2.
3) Census of India, 1991, Series 1, Paper 2.

Table 5A: Location of Towns of Various Types in Different Regions in Punjab : 1981, 1991

| | Total | Region I | Region II | Region III |
|---|-------|------------|------------|------------|
| New Towns | | | | |
| 1981 | 29 | 18 (62.07) | 7 (24.14) | 4 (13.79) |
| 1991 | 7 | 3 (42.80) | 2 (28.60) | 2 (28.6) |
| High Growth Towns | | | | |
| 1981 | 35 | 16 (45.71) | 12 (34.29) | 7 (20.00) |
| 1991 | 11 | 5 (45.40) | 3 (27.30) | 3 (27.30) |
| Promoted Town | | | | |
| 1981 | 30 | 12 (40.00) | 10 (33.33) | 8 (26.67) |
| 1991 | 35 | 10 (28.60) | 20 (57.10) | 5 (14.30) |
| Low Growth Town | | | | |
| 1981 | 13 | 5 (38.46) | 4 (30.77) | 4 (30.77) |
| 1991 | 25 | 13 (52.00) | 9 (36.00) | 3 (12.0) |
| Total No. of Towns | | | | |
| 1981 | 134 | 58 (43.28) | 46 (34.33) | 36 (22.39) |
| 1991 | 120 | 49 (40.80) | 42 (35.00) | 29 (24.20) |
| Regional Concentration of Urban Population | | | | |
| 1981 | 100 | 58.66 | 27.09 | 14.25 |
| 1991 | 100 | 59.38 | 26.59 | 14.03 |

Sources : 1) S.M.Alam & F.A.Khan (ed.)

2) Census of India, 1981, Series 1, Paper 2.

3) Census of India, 1991, Series 1, Paper 2.

Notes : Region I comprises of Amritsar, Jullunder, Kapurthala, Ludhiana and Patiala districts; Region II comprises of Ferozepur, Faridkot, Bhatinda, and Sangrur districts; and Region III comprises of Hoshiarpur, Ropar and Gurdaspur districts.

Table 5B: Location of Towns of Various Types in Different Regions in West Bengal, 1981, 1991

| | Total | Region I | Region II | Region III | Region IV |
|---|-------|------------|-----------|------------|-----------|
| New Towns | | | | | |
| 1981 | 78 | 35(44.87) | 27(34.62) | 6(7.69) | 10(12.82) |
| 1991 | 111 | 68(61.26) | 21(18.92) | 13(11.71) | 9(8.11) |
| High Growth Towns | | | | | |
| 1981 | 72 | 48(66.67) | 8(11.11) | 9(12.50) | 7(9.72) |
| 1991 | 78 | 38(48.72) | 13(16.68) | 8(10.25) | 19(24.35) |
| Promoted Town | | | | | |
| 1981 | 74 | 46(62.16) | 3(4.05) | 13(17.57) | 12(16.22) |
| 1991 | 102 | 51(50.00) | 16(15.69) | 21(20.59) | 14(13.72) |
| Low Growth Town | | | | | |
| 1981 | 22 | 11(50.00) | 3(13.64) | 5(22.73) | 3(13.63) |
| 1991 | 50 | 29(58.00) | 10(20.00) | 4(8.00) | 7(14.00) |
| Total No. of Towns | | | | | |
| 1981 | 291 | 152(53.23) | 49(16.84) | 52(17.87) | 38(13.06) |
| 1991 | 382 | 212(55.50) | 61(15.90) | 64(16.80) | 45(11.90) |
| Regional Concentration of Urban Population | | | | | |
| 1981 | 100 | 72.66 | 9.88 | 10.00 | 7.46 |
| 1991 | 100 | 69.07 | 11.37 | 10.74 | 8.82 |

Sources : 1) S.M.Alam & F.A.Khan (ed.)
 2) Census of India, 1981, Series 1, Paper 2.
 3) Census of India, 1991, Series 1, Paper 2.

Notes : Region I: Calcutta, Howrah, Hooghly, Nadia, 24 Parganas (the last one has now been split into two -North and South).

Region II : Burdwan.

Region III : Drajeeing, Jalpaiguri, Cooch Bihar, Maldah and West Dinajpur (the last one has now been split into two - North and South).

Region IV : Midnapore, Purulia, Bankura, Birbhum and Murshidabad.



Table 6: Punjab and West Bengal : some major urban indicators.

| | | West Bengal | Punjab | India |
|--|-----------|-------------|--------|---------|
| 1. Proportion of Urban Pop. | 1971 | 24.75 | 23.73 | 20.22 |
| | 1981 | 26.49 | 27.72 | 23.73 |
| | 1991 | 27.39 | 29.55 | 25.72 |
| 2. Growth in Urban Pop. | 1971-1981 | 31.61 | 43.66 | 46.02 |
| | 1981-1991 | 28.90 | 29.11 | 36.19 |
| 3. Growth in urban popn. (in class 1 Towns) | 1971-1981 | 36.01 | 51.33 | 56.83 |
| 4. No. of Urban Units | 1971 | 223 | 106 | 2531 |
| | 1981 | 291 | 134 | 3245 |
| | 1991 | 382 | 120 | 4689 |
| 5. Growth in number of urban units | 1971-1981 | 30.49 | 26.42 | 28.21 |
| | 1981-1991 | 31.27 | -10.44 | 44.50 |
| 6. Urban population per urban unit | 1981 | 49600 | 34481 | 48132 |
| | 1991 | 48748 | 49944 | 46316 |
| 7. Total population per urban unit | 1981 | 187236 | 124401 | 202817 |
| | 1991 | 177965 | 168257 | 180065 |
| 8. Area (sq.km.) served by each town | 1981 | 304.98 | 375.83 | 1013.02 |
| | 1991 | 232.33 | 419.68 | 701.06 |
| 9. Urban Gender Ratio | 1991 | 856 | 870 | 893 |
| 10. Urban gender ratio for class 1 Towns | 1991 | 841 | 857 | 882 |
| 11. No. of New Towns Proportion | 1991 | 111 | 7 | 856 |
| | 1991 | 29.06 | 5.83 | 18.26 |
| 12. No. of Declassified Towns Proportion | 1991 | 3 | 21 | 93 |
| | 1991 | 0.78 | 17.50 | 1.98 |
| 13. No. of High Gr. Towns Proportion | 1991 | 78 | 11 | |
| | 1991 | 20.42 | 9.17 | |
| 14. No. of Low Growth Towns Proportion | 1991 | 50 | 25 | |
| | 1991 | 13.08 | 20.83 | |
| 15. No. of Promoted Towns Proportion | 1991 | 102 | 35 | |
| | 1991 | 26.70 | 29.17 | |
| 16. No. of Demoted Towns Proportion | 1991 | 14 | 2 | |
| | 1991 | 3.66 | 1.67 | |

Source: 1) S.M. Alam & F.A. Khan (ed), "Perspectives on Organisation & Migration : India & USSR", Delhi, 1987.

2) Census of India 1981, series 1 Paper 2, Provisional Population Totals : Rural Urban Distribution, New Delhi, 1981.

Table 7: Agricultural Income & Expenditure, Saving & Investment in Punjab, 1974-1975

(Per household)

| | Region I | Region II | Region III | Punjab |
|---|-----------|-----------|------------|----------|
| 1. Net operated area (acres) | 8.74 | 11.31 | 6.80 | 9.16 |
| 2. Irrigation intensity of net operated area | 94.53 | 83.88 | 60.65 | 83.36 |
| 3. Cropping intensity | 1.72 | 1.55 | 1.66 | 1.64 |
| 4. Family size | 7.32 | 7.07 | 7.27 | 7.22 |
| 5. No. of earning men per family | 2.02 | 1.97 | 1.98 | 1.99 |
| 6. Value of crop output (Rs.) | 15349.43 | 16028.84 | 8647.28 | 13952.13 |
| 7. Total expenditure on materials (Rs) | 5385.71 | 4305.06 | 3118.03 | 4459.80 |
| 8. Manure & Fertiliser use (Rs. per unit of cropped area) | 135.40 | 89.45 | 72.27 | 105.24 |
| 9. Yield Rate of Wheat per Irrigated Area (Rs.) | 1174.53 | 1084.25 | 952.34 | 1110.20 |
| 10. Total Costs (including paid out labour costs) | 7793.27 | 6837.00 | 4337.31 | 6620.98 |
| 11. Farm Business Income | | | | |
| Per Acre | 7556.16 | 9191.26 | 4309.97 | 7331.15 |
| Per Household | 864.58 | 812.38 | 634.00 | 800.59 |
| 12. Non Farm Income | 2214.75 | 1912.52 | 1689.00 | 1981.82 |
| 13. Total Household Income | | | | |
| Per Family | 9770.91 | 11104.38 | 5998.97 | 9313.99 |
| Per Capita | 1334.17 | 1571.50 | 824.70 | 1289.50 |
| 14. Total Consumption Expenditure | | | | |
| Per Family | 681326.00 | 7229.07 | 5923.26 | 6743.39 |
| Per Capita | 930.32 | 1023.06 | 814.29 | 933.34 |
| 15. Household Savings | | | | |
| Per Family | 2957.65 | 3875.30 | 75.74 | 2573.00 |
| Per Capita | 403.85 | 584.44 | 10.41 | 356.26 |
| 16. Gross Investment in Farm Assets | | | | |
| Per Family | 486.31 | 807.79 | 624.01 | 631.00 |
| Per Acre | 55.64 | 71.29 | 97.53 | 68.91 |

Source : G.S.Bhalla & G.K.Chadha.

Table 8: Agricultural Stocks & Flows of Resources in Punjab 1980-1981

| | Zone 1 | Zone 2 | Zone 3 | Punjab |
|--|--------|--------|--------|--------|
| 1. Avg. Farm Size (acres) | 6.28 | 8.29 | 10.07 | 8.66 |
| 2. Cropping Intensity | 189.65 | 182.95 | 180.14 | 182.47 |
| 3. % of hired labour | 69.70 | 67.74 | 64.28 | 66.07 |
| 4. % of total stock per farm | | | | |
| Irrigation Structure | 22.03 | 24.23 | 33.70 | 23.53 |
| Farm Machinery | 68.12 | 67.00 | 67.15 | 67.32 |
| Draft Animals | 9.75 | 8.77 | 9.15 | 9.15 |
| 5. % of total flow of resources per farm | | | | |
| Irrigation | 6.87 | 8.60 | 8.50 | 8.20 |
| Farm Machinery | 18.68 | 15.84 | 15.23 | 16.73 |
| Draft Animals | 8.84 | 5.78 | 8.32 | 7.70 |
| Bio-chemical inputs | 39.02 | 41.95 | 31.57 | 36.17 |
| Family Labour | 8.08 | 8.98 | 12.35 | 10.54 |
| Hired Labour | 18.51 | 18.85 | 22.53 | 20.66 |

Notes: Zone 1 (Paddy-Maize-Wheat): Gurdaspur, Amritsar, Hoshiarpur, Ropar, (Anandpur, Sohil & Kharar Tahsil) Patiala, Ferozepur, Kapurthala, Jalandhar.

Zone 2 (Maize-Ground Nut-Wheat) : Ludhiana, Jalandhar (rest), Ropar (rest), Patiala (rest), Kapurthala (rest), Sangrur (Malarkoth, Tahsil) & Faridkot (Moga, Tahsil).

Zone 3 (Cotton-Bajra-Wheat) : Bhatinda, Faridkot (rest), Sangrur (rest).

Source : Inder Jain, 1987

Table 9: Average Size of Operational Holdings in Various States

| State | 1970-71 | 1990-91 |
|----------------|---------|---------|
| Andhra | 2.51 | 1.56 |
| Assam | 1.47 | 1.31 |
| Bihar | 1.51 | 0.93 |
| Gujarat | 4.12 | 2.93 |
| Harayana | 3.79 | 2.43 |
| Karnataka | 3.20 | 2.13 |
| Kerala | 0.57 | 0.33 |
| Madhya Pradesh | 4.00 | 2.63 |
| Maharastra | 4.28 | 2.21 |
| Orissa | 1.89 | 1.34 |
| Punjab | 2.88 | 3.61 |
| Rajasthan | 5.45 | 4.11 |
| Tamilnadu | 1.45 | 0.93 |
| Tripura | 1.00 | 0.97 |
| Uttar Pradesh | 1.16 | 0.90 |
| West Bengal | 1.20 | 0.90 |
| India | 2.28 | 1.57 |

Source : CMIE (Centre for Monitoring Indian Economy), *India's Agricultural Sector- A Compendium of Statistics*, July, 1996

Table 10: Proportions of holdings and areas operated in Punjab and West Bengal 1990-91
 (Amount in Rs Lakhs)

| | Punjab | | West Bengal | |
|-------------|--------|-------|-------------|-------|
| | A | B | A | B |
| Marginal | 26.49 | 4.07 | 73.82 | 36.49 |
| Small | 18.26 | 8.13 | 17.62 | 29.95 |
| Semi-Medium | 25.87 | 20.88 | 7.27 | 22.44 |
| Medium | 23.57 | 40.22 | 1.26 | 7.53 |
| Large | 6.01 | 26.70 | 0.03 | 3.59 |

Source: Reserve Bank of India, Basic Statistical Return, December, 1992

A = Proportion of holdings
 B = Proportion of Area Operated

Table 11: Rural Credit: West Bengal & Punjab in 1981 (as on 30.6.81.)

| | West Bengal | Punjab | India |
|---|-------------|--------|-------|
| 1. Amount of Rural Credit per Household (Rs.) | 303 | 545 | 661 |
| 2. Amount of Rural Credit per Non-agri. Household (Rs.) | 1692 | 922 | 3365 |
| 3. Proportion of Rural Households (%) | 17.53 | 18.92 | 19.40 |
| 4. Proportion of Rural Households Dependent for Credit on Institutional Sources (%) | 10.64 | 10.21 | |
| Non-institutional Sources (%) | 9.46 | 11.20 | |
| 5. Proportion of Rural Credit from Institutional Sources | 65.47 | 74.16 | |
| 6. Asset Holding Above Rs. 20,000 : | | | |
| Proportion of households (%) | 68.60 | 44.03 | 57.19 |
| Proportion of Rural Credit (%) | 39.28 | 12.83 | 21.74 |
| 7. Asset Holding Above Rs. 100,000 : | | | |
| Proportion of households (%) | 3.79 | 20.71 | 7.95 |
| Proportion of Rural Credit (%) | 17.32 | 75.59 | 36.20 |

Source: National Sample Survey, 37th Round

Table 12: Credit Deposit Ratios for Scheduled Commercial Banks in Rural and Semi-urban Centres (March 1991)

| | (Amount in Rs Lakhs) | | |
|------------------------------------|-----------------------|--------|---------|
| | West Bengal | Punjab | India |
| Rural Areas | | | |
| 1. Total deposits | 208971 | 284962 | 3100981 |
| 2. Total credit | 92178 | 125374 | 1859898 |
| 3. Rural credit deposit ratio | 0.44 | 0.44 | 0.59 |
| Semi Urban Areas | | | |
| 1. Total deposit | 258469 | 325937 | 4143926 |
| 2. Total credit | 70638 | 132581 | 2030742 |
| 3. Semi-urban Credit Deposit Ratio | 0.27 | 0.41 | 0.49 |

Source : Reserve Bank of India, *Basic Statistical Return*, December, 1992

Table 13: Outflow of Rural Resources in 1971-72 in West Bengal & Punjab

| | West Bengal | Punjab |
|---|-------------|--------|
| 1. Per Capita Income (Rs) | 535 | 1061 |
| 2. Saving Rate (%) | 8 | 12 |
| 3. Net Outflow of Rural Resources (Rs. 10 millions) | 59.84 | 16.55 |
| 4. Net Outflow by way of Commercial Banks (Rs. 10 millions) | | |
| 1974-75 | 7.90 | 20.10 |
| 1977-78 | -2.40 | 30.86 |
| 5. Net Outflow by way of Cooperatives (Rs. 10 millions) | | |
| 1961-62 | -0.85 | -0.63 |
| 1971-72 | 0.58 | -4.02 |
| 1977-78 | -21.80 | 3.99 |

Source : Mody, 1985

Table 14: Average Population of Villages: Kerala, West Bengal, Punjab, India in 1981.

| | Number of Villages | Average Population for Villages |
|-------------|--------------------|---------------------------------|
| Kerala | 1219 | 16967 |
| West Bengal | 38024 | 1055 |
| Punjab | 12342 | 984 |
| India | 557137 | 943 |

Source : Census of India 1981, Series 1, General Population Tables, Part 2A (i), New Delhi.

Table 15: Size Distribution of Villages in Kerala Compared to West Bengal, India 1981

| Size Class of Villages | Number of Villages | Percentage of Population Living in Villages |
|------------------------|--------------------|---|
| Kerala | | |
| less than 200 | 3 (0.25) | Negligible |
| 200-499 | 2 (0.16) | 0.01 |
| 500-999 | 2 (0.16) | 0.10 |
| 1000-1999 | 13 (1.07) | 0.10 |
| 2000-4999 | 72 (5.91) | 1.30 |
| 5000-9999 | 222 (18.21) | 8.20 |
| 10,000+ | 905 (74.24) | 90.29 |
| Total | 1219 (100.00) | 100.00 |
| West Bengal | | |
| less than 200 | 6168 (16.22) | 1.68 |
| 200-499 | 9755 (25.65) | 8.31 |
| 500-999 | 9396 (24.71) | 16.85 |
| 1000-1999 | 7538 (19.82) | 26.63 |
| 2000-4999 | 4383 (11.53) | 32.35 |
| 5000-9999 | 702 (1.85) | 11.28 |
| 10,000+ | 82 (0.22) | 2.90 |
| Total | 38024 (100.00) | 100.00 |
| India | | |
| less than 200 | 120073 (21.55) | 2.40 |
| 200-499 | 150722 (27.05) | 10.08 |
| 500-999 | 135928 (24.40) | 19.13 |
| 1000-1999 | 94486 (16.96) | 25.91 |
| 2000-4999 | 46892 (8.42) | 27.05 |
| 5000-9999 | 7202 (1.29) | 9.29 |
| 10,000+ | 1834 (0.33) | 6.14 |
| Total | 557137 (100.00) | 100.00 |

Sources : (i) Census of India 1981, Series 10, Kerala, Part 2A, General Population Tables,
(ii) Census of India 1981, Series 23, West Bengal, Part 2A General Population Tables, 1986.
(iii) Census of India 1981, Series 1, India, Part 2A, General Population Tables,

Table 16: Size Class Distribution of Urban Units in Kerala 1971-91

| Size Class | Number of Towns | | |
|------------|-----------------|------------|--------------|
| | 1971 | 1981 | 1991 |
| I | 5 (5.68) | 6 (5.66) | 7 (3.55) |
| II | 7 (7.96) | 8 (7.55) | 19 (9.64) |
| III | 40 (45.45) | 64 (60.38) | 104 (52.79) |
| IV | 25 (28.41) | 21 (19.81) | 50 (25.38) |
| V | 9 (10.23) | 6 (5.66) | 16 (8.12) |
| VI | 2 (2.27) | 1 (0.94) | 1 (0.51) |
| Total | 88 (100) | 106 (100) | 197 (100.00) |

Sources : (i) Census of India 1981, Series 10, Kerala, Part 2A, General Population Tables,
(ii) Census of India 1991, Series 1, Paper 2, Provisional Population Totals : Rural-Urban
Distribution, New Delhi, 1991.

Table 17: Concentration of Urban Population in Punjab and West Bengal by sub-regions

| Punjab | Region I | | | Region II | | | Region III | | |
|--------|----------|---------|-------|-----------|---------|-------|------------|---------|-------|
| | 1974 | 1977-78 | 1981 | 1974 | 1977-78 | 1981 | 1974 | 1977-78 | 1981 |
| | 58.65 | 58.65 | 58.65 | 27.10 | 27.10 | 27.10 | 14.25 | 14.25 | 14.25 |
| 1991 | 59.16 | 59.16 | 59.16 | 26.49 | 26.49 | 26.49 | 14.35 | 14.35 | 14.35 |

| West Bengal | Region I | | Region II | | Region III | | Region IV | |
|-------------|----------|---------|-----------|---------|------------|---------|-----------|---------|
| | 1974 | 1977-78 | 1974 | 1977-78 | 1974 | 1977-78 | 1974 | 1977-78 |
| 1981 | 72.71 | 72.71 | 9.84 | 9.84 | 7.49 | 7.49 | 9.96 | 9.96 |
| 1991 | 69.07 | 69.07 | 11.38 | 11.38 | 8.81 | 8.81 | 10.74 | 10.74 |

Notes: Regions as defined in Table 5A and 5B

Sources: 1) Census of India 1981, Series 17, Punjab, Part XII, Census Atlas, 1989.

2) Census of India 1991, Series 1, India, Paper 2, Provisional Population Totals : Rural-Urban Distribution, New Delhi, 1991.

3) Census of India 1981, Series 23, West Bengal, Part II A, General Population Tables, 1987.

| | Number of Villages | Average Population Per Village |
|-------------|--------------------|-----------------------------------|
| Kerala | 1219 | 1677 |
| West Bengal | 3824 | 1055 |
| Punjab | 12342 | 304 |
| India | 557137 | 343 |

Source: Census of India 1981, Series 1, General Population Tables, Part 2A (i), New Delhi.

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