

**Emergence of New Towns in India:
A Spatio-Temporal Analysis :
1961-81**

Dissertation submitted to the Jawaharlal Nehru University
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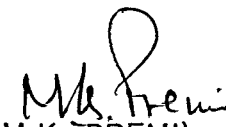
7. Census of India, 1971, Kerala, General Population Tables, Vol.VII, Part II.A.
8. Census of India, 1971, Madhya Pradesh, General Population Tables, Vol. VIII, Part II-A.
9. Census of India, 1971, Village and Town Directory, for different states of India.
10. Census of India, 1981, General Population Tables (Part II-A) and Primary Census Abstract(Part II-B) for different States of India.
11. Census of India, 1981, India, Series 1, Paper 2 of 1981, Provisional Population Totals - Rural Urban Distribution.

REPORTS

1. Ministry of Health and Family Planning, Report of the Rural Urban Relationship Committee, Vol.I, Delhi, 1966.

I certify that the dissertation entitled "Emergence of New Towns in India: A Spatio-temporal Analysis: 1961-81" submitted by Miss Santosh Jatrana in fulfilment of six credits out of the total requirements of twenty four credits for the degree of Master of Philosophy (M.Phil) of the University, is a bonafide work, to the best of my knowledge and may be placed before the examiner for evaluation.


Chairman


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Date:

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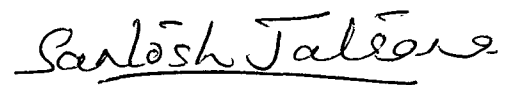
I owe my sincerest thanks to my teacher Dr. Aslam Mahmood who helped me from time to time.

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The responsibility for errors, inconsistencies or omissions, however, remains mine alone.



SANTOSH JATRANA

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INTRODUCTION

INTRODUCTION

The study of various aspects of urban settlement has assumed increasing importance all over the world, particularly in the developing countries like ours which are experiencing a rapid urban growth. The increasingly rapid rate of growth of urban population and uneven nature of this growth have played an important role in altering the nature and pattern of urban centres. Many of new towns have emerged, the existing ones have been converted into cities and cities into metropolitan centres.

As a result of rapid growth of new towns it is important to find explanations for the size, number and distribution of new towns, the causes of their emergence and conceptual issues arising out due to adoption of different definitions of urban places from one census year to another.

{ Emergence of new towns in India between 1961-81 is the subject matter of this study. When in any region a settlement starts growing numerically or economically and if the process of growth continues it would result in the settlement's achieving its urban identity and thereby leading to its emergence as a town. This study goes into detailed distributional and definitional aspects of the towns of 1961, 1971 and 1981 censuses that were not considered as such in the previous decades. }

Since this work refers to a town or settlement which in itself is a geographical expression so it needs some geographical laws to explain the existing pattern of new towns. But it is quite obvious that for the creation and development of a place or town to occur, a demand must exist for the things which the town can offer. Hence, it would be

important to talk of location theories which endeavor to account in a consistent, logical way for the locational pattern of economic activity and for the manner in which the economic areas are interrelated.¹ It is the location of industry which guides the pattern of spatial development

The very first attempt in developing a scientific theory explaining the location of an economic activity can be credited to Johann Heinrich Von Thunen² whose work was inspired by earlier economists as Adam Smith and Albrecht Thaer. Von Thunen seeks to find according to what economic laws the spatial distribution of different agricultural production is established. In this famous *isolierte staat* (isolated state) theory he confirmed that under given conditions cultivation would be arranged in a series of concentric circles round the town, according to the cost of transportation of the commodity and the ratio in which its value stood to its bulk and weight.

Alfred Weber³ continued to build on Thunen, adding a theory

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1. Alexander, John, W., Economic Geography, Prentice-Hall of India Private Limited, New Delhi, 1977. p. 612.
 2. His complete works are contained in Johann Heinrich Von Thunen: Der Isolirte Saat in Beziehung auf Landwirtschaft and Nationalökonomie, 3rd ed., Berlin 1875.
Also see, Grotewold, A., "Von Thunen in Retrospect", Economic Geography 1959, pp348-365, and Johnson, H.B., "Note on Thunen's Circles" Annals of the Association of American Geographers, 1962 , pp. 213-220.
 3. For detailed discussion of the Weber's theory see,
 - a. Daggett, Stuart, Principles of Inland Transportation, New York and London: Harpere Row, Publishers, 1941. See Chap. xxi, "Theories of Location", pp 452-479.
 - b. Friedrich, C.J., Alfred Weber's theory of the Location of Industries, Chicago, University of Chicago Press, 1928, pp 256.
 - c. Isard, Walter, Location and Space Economy, Cambridge: Massachusetts Institute of Technology, 1956, pp 176-182.
 - d. Hoover, Edgar, M., The Location of Economic Activity, New York, 1948, pp 310.

of location of industries, which finally reintroduced spatial relationship into economic theory. His theory known as the Least Cost approach believes that a rational producer would choose a location where lowest cost were incurred because he assumed a situation where individual firms were powerless to influence the price of their product which was the same everywhere. Hence, to achieve the maximum profit, they had to minimize the cost. On the basis of cost of production, he postulated that manufacturing plants would be located in response to three forces: relative transport cost, labour cost and something he called "agglomeration". The most important contribution of Weber's theory is the creation of isodapanes which are the lines of equal transport cost .

Weber's theory of least Cost approach was modified by A.Losch's¹ theory of profit maximization. While Weber's theory neglected the role of demand in determining the location of industry, A.Losch maintained that the best location would be that which command the largest market area since this would bring in the highest sales revenue. But in making the theory into one of profit maximization, he tended to neglect supply almost to the extent that Weber had neglected demand.

These theories of location points out that each product will have a different network of market and thus leading to the emergence of an economic region or landscape. Such a theory of spatial organised was first

1. Losch, August, The Economics of Location, Yale University Press, New Haven, 1954 (Translated by W.H. Woglom and W.F. stopler.)

suggested by Walter Christaller while developing his theory of central place.¹

The theory formulated by him in 1933 was based on his observations of the Southern Germany of his time. Based on the underlying assumption that man tries to organize his activities over geographical space in an efficient manner, he contended that the structure of spatial organization could be deductively derived and explained with reference to a number of ordering principles governing the formation of his structure. Based on the assumption of a homogenous plain with an even distribution of natural resources and an even spread of population, producer and consumer and equal unit cost-movement in every direction, he postulated that for each product a hexagonal market area surrounding the production site would emerge and a definite hierarchy of trade centres would develop in this hexagonal framework. With these assumptions and postulation Christaller aimed at a "general deductive theory, which explains the size, number and distribution of towns. In his model principle of centrality is based on three principles of market, transport and administration.

Christaller was improved upon by Losch(1940). Starting from the same basic assumption as Christaller, Losch² developed a model

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1. Christaller, Walter, Central Places in southern Germany, Englewood Cliff, New Jersey, 1966, (translated from *Die Zentralorte in Süddeutschland* by Walter Fischer Varag, Jena, Germany, 1933, by C.W. Baskin). pp 229.
 2. Losch, A. "Op.cit.
Also see, Haggett, P., Locational Analysis in Human Geography Edward Arnold, London, 1965, pp 368.

of spatial organization which has a more elaborate economic base and contains Christaller's as a special case. Unlike Christaller, Losch begins at the bottom with the goods of smaller spatial range. The number of centres to be served by a centre at the next higher order is left to be determined in the model. Losch was of the view that the size of the hexagon can expand and thus hexagon was flexible in his model i.e. Losch was able to rotate them so as to generate a locational arrangement in which there were certain sectors with many urban places and certain sectors with few. These were referred to as the city rich and city poor sectors. Thus he believed in non-fixed K.model as compared to fixed K.model of Christaller.

D.J. Bogue's¹ concept of "dominance" furthered ideas about the growth and development of towns. In his studies of population he has designated 67 cities within the United States as Metropolitan centres. To each of these centres he has assigned a hinterland area, and the population organization within the hinterland area, and including the centre he terms a metropolitan community. According to him transport network tends to play an important role in the development of central place system. He identified three regions based on intensity of transport network. These are intermetropolitan centres, submetropolitan centres and local centres. He believed in non-fixed K.system. Perfect rank size rule does not operate in his model.

Brush's² study deals with the communities of S.W. Wisconsin and

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1. Bogue, D.J. The structure of the Metropolitan Community-A Study of Dominance and subdominance (Ann Arbor, University of Michigan press, 1949).
 2. Brush, John E, "The Hierarchy of Central Places in South Western Wisconsin", Geographical Review, Vol. 43. No.3, July, 1953, pp 380-402.

presents illustrative material of considerable interest from the point of view of Christaller's conception of central place. His work is an example of an effort to classify communities on the basis of distinctive activities they perform.

Berry and Garrison.¹ have a real departure from classical to modern concept in the development of urban centres. They have written a number of articles which are based on a study done in Snohomish County, Wasington, using population threshold and the range of a good principle. They give some impirical information concerning different concepts of central place theory and examining two major works that of Christaller and Losch in the field of central place. In one of their paper,² they have rejected losch's conditions of equilibrium in a very convincing and satisfactory manner. Vining.³ while working on central place theory has given an admirably lucid and graphic exposition of several basic features of the distribution pattern of cities. These include population and buying power densities, density gradients, the rank size rule, the centre and its hinterland, Christaller's hierarchy of "Central places", the concept of market areas and supply areas and length of haul distribution. The

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1. a. Berry, B.J.L. and Garrison, W.L., "The Functional bases of the central place hierarchy", Economic Geography, Vol. 34, 1956, pp 145-54.
 b. ---"A Note on Central place theory and the Range of a good", Economic Geography, Vol.34, 1958, pp 394-11.
 c. ---"Recent Development of central place theory", Papers and Proceedings of the Regional Science Association, Vol. 4, 1958, pp 107-20.
 2. Berry, B.J.L. and Garrison, W.L., "A Note of Central Place Theory and the Range of a Good". Op.Cit.
 3. Vining, R. "A Description of certain spatial Aspects of an Economic system", Economic Development and Cultural Change, Vol.3, No.2, January, 1955, pp 147-195.

objective of his paper was to render a concept of spatial structure that does not involve in an essential way the idea of bounded economic region.¹

The application of central place theory in Indian context has been done by S.Folka,² Mayfield.³ and Sundaram.⁴ The application of the central place theory in a different context was made by Gupta.⁵ to investigate the hierarchy (existing and expected) of cities and towns in India and also to find out the likely future patterns.

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1. Ibid. P.147.
 2. Folka, S., "Central Place System and Interaction in Nilgiri's and Coorg", Geografick tidsskrift, 68, Bind, 2, halubind, Dec, 1967, pp 161-78.
 3. Mayfield, R. C., "A Central Place Hierarchy in Northern India", in Garrison and Marble (eds.) Quantitative Geography, Part I, Economic and Cultural Topics, North Western University, Studies in Geography, No. B, Evanston III, 1967, pp 120-66.

---"Conformations of service and Retail Activities" . An example in Lower Orders of an Urban Hierarchy in a Lesser Developed Area", Proceedings of the I.G.U. Symposium in Urban Geography Lund 1960, Lund Studies in Geography, Series B, No. 24.
 4. Sundaram, K.V. "Urban and Regional Planning in India", Vikas Publishing House Pvt. Ltd., 1977, pp 316-325.
 5. Gupta, Vinod, K. "The system of Cities and Towns in Relation to Economic Development in India" (In NCAER, Market Towns Spatial Development, 1972), pp104-112

R.P. Misra, V.L.S. Prakasa Rao, and K.V. Sundaram in their book.¹ have shown the application of this theory in planning for (a) a tribal area (area of study being the Baster district of Madhya Pradesh), (b) an agricultural region (area of study being the Muzaffarnagar district of U.P.) and (c) an industrial region (constituted by some districts of Bihar and W.Bengal). On account of its comprehensive nature and in depth analysis perhaps the best study is that of V.L.S. Prakasa Rao.² in Muzaffarnagar district. Concept of range has been applied in Punjab by Mayfield.³ in the broad framework as suggested by Walter Christaller in Southern Germany.

The review of previous works shows that the locational aspects of towns has been dealt with by many authors beginning from Christaller. The question of definitional aspects of all the urban centres of India was raised by A.Bose.⁴ However, the single major work in the field of new towns in India is by Ved Prakash.⁵, which is based upon research and field work conducted in India during 1963-64.

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1. Misra, R.P., Rao Prakasa, V.L.S., Sundaram, K.V., Regional Development Planning in India, Vikas Publishing House Pvt. Ltd., Delhi, 1974.
 2. Rao, V.L.S. Prakasa, Development Strategy for an Agricultural Region-A Case study of Muzaffarnagar District, U.P., Institute of Development Studies, University of Mysore, 1976.
 3. Mayfield, Robert C., "The Range of a Central Good in the Indian Punjab", Annals of the Association of American Geographers, Vol. 53, No. 1, March, 1963, pp 38-49.
 4. Bose, A., India's Urbanization 1901-2001, Tata McGraw Hills Publishing Co. Ltd., New Delhi, 1980, pp 51-55.
 5. Prakash, Ved, New Towns in India, Monograph Number Eight, Duke University, the Cellar, Book shop, Detroit, U.S.A. 1969, pp 149.

But, this study is limited to an analysis of only seventeen new towns selected for detailed investigation pertaining to their planning procedures and standards, the cost of development and methods of financing. In this study, the role of these seventeen new towns is examined within the context of economic development and urbanization policies outlined in India's five year plans.¹ Premi.² has tried to analyse the regional pattern of growth of new towns in India by testing some hypotheses which will be discussed in this study elsewhere.

Objectives:

{The main objectives of the present study are (1) to test how many new towns that have emerged between 1961-81 satisfy the conditions laid down for declaring a place as urban (2) to analyse the regional distributional pattern of new towns and the causative factors in the emergence of new towns and (3) to examine some of the hypotheses based on the regional distributional pattern of new towns. †

The first objective of this study arises from the adoption by the Indian census organization of a more rigorous definition for declaring a place as urban compared to what was followed upto the 1951 censuses. The effect of the new definition was that a large number of small towns of 1951 census were declassified into rural areas. However as part of developmental activities (like exploitation of minerals, construction of dams, establishment of new power projects etc.) a number of new

1. Ibid, p. 1-2.

2. Premi, M.K., "Regional Pattern of Growth of New Towns in India during 1961-71", Demography India, Vol.III, No.2, 1974, pp 254-265.

towns also emerged between 1951-61. This trend continued during the 1960s and 1970s. While the emergence of new towns suggests the diffusion of developmental activities over a wider geographical space, it also raises an important question, i.e. whether all the new towns that emerged satisfy the conditions laid down for declaring a place as urban? Whether the authorities in certain states were very liberal in declaring places as urban whereas in other states they were stringent to the extent that they did not consider any place as urban if it did not have a local self government even if it might have satisfied the other criteria, laid down by the census commissioner in the definition of urban areas. This led to the underestimation of urban places and in turn, urban population in some states like Haryana and over estimation in some states like Tamil Nadu.¹

The second objective of the present study has become important from the fact that in the same region we see new towns of all size categories while there are large regions in which not a single place which deserves the designation of town has emerged. Hence we seek answers to these questions. What are the causes which govern their distribution and why are they distributed so irregularly?

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1. Premi, M.K., Kundu, Amitabh, Gupta, D.B. "The concept of Urban Areas in the 1961-71 Census" in Ashish Bose, Devendra B. Gupta, Gaurisankar Ragchaudhuri (eds.) "Population statistics in India", Vikas Publishing House, Pvt.Ltd., 1978, p. 355.

Analyzing the 1961, 1971 and 1981 census data, this study examines these issues in India during the past three decades.

Data Base:

The study has been based entirely on the following census tables.¹

1. General Population Tables of 1961 and 1971 censuses.
2. General Economic Tables -Part II B(i) for different states (1961, 1971 censuses).
3. Appendix II of Paper II of 1981 census.
4. General Population Tables (Part II-A) and Primary Census Abstract (Part II-B) for different states of 1981 census.
5. Village & Town Directory of 1971 census for different states,

The data have been collected for the new towns on the following aspects:

1. Area, total population of the town, municipal status of the town.
2. Distribution of male workers in different industrial categories.
3. Distance of new towns from the nearest class I city in Kms.

The methodology of analysis would be described in each chapter.

Arrangement:

The present study has been divided into six chapters:

1. Chapter I, deals with the causative factors that were instrumental in the occurrence of new towns.
2. Chapter II, deals with the spatial distribution of the new towns and regional frame emerging out of it.

1. For 1981 census, detailed analysis has been done for only those towns for which state tables were available

3. Chapter III & IV try to analyse the towns on the basis of criteria adopted for defining a place as urban using 1961, 1971 and 1981 census data.
4. Chapter V is an attempt to test some hypotheses explaining the growth of new towns and the implications of the observed growth pattern of the new towns.
5. The last chapter presents the summary and conclusions of the present work.

CHAPTER I

NEW TOWNS-REASONS FOR EMERGENCE

NEW TOWNS-REASONS FOR EMERGENCE

The pattern of emergence of new towns and an analysis of the factors operating in this regard being the main objective of the present study, it is necessary to analyse the causative factors that are responsible for their occurrences. Generally, towns emerge to perform certain urban functions which cannot be performed in a rural economy. The magnitude of urbanization is directly correlated with the rate of proliferation of these urban functions, where in the role played by technology is indisputable.¹ Urbanization is also related with the number of towns which emerge and the type of functions they perform. It is in this context that the factors determining the emergence of new towns are to be examined.

Emergence of Indian Towns: A Casual Insight

Urbanization in a country or region greatly depends on the nature of emerging towns. If a large number of emerging towns are of temporary nature,² they do not imply healthy urbanization as many of those towns are likely to vanish over time. This phenomena disrupts urban hierarchy and shows instability and unhealthy urbanization. Hence it becomes important to analyse the factors responsible for the emergence of new towns in India.

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1. Castells, M., The Urban Question, translated by Alan Sheridan, The MIT Press, Cambridge, 1977, p.21.
 2. By temporary towns, I mean, towns which came up due to favourable situation or advantages during a specific period and the moment these advantages cease to operate, such settlements, quite often, cease to exist as towns. In Mysore, during 1951, as many as seventeen towns had emerged along the Tungabhadra as temporary labour camps and had ceased to exist during the next decade because the moment the construction work was over, immigrant labourers moved out.

Sundaram.¹ divides new Indian towns into three types - (1) Refugee towns; (2) Industrial towns; (3) Administrative towns. The factors responsible for the emergence of new towns in India can be categorised into the following types:

A. Natural Process of Evolution:

These are settlements which were already large villages in a previous census and grew into towns within a decade. More than half of the new towns both in 1961 and 1971 have emerged by this process of evolution. In 1961, out of a total of 497 new towns, 333 emerged by this process constituting 67 percent of total new towns. In 1971, out of total 592 new towns, 389 towns emerged by the process of evolution and constituted 66 percent of total towns that emerged during 1961-71.² Towns of Gujarat and Tamil Nadu can largely be attributed to this process of evolution.³

B. Bifurcation:

Those towns are included in this category which were treated as single towns in earlier censuses but bifurcated in the next census. Following towns can be named which emerged due to bifurcation.

-
1. Sundaram, K.V., Urban and Regional Planning in India, Vikas Publishing House Pvt. Ltd., 1977, pp 14-15.
 2. This analysis is based on Appendix-I of table A-IV of General Population Table of 1961 and 1971 censuses of India, which show constituent of new towns in the respective censuses.
 3. An excellent example is Sojat Road (Pali distt. of Rajasthan) which emerged in 1961. It was only a railway station in 1951.

1. Lakshmpur (Hassan, Mysore, 1961),¹ Mandya Sugar town (Mandya, Mysore, 1961) and Bhadravati new town (Shimoga, Mysore, 1961) have been formed consequent on the bifurcation of Arsikere, Mandya and Bhadravati towns respectively of the 1951 census.²
2. Kagaznagar (Adilabad, Andhra Pradesh, 1971), which was treated as town in 1951 census and continued as such till 1961 have been bifurcated into two different towns viz. Kagaznagar non-municipal area and Kagaznagar municipality in 1971 census.³
3. Vijayapuri town (Guntur, Andhra Pradesh, 1971) which was treated as a single town in Nalgonda district in 1961 has been bifurcated into two different towns viz., Vijayapuri north and Vijayapuri south in 1971 census.⁴

C Project Towns:

Following towns can be listed in this category:-

1. Vijayapuri town (Nalgonda, Andhra Pradesh, 1961), was newly formed on account of the construction of Nagarjunsagar Dam.
2. Gandhi Sagar Hydel Colony (Mandsaur, Madhya Pradesh, 1971).

1. In the brackets, we have name of the district, state and the year in which the particular town emerged.
2. Mysore, 1961, General Population Tables, Part II-A, Vol.XI, P 113.
- 3 & 4. The result are again based on the foot notes of Appendix 1 to table A-IV, 1961, and 1971.

3. Hirakund (Sambalpur, Orissa, 1971). This town came up because of Hirakund Project. In Orissa, the growth of other towns was due to coming up of Hirakund Project. This provided not only Irrigational facilities but also power for development of small scale industries.
4. Kargal Project Area (Shimoga, Mysore, 1971).
5. Pandho Project township (Mandi, Himchal Pradesh, 1971).
6. Pochampad Project Right Flank Colony (Nizamabad, Andhra Pradesh, 1971).
7. Ramchandrapuram township (B.H.E.L.) (Medak, Andhra Pradesh, 1971).
8. Srisaillam Project township Left Flank colony (Mahbubnagar, Andhra Pradesh, 1971).
9. Srisaillam Project township Right Flank colony (Kurnool, Andhra Pradesh, 1971).
10. Udhwana and Ukai (Surat, Gujarat, 1971), came up because of Ukai Irrigation Project.
11. Upper sileru Project Site camp (Visakhapatnam, Andhra Pradesh, 1971).
12. Jaldhaka Hydel Power Project town (Darjeeling, W.Bengal, 1981).
13. Kolaghat Thermal Power Project town (Medinipur, W.Bengal, 1981).
14. Rengali Dam Project township (Dehen Kanal, Karnataka, 1981).
15. Saontaldih Thermal Power Project town (Puruliya, W.Bengal, 1981).

D. Industrial Cum residential Towns:

One of the most important factors that leads to the emergence of new towns is the establishment of new industries. When an industry is established the settlement slowly starts growing with the growth of that industry and, sometime, other ancillary industry. This results in the immigration of people because of better employment opportunity prevailing there. The towns which emerged because of their industrial base can be named:

a. In Gujarat

1. Fertilizer Nagar (Vadodara, Gujarat, 1971) came up because of manufacturing of fertilizer.
2. Petrochemical complex (Vadodara, Gujarat, 1981).

b. Karnataka

3. B.E.L. township
4. H.A.L. township
5. H.M.T. township
6. I.T.I. Notified Area Committee
7. Gokak Falls Notified Area Committee (Belgaum, Karnataka, 1971).
8. Hampi Notified Area Committee (Bellary, Karnataka, 1971).
9. H.M.T. Watch township (Bangalore, Karnataka, 1971).
10. Shahabad A.C.C. Cement and Engineering works Notified Area (Gulbarga, Karnataka, 1971).
11. Wadi A.C. Notified Area Committee (Gulbarga, Karnataka, 1971).
12. Amnasarda (Mysore Cement Limited) (Tumkur, Karnataka, 1971).

c. In Madhya Pradesh:

13. Govindpura Industrial township (heavy electricals limited, Sehore, Madhya Pradesh, 1961).
14. Katni, Ordnance Factory Area (Jabalpur, Madhya Pradesh, 1961).
15. Kymore Factory township (Jabalpur, Madhya Pradesh, 1961).
16. Nagda industrial colony (Ujjain, Madhya Pradesh, 1961).
17. Nebanagar Factory township (E.Nimar, Madhya Pradesh, 1961).
18. Tikuri Factory township (Jabalpur, Madhya Pradesh, 1961).

d. Orissa:

19. Takher Thermal Power station township (Dhenkanal, Orissa, 1981).
20. Fertilizer Corporation of India township (Dhenkanal, Orissa, 1981).

e. Tamil Nadu:

21. Aravankadu (Cordite Factory) (Nilgiri, Tamil Nadu, 1961).
22. Navelli Lignite Corporation (S.Arcot, Tamil Nadu, 1961) under the Ministry of steel and heavy Engineering.

f. Uttar Pradesh :

23. Muradnagar Ordnance Factory (Meerut, Uttar Pradesh, 1971).
24. Ranipur (Saharanpur, Uttar Pradesh, 1971) emerged because of Bharat Heavy Electrical Ltd.
25. Gorakhpur Fertilizer (Gorakhpur, Uttar Pradesh, 1981).

g. West Bengal:

26. Durgapur Coke over plant Area (Burdwan, W.Bengal, 1961).
27. Hindustan Cables town (Burdwan, W.Bengal, 1971).
28. Outer Burnpur (Burdwan, W.Bengal, 1971).
29. Haringhata Dairy Farm town (Nadia, W.Bengal, 1981).

E. Mining Towns or Collieries:

These towns are based on the exploitation of natural resources.

They are

1. Johilla Colliery (Shahdol, Madhya Pradesh, 1961).
2. Korba Mining Area (Bilaspur, Madhya Pradesh, 1961).
3. Nargoda Hari Defai Colliery-(Shahdol, Madhya Pradesh, 1961).
4. North Jhagrakhand Colliery (Surguja, Madhya Pradesh, 1961).
5. Rajara-Jharandalli Mining colony (Durg, Madhya Pradesh, 1961).
6. Kirandul Mining Town (Bastar, Madhya Pradesh, 1971).
7. South Jhagrakhand Colliery (Surguja, Madhya Pradesh, 1971).
8. B.E.M.L. Nagar (Kolar, Karnataka, 1981).
9. Dera Colliery township (Dhenkanal, Orissa, 1981).
10. Hatti Gold Mines (Raichur, Karnataka, 1981).
11. Kudremukh mines Area (Chikmagalur, Karnataka, 1981).

F. Oil Refineries:

These towns are based on the exploitation of oil.

1. Digboi oil town (Lakhimpur, Assam, 1961).
2. Barauni, I.O.C. township (Monghyr, Bihar, 1971).
3. Duliajan Oil town (Lakhimpur, Assam, 1971).
4. Oil Refinery, Jawaharnagar (Vadodara, Gujarat, 1981).

G. Steel Towns:

These towns came up due to the location of heavy industries by foreign collaboration. They are -

1. Bhilai Nagar (Durg, Madhya Pradesh, 1961).
2. Durgapur Steel Project Area (Burdwan, W.Bengal, 1961).
3. Rourkela (Sundargarh, Orissa, 1961).
4. Bokaro Steel city (Dhanbad, Bihar, 1971).

H. Market Towns:

Many towns serving as Market-place for neighbouring areas emerged in Uttar Pradesh in 1981. They are -

1. Barhni Bazar (Basti, Uttar Pradesh, 1981).
2. Dildarnagar Fatehpur Bazar (Ghazipur, Uttar Pradesh, 1981).
3. Gauri Bazar (Deoria, Uttar Pradesh, 1981).
4. Mundara Bazar (Gorakhpur, Uttar Pradesh, 1981).
5. Nai Bazar (Varanasi, Uttar Pradesh, 1981).

I. Railway Colonies:

1. Amla Railway & Air staff colony (Betul, Madhya Pradesh, 1961).
2. Barauni Railway Colony (Monghyr, Bihar, 1961).
3. Nainpur Railway Colony (Mandla, Madhya Pradesh, 1961).
4. Kataganj & Gokulpur Government Colony (Nadia, W.Bengal, 1961).
5. Gaziabad Railway Colony (Meerut, Uttar Pradesh, 1971).
6. Golden Rock Railway Colony (Tiruchirapalli, Tamil Nadu, 1971).
7. Izatnagar Railway Settlement (Bareilly, Uttar Pradesh, 1971).

8. Jagadhri Workshop Railway Colony (Ambala, Haryana, 1971).
9. Muthugoundenpur Railway Colony (Coimbatore, Tamil Nadu, 1971).
10. New Bongaigaon Railway Colony (Goalpara, Assam, 1971).
11. Northern Railway Colony (Kanpur, Uttar Pradesh, 1981).
12. Railway Settlement, Roza (Shahjahanpur, Uttar Pradesh, 1971).
13. Tundla Railway Colony (Agra, Uttar Pradesh, 1971).
14. Railway Settlement Khumaria (Varanasi, Uttar Pradesh, 1981).

J. Port Towns

These towns came up due to their favourable sites near sea.

They are -

1. Kandla (Kutch, Gujarat, 1961).
2. New Mangalore Port Area (Dakshin Kannad, Karnataka, 1981).

K. Aerodrome Town:

1. Dum-Dum Aerodrome Area (24 Pargana, W.Bengal, 1961).

L. Cantonments:

Many of the cantonments have emerged separately due to bifurcation of the earlier city but this bifurcation, was done because of establishment of cantonments. Such towns are:

1. Ahmedabad cantonment (civil) (Ahmedabad, Gujarat, 1961).
2. Amritsar cantonment (Amritsar, Punjab, 1961).
3. Bakloh cantonment (Gurdaspur, Punjab, 1961).
4. Cannanore cantonment (Cannanore, Kerala, 1961).



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5. Dalhousie cantonment (Gurdaspur, Punjab, 1961).
6. Dinapur Cantonment (Patna, Bihar, 1961).
7. Jutogh cantonment (Simla, Punjab, 1961).
8. Ahmednagar cantonment (Ahmadnagar, Maharashtra, 1971).
9. Dehu Road Cantonment (Poona, Maharashtra, 1971).
10. Morena cantonment (Morena, Madhya Pradesh, 1981).

M. Administrative Towns:

These towns serve as capitals of the respective states in which they emerged. They are -

1. Chandigarh - New capital of Punjab & Haryana emerged in 1961.
2. Gandhinagar - New capital of Gujarat emerged in 1971.

N. Tourist & Pilgrimage Centres:

These towns were in existence for a long time as small villages and acquired the status of town through gradual process of evolution. But they are different from (A) type towns which emerged as a gradual process of evolution in the sense that in this case establishment of industry doesn't play any significant role in acquiring them the status of town. They are basically the towns of tourist interests or health resorts of the Himalayan region and religious importance. The towns which had a religious origin have a religious character associated with various deities and the existence of a large number of temples and shrines. They are -

1. Gulmarg (Baramulla, Jammu & Kashmir, 1961).
2. Pahalgam (Anantnag, Jammu & Kashmir, 1961).

3. Badrinath (Chamoli, Uttar Pradesh, 1971).
4. Manali (Kulu, Himchal Pradesh, 1971).
5. Bakreswar Tourist centre township (Birbhum, W.Bengal, 1981).

O. Refugees Town:

Several new towns were established immediately, after independence to rehabilitate refugees from Pakistan.¹ In this study Naya Nangal which emerged in 1961 in Hoshiarpur district of Punjab is found to be one such town.

It is clear from the foregoing analysis that natural process of evolution is the most important factor of town's emergence. Among others, establishment of industries, projects, railway colonies and mining towns are important. This analysis also brings out the fact that different factors are responsible for emergence of towns in different states. It is the process of natural growth which is significant in the emergence of new towns in Gujarat and Tamil Nadu, while in Andhra Pradesh it is the establishment of project towns, in Karnataka and W.Bengal, it is the development of industries, in Madhya Pradesh, it is mining activity, in Assam it is oil refineries, in Uttar Pradesh, it is the establishment of railways, in Punjab it is the establishment of cantonments and in Jammu & Kashmir and Himchal Pradesh it is tourism which is instrumental in bringing about the new towns.

1. Prakash, Ved, New Towns in India, Duke University, Program in Comparative studies on southern Asia, Monograph and occasional paper series, Monograph Number eight, the Cellar Book shop, Detroit, U.S.A., 1969, p 1.

CHAPTER II

REGIONAL PATTERN OF GROWTH OF
NEW TOWNS IN INDIA : 1961 - 81.

REGIONAL PATTERN OF GROWTH OF NEW TOWNS

IN INDIA: 1961-81

It is important to analyse the spatial variation in the distribution of new towns overtime mainly because it indicates the extent of dispersal of urban functions over a wider geographical area. In this chapter an attempt has been made to examine the pattern of new towns in India during the fifties, sixties and seventies. The spatial distribution of the new towns in 1961 and 1971 has been shown in Map 1 and 2.

Table 2.1 gives the distribution of new towns in India by zone and by state and union territories over the three decades.¹ Table 2.2 gives the percentage share of new towns in the total new towns in each zone and state and union territory.

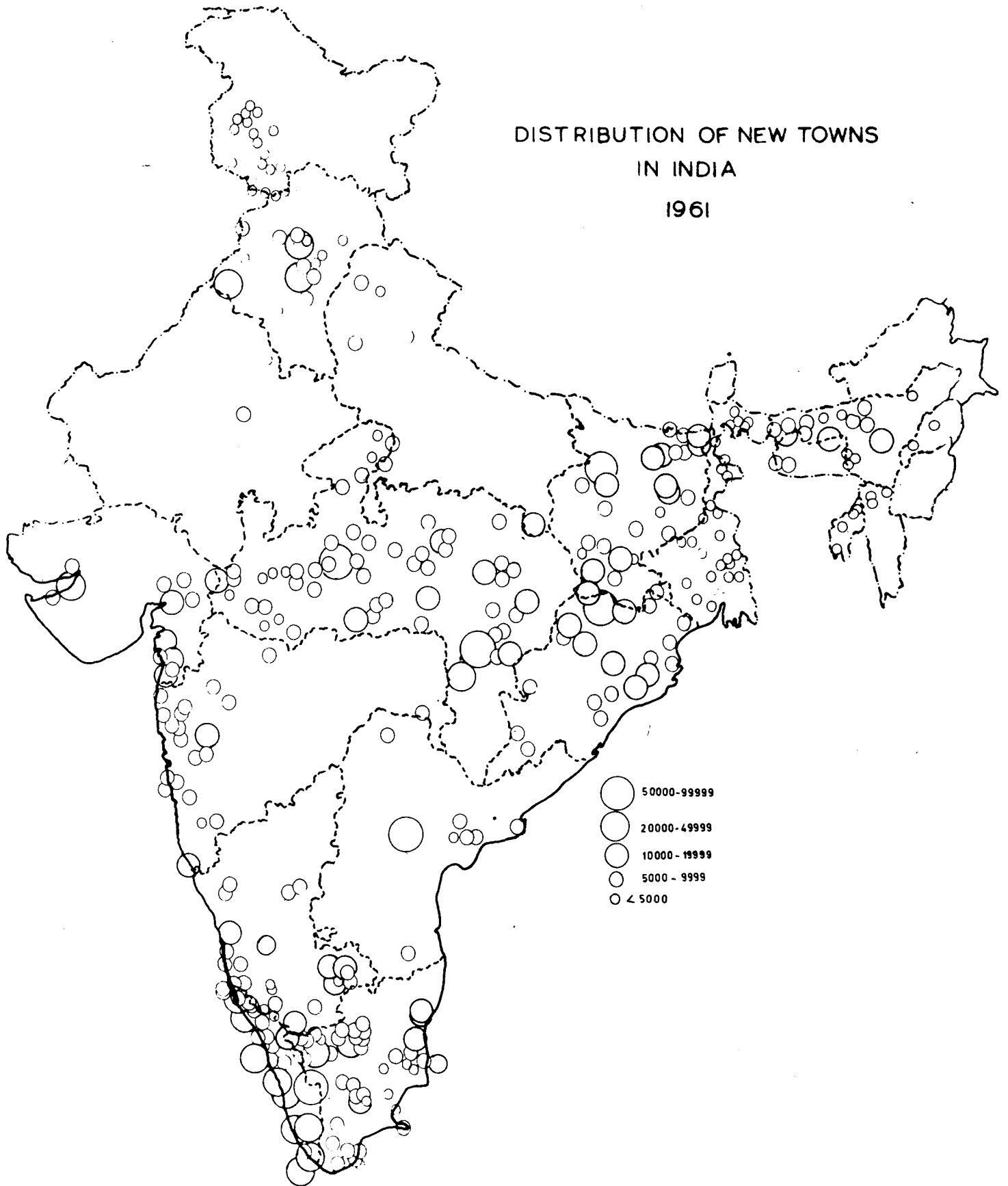
These two tables indicate that northern and central zones have doubled their percentage share of new towns from 1961 to 1981.² This made central zone to move up from third rank in 1961 to first rank in 1981 and northern zone from fifth rank in 1961 to third rank in 1981. The share of new towns in eastern zone has consistently declined to almost half from 36 percent in 1961 to 19 percent in 1981.

Among the union territories, the highest percentage share was experienced by Delhi in 1981 when 3 percent new towns were located there.

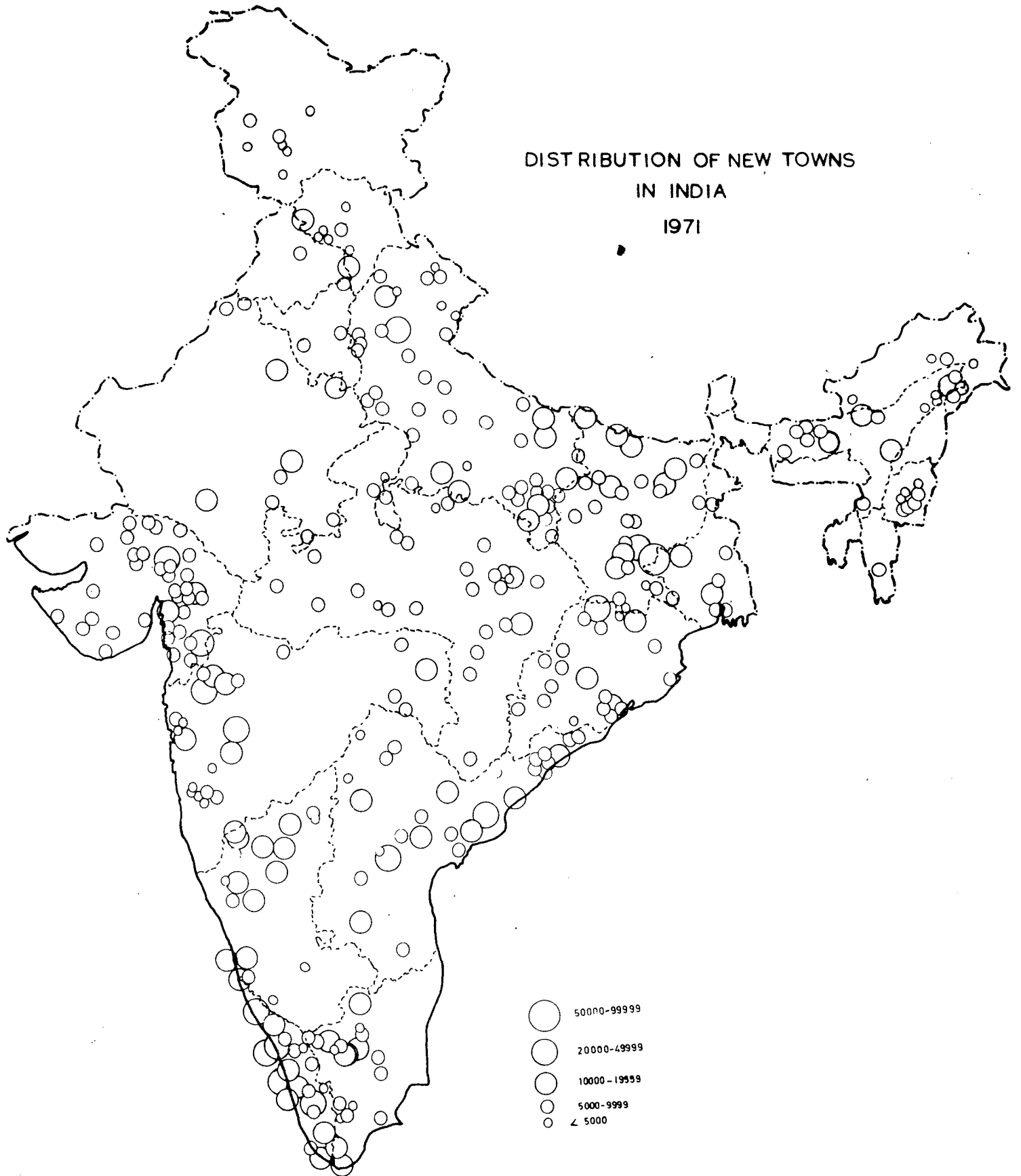
On the basis of table 2.2, we can group the new towns into five categories.

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1. For convenience of regional study, states and union territories in India, have been informally included into five zones—census of India 1961, Vol.1, India, Part II-A(i) General Population Tables, Manager of Publication, Delhi, p 70.
 2. Central and northern zones in 1981 constitute more than half of new towns that emerged in India between 1971-81.

DISTRIBUTION OF NEW TOWNS IN INDIA 1961



DISTRIBUTION OF NEW TOWNS
IN INDIA
1971



1. Percentage share of new towns in states like Haryana, Himachal Pradesh, Rajasthan in Northern zone, Uttar Pradesh in central zone and Manipur in eastern zone consistently keeps on increasing. Uttar Pradesh has a record increase from 1.61 percent in 1961 to 25.54 percent in 1981, thus placing itself on first rank in 1981, in the total number of new towns as well as percentage share of new towns.
2. Percentage share of new towns in states like Bihar, Orissa, W. Bengal and Assam in eastern zone, Kerala and Pondicherry in southern zone and Jammu & Kashmir in northern zone shows a declining trend.
3. In states like Gujarat, Maharashtra, Andhra Pradesh, Tamil Nadu and Arunachal Pradesh, percentage share of new towns has increased from 1961 to 1971 but decreased from 1971 to 1981.
4. In states like Punjab, Madhya Pradesh, Karnataka Nagaland, Tripura, Goa, Daman and Diu, percentage share of new towns has decreased from 1961 to 1971 but increased from 1971 to 1981.
5. Chandigarh, Meghalaya, Sikkim and the union territory of Delhi experienced the emergence of New towns in 1981 for the first time.

DISTRIBUTION OF RECLASSIFIED TOWNS:

This description of distribution of new towns includes those towns also which were earlier declassified for one reason or the other but again emerged as new towns. 37 such towns which were declassified in 1951 census but again emerged as new towns in 1961 census. The number

varies from seventeen in Madhya Pradesh to six in Jammu & Kashmir, three each in Bihar, Karnataka and Punjab, two in Gujarat and one each in Tamil Nadu and W. Bengal.

There are 66 towns which were declassified in 1961 and emerged in 1971 as new towns. The number varies from twenty one in Uttar Pradesh, thirteen in Gujarat, eight each in Karnataka and Kerala, six in Rajasthan, three in Maharashtra four in Andhra Pradesh, two in Bihar and one in Tamil Nadu.

There are 60 towns which were declassified either in 1961 or 1971 and emerged as new towns in 1981. There are twenty two such towns in Rajasthan, sixteen in Madhya Pradesh, eight in Karnataka, four each in Maharashtra and Punjab, and two each in Gujarat, Kerala and Uttar Pradesh.

Such towns are not really new towns, but are reclassified towns included in the list of new towns. If we exclude such towns from the list of new towns, although their distributional pattern remain largely the same but there are slight changes in the ranks of those states which have such reclassified towns, as a consequence of which the ranks of some other states also get changed. For example, in 1961, Madhya Pradesh goes down from 2nd to 3rd position in terms of percentage share of new towns and W. Bengal graduates from 3rd to 2nd position. Similarly in 1971, Uttar Pradesh having the highest number of reclassified towns goes down from 2nd to 4th rank while Bihar goes up from 3rd to 2nd rank.

Further, this reclassification affects those states the most which do not have many new towns but have many reclassified towns. For example, in 1981, in Rajasthan, out of 44 new towns, 22 were reclassified towns, thus leaving only 22 towns which could be regarded as real new towns. This has changed the position of Rajasthan from 7th to 14th. Madhya Pradesh, Karnataka and Uttar Pradesh in 1981 remain unaffected by those reclassified towns as their ranks remain the same even after excluding those reclassified towns.

NEW TOWNS IN 1961:

Of the 2699 urban places in the country in 1961, 497 settlements were recognized as new towns. The new towns constituting 18.4 per cent of all urban places, accounted for 6.1 per cent of nation's urban population but 29.2 per cent of the decadal urban growth (Table 2.3).

The variation among the states in the contribution of new urban centres to total urban growth ranges from the minimum of zero per cent in Manipur, Meghalaya and a few union territories to 100 per cent in Pondicherry¹ and 164.7 per cent in Goa, Daman and Diu.

Even when the union territories are excluded the range of variation remains quite high. For the proportion of new towns it varies from zero per cent in Manipur to 83 per cent in Tripura. New towns accounted for more than 60 per cent of all urban places in Nagaland and Tripura.

1. Pondicherry did not have any urban centre till 1951. There emerged five towns in 1961 in Pondicherry which contributed to 100 per cent urban growth in 1961.

It is noteworthy that the new towns in Goa, Daman, Diu accounted for 164.7 percent of the decadal urban growth. In some other states, viz, Tripura, Assam, Kerala, Nagaland, Orissa, the population of new towns accounted for more than half the total urban growth during 1951-61, thus, reflecting the importance of new towns in the process of urbanization.

Here it would be appropriate to analyse the impact of change in definition of an urban area to total urban growth which affected the share of new towns in total urban growth. Asok Mitra, the 1961 census Commissioner explains that in 1961 more precise distinctions were made between rural and urban residences,¹ the result of which was to reduce 803 settlements with a population of 4.7 million persons from the list of urban places. However, 497 settlements qualified as new urban centres in 1961. Thus, the total number of urban places decreased from 3060 in 1951 to 2700 in 1961, consequently the share of new towns in urban growth increased. If the population of 803 places which were declassified in 1961 were added to that of 2700 qualified in 1961, the total urban residents would be about 83.7 million. This addition would have raised the percentage of urban population to 19 percent.² and reduced the share of new towns in the urban growth to 22.6 percent.

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1. Census of India, 1961, Vol. I, Part II-[A(i), General Population Tables, Op. Cit., P 262-63.
 2. Brush, John, E., "Some Dimensions of Urban population pressure in India", in Wilbur Zelinsky, Leszek A. Kosinski, R. Mansell Prothero, (eds.) Geography and a crowding World, Symposium on Population Pressures upon Physical and Social Resources in the developing lands, Oxford University Press, 1970, p 28.

Also see Bose, A., India's urbanization, 1901-2001., Tata McGraw Hill Publishing Co. Ltd., New Delhi, 1980, pp 41-45.

NEW TOWNS IN 1971 CENSUS:

Of the 3119 urban places in the country in 1971, 593 places emerged as new towns, constituting 19 percent of urban places and 5.26 percent of country's urban population, but 19 percent of the decadal urban growth (table 2.4).

Whereas Nagaland did not have any new urban settlement in 1971, Arunachal Pradesh became urbanized in 1971 only through the growth of new towns. If the union territories are excluded, the proportion of new towns in total towns in a state still varies from zero per cent in Nagaland to 87 percent in Manipur. Manipur is the only state where new towns constituted more than 50 percent of all urban places. As regards the share of population of new towns in the decadal urban growth, it varies from 3.7 in Punjab to 85 percent in Kerala, followed by Manipur (56 percent). In some state, viz., Assam, Bihar, Himachal Pradesh, Orissa, Tamil Nadu, it accounts for more than a quarter of the urban growth during 1961-71.

NEW TOWNS IN 1981:

Of the 3934 urban places in the country in 1981, 830 places were recognised as new towns. The new towns constituting 21.1 percent by all urban places, accounted for 5.3 percent of nation's urban population but 16.9 percent of the decadal urban growth (table 2.5).

In 1981, new towns emerged in all the states. The variation among the states and union territories in the contribution of new towns to total urban centres ranged from 7.2 percent in Tamil Nadu to

100 percent in Lakshdweep, while the share of new urban centres to total urban growth ranges from a minimum of 1.6 percent in Pondicherry to 100 percent in Lakshdweep.¹ In Kerala, Manipur and Arunachal Pradesh, the population of new towns accounts for more than half the urban growth during 1971-81. In others, viz., Haryana, Himchal Pradesh, Meghalaya, Nagaland, Tripura, Goa, Daman, Diu and Mizoram it accounts for more than a quarter of the urban growth during the decade 1971-81.

CONTRIBUTION OF NEW TOWNS TO URBAN GROWTH AFTER
EXCLUDING RECLASSIFIED TOWNS:

If we exclude the reclassified towns from our analysis, then again, the pattern remains the same, there are however, marked differences in the contribution of new urban centres to total urban growth in those states where the number of reclassified towns was quite high, for example, in Jammu & Kashmir the share fell in 1961 from 34.4 percent to 22.4 percent, in Kerala the share in 1971 declined from 84.7 percent to 72.8 percent and in Rajasthan the share in 1981 declined from 20.8 percent to 10.6 percent. The states where this contribution has come down by more than 5 percent are Madhya Pradesh in 1961, Gujarat, Uttar Pradesh, and Karnataka in 1971. In 1981, except Rajasthan, in all other states where reclassified towns occur, their contribution to urban growth has come down by less than 5 percent.

1. Lakshdweep did not have an urban centre at the time of 1971 census, so whatever urban growth is observed in that union territory is wholly due to growth of new urban centres.

DISTRICT-WISE DISTRIBUTION OF NEW TOWNS IN INDIA IN 1961, 1971 AND 1981:

Table 2.6 gives the distribution of district of India according to the number of new towns which emerged during 1951-61, 1961-71 and 1971-81.

It is noticed from this table that out of 329,340, 382 districts in the country in 1961, 1971 and 1981, 171, 151 and 116 districts respectively did not have new towns and another 56, 101 and 102 had only

Table 2.6 Distribution of districts of India according to the number of new towns they got in 1961 and 1971 and 1981 census. 1

Class interval (No. of new towns)	Number of districts		
	1961	1971	1981
0	171	137	116
1	56	101	102
2	39	41	53
3	15	10	36
4	10	24	19
5	14	8	23
6-10	18	12	23
11-20	6	3	9
21+	-	4	1
Total	329	340	382

1. The total number of districts given here is less than the actual number of districts in all the decades. This is because district boundaries have been adjusted with 1971 census boundaries.

one new town. It is very clear from this table that as the class interval increases, no of districts decreases, thus, a very few districts have many new towns and many districts have few new towns.

Table 2.7 shows the classification of districts on the basis of concentration of new towns into "high" (districts with 11 or more new towns), "medium" (5 to 10 new towns), "Low" (1-4 new towns) and "nil" (where no new town had come up), categories.

Table 2.7 Classification of districts on the basis of concentration of new towns into high, medium, low, Nil Categories.

Class Interval (No. of new towns)	Number of districts		
	1961	1971	1981
0	171(51.98)+	137(40.30)	116(30.37)
1-4	120(36.47)	176(51.76)	210(54.97)
5-10	32(9.73)	20(5.88)	46(12.04)
11+	6(1.82)	7(2.06)	10(2.62)
Total	329(100)	340(100)	382(100)

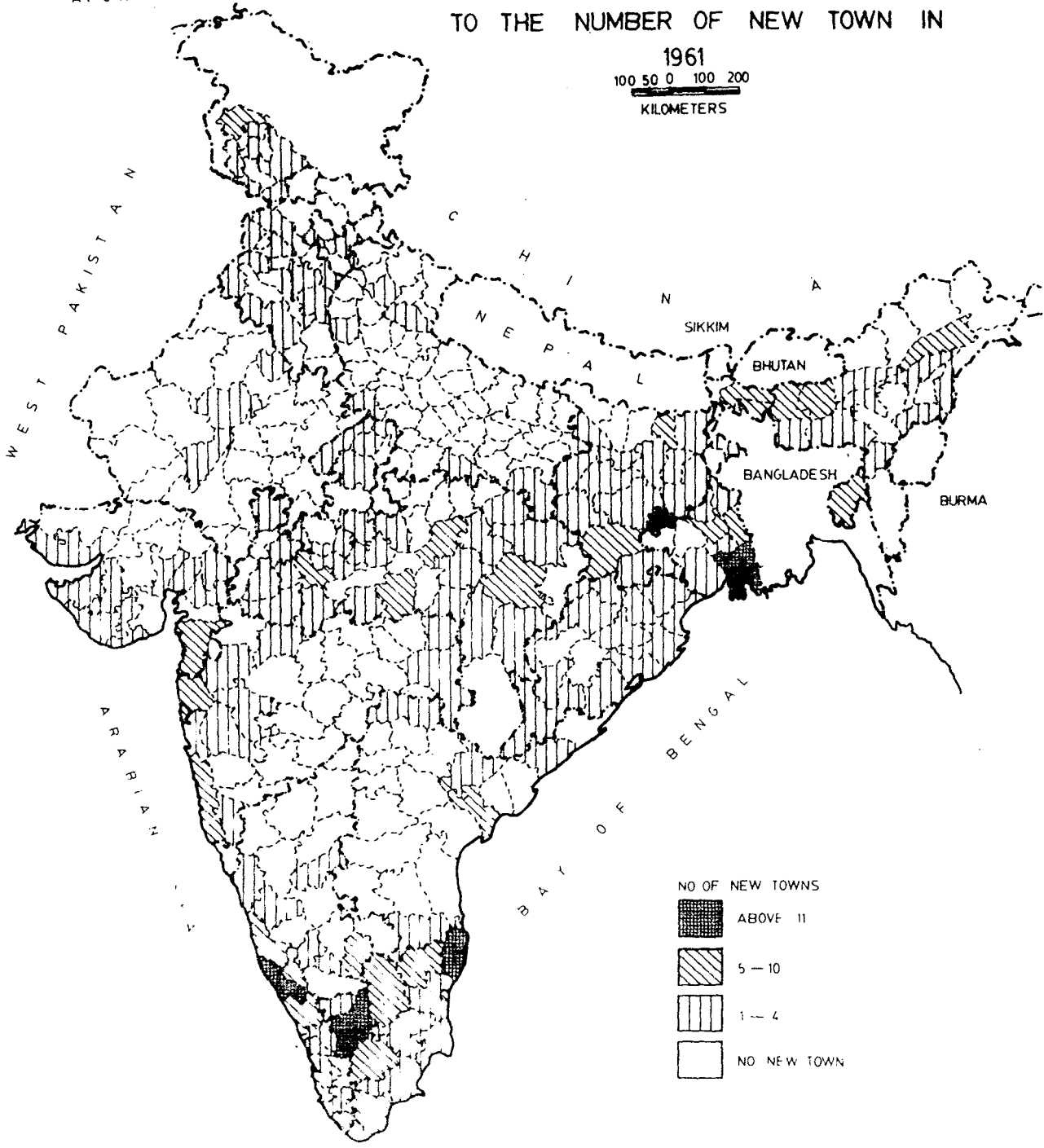
+Figures inbrackets show the percentage distribution of new towns in the respective category.

This information has been shown with the help of choropleth maps (map 3, map 4, map 5).

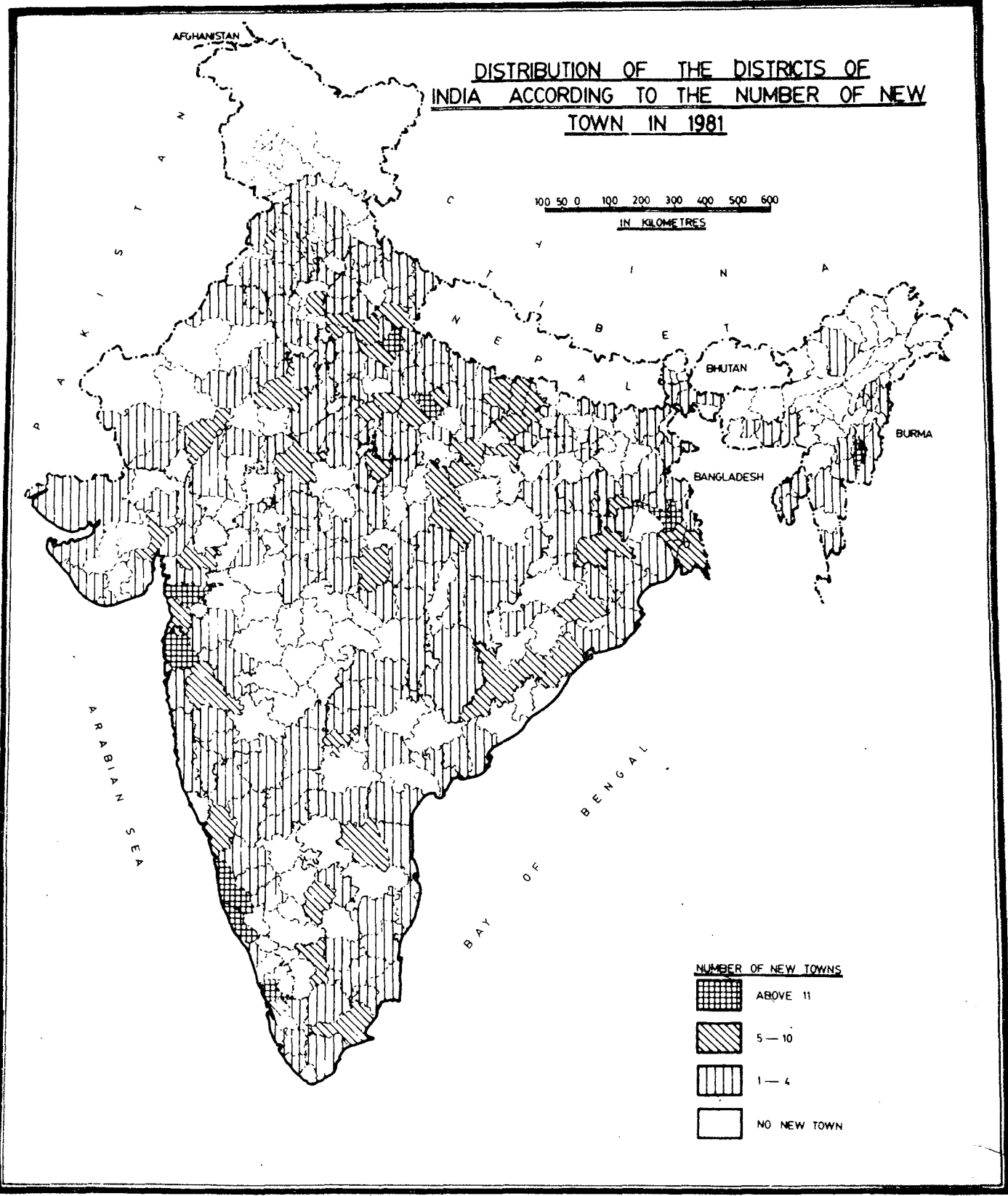
This table indicates that the number of districts with no new town has deceased over time while districts with a few new towns has increased over the same period. Districts with a large number of new towns have increased only marginally from 6(1.8 percent) in 1961 to 10(2.6 percent) in 1981.

DISTRIBUTION OF THE DISTRICTS OF INDIA ACCORDING TO THE NUMBER OF NEW TOWN IN

1961
100 50 0 100 200
KILOMETERS







DISTRIBUTION OF THE DISTRICTS OF INDIA ACCORDING TO THE NUMBER OF NEW TOWN IN 1981



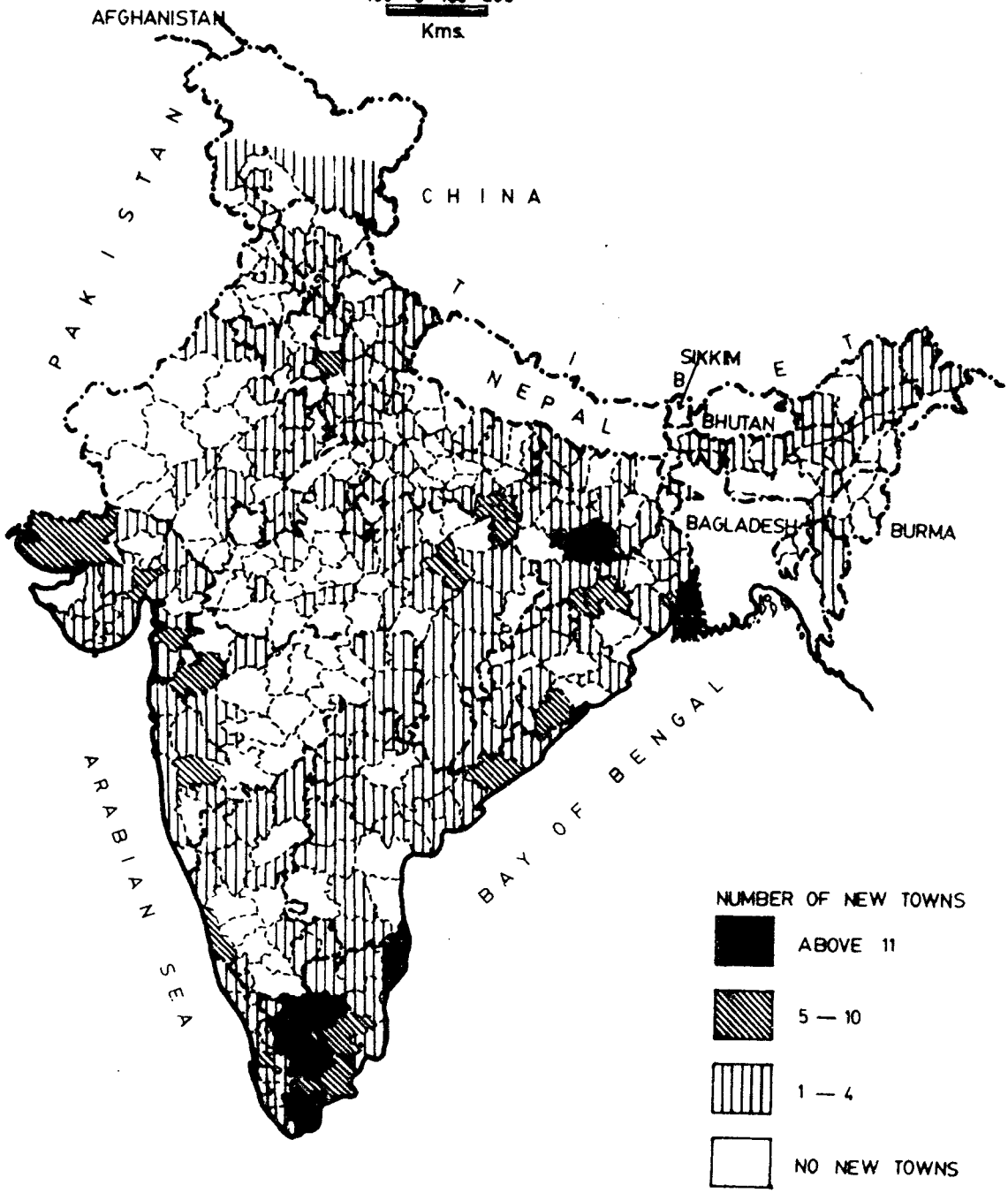
100 50 0 100 200 300 400 500 600
IN KILOMETRES

NUMBER OF NEW TOWNS

-  ABOVE 11
-  5-10
-  1-4
-  NO NEW TOWN

DISTRIBUTION OF THE DISTRICTS OF INDIA ACCORDING TO THE NUMBER OF NEW TOWN IN 1971.

100 0 100 200
Kms.



It is observed that the Dhanbad in Bihar, Cannanore in Kerala, Coimbatore and Chingleput in Tamil Nadu, Twenty Four Parganas and Howrah in W. Bengal had high concentration of new towns in 1961. The corresponding districts in 1971 are Hazaribagh in Bihar, Chingleput, Salem, Coimbatore, Madurai, Tirunelveli in Tamil Nadu and 24 pargana in W. Bengal. Districts with high concentration of new towns in 1981 are surat in Gujarat, Dakshin Kannad in Karnataka, Trichure and Cannanore in Kerala, Bareilly and Unnao in Uttar Pradesh, Bardaman in W. Bengal, Thane in Maharashtra, Manipur central in Manipur and Delhi (Union Territory)

There are thirty two districts in the country in 1961, seven in Tamil Nadu, five in Madhya Pradesh, three each in Assam, Karnataka and W. Bengal, two each in Bihar, Kerala, Maharashtra and one each in Andhra Pradesh, Gujarat, Jammu & Kashmir, Tripura, Goa, Daman & Diu and Pondicherry that have a medium concentration of new towns. The total number of districts with medium concentration in 1971 has come down to 20. They are three each in Uttar Pradesh, Gujarat, two each in Bihar, Madhya Pradesh, Maharashtra, Tamil Nadu and one each in Andhra Pradesh, Karnataka, Kerala, Manipur, Orissa and Tripura. In 1981, out of 46 districts with medium concentration of new towns, sixteen are in Uttar Pradesh, six in Madhya Pradesh, three each in Gujarat Orissa, Rajasthan, W. Bengal, two each in Andhra Pradesh, Bihar Karnataka, Tamil Nadu and one each in Haryana, Kerala, and Punjab. The remaining 120 districts in 1961, 176 districts in 1971 and 210 districts in 1981 that have new towns are with low concentration of new towns.

It may be pointed out here that in 1981 the districts with "high" concentration of new towns are the districts which did not have higher concentration of new towns in the previous census es. Cannanore was the only districts which had high concentration of new towns in 1961 as well. But this statement does not hold good for 1971. In 1971 out of seven districts in the category of high concentration, three were treated in this category in 1961 also. But all the districts of high concentration in 1971 experience low concentration of towns in 1981.

Secondly, the districts with high concentration of towns are necessarily the districts which show a higher proportion of the population of new towns to total population of new towns of the respective states in which they fall. Out of twenty three districts with high concentration of towns, seventeen districts constitute more than 20 percent of the population of the new towns of their respective states.

NEW TOWNS IN URBAN AGGLOMERATIONS:

An important feature of the emergence of new towns during the three decades is that a large proportion of them form part of town groups and urban agglomerations and this proportion increased from 1961 to 1971 but, again declined from 1971 to 1981. In 1961, 138 towns out of 497 (28 percent) formed part of town-groups. In 1971, 217 out of 592 new towns (37 percent) formed part of urban agglomerations of the existing metropolises and cities. The corresponding figure for 1981 is 145 towns out of 830 new towns (17 percent), Table 2.8, table 2.9 and table 2.10 gives the statewise distribution of new towns which form

part of town groups and urban agglomerations. It is clear that, in all the decades, while in a number of states none of the new towns fall in the urban agglomerations of the existing towns, in W.Bengal in all the three decades a large number of new towns are part of urban agglomerations. Besides W.Bengal, in 1961, in Bihar, Karnataka and Tamil Nadu a large number of new towns form part of town-groups. In 1971 in Bihar and Tamil Nadu and in 1981 in Gujarat, a large number of new towns are part of urban agglomerations.

Summary

1. Central and northern zones have improved their ranks, eastern and western zones have gone down and southern zone has maintained its second rank with regards to percentage share of new towns.
2. Percentage share of all the states in northern zone (except Jammu & Kashmir) have marked an increase from 1961 to 1981. Among others, Uttar Pradesh in the Central zone, Manipur and Nagaland in the eastern zone, Gujarat in the Western zone and Andhra Pradesh in the southern zone have shown increase in their percentage share of new towns to total new towns, from 1961 to 1981. Uttar Pradesh has a record increase from 1.61 percent in 1961 to 20.54 percent in 1981, thus placing itself at number one position in having maximum number of new towns.
3. All other states show an decrease in their percentage share of new towns to total new towns from 1961 to 1981.
4. If we exclude the reclassified towns from the list of new towns, then the pattern remains the same but ranks of different states change.

5. Proportion of new towns to total urban centres has increased marginally from 20 percent in 1961 to 21 percent in 1981.
6. Percentage of population of new towns to total urban population may be low but its percentage to total urban growth is quite high (sometimes 100 percentage in some states) which shows the importance of new towns in the process of urbanization.
7. There are few districts with very high number of new towns and many districts with few new towns. There is an inverse relationship between the number of districts and number of new towns emerging in them.
8. It can be seen that number of districts with no new town keeps on decreasing from 1961 to 1981. However, number of districts with very high number of new towns has increased marginally.
9. Whether the districts with 'high' concentration of new towns are the districts which show a higher proportion of new towns in relation to the one which existed in the previous census differs from census year to year. e.g., this assumption holds good for 1981 but not for 1971.
10. The districts with high concentration of new towns are not necessarily the districts which show a high contribution of the population of new towns to total urban population. But they are necessarily the districts which show a higher proportion of population of new towns to total population of new towns of the respective states in which they fall.

11. An important feature of the emergence of new towns during all the three decades is that a large proportion of them forms part of town groups/urban agglomerations, though their proportion has decreased from 28 percent in 1961 to 17 percent in 1981.

Table 2.1

Distribution of New Towns in India by zone and by state
and union territories over the three decades.

	1961	1971	1981
All Zones	497	592	830
Northern Zone			
1. Haryana	-	04	19
2. Himachal Pradesh	2	07	11
3. Jammu & Kashmir	18	07	-
4. Punjab	15	02	29
5. Rajasthan	3	12	44
6. Chandigarh	-	-	02
7. Delhi (UT)	-	-	27
Total	38	32	132
Eastern Zone			
8. Assam	34	20	-
9. Bihar	51	50	33
10. Manipur	-	07	24
11. Nagaland	2	-	04
12. Orissa	23	21	27
13. Sikkim	-	-	01
14. Tripura	5	-	04
15. W.Bengal	66	45	55
16. Meghalaya	-	-	06
17. Arunachal Pradesh	-	4	02
18. Mizoram(UT)	-	-	04
Total	181	147	160
Central Zone			
19. Madhya Pradesh	71	34	81
20. Uttar Pradesh	8	57	212
Total	79	91	293

	1961	1971	1981
Western Zone			
21. Gujarat	17	49	48
22. Maharashtra	23	28	33
23. Goa, Daman, Diu(UT)6		-	04
Total	46	77	85
Southern Zone			
24. Andhra Pradesh	10	40	32
25. Karnataka	30	29	46
26. Kerala	35	22	47
27. Tamil Nadu	73	152	31
28. Lakshdweep (UT)	-	-	03
29. Pondicherry (UT)	5	2	01
Total	153	245	160

Table 2.2

Percentage share of new towns to total new towns in each zone and state and union territory in 1961, 1971 and 1981.

	1961	1971	1981
Northern Zone			
1. Haryana	-	.68	2.29
2. Himachal Pradesh	.40	1.18	1.33
3. Jammu & Kashmir	3.62	1.18	-
4. Punjab	3.02	.34	3.49
5. Rajasthan	.60	2.03	5.30
6. Chandigarh	-	-	.24
7. Delhi(UT)	-	-	3.25
Total	7.64	5.41	15.9
Eastern Zone			
8. Assam	6.84	3.38	-
9. Bihar	10.26	8.44	3.98
10. Manipur	-	1.18	2.89
11. Nagaland	.40	-	.48
12. Orissa	4.63	3.55	3.26
13. Sikkim	-	-	.12
14. Tripura	1.01	-	.48
15. W.Bengal	13.28	7.60	6.63
16. Meghalaya	-	-	.72
17. Arunachal Pradesh	-	.67	.24
18. Mizoram	-	-	.48
Total	36.42	24.82	19.28
Central Zone			
19. Madhya Pradesh	14.28	5.74	9.76
20. Uttar Pradesh	1.61	9.63	25.54
Total	15.89	15.01	35.30

	1961	1971	1981
Western Zone			
21. Gujarat	3.42	8.28	5.79
22. Maharashtra	4.63	4.73	3.98
23. Goa, Daman, Diu	1.21	-	.48
Total	9.26	13.01	10.25
Southern Zone			
24. Andhra Pradesh	2.01	6.76	3.86
25. Karnataka	6.04	4.90	5.54
26. Kerala	7.04	3.72	5.66
27. Tamil Nadu	14.69	25.67	3.73
28. Lakshdweep	-	-	.36
29. Pondicherry	1.01	.34	.12
Total	30.79	41.39	19.27

Table 2.3

Statewise Distribution of New towns, their proportion in total urban centres, Population of New Towns, and as percent of total urban Population as well as percent of urban growth during 1951-61.

	No. of new towns	All urban places	New towns as percent of all urban places	Population of new towns	Total urban population in 1961	Net urban growth between 1951-1961	Population of new towns as % of	
							Total urban population	net urban growth
1. Andhra Pradesh	10	223	4.48	139281	6274508	854183	2.22	16.31
2. Assam	34	60	56.66	283991	913028	502735	31.10	56.49
3. Bihar	51	153	33.33	554955	3913920	1287659	14.18	43.10
4. Gujarat	17	181	9.39	145793	5316624	888728	2.74	16.40
5. Harayana	-	-	-	-	-	-	-	-
6. Himachal Pradesh	2	13	15.38	688	63928	18782	1.08	3.66
7. Jammu & Kashmir	18	43	41.86	46811	593315	136102	7.89	34.39
8. Karnataka	30	231	12.98	320394	5266493	813013	6.08	39.41
9. Kerala	35	92	38.04	478984	2554141	728309	18.75	65.77
10. Madhya Pradesh	71	219	32.42	592748	4627234	1494297	12.81	39.68
11. Maharashtra	23	266	8.64	163434	11162561	1961548	1.46	8.33
12. Manipur	-	-	-	-	-	-	-	-
13. Meghalaya	-	-	-	-	-	-	-	-
14. Nagaland	2	3	66.67	11911	19157	15032	62.18	79.24
15. Orissa	23	62	37.10	301607	1109650	515580	27.18	58.50
16. Punjab	15	189	7.94	220628	4088595	1022153	5.40	21.58
17. Rajasthan	3	145	2.07	12979	3281478	326203	.40	3.98
18. Sikkim	-	-	-	-	-	-	-	-
19. Tamil Nadu	73	339	21.53	614895	8990528	1657003	6.84	37.11
20. Uttar Pradesh	8	267	3.00	47390	9479895	854196	.50	5.55
21. Tripura	5	6	83.33	48119	102997	60402	4.67	79.66
22. W.Bengal	66	184	35.87	714703	8540842	2259200	8.37	31.64
1. Arunachal Pradesh	-	-	-	-	-	-	-	-
2. Chandigarh	-	-	-	-	-	-	-	-
3. Delhi	-	-	-	-	-	-	-	-
4. Goa,Daman,Diu	6	13	46.15	18537	100664	11253	18.41	164.72
5. Lakshdweep	-	-	-	-	-	-	-	-
6. Mizoram	-	-	-	-	-	-	-	-
7. Pondicherry	5	5	100.00	88997	88997	88997	100.00	100.00
Total	497	2699	18.41	4806845	78936603	16492669	6.09	29.15

Table 2.4

Statewise Distribution of New towns, their proportion in total urban centres, population of new towns, and as percent of total urban population as well as percent of urban growth during 1961-71.

	No. of new towns	All urban places	New towns as percent of all urb-	Population of new towns	Total urban population in 1971	Net urban growth between 1961-1971	Population of new urban as % of	
							Total urban population	Net urban growth
1. Andhra Pradesh	40	224	17.86	406185	8402527	2128019	4.83	19.09
2. Assam	20	74	27.03	152289	1326981	531436	11.48	28.66
3. Bihar	50	202	24.75	675023	5633966	1720046	11.98	39.24
4. Gujarat	49	216	22.68	458086	7496500	2179876	6.11	21.01
5. Haryana	04	65	6.15	27650	1772959	465279	1.56	5.94
6. Himachal Pradesh	07	36	19.44	19166	241890	63615	7.92	30.13
7. Jammu & Kashmir	07	45	15.55	23539	858221	264906	2.74	8.88
8. Karnataka	29	245	11.84	290552	7122093	1855600	4.08	15.66
9. Kerala	22	88	25.00	772666	3466449	912308	22.29	84.69
10. Madhya Pradesh	34	250	13.06	250051	6784767	2157533	3.68	11.59
11. Maharashtra	28	289	9.69	353098	15711211	4548650	2.25	7.76
12. Manipur	7	8	87.05	41126	141492	73775	29.06	55.74
13. Meghalaya	-	-	-	-	-	-	-	-
14. Nagaland	-	-	-	-	-	-	-	-
15. Orissa	21	81	25.93	230299	1845395	735745	12.48	31.30
16. Punjab	2	108	1.83	23865	3216179	648873	.74	3.68
17. Rajasthan	12	157	7.64	123820	4543761	1262283	2.73	9.81
18. Sikkim	-	-	-	-	-	-	-	-
19. Tamil Nadu	152	439	34.62	881485	12464834	3474306	7.07	25.37
20. Uttar Pradesh	57	325	17.54	470278	12388596	2908701	3.80	16.17
21. Tripura	-	-	-	-	-	-	-	-
22. W.Bengal	45	223	20.18	456353	10967033	2426191	4.16	18.81
1. Arunachal Pradesh	4	4	100.00	17288	17288	17288	65.94	100.00
2. Chandigarh	-	-	-	-	-	-	-	-
3. Delhi	-	-	-	-	-	-	-	-
4. Goa, Daman, Diu	-	-	-	-	-	-	-	-
5. Lakshdweep	-	-	-	-	-	-	-	-
6. Mizoram	-	-	-	-	-	-	-	-
7. Pondicherry	2	6	33.33	64308	198288	109291	32.43	58.84
Total	592	3119	18.98	5737127	109094090	28483721	5.26	20.14

Table 2.5

Statewise Distribution of New Towns, their proportion in total urban centres, population of new towns, and as percent of total urban population as well as percent of urban growth during 1971-81.

	No. of new towns	All urban places	New towns as % of all urban	Population of new towns	Total urban population in 1981	Net urban growth between 1971-1981	Population of new towns as % of total urban population	Net urban growth
1. Andhra Pradesh	32	253	12.64	343513	12457709	4055182	2.76	8.47
2. Assam	-	-	-	-	-	-	-	-
3. Bihar	33	220	15.00	431988	8699013	3065047	4.96	14.09
4. Gujarat	48	255	18.82	416582	10556431	3059931	3.95	13.61
5. Haryana	19	81	23.46	273696	2821829	1048870	9.70	26.09
6. Himachal Pradesh	11	46	23.91	33114	327162	85272	10.12	38.83
7. Jammu & Kashmir	-	-	-	-	-	-	-	-
8. Karnataka	46	281	16.37	458731	10711103	3589010	4.28	12.78
9. Kerala	47	105	44.76	953433	4770929	1304480	19.98	73.09
10. Madhya Pradesh	81	329	24.62	769753	10588653	3803886	7.27	20.23
11. Maharashtra	33	308	10.71	393565	21966806	6255595	1.79	6.29
12. Manipur	24	32	75.00	123356	373215	231723	33.05	53.23
13. Meghalaya	6	12	50.00	35293	239501	92331	14.74	38.22
14. Nagaland	4	7	57.00	33428	120180	68786	27.81	48.60
15. Orissa	27	108	25.00	275244	3105635	1260240	8.86	21.84
16. Punjab	29	134	21.64	210791	4620495	1404316	4.56	15.01
17. Rajasthan	44	202	21.78	535115	7140421	2576660	7.49	20.77
18. Sikkim	1	8	12.50	952	51110	31442	1.86	3.03
19. Tamil Nadu	31	432	7.17	320693	15927952	3463118	2.01	9.26
20. Uttar Pradesh	212	704	30.11	1525895	14973223	7584627	10.19	20.12
21. Tripura	4	10	40.00	20555	224881	62521	9.14	32.88
22. W.Bengal	55	347	15.85	481098	14433486	3466453	3.33	13.88
1. Arunachal Pradesh	2	6	33.33	14055	39715	22427	35.39	62.67
2. Chandigarh	2	4	50.00	15281	421256	188316	3.63	8.11
3. Delhi	27	30	90.00	525808	5752538	2105515	9.12	24.93
4. Goa, Daman, Diu	4	17	23.53	39217	351235	124461	11.16	31.51
5. Lakshdweep	3	3	100.00	18633	18633	18633	100.00	100.00
6. Mizoram	4	6	66.67	30116	122765	85006	24.53	35.43
7. Pondicherry	1	4	25.00	1793	316085	117797	.59	1.52
Total	830	3934	21.10	8280698	156188507	49221973	5.30	16.82

Table B 2.8

Statewise distribution of new towns, all towns in town groups and new towns as parts of town groups in India in 1961.

	No. of new towns	No. of all towns in town groups	New towns in town groups
1. Andhra Pradesh	10	15	0
2. Assam	34	6	4
3. Bihar	51	37	17
4. Gujarat	17	8	1
5. Haryana	-	-	-
6. Himachal Pradesh	2	0	0
7. Jammu & Kashmir	18	3	1
8. Karnataka	30	25	15
9. Kerala	35	26	7
10. Madhya Pradesh	71	15	5
11. Maharashtra	23	39	9
12. Manipur	-	-	-
13. Meghalaya	-	-	-
14. Nagaland	2	0	0
15. Orissa	23	0	0
16. Punjab	15	21	6
17. Rajasthan	3	-	-
18. Sikkim	-	-	-
19. Tamil Nadu	73	87	36
20. Uttar Pradesh	8	42	2
21. Tripura	5	-	-
22. W.Bengal	66	47	35
1. Arunachal Pradesh	-	-	-
2. Chandigarh	-	-	-
3. Delhi	-	-	-
4. Goa, Dama, Diu	6	0	0
5. Lakshdweep	-	-	-
6. Mizoram	-	-	-
7. Pondicherry	5	0	0
Total	497	371	138

Table B 2.9

Statewise distribution of new towns, all towns in urban agglomerations,
and new towns as parts of urban agglomeration (1971).

	No. of new Towns	No. of all towns in urban agglom- eration	New towns in urban agglom- eration
1. Andhra Pradesh	40	21	8
2. Assam	20	5	1
3. Bihar	50	60	23
4. Gujarat	49	25	5
5. Haryana	04	0	0
6. Himachal Pradesh	07	2	0
7. Jammu & Kashmir	07	4	0
8. Karnataka	29	20	1
9. Kerala	22	0	0
10. Madhya Pradesh	34	24	5
11. Maharashtra	28	48	5
12. Manipur	7	0	0
13. Meghalaya	-	-	-
14. Nagaland	0	0	0
15. Orissa	21	5	2
16. Punjab	2	3	0
17. Rajasthan	12	10	2
18. Sikkim	-	-	-
19. Tamil Nadu	152	232	134
20. Uttar Pradesh	57	55	1
21. Tripura	-	-	-
22. W.Bengal	45	101	28
1. Arunachal Pradesh	4	0	0
2. Chandigarh	-	-	-
3. Delhi	-	-	-
4. Goa,Daman,Diu	-	-	-
5. Lakshdweep	-	-	-
6. Mizoram	-	-	-
7. Pondicherry	2	3	2
Total	592	618	217

Table B 2.10

Statewise distribution of new towns, all towns in urban agglomeration or town groups and new towns as parts of town groups or urban agglomeration(1981).

	No. of new towns	No. of all towns in urban agglomeration	New towns in urban agglomeration	No. of all towns in U. Agg.
1. Andhra Pradesh	32	23	3	23
2. Assam	-	-	-	-
3. Bihar	33	41	4	59
4. Gujarat	48	35	19	65
5. Haryana	19	4	2	8
6. Himachal Pradesh	11	2	-	1
7. Jammu & Kashmir	-	-	-	-
8. Karnataka	46	31	12	38
9. Kerala	47	20	12	30
10. Madhya Pradesh	81	26	5	72
11. Maharashtra	33	32	3	46
12. Manipur	24	-	-	-
13. Meghalaya	6	5	2	6
14. Nagaland	4	-	-	-
15. Orissa	27	5	1	13
16. Punjab	29	-	-	19
17. Rajasthan	44	7	-	18
18. Sikkim	1	-	-	-
19. Tamil Nadu	31	187	13	223
20. Uttar Pradesh	212	45	6	71
21. Tripura	4	-	-	-
22. W. Bengal	55	161	40	93
1. Arunachal Pradesh	2	-	-	-
2. Chandigarh	2	4	2	4
3. Delhi	27	22	22	25
4. Goa, Daman, Diu	4	-	-	2
5. Lakshdweep	3	-	-	-
6. Mizoram	4	-	-	-
7. Pondicherry	1	2	-	3
Total	830	252	145	819

CHAPTER III

**ANALYSIS OF THE ELIGIBILITY CRITERIA OF DEFINING A PLACE AS
URBAN TO THE NEW TOWNS OF 1961, 1971 AND 1981 CENSUS**

ANALYSIS OF THE ELIGIBILITY CRITERIA OF DEFINING A PLACE AS
URBAN TO THE NEW TOWNS OF 1961, 1971 AND 1981 CENSUS

It is customary with the census organizations round the world to classify their populations as rural and urban. "The Concept of Urban is almost universally understood to have reference to relatively large and dense populations engaged primarily in non-agricultural pursuits. By contrast, the concept of rural ordinarily refers to relatively small and sparsely settled populations, typically with large proportions engaged in agriculture.¹ Such a dichotomy of rural and urban has considerable significance and is necessary for assessing the differentials in social, economic, cultural and demographic characteristics of the populations.² Difficulties, however, arise on account of lack of an uniform definition of 'urban'. In view of varying conditions prevailing in different countries, it has not been possible to adopt a uniform definition of urban areas throughout the world. It differs from country to country, even in the highly industrialised West.³

The United Nations has, therefore, agreed: 'Because of national differences in the characteristics which distinguish urban from rural areas, the distinction between urban and rural population is not yet amenable

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1. Hauser, Philip, M. and Matras Judah, "Areal Units for Urban Analysis", in Philip M. Hauser (ed.), "Handbook for social Research in Urban Areas, Belgium, UNESCO, 1965, p 26.
 2. Census of India, 1971, Vol. III-Assam, Part II-A, General Population Tables, Manager of Publications, Delhi, p 12.
 3. Census of India, 1971, Vol. VII-Kerala, Part II-A, General Population Tables, Manager of Publication, Delhi, p 18.

to a single definition which would be applicable to all countries. For this reason, each country should decide for itself which areas are urban and which are rural.¹

Though this recommendation is practical from the point of view of individual countries, but, this besets international comparisons of various aspects of urbanization. To overcome the difficulty of varied definitions of 'urban' areas the statistical office of the United Nations recommended that certain basic population data be classified by the member states on the basis of size of places apart from rural-urban classification.² Moreover, the United Nations has classified the various definitions used by different member countries into five principal group.³ To what extent these differences, in the definitions of urban settlements adopted by various group of countries are the true expression of their differences in culture, settlement patterns, system of administration, etc. or to what extent they are simply a matter of historical tradition or of somewhat understandable bureaucratic inertia, is difficult to determine.⁴

The definition of an 'urban' area varies not only from country to country but also between the different censuses of the same country. In our own country, in the earlier censuses, the question of determining non-municipal towns was left entirely to the discretion of the individual

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1. United Nations, Principles and Recommendations for the 1970 Population Censuses, Statistical Papers Series M., No. 44, 1967, p 51.
 2. United Nations, Handbook of Population Census Methods, Vol.III, Demographic and social Characteristics of the Populations, Studies in methods, series F, No.5, New York, 1959, p 63.
 3. Ibid, pp 60-62.
 4. Shryock, H.S. and Siegel, J.S., The Methods and Materials of Demography, Academic Press, New York, 1976, p 84.

Census Superintendents. As a result there were marked variations in the standards applied not only from state to state, but also within the same state, from one census to another.¹

Though in a census the definition of urban areas seem to signify the same meaning in all parts of the country, but its application differs from state to state. In spite of the fact that the census commissioner laid down one definition of urban areas to be applied at the all India-level, there were different approaches in following them at the state level and local refinements were often added in order to include some places as urban.² Analysing the 1961 data, Bose has shown the extent of variation in the application of the census definition of 'urban' areas in different states.³ Though, the definition of 'town' adopted for the 1961 census was much more rigorous than that followed in earlier censuses yet 1961 census was full of vagueness as far as eligibility criteria are concerned. It has given three different statements with regards to workforce criterion for defining a place as urban. At one place it says that at least three-fourth of its working population should be working outside agriculture.⁴ At another place it mentions that "at least three-fourth of the adult Male population should be employed in pursuits other than

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1. Census of India, 1971, Vol.III, Assam, op.cit., p 12.
 2. Census of India, 1971, Vol.VIII, Madhya Pradesh, Part II.A, General Population Tables", Manager of Publication, Delhi, p 54, Moreover, Shri G.Jagat.hpathi, Census Suprintendent of 1961 Census of Madhya Pradesh, has dealt with in detail the different approaches followed in different units forming the present state of Madhya Pradesh in earlier census. See, para 6 of notes to A-1 in part II-A of Madhya Pradesh, 1961.
 3. Bose, A., India's urbanization, 1901-2001, Tata McGraw Hill Publishing Co.Ltd., New Delhi, 1980, pp 51-55.
 4. Census of India, 1961, Vol.I, India, Part II-A(i) General Population Tables, Manager of Publications, Delhi, 1964, p 51.

agriculture".¹ At third place, it reads, "at least three-fourth of its male population should be engaged in non-agricultural activities".² With these three criteria in hand it is not certain as to which definition was followed in which state.

Hence, with a view to maintain comparability, the definition of a 'town' given in 1961 Census was followed in 1971 Census also with a change that 75 percent of the male working population be in non-agricultural sector. But a cursory glance at the data provided by the 1971 census on urban population rejects this fact.³ Even 1981 census could not strictly follow the definition of urban place.⁴

From the above analysis it can be seen that though in every decade the census commissioner has tried to apply uniform eligibility criteria throughout the country but an analysis of different eligibility tests would reject this presumption.

Application of Three Eligibility Tests to Each of New Town of 1961, 1971, and 1981 Censuses.

The preceding discussion reveals how variable the definition of an urban area in India has been. Because of this, three eligibility tests

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1. Census of India, 1961, Provisional Population Totals, Manager of Publication, Delhi, 1961.
 2. Premi, M.K., "Reclassification of the 1951 Census Population into Rural and Urban Areas on the Basis of the 1961 Census Definition of Urban areas" in Indian Population Bullentin, No.11, Aug., 1967, pp 315-20.
 3. In 1971 census places with less than 100 persons have been regarded as urban, e.g. Madipakkani (Population 96 in Chingleput distt) and Muthugouden Pudur Railway colony (Population 35, distt, Coimbatore) in Tamil Nadu. Badrinath which is uninhabited also considered as a town in 1971 census.
 4. In 1981 census places such as Kedarnath (Population 120, distt, Chamoli in Uttar Pradesh) and Bakreswar tourist centre township (Population 186, distt, Birbhum in W.Bengal) Where population is less than 200 are considered as urban.

are applied to the new towns that emerged during 1961, 1971 and 1981 censuses. The three purely statistical eligibility tests put forward in 1971 census and which are going to be tested are,¹

1. Density over 400 persons per square Km. (1000 persons per Square mile)
2. Population over 5000,
3. 75 percent of the male working force in non-agricultural sector.

To test how 'urban' Indian new towns are by purely statistical criteria, these three eligibility tests were applied to them simultaneously. In this analysis capital letters are used to indicate the presence of ~~xxx~~ a characteristics, and small letters are used to indicate the absence of that characteristics. Thus "D" indicates a density of not less than 1000 persons per square mile (400 persons per sq. Km.), "d" stands for the absence of attribute "D".

"P" indicates a population of 5000 or more.

"p" stands for the absence of attribute "P"

"W" indicates that at least 75 percent of the Male working population is engaged in non-agricultural occupation and

"w" stands for the absence of attribute "W"

The association between these three attributes produces eight possible categories. DPW, DpW, DPw, dPW, Dpw, dPw, dpW, dpw. There is also a small residual category of unclassified towns for which complete

1. As mentioned earlier, 1961 census doesnot give uniform definition of an urban area which is not the case with 1971 census. Moreover, there is no change of definition of an urban area between 1971-81. Hence, 1971 census definition of urban area is taken as a standard definition and is tested for all the new towns of 1961, 1971 and 1981 censuses.

data were not available. A town belonging to the "DPW" category satisfies all three eligibility tests. That is, it has a density of more than 1000 persons per square mile (400 persons per sq. Km.), a population of more than 5000 and more than 75 percent of its male working population is engaged in non-agricultural activities, while a town belonging to the "dpw" category does not satisfy any of the three eligibility tests.

Table 3.1 shows the percentage distribution of new towns that emerged in India according to the three eligibility tests, while the state-wise distribution of towns among the eight categories in 1961, 1971 and 1981 is reported in table 3.2, 3.3 and 3.4. Table 3.1 clearly brings out the following facts:

Table 3.1

Percentage distribution of new towns that emerged during 1961 1971 and 1981 censuses in India according to the three eligibility tests.

Census Year	DPW	DpW	DPw	dPW	Dpw	dPw	dpW	dpw	Unclassified
1961	62.98	12.68	9.86	2.82	3.42	.80	2.41	2.41	2.62
1971	42.57	10.14	22.80	3.21	8.28	4.05	2.03	3.88	3.04
1981	38.93	13.84	31.60	.65	5.37	6.68	.98	1.79	.16

1. Percentage share of towns that fulfill all the three eligibility criteria has monotonically declined.
2. The criterion least frequently met among the new towns in all the three decades (except in 1961 when population criterion was

met least frequently) is having at least 75 percent of their male workers in non-agricultural occupation (DPw) and there is a constant increase in the percentage of towns in all the three decades which do not fulfill the third criterion.

3. This is followed by the population criterion (DpW) and there is also an increase from 1961 to 1981 in the percentage of towns not fulfilling this criterion.
4. The most frequently met criterion is having density of not less than 400 persons per sq. Km. (1000 persons per sq. mile) and percentage of towns fulfilling this criterion has increased over time. In fact, not more than 3 percent of the new towns in any of the three decades show an absence of this criterion and the presence of other two criteria.
5. Among the remaining categories, Dpw in 1961, has the maximum number of towns. These are the towns which only fulfill density criterion.

The percentage distribution of towns among the eight categories in different states of India in 1961, 1971 and 1981 is presented in tables 3.5, 3.6 and 3.7 respectively. These tables also reinforce our all-India analysis.

In 1961, percentage of towns which fulfill all the three criteria ranges between zero in Himchal Pradesh, Jammu & Kashmir and Rajasthan to 100 percent in Nagaland and Pondicherry. The states where less than half of their towns fulfill all the three criteria are Andhra Pradesh, (40 percent only) and Tamil Nadu (44 percent). Uttar Pradesh is on

the border where 50 percent of its new towns fulfill all the three eligibility tests. States where 3/4 of the new towns fulfill all eligibility tests are Gujarat (76 percent), Kerala (94 percent), Maharashtra (78 percent) and W.Bengal (83 percent).

In 1971, again the variation in meeting the criteria exists between zero in Jammu & Kashmir to 100 percent in Punjab and Pondicherry. Percentage of towns which fulfill all the three eligibility criteria has decreased in various states. The states where less than half of their new towns fulfill all the three eligibility criteria are Gujarat(35).¹

Himchal Pradesh (14 percent), Karnataka (38 percent), Madhya Pradesh (23 percent), Orissa (9 percent), Rajasthan (42 percent) and Tamil Nadu (25 Percent). Three fourth of new towns of Haryana and West Bengal fulfill all the three eligibility criteria.

In 1981, the variation in the proportion of towns meeting all the criteria ranges from zero in Himchal Pradesh to 100 percent in Goa, Daman, Diu and Lakshdweep. Out of fifteen states and union territories included in this study, eight have less than fifty percent towns which fulfill all the three criteria. They are Haryana (37 percent), Karnataka (41 percent) Madhya Pradesh (27 percent), Punjab (24 percent), Rajasthan (25 percent) and Uttar Pradesh (19 percent). In contrast, 96 percent of the new towns in Kerala and 77 percent of the new towns in Tamil Nadu fulfilled all the eligibility criteria.

1. The decline in fulfilling all the three eligibility tests is very marked in Gujarat. In 1961, 3/4 of its new towns were fulfilling all the criteria, while in 1971 only 35 percent of its new towns fulfilled all the criteria.

The reasons for a high proportion of new towns not fulfilling all the three eligibility tests lies in the fact that a majority of them have some type of a local self-government. If we exclude those towns from the list of new towns which were declassified in 1951, 1961 and 1971 censuses but re-emerged as new towns in successive censuses, then the proportion of new towns fulfilling all the eligibility tests improve very substantially. This point would be clear from table 3.8 and by comparing it with table 3.1.

Table 3.8

Distribution of new towns after excluding reclassified new towns that emerged during 1961, 1971 and 1981 censuses in India according to the three eligibility tests.¹

Census Year	DPW	DpW	DPw	dPw	Dpw	dPw	dpW	dpw	Uncla- ssified	Total
1961	290 (63.04)	62 (13.48)	45 (9.78)	12 (2.61)	13 (2.83)	4 (0.87)	10 (2.17)	11 (2.39)	13 (2.83)	460 (100)
1971	229 (43.54)	58 (11.03)	106 (20.15)	18 (3.42)	48 (9.13)	14 (2.26)	12 (2.28)	23 (4.37)	18 (13.42)	526 (100)
1981	231 (41.70)	85 (15.34)	159 (25.70)	4 (0.72)	33 (5.96)	25 (4.51)	6 (1.08)	10 (0.81)	1 (0.18)	554 (100)

1. (figures in brackets show percentage distribution)

1. Decrease in the percentage share of towns which fulfill all the three criteria can be attributed to those towns which were declassified towns of earlier censuses and were again included in the list of new towns. This would be clear if we take percentage share of DPW towns after excluding reclassified new towns. It has although decreased from 63 percent to 42 percent, but it

is necessarily higher from the figures when all the new towns were taken together. (earlier it reduced from 63 percent to 39 percent).

2. Third criterion is again the least frequently met criterion even after excluding declassified towns from the list of new towns and this share has increased overtime. Now the increase is from 10 to 37 percent. Thus, the effect of the inclusion of declassified towns in the list of new towns can be seen clearly.
3. In case of population and density criteria, the effect of reclassified towns is slightly different. The increase of DpW towns after excluding reclassified towns is from 13.48 percent in 1961 to 15.34 percent in 1981. Earlier, the increase was only from 12.68 to 13.84 percent in 1981. It means a very low increase of DpW towns was because of the presence of reclassified towns.
4. The percentage share of dPW towns after excluding reclassified towns has decreased from 7.61 to 0.72, while earlier the decrease was from 2.82 to 0.65. It means the presence of reclassified towns in the list of new towns has increased the share of towns fulfilling the density criterion.

Summing up the above analysis,

1. It can be said definition of an urban area varies not only from one country to another but within a country as well as from one census to another.
2. The most frequently met criterion by new Indian towns is density folowed by population size and work-force criterion.

3. Percentage distribution of towns which fulfill all the three criteria kept on decreasing from 1961 to 1981 at all India level.
4. Percentage distribution of towns which don't fulfill population and workforce criteria has increased overtime while just the reverse holds good with density criterion.
5. The number of states where more than three-fourth of the new towns met all the three criteria in any census declined sharply overtime.
6. In Himchal Pradesh and Jammu & Kashmir, out of three censuses, in two censuses not even a single new town fulfilled all the three criteria. Other states where very few new towns met all the three criteria are Madhya Pradesh, Karnataka, Tamil Nadu, Uttar Pradesh, Rajasthan, etc.
7. In Kerala and W.Bengal, in all the three censuses, a large number of new towns fulfilled all three eligibility criteria.
8. If we exclude reclassified towns from the list of new towns, the percentage share of towns fulfilling different criteria changes.

Table 3.2

State Wise distribution of new towns among
the nine categories in 1961.

	DPW	DpW	DPw	dPW	Dpw	dPw	dpW	dpw	Uncla- ssifi- ed	Total New Towns
1. Andhra Pradesh	4	-	2	1	-	-	-	-	3	10
2. Assam	24	7	2	-	-	-	-	-	1	34
3. Bihar	36	3	8	-	-	2	1	1	-	51
4. Gujarat	13	1	-	1	2	-	-	-	-	17
5. Haryana	-	-	-	-	-	-	-	-	-	-
6. Jharkhand Pradesh	-	1	-	-	-	-	1	-	-	2
7. Jammu & Kashmir	-	3	-	-	5	-	4	6	-	18
8. Karnataka	19	7	1	-	1	-	1	1	1	30
9. Kerala	33	1	1	-	-	-	-	-	-	35
10. Madhya Pradesh	43	6	13	-	7	1	-	-	1	71
11. Maharashtra	18	1	4	-	-	-	-	-	-	23
12. Manipur										
13. Meghalaya										
14. Nagaland	2	-	-	-	-	-	-	-	-	2
15. Orissa	12	2	7	2	-	-	-	-	-	23
16. Punjab	10	5	-	-	-	-	-	-	-	15
17. Rajasthan	-	2	-	-	-	-	-	-	1	3
18. Sikkim										
19. Tamil Nadu	32	16	6	9	1	1	4	4	-	73
20. Uttar Pradesh	4	2	1	-	-	-	1	-	-	8
21. Tripura	3	-	2	-	-	-	-	-	-	5
22. W.Bengal	55	6	2	1	1	-	1	-	-	66
1. Arunachal Pradesh										
2. Chandigarh										
3. Delhi										
4. Goa, Daman, Diu	-	-	-	-	-	-	-	-	6	6
5. Lakshdweep										
6. Mizoram										
7. Pondicherry	5	-	-	-	-	-	-	-	-	5
India	313	63	49	14	17	4	12	12	13	497

Table 3.3

Statewise distribution of new towns among the nine categories in 1971.

	DPW	DpW	DPw	dPW	Dpw	dPw	dpW	dpw	Uncla- ssified	Total No.of new Towns
1. Andhra Pradesh	23	3	8	-	1	3	-	1	1	40
2. Assam	11	3	6	-	-	-	-	-	-	20
3. Bihar	27	4	17	1	-	1	-	-	-	50
4. Gujarat	17	2	15	4	1	10	-	-	-	49
5. Haryana	3	-	1	-	-	-	-	-	-	04
6. Himachal Pradesh	1	4	-	-	2	-	-	-	-	07
7. Jammu & Kashmir	-	1	2	-	4	-	-	-	-	07
8. Karnataka	11	2	5	8	-	-	2	1	-	29
9. Kerala	14	1	7	-	-	-	-	-	-	22
10. Madhya Pradesh	8	4	6	2	-	2	-	1	11	34
11. Maharashtra	15	3	2	1	1	-	2	4	-	28
12. Manipur	-	-	4	-	3	-	-	-	-	07
13. Meghalaya										
14. Nagaland										
15. Orissa	2	-	11	1	1	4	-	-	2	21
16. Punjab	2	-	-	-	-	-	-	-	-	02
17. Rajasthan	5	-	5	-	-	2	-	-	-	12
18. Sikkim										
19. Tamil Nadu	38	26	28	2	33	2	8	15	-	152
20. Uttar Pradesh	37	4	13	-	2	-	-	1	-	57
21. Tripura										
22. W.Bengal	36	3	5	-	1	-	-	-	-	45
1. Arunachal Pradesh	-	-	-	-	-	-	-	-	4	04
2. Chandigarh										
3. Delhi										
4. Goa,Daman,Diu										
5. Lakshdweep										
6. Mizoram										
7. Pondicherry	2	-	-	-	-	-	-	-	-	02
	252	60	135	19	49	24	12	23	18	592

Table 3.4

Statewise distribution of towns in nine eligibility test categories in 1981.

	DPW	DpW	DPw	dPW	Dpw	dPw	dpW	dpw	Uncla- ssified	Total no.of new Towns
1. Andhra Pradesh	-	-	-	-	-	-	-	-	-	-
2. Assam	-	-	-	-	-	-	-	-	-	-
3. Bihar	-	-	-	-	-	-	-	-	-	-
4. Gujarat	32	9	5	2	-	-	-	-	-	48
5. Haryana	7	-	12	-	-	-	-	-	-	19
6. Himachal Pradesh	-	8	-	-	1	-	-	2	-	11
7. Jammu & Kashmir										
8. Karnataka	19	4	17	2	-	3	1	-	-	46
9. Kerala	45	-	1	-	-	1	-	-	-	47
10. Madhya Pradesh	22	2	32	-	-	25	-	-	-	81
11. Maharashtra	24	3	1	-	-	-	-	4	1	33
12. Manipur	-	-	-	-	-	-	-	-	-	-
13. Meghalaya	-	-	-	-	-	-	-	-	-	-
14. Nagaland	-	-	-	-	-	-	-	-	-	-
15. Orissa	-	-	-	-	-	-	-	-	-	-
16. Punjab	7	-	14	-	8	-	-	-	-	29
17. Rajasthan	11	-	24	-	-	9	-	-	-	44
18. Sikkim	-	-	-	-	-	-	-	-	-	-
19. Tamil Nadu	24	2	4	-	-	-	-	1	-	31
20. Uttar Pradesh	40	56	83	-	24	-	5	4	-	212
21. Tripura	-	-	-	-	-	-	-	-	-	-
22. W.Bengal	-	-	-	-	-	-	-	-	-	-
1. Arunachal Pradesh	-	-	-	-	-	-	-	-	-	-
2. Chandigarh	1	1	-	-	-	-	-	-	-	02
3. Delhi	-	-	-	-	-	-	-	-	-	-
4. Goa, Dama, Diu	4	-	-	-	-	-	-	-	-	04
5. Lakshdweep	3	-	-	-	-	-	-	-	-	03
6. Mizoram	-	-	1	-	-	3	-	-	-	04
7. Pondicherry	-	-	-	-	-	-	-	-	-	-
India	239	85	194	4	33	41	6	11	1	614

Table 3.5

Percentage distribution of new towns in nine categories
to total towns which emerged between 1951-61.

	DPW	DpW	DPw	dPW	Dpw	dPw	dpW	dpw	Uncla- ssified
1. Andhra Pradesh	40.00	-	20.00	10.00	-	-	-	-	30.00
2. Assam	70.59	20.59	5.88	-	-	-	-	-	2.94
3. Bihar	70.59	5.88	15.69	-	-	3.92	1.96	1.96	-
4. Gujarat	76.47	5.88	-	5.88	11.47	-	-	-	-
5. Haryana	-	-	-	-	-	-	-	-	-
6. Himachal Pradesh	-	50.00	-	-	-	-	50.00	-	-
7. Jammu & Kashmir	-	16.67	-	-	27.78	-	22.22	33.33	-
8. Karnataka	63.34	23.33	3.33	-	3.33	-	-	3.33	3.34
9. Kerala	94.28	2.86	2.86	-	-	-	-	-	-
10. Madhya Pradesh	60.56	8.45	18.31	-	9.86	1.41	-	-	1.41
11. Maharashtra	78.26	4.35	17.39	-	-	-	-	-	-
12. Manipur	-	-	-	-	-	-	-	-	-
13. Meghalaya	-	-	-	-	-	-	-	-	-
14. Nagaland	100.00	-	-	-	-	-	-	-	-
15. Orissa	52.17	8.70	30.43	8.70	-	-	-	-	-
16. Punjab	66.67	33.33	-	-	-	-	-	-	-
17. Rajasthan	-	66.67	-	-	-	-	-	-	34.33
18. Sikkim	-	-	-	-	-	-	-	-	-
19. Tamil Nadu	43.83	21.92	8.22	12.33	1.37	1.37	5.48	5.48	-
20. Uttar Pradesh	50.00	25.00	12.5	-	-	-	1.25	-	-
21. Tripura	60.00	-	40.00	-	-	-	-	-	-
22. W.Bengal	83.33	9.09	3.03	1.51	1.52	-	1.52	-	-
1. Arunachal Pradesh	-	-	-	-	-	-	-	-	-
2. Chandigarh	-	-	-	-	-	-	-	-	-
3. Delhi	-	-	-	-	-	-	-	-	-
4. Goa,Daman,Diu	-	-	-	-	-	-	-	-	100.00
5. Lakshdweep	-	-	-	-	-	-	-	-	-
6. Mizoram	-	-	-	-	-	-	-	-	-
7. Pondicherry	100.00	-	-	-	-	-	-	-	-
India	62.98	12.68	9.86	2.82	3.42	.80	2.41	2.41	2.62.

Percentage distribution of towns in nine categories
to total towns that emerged between 1961-71.

	DPW	DpW	DPw	dPW	Dpw	dPw	dpW	dpw	Uncla- ssified
1. Andhra Pradesh	57.50	1.5	20.00	-	2.5	7.5	-	2.5	2.5
2. Assam	55.00	15.00	30.00	-	-	-	-	-	-
3. Bihar	54.00	8.00	34.00	2.00	-	2.00	-	-	-
4. Gujarat	34.10	4.08	30.61	8.16	2.04	20.41	-	-	-
5. Haryana	75.00	-	25.00	-	-	-	-	-	-
6. Himachal Pradesh	14.29	57.14	-	-	28.57	-	-	-	-
7. Jammu & Kashmir	-	14.29	28.57	-	57.14	-	-	-	-
8. Karnataka	37.93	6.90	17.24	27.59	-	-	6.89	3.45	-
9. Kerala	63.64	4.54	31.82	-	-	-	-	-	-
10. Madhya Pradesh	23.53	11.77	17.65	5.88	-	5.88	-	2.94	32.35
11. Maharashtra	53.57	10.72	7.14	3.57	3.57	-	7.14	14.29	-
12. Manipur	-	-	57.14	-	42.86	-	-	-	-
13. Meghalayla	-	-	-	-	-	-	-	-	-
14. Nagaland	-	-	-	-	-	-	-	-	-
15. Orissa	9.52	-	52.38	4.76	4.76	19.05	-	-	9.53
16. Punjab	100.00	-	-	-	-	-	-	-	-
17. Rajasthan	41.67	-	41.67	-	-	16.66	-	-	-
18. Sikkim	-	-	-	-	-	-	-	-	-
19. Tamil Nadu	25.00	17.11	18.42	1.31	21.71	1.32	5.26	9.87	-
20. Uttar Pradesh	64.91	7.02	22.81	-	3.51	-	-	1.75	-
21. Tripura	-	-	-	-	-	-	-	-	-
22. W.Bengal	80.00	6.67	11.11	-	2.22	-	-	-	-
1. Arunachal Pradesh	-	-	-	-	-	-	-	-	100.00
2. Chandigarh	-	-	-	-	-	-	-	-	-
3. Delhi	-	-	-	-	-	-	-	-	-
4. Goa, Deman, Diu	-	-	-	-	-	-	-	-	-
5. Lakshdweep	-	-	-	-	-	-	-	-	-
6. Mizoram	-	-	-	-	-	-	-	-	-
7. Pondicherry	100.00	-	-	-	-	-	-	-	-
India	42.57	10.14	22.80	3.21	8.28	4.05	2.03	3.88	3.04

Percentage distribution of towns in nine eligibility
test categories in 1981.

	DPW	DpW	DPw	dPW	Dpw	dPw	apW	dpw	Uncla- ssified.
1. Andhra Pradesh	-	-	-	-	-	-	-	-	-
2. Assam	-	-	-	-	-	-	-	-	-
3. Bihar	-	-	-	-	-	-	-	-	-
4. Gujarat	66.67	18.75	10.42	4.16	-	-	-	-	-
5. Haryana	36.84	-	63.16	-	-	-	-	-	-
6. Himachal Pradesh	-	72.73	-	-	9.09	-	-	18.18	-
7. Jammu & Kashmir	-	-	-	-	-	-	-	-	-
8. Karnataka	41.30	8.70	36.96	4.35	-	6.52	2.17	-	-
9. Kerala	95.74	-	2.13	-	-	2.13	-	-	-
10. Madhya Pradesh	27.16	2.47	39.51	-	-	30.86	-	-	-
11. Maharashtra	72.73	9.09	3.03	-	-	-	-	12.12	3.8
12. Manipur	-	-	-	-	-	-	-	-	-
13. Meghalaya	-	-	-	-	-	-	-	-	-
14. Nagaland	-	-	-	-	-	-	-	-	-
15. Orissa	-	-	-	-	-	-	-	-	-
16. Punjab	24.14	-	48.27	-	27.59	-	-	-	-
17. Rajasthan	25.00	-	54.55	-	-	20.45	-	-	-
18. Sikkim	-	-	-	-	-	-	-	-	-
19. Tamil Nadu	77.42	6.45	12.90	-	-	-	-	3.23	-
20. Uttar Pradesh	18.87	26.41	39.15	-	11.32	-	2.36	1.89	-
21. Tripura	-	-	-	-	-	-	-	-	-
22. W.Bengal	-	-	-	-	-	-	-	-	-
1. Arunachal Pradesh	-	-	-	-	-	-	-	-	-
2. Chandigarh	50.50	50.50	-	-	-	-	-	-	-
3. Delhi	-	-	-	-	-	-	-	-	-
4. Goa, Daman, Diu	100.00	-	-	-	-	-	-	-	-
5. Lakshdweep	100.00	-	-	-	-	-	-	-	-
6. Mizoram	-	-	25.00	-	-	75.00	-	-	-
India	38.93	13.84	31.60	.65	5.37	6.68	.98	1.79	.16

CHAPTER IV

**-APPLICATION OF THE CIVIC STATUS TO EACH OF NEW
TOWN OF 1961, 1971 AND 1981 CENSUS**

APPLICATION OF THE CIVIC STATUS TO EACH OF NEW
TOWN OF 1961, 1971 AND 1981 CENSUS

In this chapter new towns are being tested by applying the civic status to each of new towns of 1961, 1971 and 1981. It is clear from the foregoing analysis that variation exists in the application of census criteria of defining a place as 'urban' in different states. As indicated earlier also, this variation was largely due to the fact that the Director of Census Operations of a state or union territory in India was given some discretionary powers to determine the status of a place as 'urban' if it was not having a local self-government. Infact, the first criterion of defining a place as 'urban' in all the three censuses (1961, 1971, 1981) is the presence of an urban local self-government like municipality, Corporation, Cantonment, Notified Area Committee etc.: However, a persual of this criterion used for determining the "town" shows that the census on all the three points has failed to bring uniformity in obtaining a list of the urban local bodies the existence of which at a place would automatically give the place the status of a town. In 1961, to qualify for an urban area, a place should first be either a municipal corporation or a municipal area or under a town committee or a notified area committee or cantonment board.¹ For the 1971 census the definition adopted for an urban area was the same that was followed during the 1961 census except that "town committee" was excluded from the 1961 list.²

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1. Census of India, 1961, Volume I, India, Part II-A(i), General Population Tables, Manager of Publications, Delhi, 1964, p.51.
 2. Census of India, 1971, Vol.1, India, Part II-A(i) General Population Tables, Manater of Publications, Delhi. p.3.

For purposes of maintaining comparability and for administrative convenience, the definition of an urban unit which was adopted at the 1971 census has continued in 1981.¹ But in the absence of a central Municipal law, these have always meant different things at different places so that a municipal town or town committee in state A, has had different standards from what obtained in state B, thus eluding comparability of all forms.² In some census documents especially 1961 census Provisional Population Totals and Indian Population Bulletin, besides this, other local administrative bodies like civil lines have also been included in this list. This has resulted in the adoption of different criteria with respect to local self-government in different states. For example, in Uttar Pradesh, whereas all places having Municipal Corporations, Municipal Boards, Cantonment Boards and Notified Area Committee have been treated as urban, places having other types of urban local self-government (viz. Town Area Committee) have been tested on other criteria for declaring a place as urban, the result of which was the exclusion of 192 places from the list of urban areas of the state, although these places were regarded as urban by the local self-government department of the state.³ This resulted in lowering the urban population of the state by

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1. Census of India, 1981, series 1, India, Paper 2 of 1981, Provisional Population total-Rural Urban Distribution, p 23.
 2. Census of India, 1961, Vol.I, India, Part II-A(i), Op.cit.
 3. Premi, M.K., Gupta, D.B., Kundu, A., "The Concept of Urban Areas in the 1961-71 Census" in Ashish Bose, D.B.Gupta, G. Raychaudhuri (Eds.), Population Statistics in India, Vikas Publishing House, Pvt.Ltd., Delhi, 1978, pp 353.

about one million. Similar discrepancies had been found in other states also. According to "Rural-Urban relationship Committee" 1961 Census classified as many as 4197 places with population varying from 5,000 to 20,000 as rural although a number of them had urban local bodies."1 It means the criteria for granting a local self-government body to a particular place differ from state to state.2 Incomplete specification of this condition of urban local self-body in the definition of urban areas in the 1971 census had led to the exclusion of a number of places having urban local self-government from the list of urban areas.3 On the other hand, the inclusion of town committee in 1981 resulted in the reclassification of 192 towns in Uttar Pradesh in the latest censuses.

In table 4.1 a fourth dimension, the civic status of the town, has been added producing a total of 16 significant categories and two categories of unclassified towns. Basically, we want to know how many of the municipalities and non-municipalities satisfy all the three eligibility tests and how many do not. Thus a large "M" represents Municipal status and a small "m" represents the absence of municipal status. When this dimension is added, only 36 percent, 32 percent & 35 percent new towns in India in 1961, 1971 and 1981 respectively with municipal status also satisfied all the three eligibility tests. It implies that only about one-third of new towns in India in each census were truly

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1. Ministry of Health and Family Planning, Report of the Rural-Urban Relationship Committee, Vol.1, Manager of Publication, Delhi, 1966, p 25.
 2. Ibid, pp 24-35.
 3. Premi, Gupta and Kundu, Op. Cit, p 361.

urban. Perhaps equally important is the fact that about 41 per cent of the 1961 Census new towns, 22 per cent of the 1971 Census new towns and only 6 per cent of the 1981 census new towns would be included as towns if a purely administrative criterion had been used. Similarly the practice of including all municipal areas results in about 23 per cent, 46 per cent, 59 per cent of all the new towns of 1961, 1971 and 1981 respectively being considered urban when they do not meet the other criteria. It means that overtime percentage of those new towns which are considered as towns though they don't fulfil administrative criterion keeps on decreasing while just the reverse happens in case of towns which meet the municipal criterion but do not meet the other creteria.

To sum up, a little more than one third of the total new towns that emerged in any of the three censuses are urban if purely statistical criteria are applied. However, the problems of classifying towns on the basis of the application of purely statistical criteria has yet to be solved. Since the first part of the definition of towns has remained the same over the census decades, that is municipalities, corporation, cantonment etc. are by definition towns. Unless clear and objective criteria are also adopted for the classification of places which are municipalities and these are uniformly followed in all the states of India, it will not be possible to eliminate the statistical impurities inherent in the definition of town.¹

1. Bose, A. India's Urbanisation. 1901-2001. Tata Migraw, Hill Publishing, Co. Ltd., New Delhi, 1980, p 55.

Table 4.1 Application of the Civic status to new towns that emerged during 1961, 1971 and 1981 census in India.

	1961	1971	1981
1. DPWM	181(36.42)	188(31.76)	214(34.85)
2. DpWM	44(8.85)	50(8.44)	82(13.36)
3. DPwM	19(3.82)	104(17.57)	192(31.27)
4. dPWM	11(2.21)	17(2.87)	4(.65)
5. DpwM	10(2.01)	44(7.43)	33(5.37)
6. dPwM	3(.60)	23(3.88)	38(6.19)
7. dpWM	11(2.21)	9(1.52)	6(.98)
8. dpwM	12(2.41)	18(3.04)	7(1.14)
9. DPWm	132(26.56)	64(10.81)	25(4.07)
10. DpWm	19(3.83)	10(1.69)	3(.49)
11. DPwm	30(6.04)	31(5.24)	2(.33)
12. dPWm	-	2(.34)	-
13. Dpwm	8(1.61)	5(.84)	-
14. dPwm	4(.81)	3(.51)	3(.49)
15. dpWm	1(.20)	3(.51)	-
16. dpwm	-	3(.51)	4(.65)
17. Unclassified M	4(.81)	10(1.69)	-
18. Unclassified m	8(1.61)	8(1.35)	1(.16)
Total	497(100)	592(100)	614(100)

¹Figures in brackets show the percentage distribution of the respective figures.

CHAPTER V

**SOME HYPOTHESES EXPLAINING THE GROWTH OF NEW TOWNS AND
THE IMPLICATIONS OF THE OBSERVED GROWTH
PATTERNS OF THE NEW TOWNS**

SOME HYPOTHESES EXPLAINING THE GROWTH OF NEW TOWNS AND
THE IMPLICATIONS OF THE OBSERVED GROWTH PATTERNS
OF THE NEW TOWNS

Regional pattern of growth of towns in India shows that new urban centres can emerge in many ways. They may develop in the vicinity of already existing metropolitan or large cities as satellites or suburbs which implies the increasing concentration of urban activities in the latter. They may also develop as independent urban centres away from the existing cities and metropolises. These may either be overgrown villages or the ones created for specific purposes such as Bhilai, Barauni and Gandhinagar. The growth of such independent towns over a wider geographical space signifies the diffusion of economic and urban functions over a wider geographical area which could be of advantage to balanced regional development.

It is, therefore, useful to analyse the pattern of growth of new towns. Accordingly, this chapter is mainly concerned with evolving hypotheses to explain the pattern of growth of new towns in India during the fifties, sixties and the seventies. The hypotheses¹ that will be tested here are:

1. When the number of new towns in a district is one or two only, the new towns are resultant of process of evolution, that is, a village grows in size and takes up some urban function to become qualified

1. Utilising the 1971 census data Premi tested some of these hypotheses. See, Premi, M.K., "Regional pattern of growth of New towns in India during 1961-71", Demography India, Vol.III, No. 2, 1974, pp 254-265.

for being called a town. A large majority of such towns are small in size and belong to class V and VI.

2. Districts which had a large number of new towns in the previous census would either have none or a few new towns in the next census. However, when a district is covered by intensive development activities due to various projects, it may show a large number of new towns in the next census also.
 3. A large number of new towns are likely to develop in the vicinity of urban agglomerations.
 4. Number of new towns in a district is inversely proportional to the number of urban centres per 10,000 sq. Km. already in existence at the previous census.
1. For testing first hypotheses, we require the name of those villages which emerged as towns in any census.¹ If we look at the new towns in those districts which had only one or two new towns each during the fifties and sixties, it is found that in sixties out of a total of 137 such new towns, 86 towns (63 Percent) existed as villages in the previous census. Out of these 86 towns, 72 towns are made of single villages while 14 towns are made of three or four villages but the population of the main village constituted more than 50 percent population of the main village. In 1971, out of a total of 183 such new towns 118 towns (64 percent) were villages in the previous census. Out of these 118 towns, 97 towns are made exclusively of one village while the rest are made up of more than village. However, when the test of differences

1. Appendix-I of table A-IV of General Population Tables of 1961, 1971.

of proportions.1 is applied to them, the above porportion is found to be statistically insignificant.2 This analysis clearly shows that two-thirds of the new towns in those districts which had only one or two new towns are the resultant of process of evolution.

1. If two samples are drawn away from different populations we may be interested in finding out whether the differences between the porportion of successes is significant or not. Here the critical ratio is:-

$$\text{Critical Ratio} = \frac{\text{Difference}}{\text{S.E.}}$$

Where difference is defined as the difference of the actual proportion in the population i.e. $P_1 - P_2$

and the standard error of the differences between proportion is calculated by applying the following formula.

$$\text{S.E.}_{P_1 - P_2} = \sqrt{pq \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}$$

Where p = the pooled estimate of the actual proportion in the population. The value of P is obtained as follows:

$$p = \frac{n_1 P_1 + n_2 P_2}{n_1 + n_2}$$

Where n_1 and n_2 indicates the two populations and $q = 1 - P$, if $\frac{P_1 - P_2}{\text{S.E.}}$ is less than 1.96 S.E. (5% level of significance) the difference is

regarded as insignificant. If $\frac{P_1 - P_2}{\text{S.E.}}$ is more than 2.58, it is significant at 1% level of significance. For detailed discussion on the application of test of proportion, see, Blalock, H.M., Social Statistics, University of Washington, Mc-Graw Hill Kogakusa, Ltd. Japan, 1972, pp 228- 232 .

2. The computed value of the critical ratio for the proportion in this case is 1.84 which is insignificant.

To test the second part of the first hypotheses we require the class-wise distribution of these towns which emerged as a process of evolution. Table 5.1 presents the needed data.

Table 5.1

Class-wise distribution of towns
which emerged as a process of evolution

Size class	1961	1971
Class II, 50,000-99899	-	-
Class III, 20,000-49,999	1(1.16) ¹	6(5.09)
Class IV, 10,000-19,999	13(15.12)	23(19.49)
Class V, 5,000-9,999	53(61.63)	74(62.71)
Class VI, Below 5,000	19(22.09)	15(12.71)

It can be clearly seen from the table that out of 86 such new towns in 1961, 72 (84 percent) have a total population of less than 10,000. The corresponding figure for 1971 is 89 towns (75 percent). Thus, though the percentage share of class V and Class VI towns which emerged as a process of evolution is declined from 1961 to 1971, yet, it can be safely concluded that in both the decades more than two-thirds such new towns have less than 10,000 population. However, when the test

1.

Figures in brackets show the percentage distribution of respective category.

of differences of proportion is applied to those towns of 1961 and 1971 which emerged as a process of evolution and which belong to class IV and class VI size class of towns, the above proportion is found to be non-significants.¹

2. To test the second hypothesis, we have presented in table 5.2 and table 5.3 , a bivariate distribution of the districts according to the number of new towns that emerged in them during 1961-71 and 1971-81 respectively. Table 5.2 shows that there are 35 districts (according to 1971 census boundaries) which had five or more new towns in 1961. Out of these 35 districts, 4 did not have a single new town during the sixties and another 11 had one or two new towns each. On the other hand, there were 11 districts which had five or more new towns both in 1961 and 1971, the remaining 9 districts having 5 or more new towns in 1961 and 3-4 new towns in 1971.

But the 1971-81 analysis shows that there are 26 districts which had five or more new towns in 1971. Out of these only two did not have a single new town in 1981 and only four have only one or two new towns each. On the other hand, there were 17 districts which had five or more new towns both in 1971 and 1981, the remaining 3 districts have 5 or more new towns in 1971 and 3-4 new towns in 1981.

Thus we can say that our data support this hypothesis only for the decades 1961-71 because the number of districts which had a

1. The computed value of the critical ratio for the proportion in this case is 1.57 which is insignificant.

large number of new towns both in 1961 and 1971 are lesser than the districts which had large number of new towns both in 1971 and 1981. However, when test of differences of proportion is applied to those districts which had high number of new towns both in 1961 and 1971 and the districts which had high number of new towns in 1971 as well as 1981 the above proportion is found to be significant.¹

3. According to the third hypotheses, we expect a large number of new towns in the vicinity of urban agglomerations of big cities and metropolitan cities. It has been shown earlier that out of 497, 592 and 830, new towns that came up during the fifties, sixties and the seventies, 138(28 percent), 217(36 percent) and 145(17 percent) respectively were part of urban agglomerations. Secondly, they are in the close vicinity of the urban agglomeration of that city, and as the distance from the nearest class I city increases, their number keeps on declining. However, after certain distance their number again increases. This is clear from table 5.4

Table 5.4

Number of towns in urban agglomeration and their distance from the nearest class I city in 1971.

No. of towns	Distance from the nearest class I city in Kms.
154(71) ²	0-25 Kms.
21(9.7)	51-50 Kms.
9(4.1)	51-75 Kms.
8(3.7)	76-100 Kms.
25(11.5)	100+
Total 217(100)	

1. The computed value of the critical ratio for the proportion is 3.14 which is found to be significant at 1% level.
2. Figures in brackets show percentage distribution of the respective categories.

Thirdly, the proportion of new towns among all towns in the agglomeration of cities with population lying between 100,000 and 100,000, is, however, comparatively smaller than the proportion for the metropolises. For instance, in 1971, the nine metropolitan cities of India, with a population of one million and over have a total of 180 cities and towns in their agglomerations out of which 72(40 percent) are new towns. While among 66 cities that have 269 towns in their agglomerations, there are 94 new towns (35 percent). Similarly, in 1981, the twelve metropolitan cities of India have a total of 257 cities and towns in their agglomerations out of which 67(26.07 percent) are new towns. On the other hand, among 98 cities that have 386 towns in their agglomerations, there are 69(17.87 percent) new towns. The difference between the percentage of new towns in the urban agglomerations of the metropolises and the cities, however, is statistically non-significant for 1971 as well as 1981.¹

4. The fourth hypothesis states an inverse relationship between the density of urban centres in a district at a particular census and the growth of new towns in that district by the time of next census. Thus, if a district was having a large number of urban centres, say, per 10,000 sq.Km. of its area at the time of 1961 census, it was assumed that the potential for the growth of new towns in such a district would be relatively low while a district with a small number of towns per

1. In 1971, the critical ratio for the proportion here is 1.09 which is non-significant. In 1981, the critical ratio for the proportion here is .625 which is again non-significant.

10,000 sq.Km. of its areas would be expected to have a large potential for the growth of new towns. This hypothesis is based purely on a balanced distribution of urban places in a given geographical area (Central place theory) and it does not take into consideration the variation in economic prosperity of different region.¹

To test the above hypothesis all districts under the union territories were excluded since it is well known that some of the districts in the union territories are hardly more than the size of a city or town. The product moment coefficient of correlation between the density of urban centres in each of the remaining districts in 1961 and the number of new towns in 1971 is 0.23 and is statistically significant at 1 percent level. The r value for 1981 is -.03 which is, however, statistically non-significant. This shows that, for 1971, instead of a negative correlation between the two variables as was hypothesized, there is a definite positive relationship between them. This may be because of some intervening variables. It will be worth investigating the above hypothesis further by including the influence of intervening variables and if possible modify in the light of these investigations.

IMPLICATIONS OF THE OBSERVED GROWTH PATTERN OF THE NEW TOWNS:

From the empirical evidence, presented in this chapter it is observed that in all the three decades there are many districts which have very few new towns and few districts which have many new towns.

1. Premi, M.K. "Regional Pattern of Growth of New Towns in India during 1961-71", op, cit., p.263.

A look at map no.3, no.4, no.5, shows that the districts which have many new towns are concentrated in few pockets. If it is assumed that the establishment of new towns in a district helps in creating basic infrastructure in terms of roads, electricity, water supply, new transportation routes, educational facilities etc., we may say that the districts which got a large number of new towns are mainly the ones which benefited most from developmental efforts. It means developmental efforts in the country during 1961, 1971, has to a large extent, concentrated only in a few districts. 1981 figures, however, shows a dispersal tendency because number of districts which have many new towns has increased. But the increase is very marginal.

Secondly, as has been stated earlier, a large proportion of new towns are part of urban agglomerations. It suggests two things:

1. The new towns depend for their growth on the economy of the city of which they form a part,
2. There is tendency of concentration of new towns in the developed cores. It is good that 1981 figures show a decline in the proportion of new towns which have emerged in the vicinity of urban agglomerations. Both these facts lead us to say that there is widespread disparity in terms of regional distribution of investment because of uneven distribution of new towns and unless there is a policy with regards to regional distribution of investments their past trend of development of new towns is likely to continue in the coming years. We just cannot ignore the pattern of growth of new towns

for various policies formations, considering the role played by them in some states in urban growth.

Finally, the question of balanced regional development has been raised many times in India, and if we have to acquire the balanced regional development we have to stop this concentration tendency of new towns in few districts. To achieve this goal we need to have a greater dispersal of basic economic functions over wider geographical areas in the coming decades.

Table 5.2

Bivariate distribution of the Districts of India according
to the new towns in 1961-71.1

New Towns of the 1961 Census

	0	1	2	3	4	5	6-10	11+	Total
0	98	28	19	5	3	2	2	0	157
1	64	17	9	3	1	2	5	0	101
2	18	7	5	3	2	1	3	0	39
3	3	2	3	1	0	3	2	0	14
4	6	4	3	1	1	2	2	0	19
5	2	3	1	0	2	0	2	0	10
6-10	1	3	1	1	0	1	0	2	9
11+	0	0	1	0	0	0	3	3	7
Total	192	64	42	14	9	11	19	5	356

Table 5.3

Bivariate Distribution of the Districts of India according
to the New Towns in 1971-81.2

New Towns of the 1971 Census

	0	1	2	3	4	5	6-10	11+	Total
0	55	27	7	1	4	1	1	-	96
1	42	21	8	4	5	1	1	1	83
2	22	12	10	-	2	-	-	1	47
3	14	11	2	1	1	1	-	1	31
4	7	9	5	1	1	-	-	1	24
5	7	7	-	-	2	3	3	-	22
6-10	4	6	3	-	5	-	6	2	26
11+	1	1	2	-	2	2	1	-	9
Total	152	94	37	7	22	8	12	6	338

1. 1961 district boundaries have been adjusted to 1971 district boundaries.
2. 1981 District boundaries have been adjusted to 1971 district boundaries.

CHAPTER VI

SUMMARY & CONCLUSIONS

SUMMARY & CONCLUSIONS

The study brings out the following fact:

1. Natural process of evolution is the most important factor of towns' emergence. Among others, establishment of industries, projects, railway colonies and mining towns are important. This study also brings out the fact that different factors are responsible for emergence of towns in different states. It is the process of natural growth which is significant in the emergence of new towns in Gujarat and Tamil Nadu, while in Andhra Pradesh it is the establishment of project towns, in Karnataka and W.Bengal, it is the development of industries, in Madhya Pradesh, it is mining activity, in Assam it is oil refineries, in Uttar Pradesh, it is the establishment of railways, in Punjab it is the establishment of cantonments and in Jammu & Kashmir and Himachal Pradesh it is tourism which is instrumental in bringing about the new towns.
2. The regional distribution of new towns in India during the last three decades shows that the states of northern and central zones are experiencing an increase in their proportion while just the reverse has happened with Western and Central zone.
3. Uttar Pradesh has a record increase in the percentage share of New towns to total new towns from 1.61 percent in 1961 to 20.54 percent in 1981 thus placing itself at number one position in having maximum number of new towns.
4. Percentage of population of new towns to total urban population may be low but its percentage to total urban growth is quite

high (sometimes 100 percentage in some states) which shows the importance of new towns in the process of urbanization.

5. There are few districts with very high number of new towns and many districts with few new towns. The districts with no new town kept on decreasing from 1961 to 1981. However, number of districts with very high number of new towns had increased marginally.

6. An important feature of the emergence of new towns during all the three decades is that a large proportion of them forms part of town group/urban agglomerations, though the proportion has decreased from 28 percent in 1961 to 17 percent in 1981.

7. An application of the three eligibility criteria to new Indian towns shows that the most frequently met criterion by new Indian towns is density followed by population size and work-force criterion.

8. Percentage distribution of towns which fulfill all the three criteria has decreased from 1961 to 1981 at all India level.

9. Percentage distribution of towns which do not fulfill population and workforce criteria has increased overtime while just the reverse holds good with density criterion.

10. The number of states where more than three-fourth of the new towns meet all the three criteria in any census has declined sharply overtime.

11. In Himchal Pradesh and Jammu & Kashmir, out of three censuses in two censuses not even a single new town fulfilled all the three criteria. Other states where where very few towns met all the three criteria are Madhya Pradesh, Karnataka, Tamil Nadu, Uttar Pradesh, Rajasthan etc.

12. In Kerala and W.Bengal, in all the three censuses, a large number of new towns fulfilled all three eligibility criteria.

13. When new Indian towns are being tested by applying civic status to them, only 36 percent new towns in India in 1961, 32 percent in 1971 and 35 percent in 1981 with municipal status also satisfy all the three eligibility tests. It means only a little more than one third new towns are urban if purely statistical criteria are applied.

14. Finally, the pattern of growth of new towns has serious planning implications. It has been clearly brought out by this study that (i) very few districts have many new towns and (ii) a large proportion of new towns emerge in the vicinity of urban agglomerations. If it is assumed that the establishment of new towns in a district helps in creating basic infrastructure in terms of roads, electricity, water supply, new transportation routes, educational facilities etc., we may say that the districts which got a large number of new towns are mainly the ones which benefited most from developmental efforts. It means developmental efforts in the country has to a large extent concentrated only in a few districts

Secondly the fact that a large proportion of new towns are part of urban agglomerations suggests two things (i) the new towns depend for their growth on the economy of the city of which they form a part (ii) there is tendency of concentration of new towns in the developed cores. Both these facts lead us to say that there is widespread disparity in terms of regional distribution of investment and unless there is a

policy with regards to regional distribution of investments their past trend of development of new towns is likely to continue in the coming years. If we have to acquire the balanced regional development we have to stop this concentrations tendency of new towns in few districts. To achieve this goal we need to have a greater dispersal of basic economic functions over wider geographical areas in the coming decades.

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