

URBAN PROBLEMS AND ECONOMIC DEVELOPMENT

edited by

LATA CHATTERJEE

and

PETER NIJKAMP



NATO ADVANCED STUDY INSTITUTES SERIES

Series D: Behavioural and Social Sciences-No. 6

URBAN PROBLEMS AND ECONOMIC DEVELOPMENT

edited by

LATA CHATTERJEE

Professor of Urban Geography
Boston University, Massachusetts, U.S.A.

and

PETER NIJKAMP

Professor of Regional Economics
Free University, Amsterdam, The Netherlands

Sijthoff & Noordhoff 1981
Alphen aan den Rijn, The Netherlands
Rockville, Maryland, U.S.A.

Proceedings of the NATO Advanced Study Institute on
Urban Problems and Policies in a Spatial Context
Amsterdam, The Netherlands
11-22 August, 1980

ISBN 90 286 2661 1

Copyright © 1981 Sijthoff & Noordhoff International Publishers B.V., Alphen aan den Rijn, The Netherlands.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of the copyright owner.

Printed in The Netherlands

URBAN PROBLEMS AND ECONOMIC DEVELOPMENT: A PREFACE

Cities can be regarded as the focal points of economic and spatial developments in many countries. The dynamics of a society is also reflected in its urbanization pattern. Consequently, urban areas are, on the one hand, the nuclei of social and economic progress and of creative and innovative power, but on the other hand also the centres of social and economic conflicts and of deprivation and unemployment. All advantages and disadvantages of contemporary developments (such as demographic developments, technological progress, energy shortage, environmental deterioration, educational opportunities and so on) have direct and indirect impacts on the urban climate.

This also holds true for urban development processes in less developed or lagging regions. The stages of economic take-off and of a drive to maturity exert a significant influence on urbanization patterns. The urbanization rate in underdeveloped areas has increased with more than a factor five during the twentieth century. This explosive growth pattern of cities in less developed areas is due to demographic developments and centrifugal attraction forces of urban centres. Especially the primate cities in less developed countries play increasingly the role of the economic, social, cultural, political and technological heartland. This role is even reinforced by the investments of many (mainly multinational) firms in these primate cities. It is evident that the primacy of such centres has exerted substantial impacts on both the rural and the urban system of a country. The strong rural-urban migration has, in many countries and areas, led to the emergence of a dual economy.

In many urban areas, the spatial dynamics has led to many frictions, such as lack of adequate housing, lack of sufficient social, medical and cultural facilities, high unemployment rates, social and economic segmentation, and bad environmental conditions. Consequently, in many lagging areas one faces the phenomenon of a so-called subsistence urbanization, in which the ordinary citizen has only the bare necessities for survival in the urban environment and in which the vast majority of people is living under very poor conditions. The emergence of slums, squatter districts and 'bidonvilles' demonstrates that the urban growth processes in many countries are fraught with frictions and difficulties.

Many of the above mentioned topics were also intensively discussed at the Fifth Advanced Summer Institute in Regional

Science, which was held in Amsterdam in August 1980. This book is the third volume in a series of three volumes containing selected papers presented at this Institute. The first volume in the series, focuses attention on general theoretical, methodological and policy aspects of cities in transition. The second volume draws the attention to the relationships between locational developments and urban planning, while the present volume is more particularly oriented to urban problems in relation to economic developments in lagging areas.

The first aim of the book to provide profound insight into the backgrounds and causes of urban developments in less developed countries and regions. Food and agriculture problems, lack of resources, urban agglomeration diseconomies, demographic trends, migration movements, social and political circumstances, and housing and infrastructure problems are dealt with in great detail and also illustrated on the bases of many case studies, inter alia from India, Taiwan, Lebanon, Turkey, Egypt, Nigeria and Korea.

The book also attempts to focus attention on relevant and operational theories which can be used to explain the above mentioned spatial developments. Special attention is paid to the weak data base in many countries and to ways of treating these data in an adequate way. This approach is highly instructive for the analysis of similar spatial development problems in many other countries.

Finally, this book also gives a critical evaluation of urban development policies in several countries. The shortcomings of urban policies and their basic causes are analyzed in greater detail on the basis of several case studies. Here again an outlook for more integrated and balanced urban and spatial development strategies is provided.

It is our sincere hope that this volume will further the understanding of the complicated growth mechanisms of cities in lagging areas. In our view, international comparative studies are extremely valuable ways of gaining more insight into the causes and remedies of the urban crisis in many developing areas. A permanent international dialogue and exchange of information is a prerequisite for an adequate urban policy analysis, which aims at providing better living and working conditions for the vast majority of people living in urban areas. We hope that this volume will provide a (modest) contribution to one of the greatest challenges in our current world.

Amsterdam December 1980
Boston

Lata Chatterjee
Peter Nijkamp

TABLE OF CONTENTS

L. CHATTERJEE and P. NIJKAMP	
Urban Problems and Economic Development: A Preface	IX
 PART I PATTERNS AND PROCESS OF CONTEMPORARY URBANIZATION	 1
L. CHATTERJEE	
Introduction	3
C.R. PATHAK	
Urbanization and Spatial Structure of the Indian Economy	9
F-T. TANG	
Urbanization and Urban Problems in Developing Countries - A Case of Taiwan, Republic of China	33
V.F. DOKMECI	
The Urbanization Pattern in Turkey and its Future Development	53
I. TEKELI	
On the Dynamics of Experience of Urbanization in Turkey	69
F.I. KHURI	
City Typology, Urbanization, and Urban Management in Arab Countries	83

VI

PART II	MIGRATION	107
L. CHATTERJEE	Introduction	109
L. CHATTERJEE	Migration and Development	113
N.D. KAMBLE	Analysis of Immigrants in Madras City	133
N. H. SULIMAN, W. MORCOS	The Integration of Migrants into Urban Culture	149
PART III	HOUSING PROBLEMS AND POLICIES	163
L. CHATTERJEE	Introduction	165
L. CHATTERJEE	Housing the Poor in Developing Countries: A Policy Framework	167
J.O. ABIODUN	Housing Problems and Policies: The Experience of a Tropical African Country - Nigeria	183
I.H. OZSABUNCUOGLU	Rural-Urban Migration and Formation of Squatters in Turkey	201
PART IV	URBAN POLICY MODELLING	215
L. CHATTERJEE	Introduction	217
W.L.J. DOEVE	Demographic Models for Third World Countries: Towards Operational Planning Tools	221
W.Y. KWON	A Simulation Model for Testing Urban Population Distribution Policies in Relation to Selecting Growth Centers in Korea	243
K. GÖKAN	An Application of the Garin Model - Istanbul Model	263

PART V ENERGY	281
L. CHATTERJEE Introduction	283
L. CHATTERJEE Energy and Development in the Third World	285
A. ELHANCE Energy Efficiency and Conservation in the National and Urban Context: The Case of India	301
M. CHATTERJI Urbanization, Energy, and Environment in the Developing Countries	327

Part I

PATTERNS AND PROCESS OF CONTEMPORARY URBANIZATION

INTRODUCTION

Development involves changes not only in the magnitude of key indicators, such as output and real income, but also in the structure of relationships between them. One type of such structural change accompanying development is the change in the sectoral composition of output. In the process of development, there occurs a sharp decline in the proportion of gross domestic product (G.D.P.) devoted to the primary sector (e.g. agriculture, forestry etc.), a dramatic increase in the share of the industrial sector, and a modest increase in the share of the service sector. This change - termed industrialization - resulting from increasing real incomes and changing composition of final demand and factor prices, is a major characteristic of the morphology of development.

A second structural change accompanying development is the changing distribution of population in the national landscape. Change in the national settlement pattern is initiated and affected by either internal structural changes in society or superimposition of these changes by a colonial or alien society. In the former case, the economic basis for population concentration at advantageous locations - the process of urbanization - is generated by a marked division of labor and occupational specialization. The internal and external economies of scale created for firms, industries and individuals, by the specialization and the existence of organized exchange mechanisms lead to rapid growth in selected settlement nodes or urban centers.

In the nineteenth century, such internally induced urbanization was characteristic of development in Britain and Western Europe. Adna Weber could note: . . .the most remarkable social

phenomenon of the present century is the concentration of population in cities the tendency towards concentration or agglomeration is all but universal in the western world. . .

(Adna Weber 1899)

This process of profound transformation is currently underway in contemporary Latin America, Africa, and Asia. While urbanization has been underway in these regions for a century, its pace has quickened in the last quarter century, with some parts (e.g. Latin America) being transformed from a rural society to a predominantly urban one.

The demographic features of this transformation are well known (Birdsall 1980, United Nations 1979, Hay 1976). In Latin America, for instance, urbanization is occurring in the context of national population growth rates of 2 to 3.5 per cent per annum. These high national rates translate into: a) a large natural increase in urban population and b) a high rural to urban migration. There has been, as a consequence, a very large increase in the number of cities (with 20,000 inhabitants and more), and in the population of metropolitan areas such as Sao Paulo, Mexico City, Caracas and Bogota. Further, as urbanization continues apace, existing cities are increasingly absorbing most of the population growth taking place in these countries. Though, the pace of urbanization is less in lower income and predominantly rural countries of Asia and Africa their potential for urban growth is substantial (Beier et al 1975).

The context of contemporary urbanization in the developing world, while reminiscent in some respects of the conditions in 19th century Europe or North America, is notably different in several significant ways. The rapid urbanization of western countries in the last century occurred when those countries had lower population bases, lower population growth rates, higher per capita incomes, large scale emigration possibilities and a greater backlog of physical and medical technology than existing in the developing world today. These different initial conditions of urbanization in the third world have important implications for the patterns of urban economic activities and the quality of the urban environment.

The urban areas of the third world have absorbed large and accelerating population increases-about 380 million new residents between 1950 and 1970. These magnitudes of population and labor force increase are far higher than those experienced by the western countries in their corresponding periods of development. While during this period productive activities and the labor force has grown enormously in developing countries, so has the size and complexity of the urban built environment. The quality of the

built environment which provides shelter and access to services such as education and health, is crucial in the urban development process.

The distribution of this economic growth and increase in environmental services in urban areas has been uneven. Most of the growth has tended to be localized in certain parts of the economy -- primarily in the capital intensive modern sectors -- that seem to have few linkages to the 'informal' urban sector (which constitutes a significant portion of the total employed urban labor force). Consequently, the benefits of growth have occurred to a small segment of the urban population. Similarly, much of the services flowing from the built environment - housing, transport, water supply, sewer, health services, etc. - are enjoyed disproportionately by the well off and powerful.

Indeed, in the urban areas of the developing world, low labor utilisation and low earnings characterize the lot of a significant portion of the residents. Low labor utilisation is manifest in terms of both open unemployment and underemployment (working too few hours or with excessively low productivity). Available evidence suggests that open unemployment in the cities of larger countries (Argentina, Brazil, India, Nigeria, Mexico, Indonesia) is not high (about 6.5%). Urban underemployment, however, is far more serious, estimated as affecting between 23% to 36% of the employed workers in Latin America for instance (I.L.O. 1975, PRELAC 1976). The combined effect of open unemployment and underemployment (even if one accepts the lower estimate) is of a sufficient magnitude as to affect much larger proportions of the labor force than did open unemployment in advanced economies in the worst years of the Great Depression. Thus, it is not surprising that the issue of low labor utilisation in urban areas has emerged as a major problem of the urban economy in the Third World.

A related problem is the issue of income distribution, both in the sense of low relative shares of income some groups receive, and in terms of the proportion of the urbanites at or below margins of absolute poverty. In a number of countries the share of the poorest groups in urban incomes seems to be declining. In some cases, absolute incomes in real terms appear to have been either constant or declining. As a consequence, reduction of income inequalities and poverty have emerged as another legitimate area of policy concern (Lakshmanan 1978).

Recent analytical work suggests that development strategies pursued in the past not only promote income inequalities and inadequate increase in real income of the poor, but also set in motion production structures that may perpetuate this situation. (Huq 1974, Furtado 1973, Healy 1972, Lipton 1977). Concepts such as the "informal" sector are being sharpened to serve as focal

points to study low income urban workers and to identify areas of policy intervention that will augment labor absorption and incomes. Analytical attention is being directed toward identifying the urban poor and their attributes with the objective of designing policies to reduce urban poverty.

Another major area of urban policy concern is with the urban built environment. The lot of the urban low income majority is appalling given the large urban population increase, low incomes per capita and the concentration of economic and political power. Their lot in urban areas is overcrowded housing with low quality services of all types. Public policy concerns therefore focus on improving the quality of the urban environment, in particular to meet the basic needs of the urban poor.

Analytical studies to guide such policy concerns as urban employment, urban poverty and urban built environment have necessarily to be located in the organizational, sociopolitical and geographical contexts of individual countries. The various papers in this section address some of these issues in their respective countries.

Pathak opens with a discussion of the urbanization patterns in India in this century. He examines the urbanization process in various dimensions - temporal, regional, primacy and size distribution of cities. He observes the increasing role of large cities and a corresponding decline in small towns. The weak links between urban based industry and the rural areas and the spatial imbalance in the Indian economy are traced by Pathak to the colonial heritage. He concludes with a proposal of strategies that would promote mutually interrelated urban and rural systems.

The patterns and problems of urbanization in Taiwan are presented by Tang in the following chapter. Tang links the twin transformations of industrialization and urbanization to the remarkable growth process in Taiwan in the last three decades. While discussing various dimensions of urbanization in Taiwan, attention is drawn to the growing polarisation of the urban system around Taipei till 1970 and the subsequent polarisation reversal -- not a common occurrence in the developing world. Many factors -- small size of the country, rapid urbanization, recent energy price increases -- have contributed to an extraordinary inflation in land prices in Taipei, causing serious housing and environmental problems. The paper concludes with a discussion of urban transport, environmental conditions and relevant policy issues.

The urbanization trends in Turkey over the last three decades are reviewed by Dokmeci. Regional patterns of urbanization

and the relevant fortitudes of cities of differenc sizes receive considerable attention in this chapter. Finally, Dokmeci investigates interesting relationships between the growth of urban centers and the distance between them. He finds that population and income growth in large cities affect development in distant regions through the agricultural sector.

In the last three decades, urbanization trends and migration patterns have been interpreted from a variety of theoretical perspectives. Tekeli reviews, in an evolutionary framework, several alternative explanations of the urbanization process in Turkey. He identifies five stages in the increasing comprehension of the urbanization phenomena. These stages can be differentiated by their levels of complexity and the number of variables they incorporate in their explanation. They range from simple explanations that view urbanization in terms of population displacement, through the dualistic interpretations that analyze urbanization in the context of national and regional growth and imbalance to more a recent approach that situates urbanization in the expansion of peripheral or underdeveloped capitalism. This is an useful approach in as much our comprehension of a phenomena influences our attitudes and policies toward it. He draws the connection between interpretation and urban policy in the second section of the paper.

Khuri's interest lie in the management of Arab cities. His studies of urbanism aim at understanding the different urban situations posed for urban management by different types of cities - caravan city, shrine city, agrarian city, conquest city, and industrial city. He recommends a 'professionalized' approach to management and suggests research on intergovernmental relationships (between municipal and state authorities) and citizen groups in the contexts of Arab caties.

Lata Chatterjee

REFERENCES

- Beier G., A. Churchill, M. Cohen, and B. Renaud: 1975.
The Task Ahead for the Cities of the Developing Countries (World Bank, Washington).
- Birdsall N., 1980
Population and Poverty in the Developing World (World Bank, Washington)
- Furtado C., 1973
 The Brazilian 'Model', Social and Economic Studies 22, 122-31.
- Haq, M. U., 1974
 "Employment in the 1970's: A New Perspective", International Development Review 4, 9-13
- Hay Jr. R., 1976
 Patterns of Urbanization and Socio-Economic Development in the Third World: An overview, in Abu Lughod, J. and R. Hay ed.
Third World Urbanization, (Maaroufa Press., Chicago).
- Healy, D. J., 1972
 "Development Policy: New Thinking about an Interpretation", Journal of Economic Literature, 1972, 14. 757-797
- International Labor Organization, 1970
Toward Full Employment, (Genever, Switzerland).
- Lakshmanan T.R., 1978
 "Income Inequality and Poverty in Urban Latin America" in Chatterjee and Lakshmanan ed. Urbanization Environmental Quality and Labor Absorption in Latin America, (Baltimore, Maryland).
- Lipton M., 1977
Why Poor People Stay Poor: A Study of Urban Bias in World Development. (Harvard University, Cambridge).
- Selowsky M., 1979
Balancing Trickle down and Basic Needs Strategies Income Distribution Issues in Large Middle Income Countries with Special Reference to Latin America (World Bank, Washington DC).
- United Nations, 1979
Selected World Demographic Indicators by Countries 1950-2000, (New York).
- Weber A., 1965
The Growth of Cities in the Nineteenth Century (Cornell University Press, Ithaca).

URBANIZATION AND SPATIAL STRUCTURE OF THE INDIAN ECONOMY

C.R. Pathak

Dept. of Architecture and Regional Planning
Indian Institute of Technology
Kharagpur, India.

1. INTRODUCTION

1.1. The process of urbanization in India must be understood within the contexts of the over-all economic and social development and within a historical perspective. India's future course is influenced by two factors in order to design a fundamental change in the structure. National planners must be able to understand the mode of operation of the existing socio-economic structure which has been substantially distorting the balanced regional and human development of the country. The relevant socio-economic forces must be able to translate plans into practice. A well-balanced urban structure, with a symbiotic relationship between the urban system and the rural areas, can emerge only as an integral part of the above process.

1.2. Most of the ex-colonial countries, including India, had to face an urban crisis, inherited from the colonial regime at the time of independence. Furthermore, they had to embark upon developing their national economies according to plan. The economic endeavors, however, instead of solving the urban crisis, accentuated it by increasing the problems of mal-distribution of wealth and by increasing regional disparities.

1.3. The process of economic development in the newly independent nations has a direct bearing on the urbanization process. Most of these countries have been urbanizing quickly in terms of population, though perhaps not in terms of percentages of total population. The example of India may be the most representative, as India is one of the countries which has one of the world's largest