

CP - 75 - 3

INTERNATIONAL INSTITUTE FOR **IIASA** APPLIED SYSTEMS ANALYSIS

CONFERENCE PROCEEDINGS

NATIONAL SETTLEMENT STRATEGIES
EAST AND WEST

Harry Swain, editor

SCHLOSS LAXENBURG
2361 Laxenburg
AUSTRIA

NATIONAL SETTLEMENT STRATEGIES
EAST AND WEST

Harry Swain, editor

Selected Papers from a IIASA
Conference on National Settlement
Systems and Strategies,
Schloss Laxenburg, Austria,
December 1974

The views expressed are those of the contributors and not necessarily those of the Institute.

The Institute assumes full responsibility for minor editorial changes made in grammar, syntax, or wording, and trusts that these modifications have not abused the sense of the writers' ideas.

Preface

Interest in national settlement systems, urban growth policies, and regional development has been growing rapidly in recent years. Two international conferences in 1971 [1, 2], in Eastern and Western Europe, signalled the academic maturity of the field, and the forthcoming United Nations Conference on Human Settlements in Vancouver will set the final seal of respectability on the notion that urban and regional issues matter in national development plans.

From the inception of urban-related work at IIASA in early 1974, there has been a keen interest in settlement systems and planning policy [3]. In December 1974, some forty scholars from fifteen countries gathered here to share insights on research and policy in these areas. Two other volumes [4, 5] of proceedings and contributed papers are available.

This volume collects in one place the conference articles describing policies in specific nations. The material on western countries adds to an already well-developed literature, except for the article by Logan and Wilmoth, which is the first comprehensive account of the recent and dramatic policy developments in Australia. On the other hand, the several pieces on policies in the centrally-planned economies of Eastern Europe will be largely new to English-language readers, and the appended bibliographies on the DDR and Hungary do not exist elsewhere at all.

Terry Seal and Maria Sachs did all the technical editing, and Terry supervised the slow emergence of a coherent volume from conference preprints. Trudy Dittmer, Olivia Carydias, and Eva Matt helped arrange conference logistics. Successive drafts were typed by Patricia Bartos, Ann Drew, Linda Samide, Elfriede Herbst, and Heidrun Mayr. Many illustrations were re-drawn by Helmut Frey. To each, my heartfelt thanks.

H.S.
Laxenburg, Austria
May 1975

References

- [1] Cameron, Gordon C., and Lowdon Wingo, eds., *Cities, regions and public policy*, Oliver & Boyd, Edinburgh, 1973
- [2] *Geographica Polonica*, 27 (1973), "Contemporary urbanization processes," Proceedings First Polish-Soviet Geographical Seminar, Szymbark, May-June 1971
- [3] Swain, H. et al., *Urban project status report*, IIASA SR-75-1, International Institute for Applied Systems Analysis, Laxenburg, Austria, 1975
- [4] Swain, H., M. Cordey-Hayes, and R.D. MacKinnon, eds., *Environment and planning*, 7:7 (1975)
- [5] Swain, H., and R.D. MacKinnon, eds., *Proceedings of the conference on national settlement systems and strategies*, IIASA CP-75-4, International Institute for Applied Systems Analysis, Laxenburg, Austria, 1975

Table of Contents

Preface	
Principles of Regional Settlement in the USSR L. Avdotjin	1
Strategy of the Spatial Distribution of Productive Forces and Population in the USSR O.V. Kudinov	12
Countrywide Spatial Planning as an Integral Part of Long-Term Development Planning: The Case of Poland S.M. Komorowski	41
Aspects of Polish National Urban Policy Piotr Korcelli	49
Interrelations Between Settlement Systems and Socio-Economic Development Miklós Koloszár	64
Aspects of Urbanization in the German Democratic Republic Frankdieter Grimm, Rudolf Kroenert, and Heinz Luedemann	74
Conceptual Issues in Designing and Evaluating Strategies for National Urban Settlement Systems L.S. Bourne	86
Australian Initiatives in Urban and Regional Development M.I. Logan and David Wilmoth	119
National Urban Policies in the French Sixth Plan Michel Rousselot	179
Appendix 1: Selected Bibliography on Problems of Urbanization and the Development of Settlement Systems in the German Democratic Republic (1970-1974) Frankdieter Grimm, Peter Weinhold, and Heinz Luedemann	193
Appendix 2: Selected Bibliography on Modern Hungarian Urbanization	215

Principles of Regional
Settlement in the USSR

L. Avdotjin

Deputy Director for Research,
Central Scientific Research
and Design Institute for
Town Planning, Moscow

Settlement System Objectives

The increasing importance currently attached to settlement problems has not come about by chance. This importance is a result of in-depth processes taking place in complex territorial, industrial, and settlement distributions which have resulted from constantly growing rates of social, scientific, and technological revolution. Furthermore, in the context of this paper, the increasing influence exerted by efficient industrial distribution on settlement patterns needs to be stressed.

Various forms of influence exerted by industrial distributions on the generation of different settlement patterns have been studied in the USSR for a long time. Research undertaken by Soviet scientists is based on fundamental Marxist-Leninist tenets of the final equilibrium of territorial population, as distributed by the character of production, and the specific features of that production's localization in space. Such a fundamental tenet assumes a flexible approach to the estimates and requirements of new tendencies in complex territorial, industrial, and settlement distributions in advanced socialist society.

Socialist development in the USSR is primarily aimed at the *comprehensive satisfaction* of material and intellectual demands of the Soviet people, with *industrial development being considered the most important means* of achieving this main objective. The realization of the program results, of necessity, in detailed investigations of typical peculiarities of interacting forms of spatial organization of industry and different settlement systems; these form the material environment within the framework of which the social task of providing each person with adequate employment, living, and recreational conditions is being realized. In this context much more attention should be drawn to the *systems approach*, which can greatly aid in the analysis of social progress as a whole. For example, the aggregation of local conditions of each individual town creates, in its turn, prerequisites for carrying out development with due regard for demands and opportunities of society as a whole.

The systems approach to national and regional settlement implies:

- 1) qualitative and quantitative definition of the settlement program objectives, and cost estimates of alternative opportunities for achieving them;
- 2) definition of the basic tendencies of scientific and technological progress and their influences on settlement systems;
- 3) determination of main settlement alternatives in accord with objectives and resource priorities;
- 4) elaboration of specific socio-economic and town-planning programs with the purpose of realizing optimal settlement.

The successful combining of the global aims of social development with the constructive aims of direct urban development is becoming critically important in determining ways of improving settlement systems at national and regional levels. The rapid achievement of settlement aims is, in many aspects, constrained by the requirements of maintaining environmental quality, while such maintenance and enhancement depends on the availability of the necessary social resources.

The following propositions about regional settlement systems may be considered as initial planning guidelines:

- a) Successful combinations of regional and national settlement patterns should be sought by means of a complex system of economic links including infrastructures, industry, information, population, and the like.
- b) Territorial and structural regulation of the regional settlement network should be developed through economic and town-planning means.
- c) The development of regionally grouped settlement systems of various sizes and economic specializations should take place with due regard for the local conditions of each group.

The priority to be given to social interests when solving settlement problems requires particular attention to external factors, which may be divided into two groups:

- 1) *those independent of settlement patterns and character (i.e. feedback is insignificant):* they primarily include the generation of territorial and industrial complexes on the basis of abundant resources; levelling

interregional proportions of economic development; general demographic shifts in the country as a whole and particular regions like Siberia and Far East, Kazakhstan and Middle Asia, Byelorussia and Baltic Republics, etc.; and

- 2) *those dependent on settlement patterns and character* (feedback is considerable): such factors include distribution of many advanced industries such as electronics, the precision and specialized engineering industry, fine chemistry, as well as distribution of the intellectual and information production spheres.

Analytic Methods

In the USSR the investigation of settlement problems is at present carried out by wide application of the latest methods. Among these, systems simulation by computer plays a most important role.

Plans for long-term interbranch links are being prepared by means of an extended equation system (a linear input-output model of the national economy) that is used for determining capital investment in industry and construction in each year of the entire long-term planning period. Supplementing this system with equations for labor force balance helps to identify the interbranch labor resource distribution, one of the main elements in the solution of long-term settlement problems.

Next, a mathematical economic model of territorial and spatial planning is developed on the basis of control planning data with the aim of preparing long-range plans for certain economic and geographical regions of the country. This model is a system of matrices including a special matrix for natural and labor resources. Double-balanced matrix construction of the model makes it possible to use vector and matrix methods of analysis in order to determine economic and town planning parameters such as long-term indices of required labor resources, growth of urban population demands, housing requirements, construction demands for cultural and service facilities, etc.

Thus it becomes possible to plan the distribution of population for different regions and industries and to regulate the development of particular types and forms of settlement system groupings on the basis of having investigated the dynamics of all these processes, and having identified their main tendencies at the different stages of development. In the USSR, the proper solution of these problems, based on the systems approach, is the main means of realizing urban development control and management. This management is achieved by reducing the scale of new industrial development in the largest cities and by increasing the comprehensive industrial

development of smaller and middle-sized towns and rural regional centers.

At the next stages of management, the estimates concerned with the main task include regional and local tasks that are to be solved within the framework of regions, industrial complexes, and particular towns. The objectives as well as the means of their achievement may vary greatly.

Recent Achievements

During the period between the 1959 and 1970 population census, a more balanced development of the Soviet settlements network was provided by reducing the growth of the largest cities, increasing the role of the basic settlement centers (cities of 100,000 to 1,000,000 population) of the present stage of national development, and by providing smaller and medium-sized towns with necessary economic and town planning foundations as a result of the planning policy of productive force distribution. In the 1959-70 period, the population increase for small urban settlements (less than 20,000 people) was 15 percent; for smaller and middle towns (20,000-100,000 people), 30 percent; for large cities (100,000-500,000 people), 31 percent; and for the largest cities (more than 500,000 people), 24 percent. Urban population as a proportion of total population increased from 48 to 56 percent. However, while undergoing substantial urbanization, the Soviet Union has retained a more harmonious distribution of settlement sizes than has been the case in the most advanced capitalist countries.

Even so, the settlement network development is not without certain undesirable phenomena that should be eliminated in the long run. At present the existing largest cities are still growing excessively: during 1959-70 the absolute population increase of the twenty-five largest cities of 1959 was 7.4 million people, out of a total population increase of 30.4 million people. This does not include the new urban settlements, which accounted for 5.6 million people. The increases created complicated town planning problems in the largest cities and hampered planning of new large basic centers of population and the distribution of productive forces.

Current Policy Directions

The planned inclusion of settlements of various sizes and economic specialization in *grouped settlement systems* is of enormous importance in solving these complicated problems. In the Soviet Union, the principle of interconnected settlement development based on the unities of planning, projecting,

and management is realized at several hierarchical levels.

The unified national economic complex of the USSR corresponds to the global *national settlement system*. Plans at this level provide for interregional proportions in population distribution, and identify the main centers for regional settlement systems. The Soviet national settlement system is based on continuously expanding industrial specialization and cooperation in the field of production, and, in terms of infrastructure, on the growing system of interregional free-ways.

Regional settlement systems are formed on the basis of national economic complexes of the Union Republics and important economic regions of the country. At the present stage, the principle of socio-economic, political, and administrative conformity contributes toward the purposeful formation of more than twenty regional settlement systems in the USSR, and their numbers may increase in the future. The regional systems, in their turn, include *grouped settlement systems* of different sizes. The long-term development and distribution of the settlement network is based on the formation of such systems.

Research on Settlement Systems in the USSR

The general picture of the territorial settlement pattern in the USSR is the subject of detailed investigation. It is carried out using computers in a coordinated way by introducing a grid of conventional estimating units--squares of 100 x 100 km. Such a step is allowed by the relative conformity of a square's area to an actual area of interrelated settlement groups within a fifty kilometer radius.

The USSR area is represented as a grid of 1,927 full-sized squares and 248 smaller-sized squares; it should be mentioned that according to 1970 data, urban areas are equal to 595 full-size squares. The development level of the territorial settlement structure is estimated for each square by computer, and using two criteria:

- a) *agglomeration coefficient*, reflecting the relation between the number of urban areas and the average shortest distance between them; and
- b) *urban population density*, since in various parts of the country the territorial settlement patterns range from a sparse, even network with predominating smaller and middle towns, to developed, group forms like those generated around large cities; these, in turn, include areas of agglomerated settlements.

The central region of the European part of the USSR may be used for illustration. In 1973 the central region (around Moscow) covered an area of 485 square km. (2 percent of the total country area) with a total population of 28.0 million people (more than 11 percent of the total population of the country) including an urban population of 20.8 million (approximately 14 percent of the total population of the country). There are 573 towns and settlements of urban type in the central region. In 1973, 35 percent of the urban population of the central region was concentrated in Moscow; however, it should be mentioned that despite the extension of the capital's boundaries in 1960, its 38.8 percent share of urban population in 1959 decreased as a result of the policy of regulating the growth of the largest cities.

The urban areas of the central region are characterized by high stability and considerable territorial concentration. This results in increasing the urban areas' influence on the regional territorial and industrial structure.

Investigation of the development process of the regional structure of the settlement network in the central economic region includes: 1) retrospective analyses (1926-1959-1970) of the above mentioned development regularities using data from the USSR population census; 2) forecasts, assuming purposeful orientation toward the formation of regulated grouped settlement systems and with due regard to practical, realistic, and probable tendencies in the future development of the whole urban settlement structure in different parts of the region, are to be carried out according to plans.

A formal analysis of urban area distributions is considered to be an efficient means of solving regional settlement problems. Formalization is achieved by identifying the urban network on the geographic map in the form of a geometric *point pattern* represented on a rectangular coordinate system.

The full and simple description of the point pattern implies the identification of each point coordinate by location and numerical coefficients or "weights." These data are used for compact description of the point pattern by one or several parameters characterizing the pattern as a whole.

The following are considered to be the important settlement parameters for territorial analysis:

- 1) *density* (η) that is, the number of urban areas per territorial unity;
- 2) *dispersion* (δ) which may be measured in different ways (for example, by the "nearest neighbor" technique).

The inverse of δ is the *degree of agglomeration* of the settlement network: with constant density η , decreasing δ

shows that the points are drawing together and vice versa.

The description of regional settlements through generalized parameters does not, of course, reflect all the local characteristics of settlement. Therefore it is considered more rational to represent a regional town network as a set of average values of selected parameters. Thus in analyzing the urban areas network of the Soviet central economic region its area was approximated by sixty-seven reference grid squares of 100 x 100 km. The application of regression equations (regression coefficient r) determines the correlation dependence (correlation coefficient ρ) of η and δ linkage which makes it possible:

- a) to determine the average degree of agglomeration in the regional settlement network;
- b) to investigate the representativeness of average characteristics; and
- c) to estimate individual deviations of a grid cell agglomeration indicator from the mean.

The value of parameters η and r is directly connected with a notion of *degree of regional urbanization* which may be defined (by introducing a concept of "development level,"-- p) through density and distribution unevenness degree ($p = \eta \frac{1}{r}$ or $p = \frac{\sqrt{\eta}}{r}$). It follows from this that the higher the development level p is, the greater the number of urban settlements located in the area and/or the less the distance between them.

The equation $\delta = \frac{1}{p} \sqrt{\eta}$ may be used for visual graphical representation of p . As a result a nomograph can be obtained for defining the spatial development level of the urban network in every part of the country with empirical measures of η and δ .

Developmental analysis of the territorial settlement structure is based on dynamic considerations of the urban network which in turn facilitates *forecasting settlement development*. One may suppose that growth rates of development level p depend primarily on the increase of p during the preceding period ($\Delta p = p_{t+1} - p_t$) and on the expected urban population in the next period of time (P_{t+1}).

Hypotheses about the influences of these factors are tested by estimating the regression equation and statistically evaluating the correlations. Negative values obtained for the regression coefficients reveal a tendency toward a slackening of the urbanization pace as higher development levels are

achieved. High values of multiple correlation coefficient ($\rho = 0.979$) and dispersion ratio δ confirm the reliability of the statistical conclusions.

Thus the forecasting of settlement development in the center of the European part of the USSR is carried out on the basis of procedures that assume correlational dependence between the agglomeration coefficient, characteristics of the territorial structure of the urban network, and the urban population in parts of the region.

Long-term urban population increase is estimated to be approximately 8,000,000 people, in conformity with the planned distribution of population in all economic regions of the country.

The national approach to the determination of the long-range urban population increase in the region makes it possible, in turn, to outline the intra-regional distribution of the increase, and to establish future boundaries of expansion for the developing grouped settlements by taking into account relationships between urban population and the agglomeration coefficient. In the future the groups are expected to include within their boundaries up to 50 to 60 percent of the regional area instead of the current 20 percent. This is a sufficient territorial base for the purposeful formation of grouping systems, especially in those parts of the region that are characterized by agglomeration development at present inadequately regulated by town planning means; examples may be seen in the zones of influence of Moscow, Tula, Ivanovo, and Vladimir.

Restraining the growth of Moscow to 8,500,000 people, and regulating the growth of the surrounding settlement system to a limit of 3,500,000 people, is the most important task in this region. A solution is impossible if limited solely to the Moscow zone of influence, which coincides approximately with the Moscow district boundaries.

The general system of protected natural landscapes, natural parks and reservations, and green planning zones between grouped settlement systems covers an area of 140,000 square km., nearly 30 percent of the total central region area. The system is necessary to prevent haphazard expansion of development zones, to retain large tracts of forest in the upper parts of watersheds, and to create clean air reservoirs for large cities on the sides exposed to the wind.

Many of our larger cities, as well as existing insufficiently regulated agglomerations, are to become the basis for forming group settlement systems. Essentially this means that traditional processes of urban development taking place

within the framework of existing economic regions will be supplemented with a new form of generating regions. The principle here assumes the extension of the influence of large cities over the surrounding area.

The mere fact of the existence of urban agglomerations reveals insufficient coordination between industrial and population distribution processes at present; but Socialist society is capable of exerting influence on agglomeration development with a view to its successful transformation into regulated group settlement systems interacting with the corresponding systems of social production.

The formation of group settlement systems is to be facilitated by the integration of the following requirements:

- 1) an economic base with developed elements of a territorial and industrial complex;
- 2) a transportation infrastructure, economically suited to the given population density and providing increasing transportation mobility within acceptable travel times;
- 3) a social infrastructure, satisfying social demands in the spheres of culture, human contacts, and recreation in conformity with individual needs in the population: this favors the restriction of population growth;
- 4) an improvement of the demographic structure of the largest cities by creating conditions for a more flexible redistribution of the population within systems;
- 5) an increasingly efficient use of expensive transportation, engineering, and socio-cultural infrastructure by their centralization and consolidation;
- 6) a provision for a wide variety of employment, leisure, and recreational opportunities by rationally supporting the employment and socio-cultural mobility of the population, including providing the population of smaller settlements with wider opportunities for education;
- 7) an improved maintenance and use of the environment by regulating landscape loads.

Formation of group settlement systems results in creating a vital environment of relatively equal quality within the group of settlements. The realization of the principle of the systems development of a settlements network assumes the formation of three hierarchic types of settlement systems: large (mainly on the basis of the largest cities), middle size

(mainly on the basis of large cities), and small (mainly on the basis of small and medium-sized towns). They should mutually supplement each other and cover the whole area of the country.

Consecutive inclusion of all the urban and rural areas into these groups of settlement systems will contribute toward the gradual simplification of the existing many-stepped hierarchy of settlements and the establishment of direct links between the majority of settlements and system centers.

Grouped settlement systems are to become the basic settlement pattern within the main populated areas of the USSR. Particular attention should be given to stimulating their formation in Eastern regions, taking into account the fact that in the coming years, Siberian and Far Eastern populations should increase by 30 percent as compared with an overall population increase of only 21 percent.

As was mentioned above, the development of the settlement systems is possible under concrete outer and inner conditions that provide for the realization of the program. In this context due regard for the following fundamental goals of national economic planning is becoming a factor of great importance:

- a) creation of conditions for moving from autarchic to interactive systems of settlement while determining desirable directions for productive forces distribution;
- b) priority to be given to the distribution of new industries in urban areas of the outer zone of large group settlement systems and in town centers of middle and smaller group settlement systems;
- c) accelerated development of group settlement systems through planned investment in their transportation infrastructure;
- d) stimulating processes of branch creation and removal of factors generating increases in urban size from the existing largest cities and their reassignment to the outer zone of large and middle grouped settlement systems;
- e) physical development in new group settlement systems should not outstrip the development of social and especially educational infrastructure;
- f) creation of a centralized construction base in the grouped settlement system.

Timely elaboration of scientific and design proposals concerning the formation of group settlement systems (carried out primarily on the basis of the existing agglomerations and new territorial and industrial complexes) is the inner condition for realizing the program of transferring from autonomous to interrelated systems settlement.

Strategy of the Spatial Distribution of Productive
Forces and Population in the USSR

O. V. Kudinov

International Institute for Applied Systems Analysis

I. General Organization

The growing interest in national spatial planning is due in large part to the complex inter- and intra-sectoral relationships of national economies including the spatial distribution of productive forces and population distribution. Most advanced countries have developed strategies and policies regarding the spatial distribution of population and economic activities. This paper is devoted to the Soviet Union's achievements and experiences in this field. The paper outlines the main principles and strategies of the planning of the distribution of productive forces and population, using recent Soviet literature.¹ In addition, some working materials of the Central Research and Design Institute for Town Planning are used.

National development plans for the Soviet Union are formulated within the context of the Communist Party Programme and the ensuing directives endorsed by the Communist Party and the Soviet Government. These directives define the main political and economic tasks to be incorporated into the plans, and the concrete targets to be achieved in each economic sector or region. The directives establish the volume and direction of capital investment, and define ways and means of promoting technical progress and improving economic management techniques.

The state national economic development plan is considered and endorsed by the USSR Supreme Soviet. After it has been endorsed, it becomes a law equally binding on all sectors of the national economy. The economic development plans of the Union Republics are endorsed by the republic Supreme Soviets, the regional plans by the regional Soviets, etc., but all plans are part of the overall national plan.

The USSR Council of Ministers, the Council of Ministers of the Union Republics and local executive state bodies work in close cooperation with planning organs and are responsible for seeing to the drafting, elaboration and implementation of plans.

¹ An extensive list of references is appended.

The USSR State Planning Committee (Gosplan) is directly responsible for the drafting of plans on a national scale and works closely with the relevant republic planning committees, ministries, departments and enterprises. Gosplan ensures the scientific and organizational unity of economic planning. It works out proposals for dovetailing the economic development plans of the Soviet Union with those of other socialist countries, and internally with those of important economic regions and sectors of the national economy. It also determines the optimal rates and proportions of economic development, explores ways of enhancing the effectiveness of social production, and attaches priority to the most favourable trends in scientific and technological progress--all in order to raise living standards.

II. Principles of Planning

The main features of the Soviet Union's planned economy are determined primarily by the basic economic law of socialism [1;43;46], which aims at continuous expansion and improvement of production based on advanced technology to gain maximum satisfaction for the constantly growing requirements of society.

Socialist economic planning attempts to achieve balanced national economic development, thus necessitating centralised planning embracing the entire country. The Soviet economy owing to its scale and numerous interdependent sectors, can be organized only on a nation-wide basis.

Among the essential features of Soviet planning are the following [46]:

1. *The role of the Communist Party.* The tasks set by the Communist Party and the economic policy pursued by the Soviet state are embodied explicitly in the economic development plans. The CPSU organizes and leads political and economic planning at every stage of the development of socialism in the USSR. Planning is carried out in keeping with the policy expressed in the Programme of the Communist Party of the Soviet Union [1].
2. *Scientific principles of planning.* This means that every economic plan must be scientifically based in that it must conform to the objective laws governing the development of nature and society [46], taking into account the achievements and discoveries of modern science and technology. Cybernetic modelling, systems analysis, and computer science are used extensively in complex forecasting models and in choosing optimal variants in practical planning based on progressive technical-economic standards. Leading economists, and others

at the numerous research institutions of the USSR Academy of Sciences, Gosplan, and other scientific institutions participate in the development of economic plans.

3. *The directive character of economic plans.* The plans which determine the development of the national economy are binding on all concerned. The state economic plan takes the form of a government decree, and thus has the force of law. Hence, all central and local organizations, every Soviet enterprise and institution must strictly abide by the planned assignments fixed by the state.

4. *Democratic centralism in planning.* National economic planning is a synthesis of centralised guidance and control, but broad initiative is exercised by local authorities and enterprises in both the drafting and implementation of current and long-term plans. The targets stipulated in the state plan are based on the estimates and calculations made by enterprises, sectors, districts and republics.

5. *Continuity between the drafting and implementation of economic plans.* Planning does not end with the drafting and endorsing of a plan. An equally important aspect is ensuring its implementation. The means adopted include material and moral incentives and special awards to outstanding enterprises and their workers; the introduction of cost accounting; economically sound prices; increases of efficiency and profit; and the assimilation and dissemination of the experience of particularly successful enterprises.

The following are the main objectives for national planning in the USSR:

- a) maximum strengthening and development of the socialist economic system;
- b) meeting the growing requirements of society: raising the living standards and cultural levels of the people;
- c) promotion of economic cooperation and mutual assistance among socialist countries through coordinating the economic plans of the member countries through the Council for Mutual Economic Assistance (CMEA) [1].

At the present stage of development, economic planning aims to secure a substantial increase in production efficiency to rapidly raise the living standards of the Soviet people.

Soviet economic planning as a global system is divided into two main branches, planning of industries, and spatial

planning (see Figure 1). Accordingly there are two planning subsystems: one for industries of the national economy, and one for territorial location. Industrial and other sectoral plans compose the national economic development plans. Spatial planning is reflected in a general scheme of productive forces distribution.

There are three types of national economic development plans in the USSR: current plans for one year, five-year plans, and long-term plans for fifteen to twenty years. Current or annual plans are derived from the five-year plans, which are the basic form of the planned management of the national economy. In the five-year plans the major economic goals are outlined for each year. This is characteristic both for the national economic development plans and plans for individual industries. Five-year plans set the guidelines of economic development and the main goals, whereas annual plans outline concrete ways of achieving them.

Along with five-year plans, it is necessary to have long-term plans of fifteen to twenty years. These make it possible to ensure the continuity of five-year plans, and to establish the most expedient order of priorities in resolving major economic problems.

In Figure 2 one can see the hierarchy of the general schemes of the distribution and development of productive forces. The general scheme is itself of course closely connected with that for population distribution. The remainder of the paper discusses the nature of these two schemes and the important role they play in Soviet planning.

III. Strategy of the Spatial Distribution of Productive Forces

Planning the distribution of productive forces is of particular importance in the Soviet Union with its vast territory and exceptionally diversified economic and geographical conditions. This planning is one of the decisive factors ensuring the most efficient utilisation of the country's material and manpower resources and it contributes to the all-encompassing economic and cultural development of the population.

At the present stage the siting of the country's productive forces is highly conditioned by the task of creating the material and technical basis for future development. The rates of economic development and the improvement of living standards both directly depend on the rational distribution of production [43;58].

A characteristic feature of the USSR is an extremely uneven distribution of population, raw materials and energy

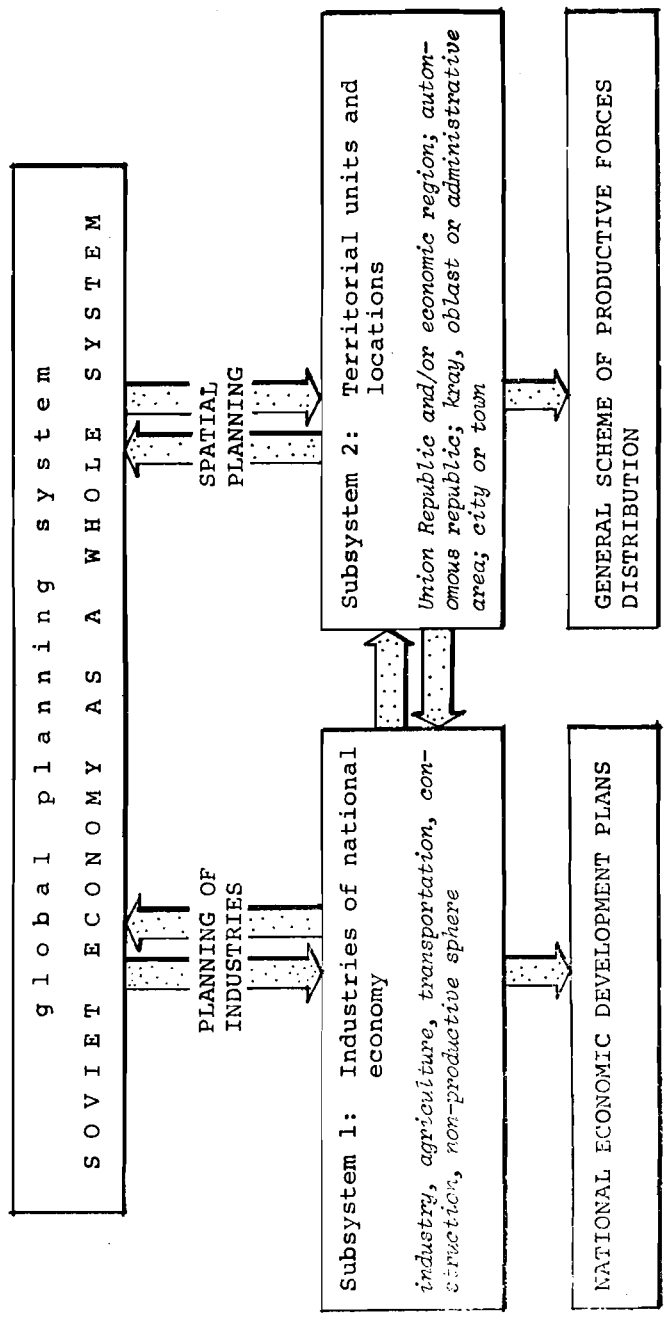


Figure 1. System of national economic planning in the USSR.

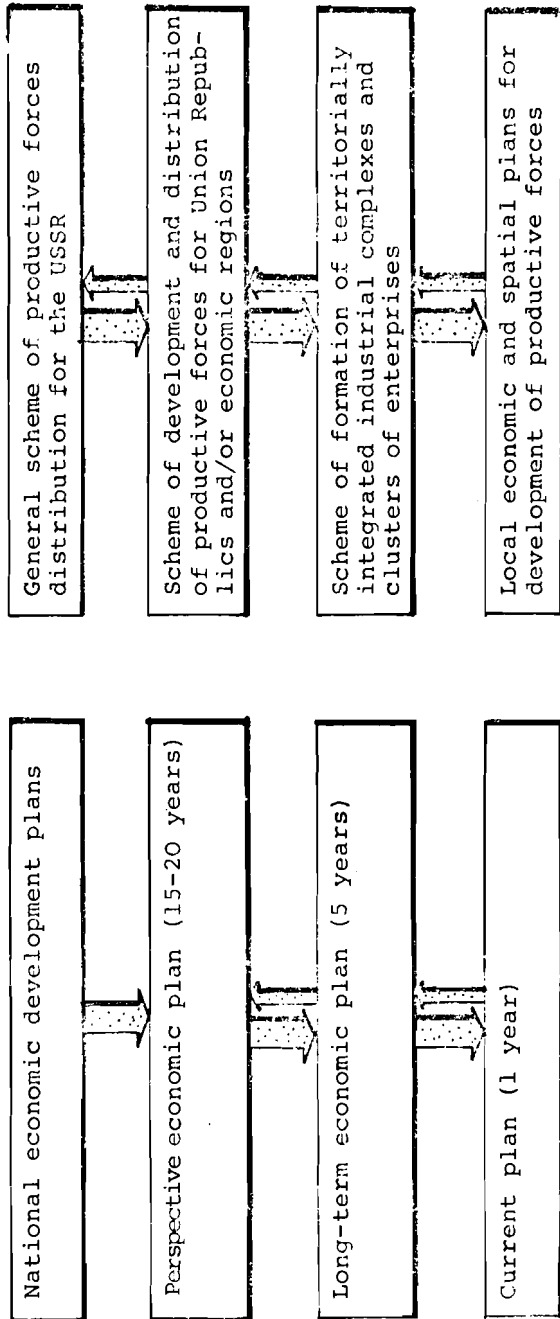


Figure 2. Hierarchies in time and space: economic and spatial plans in the USSR.

resources. At present, raw materials and energy resources in the European part of the USSR are almost exhausted as a result of intensive exploitation. But the Asian part of the country is very rich in natural resources with one-half of the nation's reserves of natural gas, two-fifths of the oil, and one-half of the timber, plus basic reserves of other major raw materials and waterpower for energy production.

The European part of the USSR, where two-thirds of the total population lives, has only 13.5 percent of the energy resources. Eastern areas, having only one-third of the population, have 86.5 percent of fuel and energy resources [53]. This is the reason accelerated development of the eastern areas of the USSR, where outlays on the development of natural resources are much lower than in the European part, continues to be the chief trend in the distribution of productive forces.

To this end the establishment of a number of new power bases and major centres of power-intensive industries, notably ferrous and nonferrous metallurgical enterprises and factories for the production of chemicals, pulp, and paper, are planned for the eastern part of the country. It is also important to make effective use of the vast opportunities offered by the eastern areas for the development of agriculture, above all grain production and intensive livestock farming.

In the European part of the USSR limited fuel and power resources dictate that in the future priority will be given to industries producing goods requiring a great degree of skill and relatively smaller inputs of energy. Power-intensive industries will be developed in the European part of the USSR only when they can be adequately provided with local natural resources.

Planning the distribution of the country's productive forces is based on the following main principles [24;75]:

- 1) bringing production into the closest possible proximity to the sources of raw materials, fuel, power, labour force, and consumers;
- 2) a more even distribution of the productive forces over the country's territory in order to achieve specialisation and harmonious economic development of the various regions by making maximum use of the natural and manpower resources of the constituent republics and economic areas and in order to even out levels of economic development;

- 3) ensuring economic and cultural progress of all the republics and promoting cooperation among them; and
- 4) the effective combination of specialisation with comprehensive development of economic areas.

These principles are common to all branches of the national economy but they find various expressions in planning the distribution of production by different industries and in the context of the economic development of individual areas. The siting of individual plants is, of course, directly influenced by different combinations of manpower, economic, technical, transport, natural resources and many other factors.

Important questions in planning the distribution of enterprises are the availability of manpower resources (or outlays involved in the resettlement of workers), the cost of raw materials, fuel, electrical power and water supplies, transport charges, etc., and, in the final analysis, the overall cost of finished products at the origin of production and in the areas of consumption.

Planning the distribution of production takes into account the question of specialisation in the Union Republics and economic areas, and is dependent upon the types of raw materials and fuel resources available and how efficiently they can be utilised. Hence, the major criteria for determining the type and level of specialisation of a given republic or economic area are the levels and patterns of production costs and the amount of capital investment needed per unit of output. These criteria in turn largely depend on the available natural resources and the possibilities for their exploitation.

In those industries where energy expenditure accounts for a sizeable share of the production cost (thermal power stations, ferrous and nonferrous metallurgy, the chemical industry, etc.) the key factors determining the siting of enterprises are the location, quality and cost of fuel.

With respect to enterprises manufacturing a wide range of material-intensive products, efforts are made to achieve an optimal combination of areas producing raw materials and final-product consuming areas in order to effect substantial savings in transportation [39]. On the other hand, industries manufacturing products from expensive raw materials where the degree of skill is of particular importance gravitate to the consumption areas (e.g. textile and garment industries) and often points where there are concentrations of skilled workers. In a number of production

branches close attention is paid to many other specific factors [39].

Of tremendous economic importance is the specialisation of agricultural production. The soil and climatic conditions vary widely over the country and are therefore key factors in determining productivity and specialisation in agriculture. Thus the Ukraine, the North Caucasus, and Moldavia specialise in the production of grain, sugar, fruit and vegetables and intensive livestock farming; the republics of Central Asia in cotton production and fruit growing; the Baltic republics in dairy and pig farming; and so on.

Industry and agriculture are closely interconnected and this has an important influence on their location. The development of heavy industry requires the appearance of major industrial centres around which potato and vegetable farming and dairy farming zones are set up. On the other hand, the siting of food and light industry enterprises for the initial processing of primary products directly depends on specialisation of agricultural production.

Specialisation in one or another area may be changed as a result of the discovery of new natural resources and of applying effective methods for their development. For example, the production specialisation of the Central Asian republics in the nation-wide division of labour was cotton-growing and related industries. The discovery of immense deposits of natural gas coupled with extensive hydro-electric power resources has created the opportunity for these republics to specialise also in the manufacture of power-intensive products, primarily nonferrous metals and chemicals.

Specialisation is combined with comprehensive economic development of the Union republics and major economic areas, most of which are in a position to satisfy their needs for basic primary products, fuel, building materials, foodstuffs and consumer goods from their own resources.

The principle of harmonious development helps to secure proper proportions between mining and manufacturing industries, between industry and agriculture--not only on a country-wide scale but also in each individual republic or economic area. At the same time, consideration must be given to the economics of using local versus imported resources by comparing the costs of locally produced goods with those of imported commodities, including transport charges.

The distribution of productive forces in the USSR is planned at the level of the constituent republics and major economic areas. The list of economic areas divides the country's territory into major economic complexes uniting a number of adjacent territories and regions or Union Republics

[30;41;42]. In forming economic areas it is necessary first for each to define its specialisation taking due account of national interest with respect to the division of labour and stable economic ties between industries, regions or republics within these given areas. The list of major economic areas changes with the country's progress. At present there are nineteen such areas (Figure 3) [41].

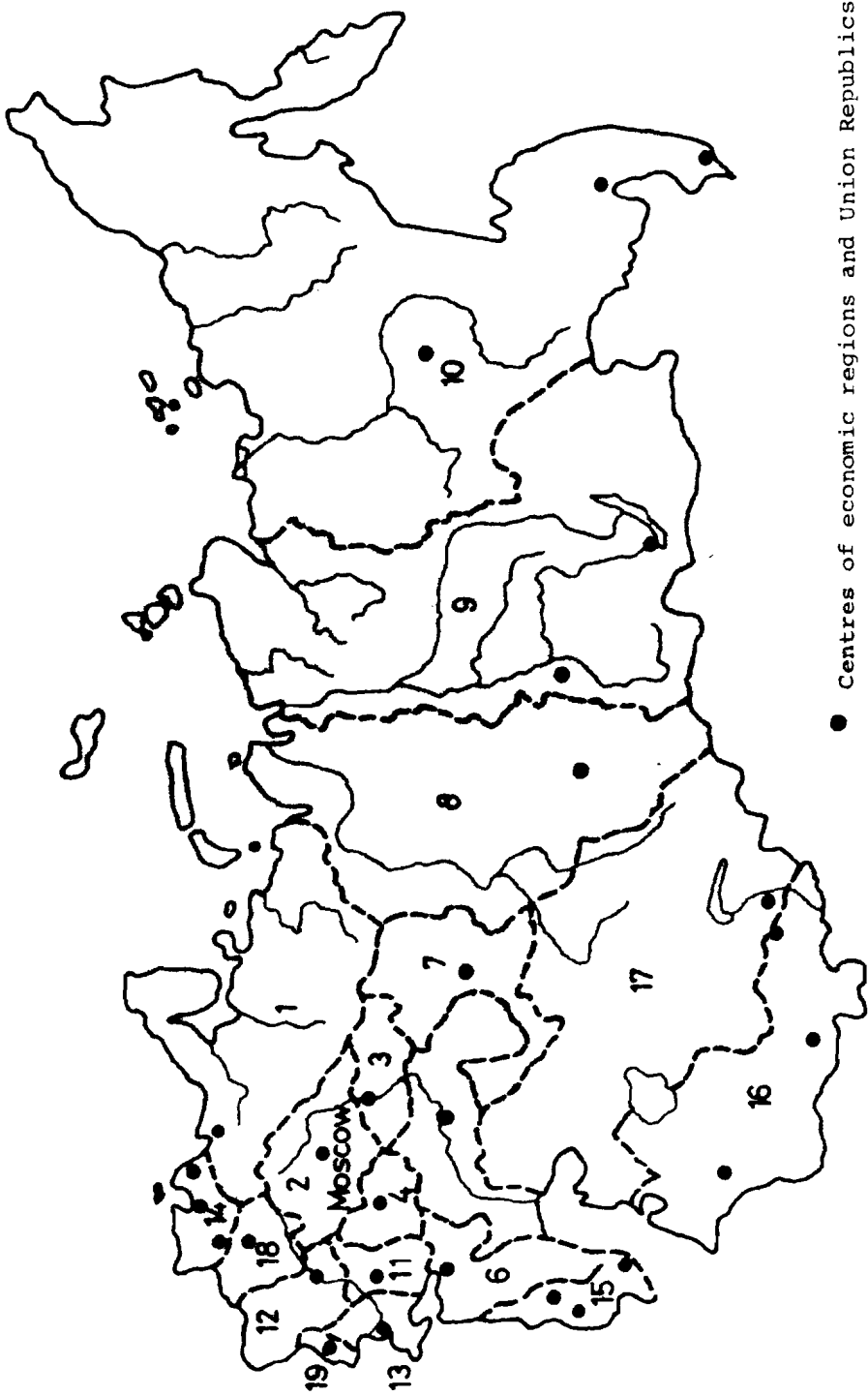
The planning of the distribution of productive forces by the country's economic areas is based on a broad range of indicators characterising the major aspects of economic development and the main relationship between these areas, such as the output of basic types of industrial goods, state purchases of agricultural products, capital investments, and the starting of new production facilities.

In coordinating plans for the development of industrial branches of the economy within the framework of the given economic area and in planning economic ties with other areas, use is made of material balance calculations of production and consumption for the given economic area [39;42]. Such calculations are made, for example, for mineral fertilizers, rolled steel, oil, coal, gas, timber, major types of agricultural products, and a number of consumer goods. Balance calculations help to establish to what extent the area is self-sufficient in a given commodity, has a surplus for export, or what amount must be imported from other areas.

Plans for the development of economic areas include, in the form of special sections, the establishment and development of growing industrial centres consisting of a complex of industrial enterprises united by production specialisation and a basic, local raw material and power source. Put together, these regional entities are called "territorial integrated industrial complexes" [9;77;94].

The problems of the distribution of productive forces are tackled in long-term plans. Changes in this sphere require much time, the basic guidelines here being found in the general scheme for the development and siting of productive forces by the key industries and major economic areas.

These general schemes for the development and siting of individual industries indicate the main territorial shifts in the output of major types of products and specify the areas designated for the development of the given industry and for the establishment of new industrial centres. The main trends in the distribution of productive forces are outlined in the *General Scheme of Productive Forces Distribution* [24;75;91].



Source: N.N. Kolosovsky [41]

Figure 3. Economic regions of the USSR.

<u>ECONOMIC REGIONS</u>	<u>Major Urban Centres</u>
1) North-West	(Leningrad)
2) Central	(Moscow)
3) Volga-Vyatka	(Gorky)
4) Central-Chernozem	(Voronej)
5) Volga	(Saratov)
6) North-Caucasus	(Rostov)
7) Urals	(Sverdlovsk)
8) West Siberia	(Novosibirsk)
9) East Siberia	(Krasnoyarsk, Irkutsk)
10) Far East	(Khabarovsk, Vladivostok)
11) Donetsk-Dnepr	(Kharkov)
12) South-West	(Kiev)
13) South	(Nikolaev)
14) Baltic	(Riga, Tallin, Vilnus)
15) Trans-Caucasus	(Tbilisi, Baku, Erevan)
16) Central Asia	(Ashkhabad, Tashkent, Frunze, Dushanbe)
17) Kazakhstan	(Alma-Ata)
18) Byelorussia	(Minsk)
19) Moldavian SSR	(Kishinev)

Figure 3.

This General Scheme is a scientific foundation for rational productive forces distribution. The scheme determines optimal territorial allocation for national economic development ensuring further increases in the effectiveness of public production through:

- a) improvement of All-Union territorial division of labour;
- b) the optimal combination of development and spatial distribution of branches of industry within the planned economic formation in Union Republics and economic regions;
- c) the fullest satisfaction of the growing requirements of society, the raising of living standards and cultural level of the people;
- d) the securing of high rates of economic development on the basis of technological progress and greater efficiency of production, while maintaining the most rational proportions in the development of different sectors of the economy and the country's economic areas; and
- e) improvement of the distribution of productive forces and, in accordance with this, the distribution of population.

The General Scheme of the Distribution of Productive Forces is a basic document for guiding the national economy, determining as it does the general methods of population distribution, the planning of territorial development, and the formation of territorial integrated industrial complexes and clusters of enterprises.

Experience has shown that large-scale, sound development of new regions with plentiful, valuable natural resources has greatly contributed to the growth of the USSR's economic strength. From one five-year plan to another, such new industrial complexes as those of Uralo-Kuzbas, Knibiny, Norilsk, Irkutsk, Bratsk, Krasnoyarsk, Gazzli, Mungyshlak and many others were established on formerly sparsely-populated territories [53]. Huge metal-working, chemical, timber and wood-working enterprises were built in the north, east and south of the country. New mineral deposits were surveyed and power supplies were rapidly developed. A large network of research institutes and design offices, essential for the balanced development of vast territories and for the building and development of new settlements, was established.

IV. Policies of Population Distribution

The most important feature of the modern stage of urbanisation is its close link with the scientific and technological revolution of the 1950's, with many innovations in the spheres of production, technology, science and other fields of human activity. Modern scientific and technological evolution has brought about radical changes in the structure of productive forces and the character of productive activity, and in particular in the importance of the "production of knowledge," in the intellectualisation of human activity, and in the increasing importance of various kinds of information [2].

The process of urbanisation, depending mostly on the development of social production and the character of social relations itself, influences increasingly various kinds of development and productive forces distributions, as well as other spheres of the activities of a society changing its economic and social structure, its demography, distribution of population, way of life, etc. [4;86;99].

The management of the processes of urbanisation is now dealing with a wide range of important problems. One of them is the unwanted growth of large cities. A second is a new quantitative change taking place in relations between large cities and material production. In addition, the growth of large cities is a background for the creation and dissemination of all the most significant achievements in technology and science, in culture and education.

One of the main factors underlying migration in the USSR is the desire of people to partake of more creative activities, more diverse, interesting and exciting ways of life, and to have the opportunity to choose among various kinds of jobs. This leads to the overcrowding of large cities in spite of rather strict administrative measures. The solution to this problem might be found in managing the process of urbanisation so that quite new forms of city life could be created in accord with new patterns of social relations. Obviously, there could be several different patterns of urbanisation that would fulfill a given set of targets for social development. However, the most efficient way to urbanise and intensify production to create the best conditions for future development for the people and for the productivity of society as a whole is found in the integrated system of settlements within the framework of the *General Scheme of Population Distribution of the USSR*.²

²The *GSPD* was drawn up by the Central Research and Design Institute for Town and Regional Planning with participation of the Kiev and Leningrad Research and Design Institutes for Town Planning, the Productive Forces Study Council under the USSR Gosplan, and the Geographic Institute of the USSR Academy of Sciences.

This *General Scheme* is a document of state significance as well as a most important exercise in normative forecasting; it underlies the formation and development of rational settlement networks in the USSR and its entire system of population distribution [105;106;106a]. It is coordinated with forecasts for development and distribution of productive forces and provides a basis whereby the present settlement network, evolved through a process of historical expediency, can be improved. The *Scheme* strengthens the scientific and planning foundations for development of regional planning, town planning and construction in the country.

In the USSR the settlement network develops systematically. During each five-year-plan period of time, 100 to 150 new towns were built, and most of them appear in newly developing areas of the country [102]. Great attention is also paid to the reconstruction and renovation of large, existing cities taking into account their importance as centres of settlement systems [62]. The settlement network, historically formed under conditions of the pre-revolutionary unplanned economy, is characterised by an uneven distribution of population, by the existence of separate urban and rural population distribution systems, by the uneven growth of large urban areas, smaller towns and townships, and by the fragmented nature of the rural settlement network. The settlement network therefore requires constant improvement.

The major progressive trends in the dynamics of population distribution in the USSR during the last ten years are the following [33;86;106a]:

- 1) continuing development of, and an increase in the number of, large cities and central places in settlement systems;
- 2) development of agglomerations, accelerating further progress in science and technology, social and cultural potentials in them and further development of material production around them;
- 3) the emergence of new towns, stimulating the development of new regions;
- 4) amalgamation of small rural settlements, thus ensuring better living conditions; and
- 5) increases in the proportion of population living in the Asian part of the country.

There were, however, shortcomings in the development of the population distribution system during this period.

For example, there was a very high rate of population growth in large cities resulting from the expansion of industrial enterprises and the increased importance of research and development institutions and their propensity to locate in large cities. The development of large agglomerations often led to inadequate living conditions and undesirable ecological consequences.

The large increase in the number of small towns limited the possibilities for improving amenities and services. As a result many rural settlements still have inadequate services.

These shortcomings are the result of a number of factors. Individual industrial enterprises (as opposed to complexes) were often sited in small and medium-sized towns. The zones of influence of the large cities were not fully developed and as a result they used their economic, social and cultural potentials insufficiently. The transportation infrastructure in general was underdeveloped. There was insufficient regard for the principles of complex territorial organization of productive forces and population distribution, and weak application of sociological and town-planning criteria in the siting of industries. Finally, and more generally, there was a lack of a systems approach to the spatial distribution of productive forces and population.

At present, the population of the USSR is about 250 million, of which approximately 57 percent is urban [87]. The European part of the country contains 71 percent of the population and the Asian part, 29 percent. In the future, this ratio will change in favour of the Asian part, according to the *General Scheme of Productive Forces Distribution*.

These data testify that town planning and building must be realised on a large scale. There were 1,935 towns, 3,570 urban settlements and 469,000 rural settlements in the USSR, according to the January 1970 population census. By the end of this century, the number of towns and settlements will considerably increase. At the same time, the number of rural settlements will be reduced through consolidating small villages and dispersed farmsteads into larger settlements.

Such a great programme may be realized only if town planning policy is coordinated with prospects for the development and distribution of productive forces within the programme of social and economic development, and with the goal of ensuring good ecological balance. Combined efforts are planned for the efficient use of natural resources; for nature preservation and the improvement of the environment; for water supply facilities; and for the organization of recreation, tourist and health treatment areas. All these efforts can be successfully carried out only through systematic, comprehensive, structural approach.

The policies for the improvement of population distribution and settlement network set the following tasks [34;50;79;89]:

- a) There must be an acceleration of urban development in the eastern regions of the country as part of a more evenly balanced population distribution between the European and Asian parts of the country. This is a rather difficult, time-consuming and expensive process because of many climatic, economic and even cultural and intellectual constraints existing in the newly developed regions of the Asian part of the country. But in spite of all these, the development of this area is steadily growing. The share of population increased from 22 percent in 1959 to 29 percent in 1974 [52].
- b) There must be efficient restraints on the growth of large existing cities in developed regions together with simultaneous formation of large new towns as the centers of developing and newly organized territorial industrial complexes in Siberia, Kazakhstan and Central Asia.
- c) There needs to be an intensified development of small and medium-sized towns with good growth prospects, based on accumulated production surpluses and industrial consolidation in the European part, and on the building of new enterprises in the Asian part of the country.
- d) There should be a further rational integration and transformation of promising rural settlements into well-organized urban-type settlements.

V. Group Settlement Systems

Near the top of the size hierarchy of settlements is a new entity called a *group settlement system* by Soviet planners. These are large regional clusters of cities and their associated production systems. Settlements within a group settlement system should complement each other in productive, scientific and cultural activities, and should be tied together by modern rapid means of transportation and communication. Under Soviet conditions, the most efficient group settlement systems have radii of 100-150 km, are organized around a single territorially integrated industrial complex (or have direct airline connections to a major metropolitan center, if they are in remote regions), and are characterized by a high level of organization and planning. Well-developed hierarchies of shopping, cultural, educational and other necessary services rest upon thoughtfully planned, multi-modal transportation systems and centralised engineering works. Comprehensive land-use planning allows new levels of

environmental preservation and improvement.

Important goals served by the development of group settlement systems include the elimination of disparities between urban and rural ways of life, efficient restraint on the growth of super-large cities, and a reduction in average commuting times and distances. Moreover, various population complexes may be organized by the integration of interconnected group settlement systems, gravitating towards a central city of one to several millions of people. Examples are found around Moscow, Leningrad, Kiev, Kharkov, and Tashkent [98].

In the *General Scheme of Population Distribution*, the following hierarchy of systems of settlements has been proposed [106a]:

- 1) Global national system of settlements with the centre at Moscow.
- 2) Regional systems of settlements; the centre of the system is a city with a population of one to three million inhabitants.
- 3) Large group settlement systems; the centre of the system is a city with a population ranging from 500,000 to one million inhabitants.
- 4) Middle-size group settlement systems; the centre of the system is a city with a population of 100,000 to 500,000 inhabitants.
- 5) Small group settlement systems; the centre of the system is a town with its population ranging from 10,000 to 100,000 inhabitants.

Depending on local conditions and the development phase, the group settlement system may be monocentric or polycentric. It may be comprised of urbanised communities as subcentres of science, education, industry, culture, medical service, outdoor recreation, tourism, or health resort treatment.

Efficiency of the group settlement system within the framework of national economy is achieved by:

- a) joint utilisation of the territorial economic base and its infrastructure and resources;
- b) a change from the concentration of essential urbanisation activities in large cities and agglomerations to the organization of integrated, interconnected industrial and agricultural enterprises within large areas;

- c) a wider choice of job opportunities near residences; reduction in the length of excessive commuting as a result of the consecutive relocation and establishment of main labour and residential areas;
- d) convenient access to service centres and facilities of different levels which are being developed in accordance with the unified plan on the system scale;
- e) broad possibilities for inter-town social contacts, for development of the specialised and social residential communication;
- f) existence of a wide range of recreation areas;
- g) united transportation and utility networks; and
- h) more favourable conditions for efficient nature preservation and environmental improvement.

Within the next fifteen to twenty years there are plans to organize twenty-seven group settlement systems on the basis of the largest and most important cities in the country, of which fifteen will be in newly developing regions, mostly in the east [89;106]. In the future, it will be practical to found another forty to fifty group settlement systems.

The group settlement systems as well as the urban and rural communities will become an organic part of the regional system of population distribution formed within the boundaries of the Union Republics or economic regions. At the present stage of research the organization of forty-two regional systems of population distribution is recommended for the future. Their centres will be the largest towns with a high level of scientific, research, technical, social, and cultural potential. Regional systems of group settlement will be successively incorporated into the united national economic system of population distribution of the Soviet Union.

Every regional system of population distribution will have its own specific tasks in the reconstruction of existing community networks. These tasks largely depend upon the level of industrialisation, urbanisation and economic development; the existence of natural resources, natural and climatic conditions; and national traditions and customs.

The development of integral systems of settlements within the framework of the *General Scheme of Population Distribution* shows that the higher economic potential of large cities does not mean that intensification of their production requires concentration of additional industrial enterprises. The matter is more complicated. To an increasing degree, large cities are becoming concentration points for various kinds of intellectual

activities, including the production of scientific, technological and cultural information. This process represents a division of labour between large cities (centres of integral systems of settlements) and the outlying areas of their systems.

In large cities, managerial, administrative, scientific, cultural and service activities have high development priority. Material production is moving to the outlying areas of large cities, but it is to remain an integral part of, and under the direct influence of, the settlement system centres.

Within the framework of the integral system of settlements there are good conditions and possibilities for the establishment of diverse forms in the interaction of science, technology and material production itself. In order to encourage this interaction the coordinated management and control over the growth of large cities and the future development of the small and medium-size towns of the systems is to be established in close coordination with the *General Schemes of Productive Forces Distribution and Population Distribution*.

The *General Scheme of Population Distribution* will thus serve as the basis for regional schemes of population distribution in all-Union Republics and economic regions; general and regional schemes of development (including location of health resorts, recreation and tourism areas, nature parks and preserved zones); and comprehensive regional planning schemes and projects for the developing areas of the USSR.

Appendix:
Recent Soviet Literature on National
Strategy of Economic Planning and Productive
Forces Distribution and Population Distri-
bution Policies with Titles translated by Author

- [1] *The Programme of the Communist Party of the Soviet Union, Moscow, 1969.*
- [2] Akhiezer, A.S., L.B. Kogan, et al, "Urbanization, Society, and Scientific and Technological Revolution," *Voprosy Filosofii*, 2 (1969).
- [3] Akhiezer, A.S., and A.V. Kochetkov, "Problems of the Development of Urban Places in the U.S.S.R.: A Review," *Izvestiya Akademii Nauk, Seriya Geograficheskaya*, 6 (November-December 1970), 173-177.
- [4] Akhiezer, A.S., and A.V. Kochetkov, "Urbanization and Intensification of Production in the U.S.S.R.," *Problemi Sovremennoy Urbanizatsii*, Moscow, 1972.
- [5] Avdotjin, L.N., "Perspectives of Application of Structural-Systems Methodology in Town Planning Research and Design," *Mathematical Methods in Town Planning*, Kiev, 1968.
- [6] Avdotjin, L.N., "Methodological and Technical Problems of Structural-Cybernetical Modelling of Towns," *Nauchnie Prognozi Razvitiya i Formirovaniya Sovetskikh Gorodov na Baze Sotsialnogo i Nauchno-Tekhnicheskogo Progressa*, Moscow, 1969.
- [7] Avdotjin, L.N., "Methodological Aspects of Town Planning Prognoses," *Primenenie Matematicheskikh Metodov i Vichislitel'noy Tehniki v Gradostroitel'nykh Zadachakh*, Moscow, 1971.
- [8] Avdotjin, L.N., A.I. Zakov, and E.G. Abramovich, *Mathematical Methods for Optimisation of Settlement Systems*, Moscow, 1971.
- [9] Bandman, M.K., "The Approach and Major Stages of the Optimal Formation of Territorially Integrated Industrial Complexes," *Modelirovaniye Formirovaniya Territorialno-proizvodstvennykh Kompleksov*, Novosibirsk, 1971.

- [10] Baranov, N.V., *Modern Town Planning*, Moscow, 1962.
- [11] Baranov, N.V., "About Theories of Dynamic Town Planning," *Arhitektura SSSR*, 3 (1967).
- [12] *Basic Principles of Town Planning in the Soviet Union*, Vol. I, Moscow, 1966; Vol. II, Moscow, 1967; Vol. III, Moscow, 1967; Vol. IV, Moscow, 1970.
- [13] Blazhko, N.I., "Quantitative Methods of Studying Systems of Urban Settlements," *Geografia Naselenia i Naselinnih Punktov SSSR*, Moscow, 1967.
- [14] Blazhko, N.I., G.G. Shafir, S.V. Grigor'yev, Ya. I. Zabolotin, and A.G. Stepin, "The Relationship Between Population Size and the Level of Development of Various Types of Urban Places in a System," *Vestnik Moskovskogo Universiteta, Seriya Geografiya*, 5 (September-October 1968).
- [15] Blazhko, N.I., S.V. Grigor'yev, J.I. Zabolotin, and G.G. Shafir, "Mathematical Method for Determination of Development Stages of Urban Settlements within a System," *Voprosi Geografii*, 77 (1968).
- [16] Bogorad, D.I., *Constructive Geography of a Region*, Moscow, 1965.
- [17] Burmantov, G.G., "The Formation of Functional Types of Settlements in the Southern Tayga," *Soviet Geography: Review and Translation* 9:2 (February 1968) 112-120.
- [18] Davidovich, V.G., *Distribution of Population in Industrial Centres*, Moscow, 1960.
- [19] Davidovich, V.G., *Development of Towns and Their Districts*, Moscow, 1964.
- [20] Davidovich, V.G., "The Development of the Network of Urban Places of the U.S.S.R. Over the Last 50 Years," *Vestnik Moskovskogo Universiteta-Geografiya*, 6 (November-December 1968) 3-12.
- [21] Demin, N.M., G.I. Lavrik, et al, *Prognosing Forecasting Population Distribution Systems: Methodological Recommendations. Mathematical Models*, Kiev, 1972.
- [22] Demin, N.M., and G.I. Lavrik, eds., *Forecasting Formation and Development of Settlement Systems: Mathematical Models*, Kiev, 1972.
- [23] Evteev, O.A., "Map of the Population Distribution Potential as a Special Type of Indicator for Regional Population Density," *Vestnik Moskovskogo Universiteta*, 2 (1969).

- [24] General Methodology for Elaboration of the General Scheme of Productive Forces Distribution of the USSR, Moscow, 1966.
- [25] Gerasimov, I.P., "Scientific and Technological Progress and Geography," *Materialy S'ezda Geograficheskogo Obshchestva Soiuza SSR*, Leningrad, 1970.
- [26] Gohman, V.M., A.A. Mints, et al, "Systems Approach in Geography," *Voprosy Geografii*, 88, (1971).
- [27] Gudzabidze, V.V., "The Potential of the Population Distribution Areas as a Measure of Population Density," *Vestnik Moskovskogo Universiteta*, 1, Moscow, 1970.
- [28] Gvishiani, G.M., *Organization and Management*, Moscow, 1970.
- [29] Gvishiani, G.M., and V.A. Lisichkin, *Prognostics*, Moscow, 1968.
- [30] Kalashnikova, T.M., *Economic Regions*, Moscow, 1969.
- [31] Kaplan, G.A., "Prognoses of Prospective Population Distribution: Some Economic Considerations," *Nauchnie Prognozi Razvitiia i Formirovaniia Sovetskikh Gorodov na Baze Sotsialnogo i Tehnicheskogo Progressa*, 3, Moscow, 1969.
- [32] Khalifman, L.Y., "On the Development of Small and Middle-Size Towns in the Latvian S.S.R.," *Izvestiya Vsesoyuznogo Geograficheskogo Obshchestva*, 4 (July-August 1969) 337:343.
- [33] Khodzaev, D.G., "The Planning of the Distribution of Production in Population Centres and Some Problems in Population Geography," *Soviet Geography: Review and Translation*, 8:8 (October 1967) 619-629.
- [34] Khodzaev, D.G., "Some Problems of the Planned Control of the Development and Growth of Settlements," *Problemi Gradostroitelstva*, Kiev, 1970.
- [35] Khorev, B.S., "A Study of the Functional Structure of Urban Places of the U.S.S.R.," *Soviet Geography: Review and Translation*, 7:1 (January 1966) 31-52.
- [36] Khorev, B.S., "Urban-type Settlements and Other Populated Places as Reserves for the Development of Systems of Cities," *Izvestiya Vsesoyuznogo Geograficheskogo Obshchestva*, 6 (November-December 1966).
- [37] Khorev, B.S., *Problems of Towns: Economic-Geographical Study of Urban Population*, Moscow, 1971.

- [38] Khorev, B.S., and D.G. Khodzaev, "The Concept of a United Settlement System and the Planned Control of the Growth of Towns in the U.S.S.R.," *Geographia Polonica*, 27 (1973).
- [39] Khrushchev, A.T., *Geography of Industry in the U.S.S.R.*, Moscow, 1969.
- [40] Kochetkov, A.V., "Social Problems of the Urban Environment Integration in Socialist Society," *Urbanisation, Nauchnotekhnicheskaya Revolyutsia i Rabochy Class*, Moscow, 1972.
- [41] Kolosovsky, N.N., *Economical Regioning of the Country*, Moscow, 1958.
- [42] Kolosovsky, N.N., *Theory of Economic Regioning*, Moscow, 1969.
- [43] Komar, I.V., and A.A. Mints, "Leninist Principles of Location of Productive Forces and the Development of the Nation's Economic Regions," *Izvestiya Akademii Nauk SSSR: Seriya Geograficheskaya*, 2 (March-April 1970).
- [44] Konstantinov, O.A., "Classification of Urban Settlements in Soviet Geography," *Materiali po Geografii naselenia*, 2, Leningrad, 1963.
- [45] Konstantinov, O.A., *Comparative Characteristics of Settlement Types in the U.S.S.R.*, Academy of Sciences, Leningrad, 1964.
- [46] Kovalev, N., and B. Miroshnicheno, *Fundamentals of National Economic Planning in the U.S.S.R.*, Moscow, 1972.
- [47] Kovalev, S.A., "Problems in the Soviet Geography of Rural Settlement," *Soviet Geography: Review and Translation*, 9:8 (October 1968) 641-651.
- [48] Kovalev, S.A., "Changes in Population Numbers and Distribution of the U.S.S.R. in the Intercensal Period 1959-1970," *Geografiya v Shkole*, 6 (1970) 13-21.
- [49] Kovalev, S.A., and V.V. Pokskiskevskiy, "The Geography of Population and the Geography of Services," *Soviet Geography: Review and Translation*, 8:8 (October 1967) 641-652.
- [50] Kovalev, S.A., and V.S. Ryazanov, "Paths of Evolution of Rural Settlement," *Soviet Geography: Review and Translation*, 9:8 (October 1968) 651-664.

- [51] Kravchuk, Y.T., "Three Problems of Town Planning: Grouping Settlement Systems, Size of New Towns, and Their Planning Pattern," *Sovietskaia Arhitektura*, Moscow, 1965.
- [52] Krotov, V.A., *Geographical Aspects of Industrialisation in Siberia*, Academy of Sciences, Irkutsk, 1964.
- [53] Krotov, V.A., "Achievements of the Socialist System of Location of Productive Forces and the New Geography of the Economy of Siberia and the Far East," *Papers of the Institute of Geography of Siberia and the Far East*, Irkutsk, 16 (1967) 10-18.
- [54] Kudinov, O.V., *Planning Principles and Requirements for Improvement of Air Conditions and Water Basins in Large Industrial Cities*, Moscow, 1968.
- [55] Kudinov, O.V., *Ways of Development of Soviet Towns and Improvement of Urban Environment*, Moscow, 1969.
- [56] Kudinov, O.V., "Prognoses of Development of Soviet Towns and Cities and Improvement of Their Environment," *Nauchnie Prognozi Razvitia i Formirovania Sovietskikh Gorodov na Baze Sotsialnogo i Nauchno-tehnicheskogo Progressa*, III, Moscow, 1971.
- [57] Kudriavtsev, O.K., "Mathematical Methods for the Study of Population Distribution," *Rasselenie v Gorodah*, Moscow, 1968.
- [58] Kurakin, A.F., "Lenin and the Development of Productive Forces in Siberia," *Geografiya v Shkole*, 1 (January-February 1970) 5-12.
- [59] Kuts, E.S., "Application of the Method of the Demographical Potential for the Analysis of Population Distribution System in the Ukrainian S.S.R.," *Aktualnie Problemi Gradostroitelnoy Demografii*, Kiev, 1972.
- [60] Kuybyshev, "Conference on the Development of Small and Middle Cities and the Use of Manpower Resources," *Vestnik Leningradskogo Universiteta*, 12, Leningrad, 1969.
- [61] Lappo, G.M., *Geography of Cities*, Moscow, 1969.
- [62] Lavrov, V.A., *Reconstruction of Large Cities*, Moscow, 1969.
- [63] Leizerovitch, E.E., "Importance of Detailed Regioning for Regional Planning Purposes," *Izvestia AN SSSR: Seria Geograficheskaja*, 1 (1968).

- [64] Listengurt, F.M., "Perspectives of Changes in Size of Urban Settlements and in Structure of Urban Population in the U.S.S.R.," *Nauchnie Progozi Razvitia i Formirovaniia Sovietskikh Gorodov na Baze Sotsialnogo i Nauchno-tehnicheskogo Progressa*, 3 (1969).
- [65] Listengurt, F.M., "Long-term Changes of Urban Population in the U.S.S.R.," *Izvestiya Akademii Nauk SSSR: Seriya Geograficheskaya*, 1 (January-February 1969) 59-69.
- [66] Listengurt, F.M., "The Growth of the Largest Cities of the U.S.S.R.," *Vestnik Moskovskogo Universiteta Geografiya*, 3 (May-June 1970) 9-15.
- [67] Listengurt, F.M., "Problems in the Formation of the Population of Cities in the R.S.F.S.R.," *Soviet Geography: Review and Translation*, 12:2 (February 1971) 117-124.
- [68] Listengurt, F.M., and V.C. Demianovsky, "Correlation Between City, Size, and Annual Natural Increase of its Inhabitants," *Matematicheskie Metodie v Gradostroitelstve*, Kiev, 1969.
- [69] *Mathematical Methods of Optimisation of Population Distribution Systems*, Moscow-Berlin, 1971.
- [70] Maximova, L.V. and P.A. Frumkin, "An Ecological Evaluation of the Location of Large Cities," *Teoria i Metodica Geograficheskikh Issledovany Ecologii Cheloveka*, Moscow, 1974.
- [71] Medvedkov, Y.V., "Economic Geographical Studying of Regions in Capitalist Countries," *Application of Mathematics in Economic Geography*, 2, Moscow, 1965.
- [72] Medvedkov, Y.V., "Analysis of Configuration of Population Distribution Pattern," *Application of Mathematics in Economic Geography*, 3, Moscow, 1966.
- [73] Medvedkov, Y.V., "Typological Analysis of Settlement Network," *Voprosi Geografii*, 77 (1968).
- [74] Naimark, N.I., "Some Proposals on Improvement of Architectural Management of Territory," *Voprosi Raionnoy Planirovki i Rasselenia*, Kiev, 1973.
- [75] Nekrasov, N.N., "Scientific Principles of the General Scheme of Productive Forces Distribution of the U.S.S.R.," *Tezisi Doklada na V Siezde Geograficheskogo Obshchestva SSSR*, Moscow, 1970.

- [76] Nudelman, V.I., "Methodology of Evaluation of Town Planning Conditions for Industrial Development of Towns," *Raionnai Planirovka i Problemi Rasselenia*, Kiev, 1970.
- [77] *Peculiarities and Factors of Siting Industries of National Economy of the U.S.S.R.*, Moscow, 1969.
- [78] Perevedentsev, V.I., "The Territorial Distribution of Population in the Country and its Migration," in Valentey, D.I., ed., *Theory and Politics of Population*, Moscow, 1967.
- [79] Perevedentsev, V.I., "Some Questions on the Interregional Redistribution of Labour Resources," *Izvestiya Siberskogo Otdel'niya Akademii Nauk SSSR, Seriya Obshchestvennykh Nauk*, 9:3 (1967) 77-83.
- [80] Perevedentsev, V.I., "Contemporary Migration in the U.S.S.R.," *Soviet Geography: Review and Translation*, 10:4 (April 1969) 192-209.
- [81] Perevedentsev, V.I., "Population Movement and Labour Supply in Siberia: I," *Soviet Sociology*, 7:3 (1969).
- [82] Perevedentsev, V.I., "Population Movement and Labour Supply in Siberia: II," *Soviet Sociology*, 7:4 (1969).
- [83] Pertsik, E.N., *Geographical Basis for Regional Planning*, Leningrad, 1966.
- [84] Pertsik, E.N., "Methodological Issues of the Application of Traditional and New Methods in the Process of Regional Planning," *Raionnaia Planirovka*, Kiev, 1973.
- [85] Pertsik, E.N., *Regional Planning: Geographical Aspects*, Moscow, 1973.
- [86] Pivovarov, Y.V., "Modern Urbanisation: Its Nature, Factors; and Specific Features of Studies," *Problems of Modern Urbanisation*, Moscow, 1973.
- [87] Pokshishevskiy, V.V., *Geography of the Population of the U.S.S.R.*, Moscow, 1971.
- [88] Pokshishevskiy, V.V., *Geographical Differences in Population Structure*, Academy of Sciences, Moscow, 1964.
- [89] Pokshishevskiy, V.V., "The Economic Geography of the U.S.S.R. by the Year 2000," *Soviet Geography, Review and Translation*, 9:9 (November 1968) 770-776.

- [90] *Principles of Regional Planning for Industrial Regions*, Moscow, 1964.
- [91] Probst, A.E., "General Scheme of Productive Forces Distribution as a Basis for Comprehensive Regional Planning Projects," *Voprosi Raionnoy Plannirovki i Rasselenia*, Kiev, 1973.
- [92] Probst, A.E., *Siting Socialist Industry*, Moscow, 1971.
- [93] Probst, A.E., *The Issue of Siting Socialist Industry*, Moscow, 1971.
- [94] Probst, A.E., "Territorially Integrated Industrial Complexes," *Geografiya SSSR*, 8 (1970).
- [95] *Planning Economic Regions, Industrial Regions, and Clusters of Enterprises: Handbook* Moscow, 1970.
- [96] Saushkin, Y.G., "Forecast in Economic Geography," *Vestnik MGU, Seriya Geograficheskaya*, 5 (1967).
- [97] Saushkin, Y.G., *Introduction to Economic Geography*, Moscow, 1970.
- [98] Saushkin, Y.G., *Geographic Principles of Regional Planning*, University of Moscow, 1964.
- [99] *Scientific Prognoses of Soviet Town Development on the Basis of Social and Technological Progress*, I, II, and II, Moscow, 1969-1971.
- [100] Shkvarikov, V.A., "Theoretical Principles of Soviet Town Formation," *Arhitektura SSSR*, 2 (1968).
- [101] Smoliar, I.M., "Structural Principles of Development of New Towns within Settlement Systems," *Arhitektura SSSR*, 3 (1971).
- [102] Smoliar, I.M., *New Towns*, Moscow, 1972.
- [103] Smoliar, I.M., and K.F. Neustroev, "New Towns Within the System of Population Distribution," *Arhitektura SSSR*, 6 (1970).
- [104] Solofnenko, N.A., *Distribution of the Population in Industrial Regions*, doctoral thesis, Moscow, 1968.
- [105] Solofnenko, N.A., "Basic Methodological Principles of Regional Planning," *Raionnai Plannirovka i Problemi Rasselenia*, Kiev, 1970.

- [106] Solofnenko, N.A., N.I. Naimark, et al, "Basic Tendencies of Development in Territorial Structuring of Population Distribution of the U.S.S.R.," *Raionnaia Planirovka i Rasselenie*, Kiev, 1972.
- [106a] Solofnenko, N.A., "Systems approach to the solution of the population distribution problem," *Raionnaia Planirovka i Rasselenie*, Kiev, 1974.
- [107] Stroggin, M.L., *Social and Economic Problems of Large Towns Growth in the U.S.S.R.*
- [108] Valentey, D.I., "Current Population Problems in the U.S.S.R.," *Problems of Economics* (November 1969) 49-60.
- [109] Valentey, D.I., ed., *Fundamental Marxist-Leninist Population Theory*, Moscow, 1971.
- [110] Valentey, D.I., ed., *Marxist-Leninist Theory of Population*, Moscow, 1974.
- [111] Valov, Y.I., and S.A. Kovalev, *Changes in the Geography of Population of the U.S.S.R. following the Development of New Territories*, Academy of Sciences, Moscow, 1964.
- [112] Vechkanov, G., "Raising the Effectiveness of Territorial Redistribution of Labour Resources," *Problems of Economics* (October 1969) 58-67.
- [113] Vishnevsky, A.O., "Economic Problems of Urban Settlement Patterns Development," *Problemi Sovremennoy Urbanizatsii*, Moscow, 1972.
- [114] Vladimirov, V.V., "Pattern for Administrative Regional Planning Project," *Voprosi Raionnoy Planirovki i Rasselenia*, Kiev, 1973.
- [115] *Ways of Formation and Development of Soviet Towns at the Present Stage*, Moscow, 1970.
- [116] Yatsunskiy, V.K., "The Role of Migration and a High Rate of Natural Increase in the Settling of the Colonization Areas of Russia," *Voprosy Geografii*, 83 (1970) 34-45.
- [117] Zvonkova, T.V., "Practical Problems of Physical Geography," *Vestnik MGU, Seria Geographicheskaya*, 5 (1967).

Countrywide Spatial Planning as an Integral
Part of Long-Term Development Planning:
The Case of Poland

S. M. Komorowski
Head, Macro-economic Division
Planning Commission of the
Council of Ministers, Warsaw

The purpose of this paper is to give a very broad idea about the working of the spatial planning system within the context of the central national planning system in Poland.

Modern socio-economic planning systems are developing in two main directions. The first direction is the extension of the time horizon covered by planning. The second is the combination of socio-economic planning with spatial planning, or, more precisely, making spatial planning an integral part of socio-economic development planning. Seen from the viewpoint of spatial planning the first point, the extension of the time horizon, should be regarded as a precondition for the second.

Long-term planning is strategic in kind and so are the problems of the country's spatial organization. These are strategic problems which cannot be solved within short periods of time; no short- or medium-term plans dealing with spatial organization can cope with them. They can only take care of the current implementation of more farsighted coordinated concepts of the country's overall socio-economic development, of which spatial development is an integral part. This is not said to deny the need for medium- (tactical) and short-term (operational) planning concerned with spatial development. Their need is obvious. However, it is quite obviously impossible to draft such plans without a long-term strategic development plan.

Considering any kind of planning, it is important to bear in mind that it is not a self-contained autonomous activity. Its main purpose is to serve management, and it is one of the components of management. Fayol's concept of management is still valid after more than half a century. Management

is seen as a combination of five functions: planning, organization, coordination, control, and decision making. These functions overlap, and planning plays a prominent role among them. They are, however, inseparable. This implies that plans should be formulated in such a way as to make them directly useful to management. Planning systems must be consistent with the management systems. After all, the main task of a plan is to organize future activities and to help in making current decisions.

The first Polish studies in long-term socio-economic development planning can be traced back to 1957, but such studies took almost fifteen years to be incorporated into the country's planning system. This does not mean that long-term strategic problems, as reflected in the fundamental changes which the socio-economic structure has experienced during the past twenty-five years, have not been considered within the framework of the five-year plans (which are currently considered mid-term). These changes were already initiated in the 1950-55 six-year plan.

Long-term planning should be regarded as a continuous study of development strategy. It provides the necessary inputs for a dialogue between top policy makers and central planners, in the broadest context. It should be appreciated that the criteria of judgment are not homogeneous and thus in practical situations there are conflicting issues. Thus, the dialogue can be seen as an iteration procedure leading to periodical formulation of a development strategy embodied in a document--the long-term plan.

The Polish long-term development plan is a revolving one; at least every five years the plan should be reviewed and extended for an additional period of five years to cover roughly a twenty-year period of time or, more precisely, four forthcoming five-year plan periods.

The studies in long-term planning have been intensified since 1970 and particularly since the VIth Congress of the Polish United Workers' Party, which adopted a resolution that, inter alia, spelled out the main orientations for development of the Polish economy: "The aim of the socio-economic policy of the Party is a systematic improvement in the material, social and cultural conditions of the society. It should be achieved through the dynamic development of productive forces, the growth of social labor productivity, the progress of science and technology, the reconstruction and modernization of the structure of the national economy, and the rise in efficiency of the whole economic system."

The tasks of long-term planning are carried by the Planning Commission of the Council of Ministers; the Commission's Department for Perspective Planning is composed of four major sections: a) social planning, b) spatial planning and regional planning, c) sectoral planning, and d) macro-economic planning.

Spatial planning in Poland has an honorable history: studies were conducted in this field before World War II, and some of the results have since been implemented on both national and local levels. But spatial (regional) planning became really meaningful only after World War II when the tremendous task of the country's reconstruction required careful planning and at the same time gave an opportunity for changes in the historical pattern. However, the 1970 plan in spatial planning should also be regarded as an important breakpoint. The strong emphasis on spatial planning has several important reasons:

- 1) the need to shape the spatial environment along with the requirements of modern society and of future generations;
- 2) acceleration of the country's development through rational utilization of resources and the resources of particular regions, as well as proper organization of the national space;
- 3) strengthening the integration of and expanding the cooperation between the country's regions;
- 4) reduction of regional differences with respect to the individual's development conditions and standards of living through the acceleration of development and the activation of less-developed regions; and
- 5) better utilization of Poland's geographic location for increased international cooperation.

The work on spatial development planning in Poland is based on four principles: the first is that the spatial plan cannot be developed independently from the general long-term socio-economic development strategy; thus the spatial development plan should be an integral part of the said long-term development plan.

This intimate relationship between the social and economic long-term development plan and the spatial development plan (which, by definition, must also be a long-term plan; more precisely, its general outline must cover a much longer time horizon than the socio-economic part of the plan) has particular regard to:

- a) the social model and the general socio-political objectives which are defined by the long-term plan;
- b) the planned changes in the structure of the economy and the related development preferences of particular branches of activities as well as planned specialization within the framework of the planned international division of labor (particularly within the CMEA framework); and

- c) the country's planned investment capacity which is directly related to the planned growth of material income with which the spatial development plan is very strongly linked.¹

It is thus clear that relegating spatial planning to a secondary exercise concerned with the allocation of development tasks defined in economic plans should be rejected. Such a procedure would be a kind of *ex post* activity, since there is a strong conviction that there is a strong backward linkage between spatial and overall socio-economic long-term planning. This means that spatial planning has a certain degree of autonomy in the sense that it must be worked out simultaneously with the overall long-term plans. Thus the spatial plan not only uses the same inputs as the overall long-term plan but actively interacts with its social and economic parts during their elaboration. It has a strong influence on their content. Its impact may be so strong that under its pressure some basic social or economic conceptual assumptions may be changed. This kind of spatial plan "autonomy" is strongly emphasized, and is regarded as a political problem.

The second planning principle concerns the supremacy and the steering role of the central planning level. Regional plans are worked out on the *voivodship* (provincial) level, and subregional plans on the *powiat* (county) level (a corresponding hierarchy exists for townships). However, the spatial development plan cannot be conceived as an aggregation of local and regional plans. It must come into existence as a generally consistent outline of the country's spatial organization. This is duly reflected in the structure of the plans and the planning system.²

The third planning principle calls for the close cooperation of the planners with the scientists, particularly those within the Polish Academy of Sciences. Several research and scientific institutes concentrate their activities on problems related to spatial planning. The national science and research program provides for the central planning and financing for research of particular significance for the national economy, and includes the problem, "Fundamentals of the physical development of the country."

¹For example, several general outlines of the country's possible spatial development have been worked out and analyzed; only three of them have proven to be feasible considering investment constraints.

²This follows the country's administrative organization: seventeen *voivodships* (provinces) and five cities (administratively considered like *voivodships*) which in turn are divided into 392 *powiats* (counties); of which seventy-eight are towns having "urban rights," which in turn are divided into 2,365 communities. In the planning structure there is a special intermediary level, macro-regional, which serves to coordinate plans of three groups of strongly interlocked economic regions.

The fourth planning principle calls for systematic confrontation of the spatial plan, at its different stages of development, with society. The general long-term development plan is much less readable for the public at large than the spatial plan, which has the ability to attract and stimulate people's imagination and thus presents an excellent political platform for discussion with the communities of different regions. This role of spatial planning should be considered as very important. Thus, spatial planning must present a development vision for each region.

Nevertheless, the spatial plan is but a part of the overall long-term development plan. Practically speaking, the spatial plan is one of the three consistent ways in which the long-term plan is presented; the same plan is presented as the:

- 1) social development plan,
- 2) spatial development plan, and
- 3) economic development plan.

The content of all three is the same, but the emphasis differs.

All these plans are heavily interlocked. Each explains the other two and is in turn explained by them. Of course, in addition to the specific means and terms, each uses the common economic terms to describe their content.

The most important elements of the spatial plan are the following:

- a) the geographical location of the population and its interactions flows, their impact on the settlement system, and the spatial pattern of social infrastructure;
- b) the spatial structure of industrial and agricultural activities;
- c) the spatial pattern of technical infrastructure;
- d) management of environmental resources, with a particular emphasis on water; and
- e) the impact of the above on inter-regional proportions of social and economic development.

The national physical plan, although of a strategic nature, contains several elements that, at the same time, provide for its operational character. These elements are:

- 1) the principles of allocation and use of space for various purposes;
- 2) policies for investment project location;
- 3) development patterns for individual regions and urban agglomerations, as well as their functional bases;
- 4) policies for control and management of population migrations; and
- 5) the time schedule for implementing the long-term decisions.

In this respect the long-term plan plays a stimulating, initiating, and controlling role toward the five-year and annual plans. The national physical plan together with the whole long-term plan is subject to evaluation and subsequent approval by the supreme state authorities.

The substance of the regional plans is concerned with basic problems of social and economic development as well as with spatial management over the period of time covered by them. They cover all activities concerned with the social and economic development undertaken in a given region. More specifically, they are concerned both with activities subject to management and control of territorial authorities (housing, urban facilities, part of industry, transport and communication, trade, and others) and those subject to central level management.

Regional plans are approved by local parliaments (*voivodship* people's councils) and are subsequently scrutinized and evaluated by the Planning Commission at the Council of Ministers. The principal elements of regional plans are approved by the Council of Ministers.

The implementation of long-term spatial development plans is secured through the five-year national development plans, a system which includes spatial development plans as an integral part. The main plan's implementation instrument is the investment location policy. Location decisions are made by:

- a) the Presidium of the Council of Ministers--in cases of extraordinarily important projects having an impact on the whole economy,
- b) the Planning Commission of the Council of Ministers--concerning projects which are centrally planned, and

- c) *voivodship* planning commissions--with respect to projects planned at the territorial level.

In all cases, initiatives for investment projects are assessed by the territorial authorities from the point of view of harmonizing the project with regional and local plans.

Spatial plans provide a framework for the operation of territorial bodies for investment project coordination. These bodies operate with the authority of the Council of Ministers. Territorial coordination of investment aims to ensure technical and economic efficiency and the rationality of the investment process, from a project design state right up to operationality.

To complete the picture, it is worthwhile to briefly describe the steps taken in the last four years which have led to the elaboration of the national long-term development plan to 1990.

The *first stage* started late in 1970 and was concerned with preliminary studies and forecasts which have been prepared by:

- 1) the Polish Academy of Sciences and several research institutes;
- 2) ministries, mainly those concerned with economic problems; and
- 3) *voivodships* (the regional spatial planning authorities)-- regional forecasts mainly concerned with spatial problems.

At the *second stage* (1972-1973) the following documents of the plan were studied and worked out:

- a) socio-political models and objectives;
- b) analysis of development conditions and constraints mainly with respect to: economic growth, labor resources, environmental constraints, and world markets; and
- c) a general outline of the long-term development plan and strategy.

The *third stage* (1973-1974) was concerned with the elaboration of an extended and quantified long-term development plan composed of the following:

- 1) general synthesis of the long-term development plan;
- 2) development plans for fourteen major sectors of the national economy;
- 3) so-called "strategic plans," each concerned with the solution of one of the thirty-five major problems which have been identified as crucial for successful plan implementation;³
- 4) synthesis of the spatial development plan;
- 5) three macro-regional development plans;
- 6) regional development plans (one for each region); and
- 7) development plans for urban agglomerations.

This plan will be subject to bilateral and multilateral coordinative consultations and adjustments within the CMEA framework in 1975.

Long-term planning studies are considered to be a continuous task. Thus in the years 1976-1977 a new extended version of the long-term development plan will be worked out, this time covering the period of time up to 1995.

³These plans may be classified as follows:

- i) those concerned with the supply side - 14
subdivided into: primary sector - 2
secondary sector - 6
tertiary sector - 6
- ii) those concerned with consumption - 3
- iii) those concerned with social problems - 12
- iv) those concerned with structural policy problems - 6.

Aspects Of Polish National Urban Policy

Piotr Korcelli

Institute of Geography and Spatial Organization,
Polish Academy of Sciences, Warsaw

Introduction

Although it is now fashionable, and perhaps correct, to treat all the planning activity performed at varied spatial and topical levels as components, or segments, of what is generally labeled "urban and regional planning and policies," permit me, for the purpose of this paper, to recall the differences between the notions of city planning and urban planning. I ask this in order to say that I shall focus the discussion on those policy and planning questions which pertain to the structure of the settlement system and its change or, as some authors prefer, the planning and policy questions of urbanization (cf. Kukliński [12]).

On the other hand, I shall refer to the planning problems of land use structure, the allocation of functions among the individual city districts, or the organization of service systems only to the extent to which those problems bear on the course of development and internal proportions within the settlement system. This in turn will bring us back to a consideration of relationships between urban and regional, as well as between physical and economic planning.

I. Historical Perspective: An Overview

To understand the nature of the national urban policies which have been recently developed and are currently followed in Poland, it is rather necessary to start with a brief overview of their evolution and changing role during the last thirty years. Four principal stages can be identified which are quite distinct both in terms of the dominant ideas, the institutional frameworks and the time divisions, namely:

- Stage 1: the search for new spatial order;
- Stage 2: the dominance of economic planning;
- Stage 3: the development of new planning methodologies;
- Stage 4: the integrated look toward the future.

1. The Search for New Spatial Order

This stage extended over the late 1940's when planners and policy makers were faced with the urgent task of redefining the spatial settlement pattern in Poland after the war destruction and within the new social and territorial contents. The Central Physical Planning Office, together with fourteen regional offices, was already established by 1945. A year later a decree on the planned physical development of the country, which made provisions for the elaboration of a national plan, was issued. The national plan of physical development was to determine [16]:

- a) the allocation of land among the individual sectors of the economy;
- b) the distribution of population and of the network of major urban centers, their functions and development bases;
- c) the distribution of transportation, communication, and energy-transmission networks;
- d) the regional divisions as a basis for the administrative structure of the country.

Studies for the national plan were based upon general principles of reconstruction and the resettlement of the western and northern territories. The conceptual framework adopted stemmed from earlier approaches, including the ideas of regionalization, separation of major land uses, the hierarchy of service centers and urban deconcentration [3, 16]. A good, simplified account of the plan's content is given by Zaremba [26, p. 277]:

The backbone of the national plan was to have been the pattern of traffic flows between those areas which were most important nationally in economics, geographical location, existing investments, and population figures. The pattern of traffic flow determined the zones of potential activity; at their points of intersection the existing, or potential, centers of production and services were located.

This theoretical scheme, modified by analyses of geographical and natural conditions, led to the concept of dividing the territory of the country according to various uses in order to determine the optimum directions for decentralizing those conurbations then excessively concentrated, such as the Upper Silesian Coal Basin, and also to define the principles for the regionalization of the country. Efforts were made to create a conceptual framework for the settlement network based on the 'pattern of flows' by using regional and local studies and Christaller's theoretical scheme.

The first post-war national plan of physical development emphasized the division of the territory into areas of intensive and extensive utilization (as well as of active and passive development), the protection of agricultural and forest lands, equality in respect to spatial accessibility to services, and the gradual relief of excessive urban and industrial concentrations. Some of these principles were permanently adopted, while others became recurrent issues during later stages of the evolution of planning and policy concepts and methods.

2. The Dominance of Economic Planning

It was perceived during the 1940's that the reconstruction period would be followed by the stage of industrialization. This transition fully materialized in 1949-1950 when Poland entered the Six-Year Plan of development of the national economy. In consequence, sectoral planning received the prime consideration while all levels of physical planning, particularly the national and regional levels, were not able to maintain a comparable status. The State Economic Planning Commission, a coordinating body, replaced the earlier planning institutions, including the Central Physical Planning Office.

Physical planning on a national, as well as on a regional scale, was recognized as one of the methods of economic planning, while planning on a local (mostly urban) scale was subordinated to building authorities. The change in emphasis and the resulting organizational shifts were also supported on theoretical grounds. It was claimed that physical conceptions elaborated without concrete directions from economic plans could hardly be substantial and effective [26, p. 279]. However, economic planning provided detailed inputs for five or six-year periods only, a time interval insufficient for physical plans covering periods of twenty to twenty-five years.

Locational policies during the 1950's aimed at a widespread and extensive industrialization of the country. In reality, because of scale economies, industrial development was more concentrated at selected points than originally intended. Sometimes it turned out to be more effective to expand existing plants than to build new ones, especially since, with a deficiency of infrastructure, expansion allowed the full use of existing capacities. On the whole, the rate of population growth was highly correlated with the rate of industrial development; that is, those cities which were expanding existing industry, or were receiving new industry, experienced the fastest growth in terms of population numbers. Several completely new towns built during that period were all related, in one way or another, to

industrial locations; they either contained new, large plants (like Nowa Huta) or they performed residential functions for nearby industrial districts (like Nowe Tychy).

3. The Development of New Planning Methodologies

Since 1957, and particularly since 1961 when the new Spatial Planning Act was issued, the role of physical planning on a regional scale, primarily, but also on a national scale has been growing again. Long-term economic planning (for periods of fifteen to twenty years) was introduced; it provided, in a way, a missing link between economic and physical planning and substantially strengthened the latter [18, p. 70]. According to the 1961 Act, spatial planning was undertaken:

- a) for the area of the entire country--within the framework of long-term national economic plans;
- b) for individual *voivodships* (provinces) or parts of *voivodships*--within the framework of long-term economic plans (regional plans);
- c) for individual settlement units (cities, towns, rural settlements), or their parts--within the framework of local plans of physical development.

National settlement policies were gradually formulated anew and they were receiving conceptual inputs from both regional and city planning. Organizational change followed. A section within the State Planning Commission was created to deal with physical development, especially with settlement policies at the national level. The Committee on National Physical Development¹ of the Polish Academy of Sciences, founded in 1958, also has been very active in the field [11].

In technical terms, the greatest influence on settlement policies was exerted by city planning methods. City planning methodology in Poland developed rapidly during the 1960's. A number of quantitative techniques were formulated, several of which became internationally recognized. These included the so-called *threshold theory* of city growth together with the related method of *analysis of city development possibilities*; the *Warsaw optimization* method; and the technique of calculating *optimum city size* from the housing producer's point of view. A feature common to these methods is that they all stress economic effectiveness calculations, and use costs of

¹The name usually has been translated as: Committee for Space Economy and Regional Planning.

providing housing, utility networks, and transportation as their principal effectiveness criteria. It is well known that calculations of investment and operating costs per inhabitant generally favor middle-size cities over big ones. This finding was the main rationale for the policies, limiting the growth of the largest cities, known as "deglomeration" policies which were developed and carried on during the 1960's.

4. The Integrated Look Toward the Future

By 1970 it became clear that the deglomeration policies, whose positive outcome was a contribution to the improvement of living standards within large cities, also had definite adverse effects. Among the effects were the aging of the population structure of the biggest urban centers (particularly Warsaw and Łódź), the reduction of manpower in cities to which the policies applied, the lengthening of trips to work, and a faster-than-anticipated increase of population in the peripheral zones (within the commuting range) of the large cities exceeding local housing and service capacities. It was also argued that to properly estimate the effectiveness of a large city, its benefits should be considered along with the costs [8].

The same period brought a surge of prognostic studies directed toward the year 2000. An eminent part of those concerned the settlement network. These studies were presented and discussed at a seminar sponsored by the newly-founded Committee "Poland 2000" of the Polish Academy of Sciences [23]. Most of the studies were goal- and policy-oriented in scope rather than purely research endeavors. When the State authorities intensified work on the new National Plan of physical development, the ground was already prepared. The plan, covering the period up to 1990 was elaborated within the State Planning Commission with the heavy participation of the scientific community. The initial prognostic concepts, as well as the plan itself (approved in 1974), will be presented in the subsequent sections of this paper.

II. The Initial Models of the Urban System

During 1970-1972 at least twelve concepts of the future urban pattern in Poland were proposed [7] ranging from descriptive models, based on the extrapolation of past trends, to normative constructs, showing desired patterns meeting certain predetermined goals. Although some of the studies are hardly comparable with the others because of differences in means of presentation, the assumptions and methods used, it is possible to identify three archetypes referring to three distinct types of spatial patterns and spatial interdependences predicted for the year 2000, or for 1990.

These patterns are:

- a) the concentrated urban pattern,
- b) the urbanized belts, and
- c) the network of metropolitan centers.

The concept of the concentrated urban pattern, most closely approximated by the Leszczycki, Eberhardt and Herman [14] model, is based upon the following assumptions: concentration of population on a national and on a regional scale will be progressing; proportions between the individual sectors of the economy will evolve in the directions so far identified with an increasing share of the total employment going first of all to the quaternary sector, including administration and management, professional services, data processing, science, arts, etc., and also to the tertiary sector. Such activities, it is claimed, will continue to be attracted to big cities. Finally, on a local scale, deconcentration processes will assume the dominant part. This factor is made responsible for the anticipated rapid expansion of individual urban agglomerations and their eventual physical integration into large complexes with only a fraction of the total area covered by what has been traditionally regarded as urban land.

The concentrated urban development model undoubtedly reflects the features of contemporary urbanization processes in Poland (particularly the spatial structure of commuting to work), and the model extrapolates processes and trends observed in the past, adjusted on the basis of relevant experiences in other countries. It is a predictive model since the pattern proposed is a probable one. The control system aiming at achieving a pattern like this would not have to be very involved. As a planning model it meets some requirements and fails in the case of others. (Speaking of a planning model, I am referring here first of all to the explicit or implicit social and economic goals, rather than to the methodology of plan-making and plan representation.) Thus, a highly concentrated pattern, of one extensive urbanized region or a super-agglomeration, answers one of the basic development goals, namely, the maximization of the effectiveness of investments in production, and therefore, the maximization of the rate of economic growth. On the other hand, it is recognized that costs of providing technical and social infrastructure tend to run higher than in the case of less concentrated patterns. The highly concentrated pattern also brings about the problems of environmental disfunctions of large magnitude, though at the same time it leaves ample space for uses much less intensive and nondetrimental to nature.

The second archetype, the urbanized belts pattern, is mostly represented by the Malisz [19,20] model. It is built upon

postulates similar to those applied by C.F.J. Whebell [25] in his corridor theory. The postulates relate to the differentiation of natural conditions, the linear spread of innovations, and the inertia of fixed assets and socio-economic structure. Some authors claim that urban agglomerations emerge at points where two or more corridors cross each other; according to others the opposite is true; that is, the belts develop as links between the large urban centers. Malisz himself assumes the preexistence of central places of three hierarchical levels which determine the subsequent location of corridors.

Empirical analyses of spatial patterns of settlement indicate that the viability of linear patterns usually depends on the presence of physical barriers to movement or high attractiveness zones. Therefore a prediction according to which urbanized belts become a major component of the whole settlement network is not based on trend extrapolation. Instead, it contains a tacit assumption of an increasing importance of the technical infrastructure, especially major transportation lines, as factors in the evolution of settlement forms on a national scale. As a rule, the linear models contain more normative elements than the remaining types of constructs. They are believed to allow the accomplishment of fundamental social and economic goals: the effective distribution of productive forces, the equalization of living conditions, and a rational policy in utilizing the natural and man-made resources. It is implied in the model that the careful planning of infrastructure networks would be a major control element in the planned formation of urbanized belts which follow the "bundles of communication lines." According to Malisz the belts should not be interpreted as a continuous urbanized territory, although they would contain most of the existing agglomerations and other major growth centers. Other concepts take the notion of the urban belt in a more literal sense.

Finally, the third of the basic patterns identified comes close to the city-region concept. The relevant prognostic model is the one by Dziewoński [4]. It is a polycentric growth model whose principal assumptions refer to the role of urban agglomerations, and big urban centers in general as focal points of social and economic activity. According to this approach, the territory of Poland and its main regions could be divided into spheres of everyday contacts oriented toward the major cities and urban agglomerations. By the year 2000 there would be some thirty centers of this kind, each with a population of 100,000 or more. The model represents certain actual characteristics of the contemporary structure of urbanization in Poland, but it is primarily of a predictive and planning type. The elements of prediction pertain to the assumed increase in the mobility of the population and the growing spatial range of daily and weekly activity patterns, whereas the elements of choice consist mainly

in pointing to the social and economic benefits of promoting a polycentric, and not an overconcentrated, network of urban places.

III. The National Plan of Physical Development: 1990

It can be shown that selected components of the three idealized approaches discussed above have entered into the plan of the physical development of Poland 1990. The concentrated model has contributed the notion of urban agglomerations as growth points; the urbanized belt concept contributed to the recognition of the importance of infrastructural networks, and the metropolitan centers concept contributed to the vital idea of polycentricity. The plan, of course, relates to the composite physical structure and considers the settlement system along with other structural components such as industry, agriculture, education, and recreation. Its scope is therefore much broader than each separate initial research concept. A characteristic and novel feature of the plan-making procedure is that basic policy concepts are worked out by the Governmental Committee of Experts on Physical Development. Supplementary research was conducted by the State Planning Commission, branch research institutes, and numerous academic institutions.

The National Plan of physical development is thus conceived as an integral part of the long-term plan of the socio-economic development of Poland. Its basic premise was a spatial projection of social and economic goals. In particular, the plan aims at creating conditions which would facilitate [21]:

- 1) the proper utilization of natural resources and the efficient allocation of productive forces to warrant dynamic social and economic development;
- 2) the formation of the modern network of rural and urban settlement; a gradual redevelopment of urban agglomerations, cities, and towns; the development of housing construction to meet present and future needs;
- 3) the extension of technical infrastructure networks, especially the communication, transportation, energy transmission, and water supply systems;
- 4) the development and reconstruction of social infrastructure systems;
- 5) the acceleration of the development of relatively underdeveloped regions;
- 6) the protection and enhancement of man's environment.

The analyses accomplished at the plan-preparation stage proved that it would not be proper to continue all the trends so far experienced [21], since some of them might bring adverse phenomena in various regions such as excessive water drainage, transportation problems, etc. Instead, some tendencies had to be strengthened and others constrained. Thus, interregional functional specialization should be further developed, while the principle of uniform allocation of capital on an interregional scale would not be supported. The system to be aimed at had to conform to basic locational trends within the individual economic sectors, and it had to combine national with regional development goals, as well as the principles of dynamic economic growth and the preservation of natural resources. Such a system was identified with *moderate polycentric concentration*. According to Pińkowski [21, p. 365]:

The concept of the settlement system of Poland does not imply a division of cities and other settlement units into those being expanded and the remaining ones. Instead, it means the selection of areas and cities in which a proper measure of concentration of cultural, scientific, service, and, in general, economic activity should take place for the sake of creating optimum conditions for the dynamic development of the national economy, the enhancement of cultural life, the development of science and technology. According to this approach the settlement system should ensure to the inhabitants of all regions accessibility to services of higher orders (such as institutions of higher education, cultural facilities, specialized hospitals, large specialized shopping centers, etc.). It should also facilitate a concentration of manufacturing activities on the scale required by technological and economic efficiency.

It was assumed that the socio-economic development of Poland should proceed largely via the growth of selected centers, first of all the urban agglomerations which form a major component of the total settlement system. One should note, however, that these areas vary substantially in the anticipated growth rates, the rate being inversely related to population size (see Table 1). The highest rates are ascribed to places that by all standards can be still regarded as middle-sized cities. This shows the actual limits to the concentration process. The plan also provides for a relatively faster growth of those urban agglomerations, and other major centers which are located in northern and central parts of Poland, in order to speed up the economic development of northern regions and to relieve the already congested South to some extent.

IV. Selected Planning and Policy Alternatives

It is often useful to organize discussion around certain basic issues or dilemmas. Such an approach allows for the

Table 1. The structure of the settlement system of Poland: 1970 & 1990.²

Components	Population size (millions)		Rate of growth (1970 = 100)	Percentage of the total population	
	1970	1990		1970	1990
Poland total	32.7	37.4	115	100.0	100.0
Urban population	17.1	24.7	144	52.3	66.0
Urban agglomerations total (23 units)	11.6	15.2-16.6	131-143	35.5	40.5-44.0
The developed agglomerations (10 units)	9.2	11.7-12.5	127-137	27.3	31.0-33.0
Average size	0.925	1.17-1.26	-	-	-
The developing agglomerations (7 units)	1.7	2.5-2.9	144-164	5.5	7.0-8.0
Average size	0.277	0.36-0.48	-	-	-
The potential agglomerations (6 units)	0.7	1.0-1.2	151-181	9.2	3.0
Average size	0.118	0.17-0.26	-	-	-
Other major urban places (15 units)	0.9	1.7-1.9	181-208	2.8	4.5-5.0
Average size	0.062	0.11-0.12	-	-	-
Remaining urban places	4.6	7.1-6.2	170-135	14.0	21.0-17.0
Rural settlement	15.6	12.7	81	47.7	34.0

²Source: J. Pińkowski [21], Tables 3, 4, and 5.

tracing of existing alternatives, for the tracing of costs and benefits related to various choices. For example, in regional development and planning the basic issues have been formulated as: spatially uniform allocation of economic activity versus production efficiency; relocation of people versus relocation of jobs; transformation or protection of the natural environment. In the case of urban policies such controversies were recently explored by K. Dziewoński [5]. An attempt is made below to single out those dilemmas which are applicable within the present Polish urban planning context and to identify solutions adopted or proposed. Dziewoński lists the following questions:

- 1) specialization versus standardization of urban functions,
- 2) concentrated versus dispersed development,
- 3) standard versus differentiated city size,
- 4) new versus existing towns.

It is possible to add a few more questions of this kind, for example:

- 5) urban redevelopment versus urban spatial expansion,
- 6) dominance of the capital city versus deconcentration of capital functions.

The problem of functional specialization has received a lot of attention of professional literature. Generally, the growing role of specialized functions following the decline in transportation costs and the increase in the mobility of people is pointed out. One aspect of the question, however, is often passed by: with economic and technological development, particular functions tend to change their nature and shift from the specialized to the central-place category. This applies mostly to new and/or high-order functions, the allocation of which tends to follow the usual, hierarchical pattern of innovation diffusion. From this point of view the polycentric urban growth pattern implies a redistribution of central functions (in addition to a redistribution of specialized functions), including a deconcentration of high-order functions on a national scale.

The concentrated versus dispersed development should be discussed, as Dziewoński demonstrates, in the historical perspective and in relation to stages of social and economic development. Assuming present conditions and national rather than regional scale, the issue largely boils down to two other questions: the advantages of production efficiency versus the disadvantages of migration, and the preservation versus the reclamation of natural resources. When planning is involved, the middle way is usually preferred. Thus, in the case of

Poland, urban policies are geared to take advantage of scale and agglomeration economies, and at the same time, to reduce migration costs by stimulating short- rather than long-range migrations.

The question of the optimum city size was referred to earlier. It is possible to determine the optimum size from the point of view of a given activity, for example, the provision of telephone services or construction operations. To calculate the optimum size from the standpoint of the functions the city performs is a much more difficult, if not impossible, task. Most lay and expert discussants agree that both very large urban agglomerations on one hand, and very small places on the other, possess serious disadvantages. This rule is reflected in the present Polish urban policies which ascribe the highest growth rates to middle-size rather than very large cities.

It is generally assumed that the building of new towns is by no means the only possible solution when a reorganization of the internal structure of a large agglomeration, or the development of industry in a new region is involved. This, of course, applies to countries with a relatively dense urban network. To quote Malisz [17, p. 29]:

...the problem is not whether we should build a new town or not, but rather how to provide a functional system of settlements by extending the existing ones in a measure appropriate with the economic activity of the region.

In most cases investments in industry or mining were accommodated within the existing urban network, although they frequently brought a manifold increase of population size and the total transformation of the internal structure of a town.

The last two questions need only short comments. Most of the new housing to be built in Poland by 1990 will be in multifamily units, and public transit is assumed to continue to serve a majority of the work trips. The requirement of using space efficiently implies a substantial role for urban redevelopment and a limited territorial expansion of urbanized areas. In fact, the existing agglomerations should be largely confined to their present rather liberally defined planning boundaries.

The problem of the capital city versus the rest of the urban system is much less pronounced in Poland than in most of the other European countries. The Warsaw agglomeration accounts for a mere five percent of the total population, and its share may increase to about six percent by 1990. The existence and development of several strong provincial capitals, in some respects sharing the functions of the national capital, make for a stability of present proportions.

V. Further Research and Planning Problems

It is recognized that much substantive research is needed to develop the basic urban policy formulations provided by the National Plan. Here, I shall list several questions which are themselves quite broad, and could be easily further subdivided.

When we think in terms of the settlement *system* we usually identify urban agglomerations with one of the subsystems. So far, this is a working hypothesis only. It is important to disclose the nature of the interrelations and to measure their magnitude. This would allow us to predict effects of particular allocation decisions over the whole subsystem much more precisely than now. Furthermore, we need to expand our knowledge of the changing interrelations between individual urban agglomerations and their tributary areas, to be able to anticipate regional effects when planning on an urban scale, and vice versa. For example, when substantial growth for a city is planned, analyses of demographic structures within areas of possible out-migration are of crucial importance.

Finally, there is a whole array of questions concerning the internal structure of cities and urban agglomerations such as interrelations between functional and socio-economic patterns, and others. These problems, however, call for separate treatment.

References

- [1] "Cele polityki regionalnej a przedmiot planowania regionalnego" ("Regional policy and the scope of regional planning"), *Studia KPZK PAN*, 37 (1971)
- [2] Ciechocińska, M., "Deglomeracja Warszawy" (Deglomeration of Warsaw"), *Biuletyn KPZK PAN*, 80 (1973)
- [3] Dziewoński, K., and K. Wejchert, "Zagadnienia osadnicze" ("Settlement problems"), *Planowanie Przestrzenne*, Plan Krajowy I, Warsaw, 1947
- [4] Dziewoński, K., "Hipoteza przekształceń sieci osadniczej w Polsce do roku 2000" ("A hypothesis on the transformation of the settlement network in Poland by the year 2000"), *Prognozy rozwoju sieci osadniczej*, Komitet "Polska 2000," Polskiej Akademii Nauk, 2, Ossolineum, Warsaw, 1971

- [5] Dziewoński, K., "Urban Development Policies and Strategies," paper presented at the Symposium on Population, Resources and Environment, United Nations Economic and Social Council, Stockholm, September-October 1973
- [6] Friedmann, J., "Some observations on integrating economic and physical planning," *Regional Development and Planning*, Regional and Urban Studies No. 2, Mens en Ruimte, Brussels, 1974
- [7] Herman, S., and P. Eberhardt, "Prognozy przemian osadnictwa w Polsce" ("Prognoses on the evolution of urban settlement in Poland"), *Biuletyn KPZK PAN*, 78 (1973)
- [8] Kolipiński, J., "Metody rachunku efektywności w miejscowym planowaniu przestrzennym w Polsce" ("Methods for efficiency calculations in spatial physical planning in Poland"), *Studia KPZK PAN*, 32 (1970)
- [9] Korcelli, P., "Modelowanie i planowanie rozwoju aglomeracji miejskich" ("Modelling and planning the growth of urban agglomerations"), paper read at the Second Polish-Soviet Seminar on Urbanization, Moscow-Leningrad, 1974. (Forthcoming in *Geographia Polonica*)
- [10] Korcelli, P., "Theory of urban spatial structure: review and synthesis. A cross-cultural perspective," *Geographia Polonica*, 31 (1975)
- [11] Kuklinski, A.R., "Research activity of the Committee for Space Economy and Regional Planning," in J.C. Fisher, ed., *City and regional planning in Poland*, Cornell University Press, Ithaca, 1965
- [12] Kukliński, A.R., "Przestrzeń w polityce i planowaniu" ("Space in policy and planning"), *Przegląd Geograficzny* (1974)
- [13] Lentz, P., "A model of residential structure in a socialist city: case study of Warsaw," *Geographia Polonica*, 31 (1975)
- [14] Leszczycki, S., P. Eberhardt, and S. Herman, "Główne ogniwa przestrzenno-gospodarczego rozwoju kraju do roku 2000" ("Main nodes of spatial economic development in Poland to the year 2000"), *Prognozy rozwoju sieci osadniczej*, Komitet "Polska 2000," Polskiej Akademii Nauk, 2, Ossolineum, Warsaw, 1971

- [15] Leszczycki, S., S. Herman, and P. Eberhardt, "The role of urban-industrial agglomerations in the spatial organization of the settlement system," *Geographia Polonica*, 27 (1973)
- [16] Malisz, B., "Wstępna koncepcja planu krajowego" ("A tentative concept of the national plan"), *Planowanie Przestrzenne, Plan Krajowy I*, Warsaw, 1947
- [17] Malisz, B., *Physical planning for the development of satellite and new towns, Papers 78*, Institute for Building, Town Planning, and Architecture, Warsaw, 1963
- [18] Malisz, B., "Urban planning theory: methods and results," in J.C. Fisher, ed., *City and regional planning in Poland*, Cornell University Press, Ithaca, 1965
- [19] Malisz, B., "Prognoza zmian sieci osadniczej w Polsce" ("A prognosis on the evolution of the settlement network in Poland"), *Prognozy rozwoju sieci osadniczej*, Komitet "Polska 2000," Polskiej Akademii Nauk, 2, Ossolineum, Warsaw, 1971
- [20] Malisz, B., "The band-node model of the Polish settlement network," *Geographia Polonica*, 32 (1975)
- [21] Pinkowski, J., "Studium planu przestrzennego zagospodarowania kraju" ("A study on the national plan of physical development"), in K. Secomski, ed., *30 lat Gospodarki Polski Ludowej*, PWE, Warsaw, 1974
- [22] Pióro, Z., "Socialistic city planning: a reexamination," *Journal of the American Institute of Planners*, 31:1 (1965)
- [23] "Prognozy rozwoju sieci osadniczej" ("Prognoses on the development of the settlement network"), *Komitet Badań i Prognoz, "Polska 2000,"* Polskiej Akademii Nauk, 2, Ossolineum, Warsaw, 1971
- [24] Secomski, E., ed., *Spatial planning and policy: theoretical foundations*, PWN, Warsaw, 1974
- [25] Whebell, C.F.J., "Corridors: a theory of urban systems," *Annals of the Association of American Geographers*, 59:1 (March 1969) 1-26
- [26] Zaremba, J., "Regional planning in Poland: theory, methods, and results," in J.C. Fisher, ed., *City and regional planning in Poland*, Cornell University Press, Ithaca, 1965

Interrelations Between Settlement Systems
and Socio-Economic Development

Miklós Koloszár
Regional Planning Department,
National Planning Office,
Budapest, Hungary

Introduction

The planned development of a national settlement system seems to be a tool of great importance for developing society and the economy as a whole. The basic aims of the development of the settlement system are of a social and economic nature, such as promoting the betterment of the inhabitants' living conditions and intensifying the effectiveness of productive forces. To draw up the development aims of the settlement system, it is necessary to assess all the internal and external factors having influence on the development of settlements as well as the requirements resulting from the spatial dimensions of the social division of labor.

Development of the settlement system forms an integral part of the regional development. The settlement system has a close, many-sided relationship with the development of society and the economy. I should like to present some of those fundamental relationships, relying on the analysis of social and economic progress in Hungary and the development of the settlement system there during the last quarter of a century for illustration.

This analysis and a brief account of the settlement system together make it possible to show future goals and the strategy of developing the settlement system. The subject matter I am going to deal with is as follows:

- 1) the status of the settlement system in Hungary in 1949;
- 2) the interrelations of socio-economic progress and the development of the settlement system during the last quarter of a century;
- 3) the system of settlements at present; and
- 4) the development strategy for the settlement system.

I. The Settlement System in Hungary in 1949

After World War II the Hungarian settlement system was characterized by the following:

- a) a relatively low level of urbanization. A little over one-third of the country's population lived in towns.
- b) a capital outstripping the other Hungarian towns in its dimensions, size and economic concentration. About fifty percent of the urban population lived in the capital. The regional distribution of industry was parallel to this ratio: more than fifty percent of the industrial output and employees were concentrated in Budapest.
- c) no network of big towns to be found in the country. The total number of inhabitants in the five major towns smaller than Budapest was slightly less than one-third of the population in Budapest.
- d) other elements of the urban system unevenly located in the country. Over relatively large areas there were no settlements providing urban functions.
- e) conditions of the rural population were characterized by substantial regional differences. In contrast to the large agricultural villages (5,000-10,000 inhabitants) of the Hungarian Plain, in northern Hungary and in southern Transdanubia the small-village type of settlement with 200-500 inhabitants was characteristic. Over large areas of the Hungarian Plain there were only dispersed, single farmsteads.

The low degree of supply with infrastructural facilities added to and further aggravated this disadvantageous quantitative status of the settlement system. There were great differences in the living conditions of the population, both between towns and villages and among the towns themselves.

The history of past centuries had left its mark on the structure of the settlement system, especially in the predominance of the agricultural character of the country, which determined the low levels of rural development.

II. The Interrelations of Socio-Economic Progress and the Development of the Settlement System During the Last Quarter-Century

Comparing the developments of the society, the economy, and the settlement system, the last seems to show the slowest rate of development. Slow, long-range changes are characteristic of spatial systems in general, and settlement systems are no exception. The rate of change in the settlement system is handicapped compared to the faster economic processes

and as a general rule, its rate is lower than the growth rate of the economy. In particular, this holds true for periods of rapid growth and structural change in the economy.

At the same time, it should be mentioned that over a long-term period divergent trends are also emerging. This is indicated in the static analysis at the end of the period. The last quarter of a century seems to be long enough to show the factors exercising influence on the development of the Hungarian settlement system, emphasizing the fact that the tendencies under discussion are related to a given historical stage of development, and they will not be working in the future or, if they will, then only in an altered form.

The most fundamental socio-economic process of the period under discussion was the formation of the socialist production relations which produced in consequence a growth of productive forces, a rapid increase in production, and change in the spatial dimensions of the productive forces. Two elements of prime importance in the development--industrialization and establishment of extensive farming--determined and influenced the development of the settlement system and, within this, of urbanization.

Industrial and agricultural growth entailed effects on the spatial structure of the society and economy as well as on the settlement system:

- 1) Centers of regional economic activities shifted. This changed the proportions of the regional distribution of industry. The percentage share of Budapest in the industry of the country decreased from 50 to 30 percent. In addition to strengthening the existing industrial centers, new ones were developed; indeed, industrial development was most rapid in the former agricultural areas.
- 2) The number of non-agricultural employees and the urban population grew jointly. The rapid and extensive development of industry which characterized the first half of the period claimed the rural-to-urban migrants of that period to a great extent.
- 3) The demand of industry, and later of the tertiary sector, for an urban labor force appeared simultaneously with the release of labor from agriculture, thus providing opportunity for inter-regional population movements. Rural-to-urban migration of the released population accelerated. As a result of this process the number of employees in non-agricultural sectors nearly doubled, and the proportion of labor employed in towns changed similarly.

The complexity of the development is well indicated by the fact that the changes of occupational structure of the population were accompanied by the exchange of rural working places for urban ones. This, however, induced changes in residence only on a smaller scale, because the process of territorial separation of the working place and residence, the evolution of agglomerations, and commuting contemporaneously accelerated. Following from this, the growth of the number of urban employees did not result in the growth of urban population within the administrative boundaries of the towns at an equal rate.

The growth and structural changes of production as well as the shifting of the regional main points of economic activity had a direct influence on the migration and urbanization of population as mentioned above. The development of the infrastructure involves effects of a more indirect nature. Infrastructure is a prerequisite to the development of production, but it is difficult to develop production and infrastructure at the same rate because of the complexity of the latter. Expansion of production and the population movements accompanying it occur faster in general than the development of infrastructure, which has great fixed capital costs.

Occasionally, this difference in rates may limit the development of certain settlements and settlement types and may give a reason for shifting the regional centers of development. To create the dynamic consistency of economic activities, infrastructural services and movements of population demand planned and conscious intervention. Besides the proportional forming of single processes having an effect on the development, planned and conscious intervention can take the shape of acceleration, or in some cases a necessary restraint. Development of the Hungarian settlement system during the last quarter of a century was formed significantly by planned and conscious guidance. In the early 1970's, the settlement system as both a result and a part of the socio-economic development can be characterized by the following changes:

- a) the capital continues to develop, but its economic predominance has been reduced;
- b) the former middle towns developed into towns of 150,000-200,000 inhabitants and gradually acted the part of cultural and organizing centers for each country region;
- c) the urban system has widened: gravity areas of towns, as well as that of urbanizing settlements, cover the territory of the country more and more evenly;
- d) rural settlements have developed differently: central settlements have started to develop and, at the same time, the smaller settlements and farms have regressed;

- e) a new phenomenon is the evolution of agglomerations. The largest is around Budapest, but agglomerations have also started to develop around other big towns. The process of agglomerating has helped the inhabitants of the former agricultural settlements to change their occupation, and so they can become urban workers maintaining their former residences. Beyond assuring gradualness, this process reduces the costs of urban development. It is not necessary to invest in new residential infrastructure.

System-like elements of the settlement system have grown stronger. Centers of settlement and their fields of force have taken shape; their gravity area has been limited.

During the last twenty-five years formation of the settlement system on the one hand followed and promoted the regional development of the economy, and on the other hand it contributed to the realization of the social-political purposes of regional development and to the reduction of the regional differences in the living conditions of the population.

Naturally, positive changes in the settlement system could ease but not stop the essential tensions emerging at the beginning of the period. At the same time new tensions appeared, first of all in the towns growing most rapidly.

Abstract presentation of the development of the settlement system does not refer to many partial processes, and it simplifies the relation of cause and effect. It is necessary to analyze these partial processes and active components in detail in order to get a starting point for the working out of a long-range concept of the regional development.

III. The System of Settlements

For the elaboration of the concept of the settlement system it is necessary to define criteria constituting the system of settlements. These criteria mean the internal connections of the system, its regional structure as well as the internal and external (endogenous and exogenous) factors exercising influence on the development.

A settlement system is a spatial framework of the social and economic activities. Internal relations of the system are composed of the regional connections of production, distribution and administration. Realization of these connections is assured by the systems of traffic and transport.

The activities of production, distribution, administration

and transport form the basic components of the settlement system. Development of the system can be carried out only in a complex way by the coordination of the activities listed above. Simple coordination, however, is not enough; since the growth rates of the factors are different, dynamic harmonization is required.

Distribution and transport are scientific-technical developments of production, and they develop faster than the settlement system which forms their framework. Thus it is necessary to assure the elasticity of the system.

Internal connections of the settlements mean the functional cooperation between the population and the system of the socio-economic institutions and establishments. Besides the interrelations among settlements in the field of individual activities, external connections are determined by the intensity and influence exercised on the gravity areas coming from the function of the settlements.

Settlements form a system without any planned arrangement. But the spontaneous arranging of settlements into a system, or the systematization of only some of the functions (e.g. administration) does not give the same efficiency that can be reached through conscious and planned organization.

The settlement system will become an organized system when each settlement, taking into account its gravitation and gravity area, is organized spatially, vertically and horizontally on the basis of socio-economic functions. Underlying principles of the system of settlements are on the one hand the vertical hierarchy of functions belonging to the different levels of settlement, and on the other hand the regional network of gravity area of the identical functions.

IV. The Development Strategy for the Settlement System

The concept of the development of the settlement system is based on the actual system of settlements. The concept determines the role of every individual settlement in the country. According to the hierarchy of settlements, the developing settlements are classified one by one as lower-grade, middle-grade or higher-grade centers. Determination of the place to be filled in the hierarchy by a given single settlement simultaneously determines its functions.

The concept of the settlement system helps in the locating of economic activities, infrastructure, etc., and it orients central and local decision making. Through the

assignment of the lower-, middle-, and higher-grade centers to hierarchical positions in the structure of the settlement system, we ensure a balanced spatial distribution of the parallel supply functions and also the management and other functions needed for performing the economic activities. The pattern of the development concept of the settlement system is most clearly demonstrated by the development of sources of supply according to the types of settlements.

Establishments of supply at a basic level--elementary education, health provision, hospitals, etc.--must be made easily attainable for the population of the whole country through a network of *lower-grade centers* to be located in accordance with the territorial distribution of the population.

Establishments of supply at a middle level--secondary schools, hospitals, etc.--must be placed in the gravitational center of a region, in the *middle-grade centers*. The middle-grade centers are towns or settlements of urban character.

The managing, organizing and servicing function at a national level are fulfilled by the *higher-grade centers*. In terms of their size and the role they play in the regional division of labor, the five biggest rural towns stand out. They must also ensure supply to whole parts of the country as far as certain fields of supply are concerned. The regionally indivisible, nationwide functions are fulfilled by the capital as the national center.

The development concept of the settlement system outlines a desirable and optimal system of settlements to be reached in the long term. The concept is not a development purpose in itself but it is a part of the improvement of the spatial structure of the society and economy. It orients the regional development of economic activities, distribution and administration. Simultaneously it provides an opportunity for the regional coordination of sectoral development goals and for a complex survey of their interactions.

Framing the settlements into a system facilitates the realization of the means determining and influencing the development of the settlements. The most important determinants of the development of the settlement system are the national economic plans for long- and medium-range, and within this the:

- 1) regional development policy of industry, central dislocation of the major industrial investments, and preferential regional orientation of the smaller invest-

- ments depending on the type of settlement;
- 2) coordinated development of the centers of the infrastructural network and the settlement system;
 - 3) concentration of the central development resources for infrastructural supply of the inhabitants in the towns and the developing rural settlements;
 - 4) development of establishments of various levels of the institutional system (education, health, etc.) corresponding to the level of settlement.

In the long-range concept of the settlement system, the system is not seen as a static. Effects of socio-economic development as well as tactical objectives for short periods will influence the development strategy of the settlement system. This makes it necessary to receive feedback and to accomplish adjustment from time to time.

The inherent fields of force in the system may change too. The gravitation of functions to certain centers may change intensity over time. In the preceding we referred to the noncontinuous development of infrastructure. Obviously in the period approaching the break-points, the so-called threshold values, the gravitation of the settlement declines. However, the optimal and efficient utilization of the assets stimulates prevention of surpluses of capacity in the individual settlements. These processes are coordinated in the medium-term plans.

The intensity of gravitation of settlements in itself is not enough to guide the development processes, as spatial mobility may change. For example, a result of a decrease in the age structure of the most moveable and migration-prone age groups decreases the urbanization process. Different effects of the functions of the settlements at various levels may also change and influence the population movements.

Providing there is a satisfactory basic supply (housing, communal provision, education, etc.) the lower-grade centers can counterbalance gravitation of centers with a great number of employees. A general way to solve this problem seems to be by agglomeration, when the people, instead of changing their residence, utilize the supply of employment in the centers of gravitation through commuting.

The previous examples confirm that the concept of the development of the settlement system cannot be seen as a static one. Deliberate analysis, coordination and planning of the factors and processes having influence on development is required to implement the concept.

Appendix

Table 1. Distribution of employees by types of settlement (percent).

Categories of settlement	1949	1960	1970
Budapest	18.8	24.6	25.8
Towns	19.5	25.6	34.3
Villages	61.7	49.8	39.9
Total	100.0	100.0	100.0

Table 2. Distribution of active wage earners by types of settlement.

Categories of settlement	Percentage of wage-earners		
	Industry, construction	Agriculture	Others
<u>On January 1, 1949</u>			
Budapest	46.1	1.9	52.0
Towns	30.8	33.6	35.6
Villages	12.0	74.0	14.0
National average	22.0	53.9	24.1
<u>On January 1, 1970</u>			
Budapest	53.9	2.7	43.4
Towns	51.6	12.5	35.9
Villages	36.3	42.2	21.5
National average	44.2	25.7	30.1

Table 3. Spatial distribution of the country's population at the turn of the millenium.

Settlement type	1970 population		2000 population	
	millions	percent	millions	percent
Budapest	1.9	18.8	2.2	19.0
Higher-grade centers				
of high priority	0.7	6.6	1.0	8.6
Higher-grade centers	0.4	3.7	0.7	6.0
Partial higher-grade				
centers	0.5	4.7	0.7	6.0
Middle-grade centers	1.5	14.5	2.3	20.0
Agglomeration villages	0.4	3.7	0.9	7.6
Total for towns	5.4	52.0	7.8	67.2
Lower-grade centers and				
other settlements	4.9	48.0	3.8	32.8
Total for the country	10.3	100.0	11.6	100.0

Aspects of Urbanization in the German Democratic Republic

Frankdieter Grimm
Head, Department of Economic
Geography, Institute of
Geography, Academy of
Sciences, GDR

Rudolf Kroenert
Head, Research Group,
Department of Economic
Geography, Institute of
Geography, Academy of
Sciences, GDR

Heinz Luedemann
Director, Institute of Geography,
Academy of Sciences, GDR

Introduction

In the next few decades urbanization will make considerable progress throughout the world. It is an important feature of the development of territorial structure. The GDR, too, is faced with the task of planning this process in such a way that it serves the welfare of the people through increasing the productivity of work. Therefore scientific institutions as well as planning authorities in the GDR pay special attention to the long-term development of the urbanization process.

On the Character of Urbanization

In our opinion, urbanization--especially in a socialist society--is the process of the extension of urban ways of life and work all over the country. It is closely connected with the realization of one of the most important political and social aims of socialism: overcoming the main differences between town and country.

We have to guarantee for the future that all people in any part of the country get living and working conditions of the same value. For urbanization under socialist conditions, four aspects of this general objective are important:

- 1) to work in modern plants and other places of work, to contribute effectively to the growth of the national income, and to develop their talents with the work;

- 2) to make use of good services without great expenditure of time and money;
- 3) to live in accommodations of modern standards and to satisfy their cultural requirements in their home communities or at other easily accessible places; and
- 4) to live in sound and pleasant environments which offer manifold recreational possibilities in the vicinity.

These four closely connected aspects should be considered as a unity. They have to be studied thoroughly and have to be mastered in planning. In this way the planned development of urbanization will contribute effectively to a further improvement of the quality of life of all people. Practice has proved that larger settlements do not always offer more favorable working and living conditions. Good working and living conditions can also be found in smaller settlements, the only exceptions being very small villages.

The above-mentioned aims as a whole cannot be achieved in a single community, even if it is a big town. Therefore the long-term development of urbanization requires the consideration of regional settlement systems. In this respect valuable experience has been gained in all socialist countries.

Since urbanization is a highly complex process, research in this field requires the cooperation of many disciplines of the social and natural sciences: town planning and architecture, geography, economy, demography, sociology, medicine, biological sciences and many others. The mastery of urbanization is not only an important task of town planning. It is also a task of regional planning, especially with regard to the connections to the development of production, population, technical and social infrastructure, and environmental problems.

The concrete form of urbanization in the individual countries is dependent upon a number of factors: size of the country, political and social conditions, historically caused features, population density, development of communications, natural conditions, and so forth.

Specific Conditions of Urbanization in the GDR

Urbanization in our country is influenced to a large extent by a number of specific conditions. For example:

- a) The GDR is a small country, covering only about 108,000 square kilometers. The whole of the territory is used for economic and social purposes. With regard to human life, the natural conditions do not differ very much from one part to another.

- b) The degree of urbanization and industrialization is already high. In 1973, 45.5 percent of our population lived in towns with more than 20,000 inhabitants, and 74.6 percent lived in urban communities with more than 2,000 inhabitants. Of the working population, 88.3 percent were occupied outside agriculture and forestry.
- c) Although there are certain regional differences in the GDR, the settlement network as a whole is very dense. A high degree of regional specialization in functions and multifarious interactions between the different settlements are facilitated by a well-developed communication system. Many smaller settlements are situated within the direct sphere of influence of towns.
- d) In smaller settlements also, good results with the formation of urban ways of life and work have been achieved in the past two decades. Today, the people there are occupied in large-scale production (industry, industrialized agriculture). The dynamic development toward industrialization and large-scale production in agriculture can be seen, for example, in the increasing use of combines for the harvest of cereals: in 1960, 37.9 percent and in 1973, 99.7 percent of all cereals. At the same time the number of workers per hectare of arable land decreased from 17.1 to 13.8. Simultaneously, attempts have been made to give the remaining inhabitants of small settlements equal opportunities for education and medical care.

A further typical example is the proportion of university- and college-educated people in the total number of people employed in the GDR. In 1961 this was 3.4 percent and in 1973, 9.8 percent. A number of centers of science, production and culture are quite conspicuous (for example Berlin, Dresden, Leipzig, Halle, Jena). But outside of these centers there is no south-to-north gradient whatsoever. This is characteristic of the level of industrialization and urbanization (see Figure 1). Not only industry, but also modern agriculture has become an all-important factor in the process of equalizing the level of development of the various regions.

- e) Unlike the majority of the other states, the GDR has achieved a stagnant population. As a result, the population of the GDR has been almost constantly of the order of about 17,000,000 for many years.

Main Features of Urbanization in the GDR

The present process of urbanization in the GDR is characterized by the following main features. The *growth of the urban population in the GDR* goes on rather slowly. In general,

UNIVERSITY- AND COLLEGE EDUCATED-PEOPLE IN THE G.D.R.

(PERCENTAGE OF THE TOTAL NUMBER OF PERSONS EMPLOYED IN 1964)

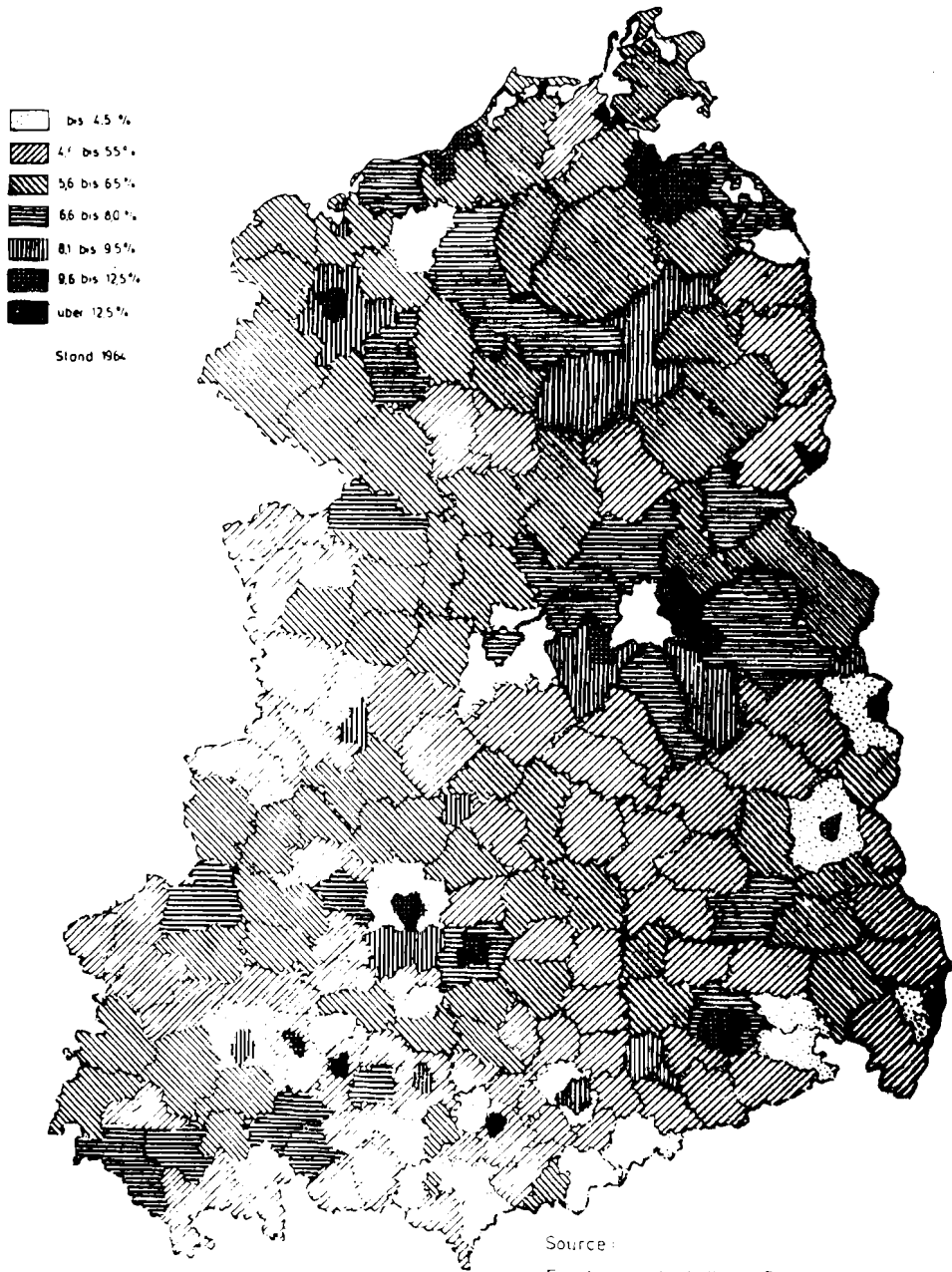


FIGURE 1.

the population of the large and medium-sized towns and their share of the total population is increasing (see Table 1). But there are a few towns with a stagnant or decreasing population: Leipzig, for example (1964: 595,000 inhabitants; 1973: 575,000 inhabitants). There is, especially, a relative increase in the importance of medium-sized towns (20,000 to 100,000 inhabitants). Besides Berlin and the district towns (*Bezirksstaedte*), they are the main locations of industrial investment and house-building. Communities with less than 2,000 inhabitants, however, display a tendency toward decreasing population. In the last few years this trend has also included small towns.

Table 1. The total population of the GDR according to the size of communities (percent).

Year	up to 5,000 inhabitants	5,000-20,000 inhabitants	20,000-100,000 inhabitants	over 100,000 inhabitants
1950	42.7	18.2	18.4	20.7
1960	40.8	18.7	19.1	21.4
1970	38.3	18.0	22.1	21.9
1973	37.4	17.1	22.2	23.3

The development of migration corresponds with these phenomena. Since the beginning of the 1950's, migration has been decreasing, and at present its extent is relatively small. Rural communities, and to an increasing extent small towns, show slight negative migration balances.

Unlike other socialist and western countries, there is almost no suburbanization in the GDR: there is almost no population growth in the surroundings of the cities and no areal extension of agglomerations. Most of the rural districts around large towns are regions of decreasing population. The outskirts of the capital, Berlin, seem to form the only exception [14].

In the past, house-building in the GDR was concentrated to a large extent in towns and a few selected rural communities. Therein lies one of the most important causes for the almost complete lack of suburbanization. In the five-year plans to come, the predominant part of the extensive housing program of the GDR will also be concentrated on large- and medium-sized towns and on selected rural communities. Thus, it can be assumed that despite the intensified promotion of individual house-building, there will be hardly any suburbanization in the future.

Social development and scientific-technological progress have led to a change in the interior proportions of the national economy: a decline in the number of people working in agriculture is offset by an increase in industry, including the building industry, trade, transport, and services.

Table 2. Percentages of people employed in the different sectors of the national economy (percent).

Sectors	1952	1973
Agriculture and forestry	21.7	11.7
Industry including building industry, productive trades	47.2	51.7
Transport, trade, services	31.1	36.6

Special studies showed a decrease in the number of purely agriculture communities, and this has been proven by changes in the employment structure. The share of these communities in five rural sub-districts of the Greifswald region, for example, has dropped from 62 to 15 percent since 1964. In all parts of our country communities are changing to a more urban type. This change can be observed in all regions irrespective of their economic structure. It was frequent even in already urbanized regions. The changes in the types of communities are mainly caused by the increasing utilization of jobs away from the home community (commuting).

The Significance of City-Hinterland Relationships in Urbanization

A specific aspect of urbanization in the GDR is the planned development, intensification and rationalization of the relationships between towns and the settlements in their hinterlands.

Thus it can be ensured that an ever-increasing number of people from smaller settlements in the hinterlands of towns get the possibility of making use of the various high-quality services of the towns. At the same time in many respects the hinterland gains in importance for the production and life processes of the town itself. This refers especially to the long-term utilization and systematic development of the natural environment around towns (e.g. for recreational purposes, water supply, disposal of industrial, agricultural and municipal waste) without damaging or disturbing the biological balance.

In the following, some aspects of these city-hinterland relationships are shown to be of special relevance to the urbanization process in the GDR; they have been thoroughly investigated. Under the conditions of the socialist planned economy it is appropriate to differentiate city-hinterland relationships as follows:

- 1) territorially fixed relationships,
- 2) territorially flexible relationships.

For the *territorially fixed* relationships the territorial spheres of operation are laid down by the Government. In particular, this refers to the politico-administrative relationships. These relationships between towns (sub-district town, district town)¹ and the administratively coordinated hinterlands (rural sub-district, district) include interrelations between the individual communities and the Government authorities, social organizations and the leading economic authorities in the district and sub-district towns. They comprise each community. The scope of these relationships is clearly laid down by the administrative structure of the GDR. As a rule, the sub-district towns and district towns have approximately thirty to thirty-five function groups, which are of importance for the whole population or for specific population groups of the respective rural sub-district or district [5].

Politico-administrative city-hinterland relationships are an expression of the efficiency of the socialist government policy, which includes the citizens of each community in the planning and management of the social development processes, in particular by means of the national economic plan.

Moreover, the politico-administrative centers are of primary importance for the entire city-hinterland relationships, since numerous other functions with new relationships derived from them are bound up with these centers. As an example of the territorially fixed relationships which are closely connected with the politico-administrative relationships, the situation in national education may be explained here: the state management of education is effected by the respective district or sub-district authorities. The intake areas of schools are organized within the rural districts, the intake areas of high schools and vocational schools being in many cases identical with sub-district areas. In the same way, other institutions of adult education are organized according to sub-district and have their main centers in the sub-district towns. Facilities of in-patient medical care are predominantly conditioned by district and sub-district boundaries.

¹A sub-district is a *Kreis*; a district is a *Bezirk*.

The *territorially flexible* city-hinterland relationships are characterized by the fact that their territorial spheres of influence are not determined by state rulings primarily, but are shaped under the influence of actual material conditions and the ways and habits of the people.

Commuting, relationships in the field of retail trade and services, recreation and leisure time activities as well as the organization of outpatient health services have to be taken into account here. In the past decades, however, an increasing concentration of the provision of these services has occurred in the administrative centers, so that in this field, too, these centers assume a predominant position in the settlement network of the GDR.

Commuting is among the most important territorially flexible city-hinterland relationships. It affects the daily work and life routine of a great part of our population. Commuting is of great significance for the inhabitants of the smaller settlements as it guarantees a much wider choice of jobs; it ensures, at the same time, an efficient utilization of the labor potential in the hinterlands of the towns.

In recent years, commuting has considerably increased in the GDR. This is the result of the rapid concentration of production in a comparatively stable settlement network. At present, every third person in the working population of the GDR is a commuter. In roughly one-half of all communities the share of commuters even exceeds 50 percent. For the majority of communities, independent of their structure, the function as a place of residence is gaining significance, and to a decisive degree is becoming the basis of existence of settlements. Even regions hitherto little affected by commuting are more and more coming under the sphere of influence of large centers. The fact that 27 percent of all commuters in the GDR come from communities with a job surplus proves that commuting is not only an expression of the historically founded disproportionality between the places of residence and work. The commuter ratio has also risen in the towns. All of this goes to prove that commuting is an expression of the increasing spatial mobility connected with the urbanization process. Under socialist conditions, it is also an objective phenomenon of social and territorial relationships.

A decrease in the intensity of commuting relationships from the center to the periphery is clearly recognizable, just as with the territorially flexible city-hinterland relationships as a whole. The regions characterized by intense commuting usually extend to a distance of a forty-minute journey and in the case of large towns to anything up to sixty minutes or possibly to the terminus of a direct rail or bus connection.

To influence commuting systematically the following aspects should be taken as a basis and coordinated accordingly:

- a) with regard to economic considerations: the abolishment of economically disadvantageous commuting, e.g. if the current costs of commuting are more expensive than migration;
- b) with regard to sociological considerations: the creation of favorable conditions for the individual commuter (leisure time, combination of advantages afforded by the places of residence and work, transport conditions);
- c) with regard to the development of settlements: the importance of commuters for the steady development of rural settlements.

Similar arrangement principles, like those governing the workplace relationships, can be applied to the city-hinterland relationships in retail trade and specialist medical care, which are also partly made use of by the population when commuting. Caused by a greater variety in the demand for these services, the intensity of these relationships decreases more slowly from the center to the periphery than with the commuting relationships. As a rule, there is a gradual transition from the treatment frequently demanded in the vicinity to that of specialist treatment less frequently called for in a place some distance away. Normally, the spatial expansion of the scope of the different urban-rural relationships is variable so that a congruence of the area of the urban-rural relationships can be established in exceptional cases alone. Likewise, there are no sharp limits to the effectiveness of individual city-hinterland relationships.

With the increase in the use of private vehicles it is to be expected that an extension of the scope of the centers will occur in the future. Above all, these territorially flexible relationships have to be influenced systematically in the towns while planning the necessary facilities. A well-grounded knowledge of the existing relationships is needed as a prerequisite for the optimal consideration of the requirements of the hinterland areas. The planned development of transport facilities offers additional possibilities.

The study of city-hinterland relationships as a problem of the further urbanization in the GDR by scientific institutions of geography led to a typology of centers according to their significance for the hinterland. This typology was applied to all communities of the GDR with more than 5,000 inhabitants in two stages:

- 1) an assessment of the most important city-hinterland relationships as to their significance for the hinterlands, and

- 2) a comprehensive typification of the centers as to their importance for the hinterlands.

The scientific data and information worked out with the investigations enable the planning authorities of the GDR to better take into account the effects of city-hinterland relationships with the planning of town development and, at the same time, to influence the sociological process of urbanization in the country systematically by the planned development of the town.

On the Planning of Regional Settlement Systems

Under the special conditions of the urbanization process in the GDR, the planned development of regional settlement systems is gaining in importance. Within these systems the towns (settlement centers), where a large part of the most important productive capacities as well as high-quality facilities for the further increase of the living standard of the population are concentrated, play a leading and decisive part. In many cases the *Zentrumsregionen* of large and medium towns (i.e. the regions formed by these towns and their hinterlands) are a concrete starting point for the consideration and planning of such regional settlement systems.

These *Zentrumsregionen* can be referred to as relatively self-contained spatial units. In them the above-mentioned four aspects of urbanization can be realized in a favorable way under utilization of the advantages of the division of labor between the settlements. It also seems possible to us to plan and balance such important territorial quantities as population, labor resources, number of places of work, amount of infrastructural facilities, possibilities for recreation in the vicinity, etc., within the scope of these units.

A basic element for the planning of regional settlement systems such as these *Zentrumsregionen* is the analysis of the accessibility of the existing centers. In the GDR this was done in detail for the total national territory.

The study of city-hinterland relationships at geographical institutions of the GDR has led to the result that, under our conditions, district centers should be within 120 minutes' reach, regional centers within a reach of about sixty to ninety minutes and sub-district centers within forty minutes by public transport. The cartographical representation of the existing centers shows that an important step has already been made toward the above mentioned figure for sub-district towns by way of a significant increase in the number of sub-district towns in 1952 and by the building-up of a network of bus lines centering on these towns.

On the other hand, there are still rather substantial gaps in the network of regional centers, above all in the northern part of the GDR. Here it should be examined--and respective reports have already been handed over to the planning authorities--to what extent this causes unfavorable working and living conditions in these regions, whether some towns should be gradually extended into regional centers or into well-developed sub-district centers, and how the public transport system is to be developed. Furthermore, it is to be required that all regional and major centers should lie on main railroad lines and trunk roads or highways which connect the most important towns in the country with each other.

The planning of regional settlement systems, such as the *Zentrumsregionen* gives much opportunity to the enterprise of the local representations of the people and their councils as well as to the incorporation of the population. In the interest of the whole society and the individual as well, however, the planning of regional settlement systems should be embedded in the long-term development of the territorial structure of the entire country and the larger regional units.

References

- [1] Chorev, B.S., *Problemy gorodov--ekonomiko-geograficeskoe issledovanie gorodskogo rasselenija v SSSR (Probleme der Staedte--oekonomisch-geographische Erforschung der staedtischen Siedlungsweise in der UdSSR)*, Moskva, 1971
- [2] Grimm, F., "Die Kreisstaedte der DDR und ihre Rolle im Siedlungssystem," *Geogr. Berichte*, 73 (1974)
- [3] Grimm, F., and I. Hoensch, "Zur Typisierung der Zentren in der DDR nach ihrer Umlandbedeutung," *Peterm. Geogr. Mitt.*, H. 4, 1974
- [4] Grundmann, L., and H. Neumann, "Territoriale Probleme der Arbeitspendelwanderung," *Peterm. Geogr. Mitt.*, H. 4, 1974
- [5] Heidenreich, G., "Die Beziehungen zwischen Stadt und Gebiet und ihr Einfluss auf Inhalt und Methode der raeumlichen Planung--dargestellt am Beispiel ausgewaehlter Grossstaedte der DDR," Hochschule fuer Architektur und Bauwesen, Weimar, Diss., 1970
- [6] Heinzmann, J., and H. Luedemann, "Voprosy vyjavlenija rajonov raslicnoj territorialnoj struktury v GDR s uscetom vzoimootnoscenii mezdu gorodami-centrami i ich okru-zajuscej zonoj," in *Sbornik dokladov 2. mezunarodnogo soversanja iz socialisticeskych stran*, Stary Smokovec, 1973, Bratislava, 1973

- [7] Kaenel, A. v., and R. Kroenert, "Die Stadt-Umland-Beziehungen und ihre Analyse, dargestellt am Beispiel von Greifswald und Dessau," *Geogr. Berichte*, 64/65 (1972)
- [8] Kroenert, R., and R. Schmidt, "Das Umland von Mittelstaedten," *Peterm. Geogr. Mitt.*, H. 4 (1974)
- [9] Luedemann, H., "Geographische Aspekte der Territorialplanung im Sozialismus," *Geogr. Berichte*, 52/53 (1969)
- [10] Luedemann, H., and J. Heinzmann, "Die Rolle der Stadt-Umland-Beziehungen bei der Entwicklung der Siedlungsstruktur Vortragsthese zur Arbeitstagung Siedlungsstruktur," Leipzig, Nov. 1973
- [11] Mohs, G., "Gesellschaft und Territorium im Sozialismus," *Geogr. Berichte*, 64/65 (1972)
- [12] Neumann, H., "Territoriale Wirkungsbedingungen und Entwicklungstendenzen der Pendelwanderung--Moeglichkeiten und Aspekte ihrer kuenftigen Gestaltung," Martin-Luther-Univ., Halle, Diss., 1974
- [13] Schmidt, R., "Umfang und Bedeutung vorsorgungsraeumlicher Stadt-Umland-Beziehungen in der DDR," Martin-Luther-Univ., Halle, Diss., 1974
- [14] Schultze, E., "Die Bevoelkerungs- und Siedlungsentwicklung in den suedlichen Randkreisen Berlins," Paedagogische Hochschule, Potsdam, Diss., 1969

Conceptual Issues in Designing and Evaluating Strategies
for National Urban Settlement Systems

L. S. Bourne

Centre for Urban and
Community Studies,
University of Toronto

Introduction

National governments in the industrialized world now hold at least two urban objectives in common: the desire to stop, or at least reduce, increased population concentration in the larger metropolitan centres, and the need to stimulate growth in disadvantaged regions and smaller cities. These two objectives reflect a growing sensitivity on the part of government to the need for both a national strategy for urban settlements and a spatial perspective on economic development.

This sensitivity has been slow to materialize. Other issues have dominated the national political stage. The current interest of governments in a national urban policy is largely a response to the perceived social consequences of rapid urban growth and to the continuation, if not actual increase, of territorial differentials in living standards. These differentials have become sufficiently politicized to warrant their formal (institutional) recognition as political problems and to initiate a renewed debate on shaping the future patterns of urban and economic growth.

This paper is concerned with conceptual and definitional issues in this debate. It steps back from the current literature to pose some selected basic questions of concept and definition in the design and implementation of strategies for regulating urban development at the national level. Then it poses a series of conceptual guidelines or frameworks to assist in understanding and evaluating such strategies. The paper draws heavily on impressions from a study recently completed by the author [11] which reviewed recent directions of thinking on urban growth policies in four countries--Britain, Sweden, Australia and Canada. Why these four countries were initially selected for comparison is not crucial here, except to note that the first two have had considerable experience with urban policy at a macro-level, while the latter two countries have only

recently, but rather dramatically, entered this policy area. What may be most useful here is that together the four countries provide an unusual base for extracting common frameworks for urban policy thinking and possible directions for comparative research.

With this study as background, the present paper then seeks:

- 1) to clarify problems of language and terminology;
- 2) to demonstrate the diversity of conceptual frameworks for the study of national urban policies;
- 3) to document those preconditions which influence cross-national differences in urban policy experience; and
- 4) to sketch a series of questions for research and policy emanating from this experience.

The paper is organized in the following sequence: definitions and concepts, alternative types of strategy, urban issues and the preconditions of consequent policy responses, and the possible matching of issues with administrative responsibilities.

Definitional Background

A universal feature of the rapidly growing literature on national urban policies is the confusing multiplicity of concepts and terms. This confusion is most severe in the context of cross-national comparisons, and has led to frequent misrepresentations of policy results in other countries and in turn to the design of inappropriate policy instruments for regulating urban growth.

Urban or Settlement Systems

One such definitional problem is the meaning of the term "settlement" itself. My reading of the literature has produced the superficial impression that "settlement" is intended to be an all embracing term for patterns of human occupancy, which in an urban context would exclude all but primary activities and occupations, and is used principally by international agencies. It is for example, the language of the UN Environment Program and its agenda for the 1976 Habitat Conference in Vancouver on international urban problems. In North America, the focus of the urban research and

policy literature seems to be primarily on the larger urban centres (as defined by the census) and more specifically on the national network or system of metropolitan centres. This author employed the concept of the urban system as a basis for organizing the comparative review of urban policies in the four countries cited above.

The argument supporting the use of the urban system concept is well-known [34; 31; 32]. It is, very simply, that both the growth of the national economy and the social and employment opportunities provided by that growth, in advanced market-based economies at least, are increasingly articulated in and through the member cities of an economy [42]. This articulation has led to a particular type of spatial organization or geometry of resident population and production activities [8]. At least three levels of geometric organization are evident in most countries, and are also directly relevant to the spatial expression of urban policy issues:

- 1) *a national system of urban regions* dominated by the largest metropolitan centres and characterized by a step-like population size hierarchy, with the number of centres in each level increasing with decreasing population size in a regular fashion.
- 2) within such national systems nest *regional subsystems* of cities displaying a similar but less clearly differentiated hierarchical arrangement, and usually organized about a single dominant metropolitan centre. City sizes are smaller overall and drop off more quickly as one moves down the hierarchy than in 1) above.
- 3) within these regional subsystems are the local or *daily urban systems* representing the activity space of residents of each metropolitan area, and to which, as the influence of each centre grows, the daily urban system reaches out, absorbs and effectively reorganizes the tributary territory. In a country of small geographic area, levels 2) and 3) may be difficult to differentiate and may in fact exhaust most of the nation's ecumene, whereas in larger countries both of these levels may show further subdivision.

This simple typology was useful in the previous study in differentiating, a priori, between those issues which were likely to be of macro (national, regional) or micro (local) importance. The problem is one of definition again.

The first and third levels are most easily delimited, while the second, which depends on the role assigned to regional economies and urban subsystems in countries of high population density or large territorial extent, is more difficult to define. Simmons [39; 40], for example, has identified three such levels in the hierarchy of metropolitan centres in Canada (see Figure 1).

Whether there are three or thirty-three levels in the urban system is of course not the crucial question. That depends on the political context and the purpose at hand. Although in Canada the three levels identified above do conform rather closely in geographical terms to the distribution of urban policy responsibility, as well as to the organization of political power, the more universal implication is that different levels of responsibility are involved in the national policy debate.

An even more basic definitional question is what these urban systems actually mean. We all use the term "system" as a matter of convenience. But what kind of "system" is an "urban system"? It is not much help to restate the traditional criteria for system definition: that is, the presence of strong linkages and flows between elements (organizations) and groups of elements (cities). Even these criteria have not yet been adequately documented for national urban systems by empirical research. Nor is it of much assistance to retreat into the impressive language which Emery and Trist [17] employ in their definition of complex social systems. They argue that such systems are adaptive rather than mechanistic in nature, and that they behave as learning systems characterized by organized complexity, widespread substitution among parts and functions, self-imposed internal governors regulating growth, and essentially indeterminate equilibrium states. Obviously urban or settlement systems are complex and are in a broad sense social. But what do we know about the properties? What do we need to know to set policies for shaping those properties? And, how do we use those properties, even if they can be defined, for subsequent research and policy construction?

The obvious response to these questions, although unsatisfactory in itself, is that no single conceptual model of an urban system is appropriate for all cases. Such systems are definitional constructs, useful primarily for the purpose for which they were initially defined. Concepts such as that of complex social systems can, however, assist in ordering one's thinking on the critical components of any research model and to lay stress on those policy variables and interdependencies which might otherwise be ignored.

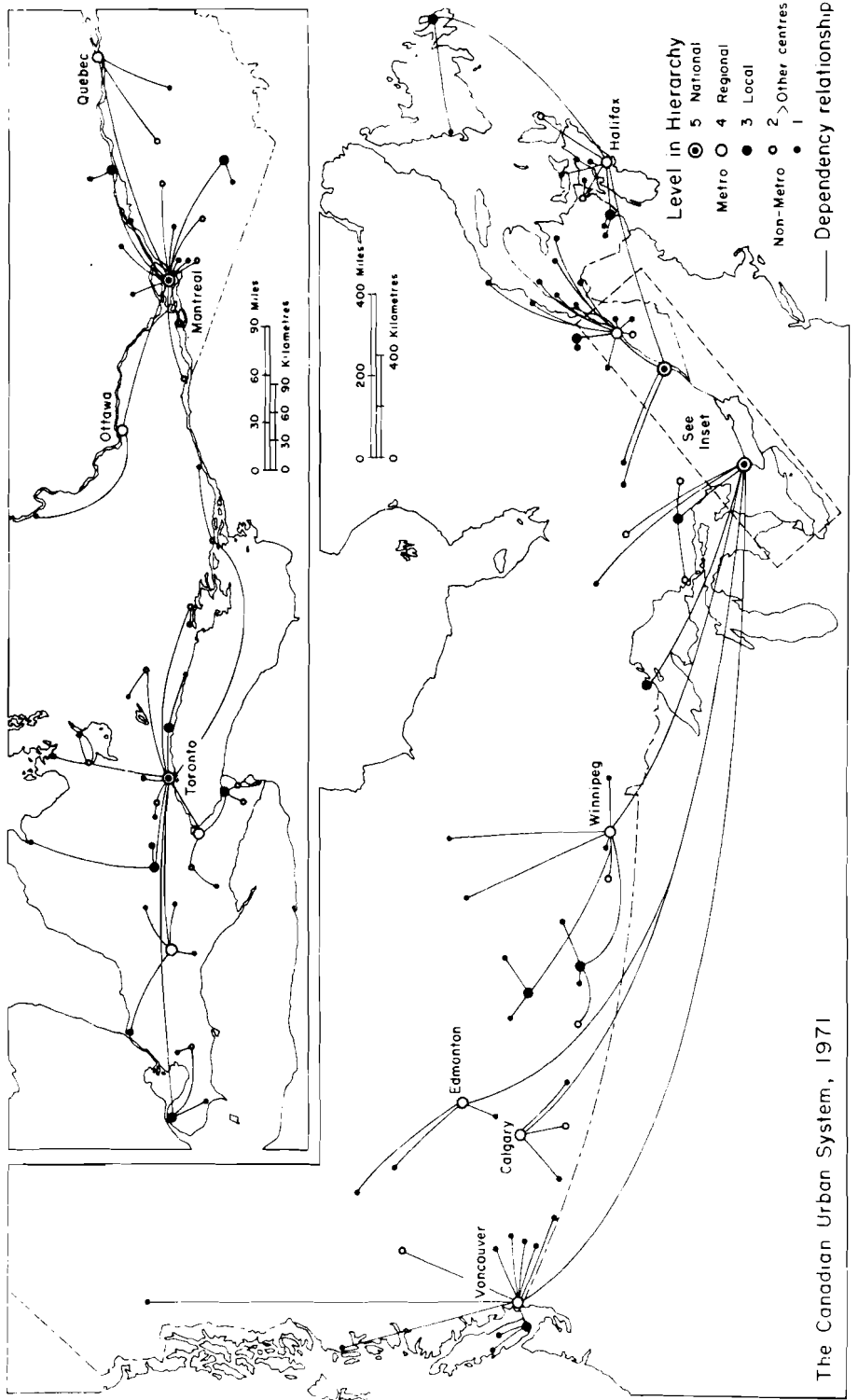


Figure 1.

The urban system concept, which is used primarily because it is more explicit and possibly more operative than that of settlement systems, is still too narrow a view of a nation's residential and production geography. The term "settlement systems" at least recognizes the existence of other forms of human occupancy and does not by definition limit the area of interest solely or primarily to single discrete urban entities, and at that, to the largest such entities.

What has this discussion to do with the national policy debate? Without a consensus on an explicit theoretical focus and standard methodological guidelines, set in a common language framework, comparative research and cross-national policy discussions are likely to be hopelessly muddled. Specific proposals for instruments to regulate urban growth are likely to be inconsistent and possibly counter-productive when applied across national boundaries. These considerations, then, are important matters for debate.

National Urban Strategies

One might also ask what the term "national urban (or settlement) strategy" refers to. Does it encompass any or all urban policies which are applied by central (national) governments? Or, does it refer to those subsets of such policies which are institutionally national in scope, but which apply explicitly to all urban centres either uniformly or with stated regional differentials? Or does it just refer to policies applied to the largest centres? Richardson [34] has argued that actions directed at the creation of local growth centres represent regional policy, while urban policy refers to the problem of what, if anything, to do about the growth of the nation's largest cities. Alternatively, should these terms apply to those policies which are framed within some idealized concept of what a national settlement fabric should look like or how it operates--such as that represented by the phrases "a national system of cities" and "constituent regional subsystems"?

In theory, the simplicity of the latter terms is perhaps most appealing; but in reality policy formulations at all political levels must be considered as possible sources and expressions of a national urban strategy. Swain [44] for example, has argued, in the Canadian context, that a national urban strategy is more than the set of federal (central government) policies. The former must encompass policy initiatives, mirror political priorities and express desired urban futures, at all levels of policy decision making--regional, provincial (state) and municipal as well as federal.

Similarly, the Australian government's recent penetration into the urban policy area (see paper by Logan and Wilmoth) has been heavily conditioned on the active participation of the states [29]. The abortive efforts at a national urban policy by the US government have also been based on the assignment of major responsibilities to the states.

Finally, the terms "strategy" and "policy" themselves might usefully be clarified. They are extensively overused and, as in the above paragraphs, are frequently used interchangeably. This author, drawing on the work of policy scientists, has in the past explicitly differentiated between "strategy" and "policy," and between these and the more traditional term "planning."

"Strategy" is the broader concept of the two. It encompasses "tactics" (in the military sense) as well as the design of specific plans and legislative instruments which go together to make up policies and procedures for their implementation (i.e. planning). "Strategy" implies a value-based and conceptually-articulated approach to decision making. As such it includes both a political and social philosophy and a set of organizational procedures for policy formulation.

Types of Strategy

Given this confusion of terminology, any comparison of policies deriving from diverse political systems must begin with common benchmarks of perspective and terminology. Figure 2 offers one such benchmark. In this illustration the conventional description of the components of decision making in economic policy is adapted to the national urban policy context. Five components are represented:

- 1) the framework of concepts, values and ideas which circumscribe plausible alternative strategies for setting urban growth policies, including the goals to which those policies are directed;
- 2) the input variables: those variables--both internal and external to the system under study--which policies must treat, exploit and shape to achieve such goals;
- 3) the typical "black box," denoting the interrelationships between the policies applied and the processes by and through which the urban system is evolving;

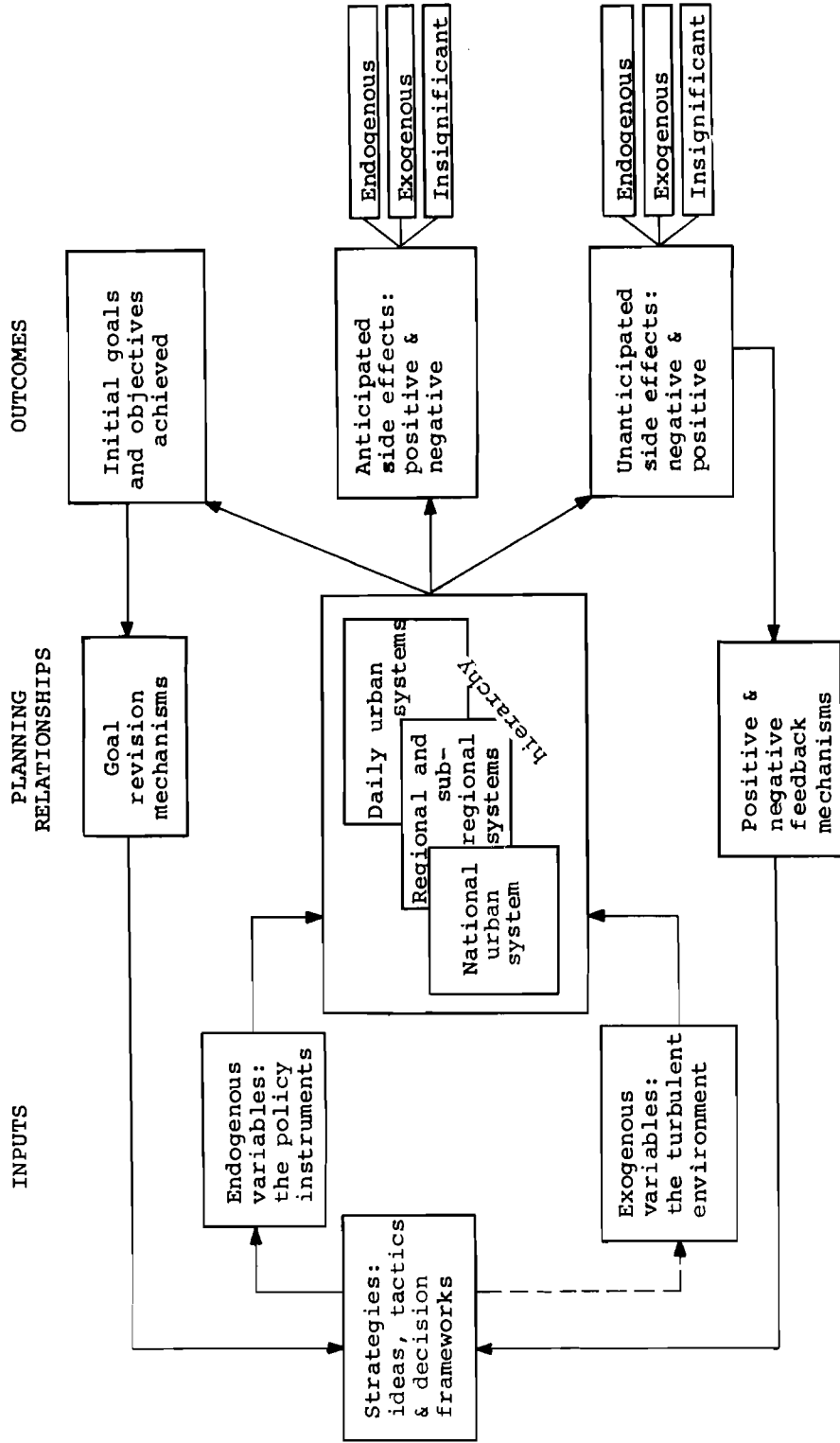


Figure 2. A schematic design for urban systems strategies.

- 4) the range of outputs or side effects, both anticipated and unanticipated, which are attributable to the application of urban policies; and
- 5) the available mechanisms by which such output results feed back on subsequent decisions in the specification of goals and in defining treatments of the variables themselves.

Only two aspects of this illustration necessitate elaboration. The first point is the recognition it gives to the importance of events (variables) deriving from sources (or territorial units) external to the political process under study. While these variables are only indirectly amenable to policy regulation, they are nonetheless important components of any national urban strategy. They constitute what Emery and Trist [17] have called the "turbulent" environment of "complex social systems," and they are obviously of growing importance in our increasingly integrated and turbulent world.

Turbulence, often appearing in the form of severe random shocks, places constraints on policy formulation by increasing the uncertainties associated with what any long-term national planning effort can achieve. Politicians have been quick to point out this difficulty. In any case short-term turbulence diverts attention from longer-term strategic planning efforts. In turn, greater uncertainty demands a move away from strictly deterministic models towards more adaptive, possibly incremental, and certainly more heuristic approaches to research and policy formulation.

The second point relates to the problem that decisions on regulating urban growth will have quite varying impacts at different spatial and hierarchical levels of the settlement system. This is in fact the purpose of the specific design of the central box in Figure 2. The box contains the three levels of urban spatial organization specified above. But how does the political decision-making process correspond to this or any other hierarchy? How do decisions at one level affect growth at other levels? Is it appropriate to think about a hierarchy of national urban strategies, with each level of policy goals and instruments tailored to the spatial expression of urban problems and social needs?

Alternative Forms of Urban Strategies

Just as in the definition of urban systems, there is no single model of what urban strategies may look like in practice or how they should be applied. Such strategies can take one or more of several forms. To illustrate, Figure 3 displays one typology of a set of alternative forms of urban strategies based on only three of many classification scales. Most of the alternatives should be obvious to any reader, but it is worth stressing the diversity of such strategies. The first scale differentiates strategies according to the level of articulation or refinement of the ideas, policies and instruments involved. These vary from essentially conceptual designs, through strictly a policy co-ordinating function, to one of actual program design and implementation. Examples for all three levels are given in Table 1. Each of these three approaches in turn may be characterized by differing objectives, decision-making styles and legislative means. And each approach may vary in terms of time perspective or planning horizon (as noted by the $t_1 \rightarrow t_n$ designation in each cell).

The first approach, the conceptual or ideographic, refers to the level of articulation of urban goals and the degree of clarity in the conceptual formulations of how a national urban system might or should develop. Of particular importance is the extent of consensus amongst the complex array of values and images prevailing in most pluralistic market economies, the consensus which forms the basis for outlining and achieving preferred urban futures. Such images already hold an important role. To take a very specific example, recent studies of scaled preferences for different cities and urban environments in the US, Britain and Canada demonstrate that a strong correlation exists between intermetropolitan migration flows and the scaling of preferences for cities. While the association here is in part circular, with previous residential history and the existing structure of the urban system influencing the formation of urban preferences, the regularities seem to overwhelm any spurious correlation. More to the point perhaps, urban strategies which are explicitly preference-based constructs, and which point to a desired image or paradigm of what an urban system might look like in the future, can act to guide, largely through persuasion, the policies of other decision-making units whose actions shape the national urban system.

The use of such conceptual strategies will vary depending on the nature of the political system under study. They may be strictly advisory, that is as an end product in themselves. Or they may serve as a first step in establishing

APPROACH AND OBJECTIVES

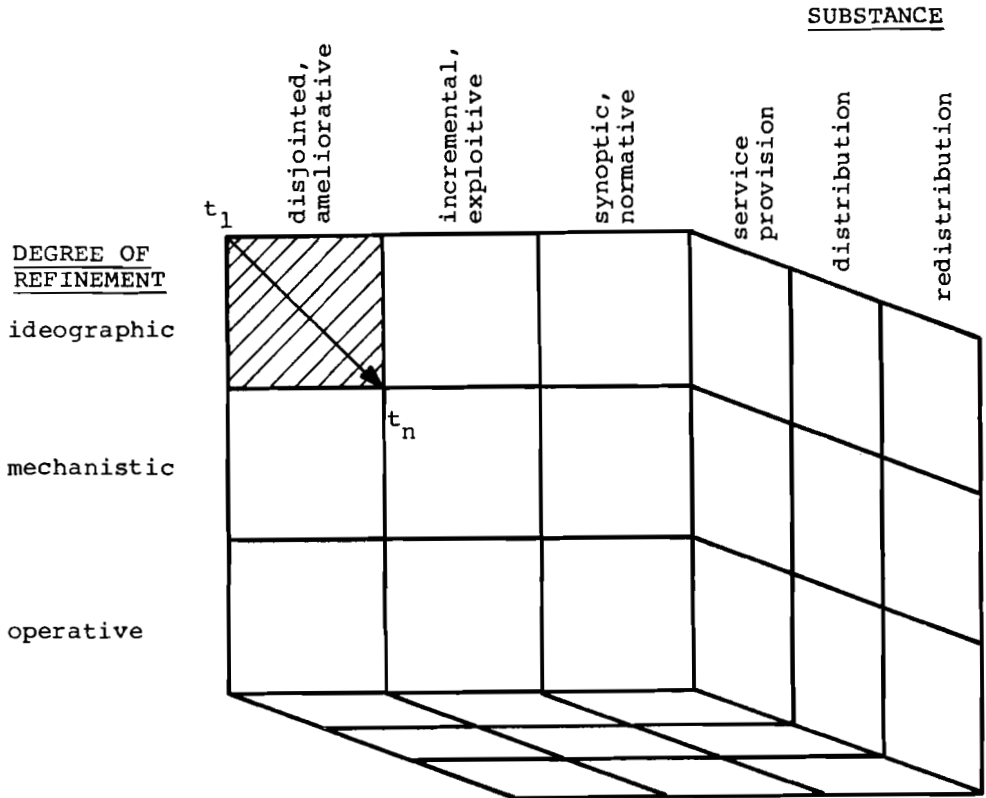


Figure 3. Some alternative forms of national settlement strategies.

Table 1. Level of articulation of urban strategies.

	Policy Form	Decision Process	Possible Means and Instruments
1	ideographic (conceptual)	advisory	guiding principles, goals, ideal urban forms and concepts
2	mechanistic (co-ordination)	intergovernmental, intersectoral and interinstitutional co-ordination, formal and informal	cabinet-ministerial consultation and persuasion, councils, review boards, screening agencies
3	operative (legislative)	initiation and implementation of programs and policies	programs, development plans and investment priorities

other more formal types of strategies: such as policy co-ordination among governmental agencies or the planning and implementation of specific urban programs. The pre-conditions necessary to make the transition to formal strategies are now well-known [37; 12; 8], and will be discussed in more detail later in the paper. One implication from the above arguments which is appropriate at this point is to stress that a national urban strategy must be underlain by a minimal consensus on what urban system geometries are preferred and feasible.

The other two scales in Figure 3 can be dealt with more succinctly. One attempts to measure the various types of decision styles or processes involved in public policy formulation. Three classes are identified--disjointed, incremental or synoptic--each in combination with the type of objective most appropriate to such policies--ameliorative, exploitive and normative. The former classification of decision-making styles, drawing on the work of Ozbekhan [28], Cooper et al. [15], and Jantsch [24], is used here to emphasize both the administrative procedure involved in policy as well as the decision maker's conceptualization of the system under study. The latter typology of objectives, modified from Vickers [46] and Berry [7; 8], refers to the extent to which those policies are intended:

- 1) to ameliorate current social problems,
- 2) to capture opportunities in ongoing trends (exploitive), or
- 3) to actually specify and design those trends (normative) which are desired (see paper by Berry).

The third scale in Figure 3, substance, refers to the nature of the output of such policies. Political scientists (Lowi [26]; Dye [16]; Hochman and Paterson [23], for example), often differentiate between public policies on the basis of whether they involve either the provision of programmed and ongoing social services or the allocation of national resources. Allocative policies are in turn subdivided into two classes depending on whether the criteria employed in evaluating alternatives are of the Pareto-type distributive or socially redistributive kind.

Not all of these policy forms are equally plausible or equally likely to evolve in a given political circumstance. Nor is it obvious where urban policies per se should fit in this typology. Yet the above illustrations do suggest that

quite different approaches and decision-making styles are possible under the rubric of national settlement strategies. Some styles will be more appropriate than others at any given time, and there is no logical reason why several cannot co-exist over a period of time within the same country.

Much more could be said on each of these concepts. It is, for example, implied in Figure 3 that an evolutionary sequence may exist in the formulation of a national settlement strategy beginning in the first cell (a₁₁) and moving gradually to incorporate all of the rows and columns. The arguments for or against such a sequence are, however, the subject of another paper. Instead, and before we become too engrossed in the grid cells of such definitional frameworks, the paper now turns to a brief comparison of the generative bases and preconditions which have led to specific policy responses in regulating national settlement patterns in different countries. The lessons of this comparison are then used to construct a hypothetical administrative hierarchy within which national urban strategies may be set. The paper concludes with brief comments on research needs and policy prospects in a comparative context.

Bases of a Policy Response

Adam Smith wrote in 1789 that "...the commerce and manufactures of cities, instead of being the effect, have been the cause and occasion of the improvement and cultivation of the country" [41, p. 392]. Herein lies one of the dilemmas facing any attempt at formulating a consensus on national urban strategies and one major element in the continuing research dialogue on urban growth. On the one hand there is wide appreciation, at least in market-based economies, that cities and city growth are a driving force in maintaining high rates of economic development and job formation, in raising real personal incomes, and in opening up new territories. There is an equally strong view, and one that is also not a new discovery that such growth brings with it the seeds of social inequalities, geographic polarization, environmental deterioration and economic disparities.

At least two implications are obvious from such arguments. One is that any decision to control urban growth at specific locations involves difficult trade-offs, not only between the types of controls which are most appropriate, but also between the winners and losers created by such controls [1; 14]. Second, the specific challenges presented to, and limits imposed on, policy actions by public perceptions of: 1) urban growth problems, and 2) the trade-offs

which are necessary to solve these problems, differ widely from one country to another. This is not to suggest that universal guidelines cannot be extracted from comparative research. Rather it argues that specific lessons relating to the identification of urban issues, the articulation and ordering of objectives as well as the consequent policy responses, cannot be transferred directly from one socio-political context to another.

Issues and the Policy Response

Given this cautionary note, a number of interesting questions may be tabled regarding the various types of policy response we observe between countries. What are the issues and social preconditions which establish the need, as well as the opportunities and constraints on national policy formulation? Is there a common set of urban issues? How have perceptions of these issues and of the preconditions of policy changed? What is the role of research in directing such changes?

First, let us consider the issues. Table 2 attempts to summarize some of the key issues which dominate the national urban policy literature in most western countries. Again emphasis is given to the spatial dimension and the specific experiences of the four western countries cited above. Six sets of issues are identified:

- 1) the apparent over-concentration of population, economic wealth and power in a few favoured metropolitan regions;
- 2) the corollary of 1), a relative decline in the economic, population and service base of small towns and of regions peripheral to the nation's heartland;
- 3) the persistence of poverty in general and, more specifically, of inequalities in the accessibility which different population groups have to social and economic opportunities;
- 4) the maintenance of national economic growth at rates sufficiently high to satisfy rising aspirations;
- 5) the improvement of environmental quality and conservation measures; and

- 6) the increase in political unrest, in varying association with the preceding problems.

The list of issues in Table 2 is not exhaustive, nor are the examples mutually exclusive. They have, however, led to a remarkably similar set of national goals and several parallel policy experiments. To illustrate, each of the issues in Table 2 is equated with a stated goal, or set of goals, and with examples of specific policy instruments and the country or countries, from among the four studied, to which the examples most clearly apply.

The stated goal of limiting metropolitan concentration, for example, is almost universally accepted as an element of a national urban strategy, but often from quite different origins and with varying meanings (see Clawson and Hall [14]), and potential implications (Bourne [11]). In some instances the purpose of such limits is to reduce the costs of rapid growth and increasing city size. These costs are usually measured in terms of environmental quality, congestion and the provision of services--in the metropolitan complexes themselves or simply in the single primate city. In other instances the purpose is to ensure a more equitable distribution of a finite national wealth. In still other instances the purpose is a combination of both. The other issues in Table 2 could be dissected in a similar fashion.

However, linking statements of issues with the kinds of policies which eventually emerge is difficult. All too frequently in cross-national comparisons we assume that a stated policy issue leads to a specific policy response, or conversely, that a given response follows from a similar path of policy thinking. Neither is necessarily true.

The policy response to urban issues such as the above also cannot be divorced from its socio-political context. The reaction to the growth of large cities in most countries developed for reasons based more on territorial politics and national prestige than on hard evaluations of relative costs and benefits. The same applies but in varying degrees to all of the other issues and stated goals in Table 2. Thus the policy responses cited above are little more than a varied collection of politically expedient actions, often overlapping, sometimes conflicting, but seldom co-ordinated. In what context then is urban systems research, which holds constant or ignores political processes, relevant?

Equally revealing is that some issues and goals are noteworthy by their universal absence. The above list for instance says nothing about the relative weights to be

Table 2. Examples of national urban issues, goals and policies.

Perceived Problems	Stated Goals	Types of Policy Response	Selected National Examples
1 population over-concentration and polarization	limit metropolitan (primate city) expansion	containment of urban land use new towns programs immigration limits decentralization industrial permits	UK, Sweden UK, Australia UK, Australia UK, Sweden UK
2 small town and peripheral stagnation	reduce regional inequalities in income, employment	employment premiums office location regional policy subsidies for industrial relocation growth centres transportation subsidies	UK UK, Sweden all four all four all four Sweden
3 poverty/distribution of opportunities	provide minimum levels of choice in where to live and work	infrastructure subsidies manpower training decentralization of government employment	Sweden, UK Canada, Sweden Britain, Sweden Australia
4 national economic growth & well-being	maximize economic & social well-being, efficiency	fiscal subsidies and incentives service provision	Canada, UK Sweden
5 environmental deterioration	preservation and conservation	green belts scenic, recreation and historical preservation national estates pollution standards	UK, Sweden (physical planning) UK Sweden
6 political activism	stability	devolution of power regional councils	UK, Canada Sweden, Australia

assigned to different issue sets, the distribution of decision-making authority in matters relating to urban development, nor anything about the desired states to which the national urban body being operated on should be tending. Most stated national urban goals are still essentially negative in design and usually lead to short-term and strictly ameliorative policies. As such few have advanced beyond the first column of Figure 3.

Social Preconditions as a Policy Framework

If specific issues have provided the incentives for a specific national policy response, then this response is in turn shaped by a set of basic preconditions descriptive of the society in question. Rodwin [37], in what is now a classic study of urban growth policies, sets out two essential preconditions for the emergence of national urban policies. He argued that for governments to act on this, as on any other policy front, it is necessary that: 1) urban issues must be perceived as problems of sufficient political importance, and 2) that these problems must appear to be capable of solution through the political system. To these Berry [8] added: the will to plan and the ability to plan. The latter represents the ability of a society to achieve closure between desired ends and available means, that is, to reach a consensus on goals and to set priorities for policy action.

These preconditions are necessary but not sufficient to account for the differing response of national governments in formulating urban strategies. The following paragraphs summarize those factors which seemed to underlie the direction taken by recent discussions in each of the four countries studied. They provide, in effect, the framework of decision-making constraints:

1) perceptions of future *rates of urban growth*. This factor has at least two basic dimensions. First, anticipations of high rates of urban growth, notably in population, are in themselves both the source of some urban problems as well as one condition contributing to public and political awareness of those problems. Yet there is still a third dimension. Forecasts of future growth rates act as limits on the resources which governments estimate they have to effectuate major shifts in national development patterns. They do so insofar as governments tend to direct their immediate attention to altering short-term increments to existing stocks of social capital, services and infrastructure, but with a view to long-run revenue sources.

There would seem to be a limited range of growth rates, above relative stagnation but below excessively high levels, which provide sufficient scope for undertaking redistributive social policies and long-term planning, but without unduly altering short-term policies.

2) level of *cultural and political heterogeneity*. Political processes essentially involve the working out of conflicting goals through the rationalization of power. Friedmann [19; 20; 21] has demonstrated the influence of political power in shaping urban development and Pred [31; 32] has examined the role of economic dominance through large organizations in the behaviour of urban systems. The more numerous and complex the sources of power, the more complex the political process is. In general, the more heterogeneous the cultural and political base of any given country, *ceteris paribus*, the more difficult the resolution of urban issues and goals through political means will be. Berry [8] has stressed the difficulty of goal-oriented planning in culturally pluralistic and politically-segmented societies.

3) *territorial polarization*. The degree of social heterogeneity takes on greater significance in determining the nature of the policy response when this heterogeneity is geographically pronounced and politically organized into discrete territorial units. All federal systems of government--the US, Canada, Australia, West Germany, for example--display these characteristics in varying degrees. Geographical polarization can of course be found in any nationally segregated state. A national urban strategy under such conditions must therefore represent the goals and priorities of all or at least a majority of its constituent cultural groups or territorial units. Where political units are also distinct cultural identities, such as in the case of some Canadian provinces, the identification of national social and economic goals is all the more difficult.

4) *economic regionalization*. The essence of the urban system concept, as noted above, is that cities behave as a closely integrated national urban (and economic) system. The extent to which this integration exists delimits the potential importance of, and to a certain extent defines the strength of supporting arguments for national urban strategies. Highly regionalized national economies with weak interregional and interurban linkages, such as are characteristic of Australia, Canada and much of the developing world, reduce the potential effectiveness of such strategies. Empirical evidence on urban linkages, while limited, does at least attest to the wide variations between countries in the degree of economic interdependence.

5) level of *external interdependence*. Most societies are complex systems in part because they are by definition open to influence from beyond their jurisdictions. Every policy model (for example, Figure 2) contains exogenous components identifying those variables originating outside the system under study, and those variables can be conveniently ignored. Seldom is the relative importance of the exogenous components specified. In any case, it follows that the extent of external influence on a nation's economic development and, in turn, on its urban system, reduces the freedom of action of governments to articulate new system forms. International trade might be one index of external interdependence, an index which decreases with population size but which has increased relative to total GNP in almost all countries. Migration, technological linkages and monetary flows are other possible indices.

More critical perhaps than any single index is the degree to which external dependence is localized by sector and region. In those instances in which strong localization occurs, particularly where the sector or region involved is essentially urbanized, national-policy attempts to contain external impulses will have differential and often unacceptable impacts. Canada again is an obvious and extreme example [33]. Yet the same effect is also being felt increasingly in Sweden, Britain and in most continental members of the EEC. Often these localization effects are in conflict with stated national goals, as, for example, in the strong growth pressures from EEC markets being felt in the south-eastern and south-western regions of Britain and Sweden respectively. Both regions are subject to national development controls.

6) the extent of *structural and spatial imbalances* in the national economy. The inheritance of outmoded industrial stocks or resource complexes, accompanied by severe unemployment and visible regional inequalities, ensures that a major priority of national government is to maximize absolute economic growth. Initially, as in Britain, such imbalances may foster extensive development programs, and widespread public acceptance of the need for policies directed at instant improvements in regional balance. But over the long term this preoccupation with such ameliorative efforts will reduce the ability of that government to follow longer-term normative goals. Sweden has suffered less from structural imbalances in relative terms over the last two decades and thus has had more freedom to concentrate on long-term goals, as have other small countries in Europe such as Holland and Switzerland. The results are obvious.

7) *institutional rigidity and social inertia*. The imprint of social inertia, and of the failure of public institutions to respond to changing social needs, is a common theme in the literature of political science and public administration. The tendency for institutions to take on a life of their own, particularly in the administrative bodies society has established to deliver certain public services and to tackle a given set of social problems, is an obvious example. Jack Meltzer of the University of Chicago once described the inertness of these bodies as "institutional syndromes." As the service needs and problem definitions change, existing institutions and their bureaucracies often become bottlenecks in meeting these same demands. Efforts to accommodate the new modes of decision making necessary to meet let alone nullify emerging social problems are also inhibited.

8) *intergovernmental co-ordination*. If, as is widely asserted, a national strategy for urban settlements depends to a considerable degree on linking the policy activities of widely varying public and private agencies, then the existence of a historical facility for interagency co-operation is an important determinant of the success of that strategy. The widely-cited success of Swedish urban and regional planning, for example, is revealing not so much in terms of the policies developed but rather in how they are formulated and applied [30; 11]. That success derives in part from a practice of intergovernmental co-ordination. Although facilitated by the small body of policy ministers in the government, this co-ordination is also a critical reflection of underlying attitudes. The extent to which this facility is present in other countries will have a major influence on the success of national settlement policies, or whether such policies emerge at all.

The Framework of Expectations

Assuming that the above paragraphs express some of the major conditioning factors in urban policy formulation, then a useful extension to the discussion would be to assess how these factors are evolving, or are expected to evolve, in a rapidly changing world. To contain the length of this essay only a few illustrations will be cited. Have these preconditions changed more rapidly than have the preconceptions of the contributors to the national policy debate? Have such changes altered the policy needs underlying that debate? These questions are important not only because they define the need for, and limits to, a national urban policy response, but also because, given the long-term planning horizon which

is necessary for any urban settlement strategy, expectations of the future themselves become endogenous variables in the planning process.

Take the issue of rapid urban population growth. Most politicians now seem to accept that the massive growth rates projected for our cities through to the turn of the century (based on data from the 1950's and 1960's), harbour immense social and spatial consequences [18; 27]. Yet are these anticipations valid? Researchers may have succeeded in conveying the results of their past efforts, valid though they were then, at about the same time as those results are brought into question. For example, one recent study of cities in Canada [10], a forecasting exercise undertaken at the University of Toronto, produced much lower population forecasts than had previous studies. Even these now appear to be considerably inflated. Similar distortions are emerging in studies on Britain, the US, Sweden, Australia, and in most other industrialized nations. Not only have fertility rates dropped in the 1970's to their lowest levels since the 1930's, but rural out-migration rates are down (many have been reversed) and interurban flows now appear to be biased away from the larger metropolises towards medium-sized urban centres. The only continuing strong component of metropolitan population growth is foreign immigration, which, unlike the above, is directly susceptible to policy manipulation at the national level.

What happens to the arguments favouring deliberate national urban strategies if the threat of massive population growth is removed? Of course, even if absolute population growth rates decline sharply it cannot be assumed that rates of social and technological change will decline. What is possible, however, is that such change will be more contained by existing social and political institutions and, without the threat of a population explosion, may be more rationally directed by policy initiatives.

Important developments are also apparent in the territorial distribution of power and political responsibility. Many western nations, including the relatively centralized ones of western Europe, have witnessed a movement towards the devolution of central (national) powers. Both Britain and Sweden, for example, are in the process of strengthening the overall policy-making responsibilities of local and regional levels of government. Other countries, notably the federal systems, already have extensive local/regional autonomy in urban matters, and in Canada and the US this autonomy is on the increase. Such trends do not imply less of a need for national settlement strategies. Instead they

suggest that such strategies will take different forms as these realignments of political power work themselves out.

Another area of significant change is in the external components. Not only has the external interdependence of national urban systems increased, as previously noted, through the growth of international trade, multinational corporations, international money flows, cultural diffusion and cross-national mobility, for example, but this interdependence has become more volatile and thus less predictable. The tide of recent political events has added to an already highly turbulent external environment for most national urban systems, although it is possible to argue, as Lasuén [25] does, that the scope for planning national urban development is still considerably greater than for economic development. This turbulence may also have all but overtaken political interest and energy in spatial and urban development strategies. The sequence of recent crises in energy, food, money supply and social unrest, may or may not be short-lived, but the importance of global interdependence will not be.

Anticipations of future conditions, such as the above, have at least two major roles. First, they serve as direct inputs to the creation of political needs, and the setting of priorities, for governmental action. Second, they serve to delimit, in the present, the flow of resources expected to be available for policy initiatives at future points in time. These frameworks of anticipations are often so persuasive that it is surprising so few systematic investigations have been undertaken of their possible effects on the range of alternative future states proposed for national urban systems.

A Matching of Issues and Responsibilities

How then should governments react? In his recent review of the problems of formulating national urban development strategies, Wilbur Thompson [45] argued that a higher priority might be given to devising an optimal system of government than to finding an optimal city size or size distribution for cities. Part of the task of improving governmental responsiveness to issues such as the above is to bring management practices into clear correspondence with the scale at which these needs are likely to be manifest, but without freezing them into Meltzer's syndromes. Since the boundaries of future issues are increasingly diffuse, this task will not be easy.

The possible distribution of policy responsibilities in one such management framework is described here in Table 3. The purpose is not one of arguing for new governmental units as such. Rather it is to inventory what instruments might be useful for influencing urban systems, at what level these instruments might apply, and for what purposes, with a view to stimulating the interest of the reader. The concept of a hierarchical national urban system is employed as the point of departure. For each level in this hierarchy, selected examples are given of possible regulatory strategies, appropriate goals, policy instruments, and the type of procedure suited to implementing such instruments. The international (external) urban/economic system level is added to the hierarchy in terms of its importance as a focus for national governments. Clearly the terminology draws heavily on the author's Canadian experience. Note also that the essence of the proposed framework is not the urban hierarchy itself but the nesting of problem sources and policy responsibilities. It is left for the reader to draw his or her own conclusions as to the usefulness of the examples.

Three general points in the table are worth stressing, however. First, as was implied in the preceding review, many government policies have substantial impacts on urban growth, most of which are neither explicitly urban nor spatial in name or focus. The list in Table 3 of relevant instruments for influencing urban growth testifies to the diversity of policy impacts. The extent of the list also acknowledges why strictly urban policies are likely to be given relatively low priority by most western governments. Second, to this author at least, a national urban settlement strategy is essentially a spatial strategy. Thus, national efforts at regulating urban growth cannot be successful without parallel efforts in certain other critical sectors of national interest (Figure 4)--notably policies relating to population, immigration, transportation, industrial development, social service investment and housing. The third inference, also mirrored in Figure 4, is the widely quoted statement that a comprehensive theory for regulating urban systems requires nothing less than a theory of the entire spatial and economic development process.

Consequently there is some basis for asserting that national urban strategies do not exist outside of a spatial (and political) context. In any case they will not likely be given high priority without a relatively explicit spatial focus. The operational version of Figure 4 would therefore most likely be that of a screening process on locational decision making. Although screening agencies are rather

Table 3. Possible hierarchical components of national settlement strategies in a spatial context.

Focus of Settlement Policy	Types of Regulatory Strategies	Specific Goals and Objectives	Examples of Potential Policy Instruments	Implementation Principles
External environment: International urban/economic systems	Anticipation; monitoring consequences of change at boundaries of national system; smoothing external fluctuations	Survival; minimize environmental turbulence; co-ordination of foreign activities with national systems and needs; maintaining boundaries	Tariff and development policies; monetary reform; corporate taxes; immigration and emigration policy	
National urban and regional system	Redistribution of social opportunities and welfare; designing futures, national sectoral, socio-economic and environmental planning; emphasis on long-term and goal-directed actions	Social investment; equity; economic growth targets; specific welfare balance; national unity, continuity and internal stability; social conservation and renewal	The national economy; population policy; public investment allocation; fiscal transfers and taxation; transport and communication; housing finance; employment location, information compilation and distribution; interregional locational assistance	Policies must be creative and persuasive, priming decisions; emphasis on sectoral and regional co-ordination

Regional (provincial/state) urban sub-systems	Redesigning and articulating national frameworks, initiating strategic physical and environmental planning, both long- and short-term	Social services provision; intra-regional equity and balance; orderly urban development; regional growth and viability; environmental protection; land use rationalization between urban and non-urban uses	Budgeting local government expenditures; regional public investment and transport policy; housing loans and construction; employment location decisions; regional land policy; educational facilities; intraregional locational assistance	Policies can be more specific; linking national and local priorities; inter-municipal coordination emphasis on program evaluation
Daily urban (city) systems	Redesigning and implementing national and regional policy frameworks; initiating physical and allocative social services provision; both short- and long-term planning	Specific social service delivery; intraurban equity, orderly physical development; containing local externalities; viability of urban services; community stability	Local land use and location of services controls; building code enforcement, design and construction; traffic planning; local educational facilities; site location assistance	Policies specific in aggregate, allowing for some community autonomy
Communities and urban activity systems	Micro-scale planning linked to the above			

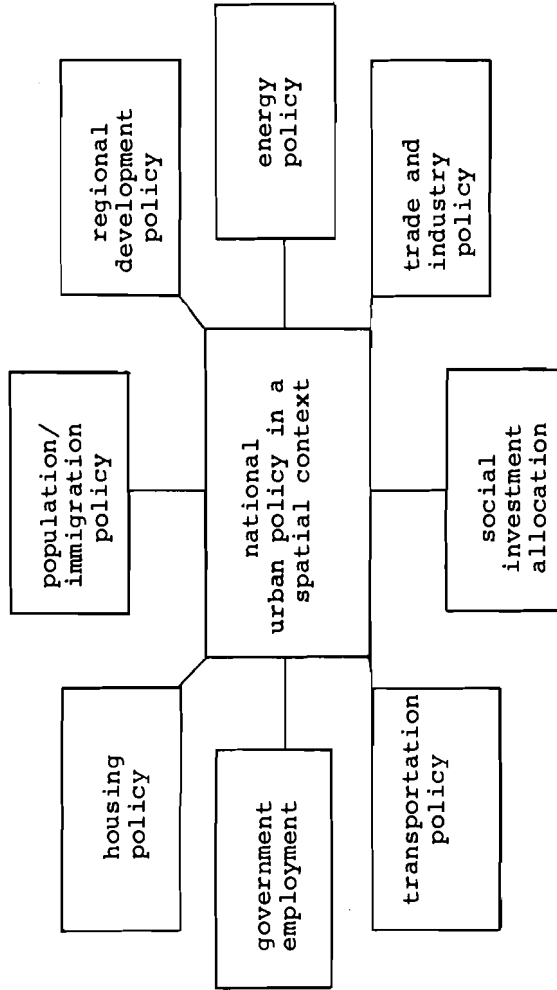


Figure 4. Related sectoral components in national urban strategies.

unpopular in some government circles these days, they have in some instances been effective.

Some expansion of the policy perspective in urban matters along the lines of Table 3 is evident in most western countries. From this author's experience, an evolution in thinking, and in the urban policy response which follows that thinking, seems to have taken place along the following lines:

- 1) a shift from primarily economic goals to a combination of social and economic goals;
- 2) a change in emphasis from social services to one of long-term social investment; and
- 3) a broadening of policy interest from a concern with only the two extremes of depressed regions (regional policy) and the primate city (urban policy) to one which looks at all regions and cities as interdependent entities.

In other words, there has been a broadening of policies in terms of spatial focus, the refinement of social goals, the length of planning horizon and towards a more comprehensive view of the nation's landscape and development systems.

Concluding Remarks

Much has happened in the national urban policy arena since the background study from which the above impressions derive was completed. The literature on the theory of urban systems has grown rapidly (Pred [30; 31; 32]; Lasuén [25]; Richardson [35; 36]; Stöhr [42]; Simmons [39; 40]); institutional changes have been frequent in the area of urban policy formulation in most western countries; specific policy instruments have been revised and replaced at a bewildering rate; and public perspectives on the important questions have changed. Moreover, the mounting tide of international events has all but overwhelmed public awareness and political interest in the macro-urban and spatial policy debate. Inflation, the price of energy and food, social unrest and political turmoil have increased the difficulty of containing international (exogenous) pressures and of outlining and achieving desired patterns of national development. An international perspective on urban development then becomes all the more important.

Given this climate of uncertainty, the few very general points I wish to make in conclusion are presented largely in the form of questions for discussion. First, on the policy side, the question still remains as to whether national urban strategies are, or should be, a high political priority, and if so, how and to whom they should be applied. Blumenfeld [9] has concluded that despite governmental adherence to urban goals few if any as yet take such goals very seriously. Why do we need a national strategy for urban development? What does it mean? And, more specifically, a national urban strategy for whom? In a federal political system such as the US, West Germany, Canada or Australia, the debate becomes more specifically Constitutional--do national governments have a direct and innovative policy function in urban development?

Second, despite delays in the public response to urban problems, government pronouncements already outpace research findings and information inputs [13]. Only in a few cases, except possibly in Sweden, has research led and directed the policy debate. Frequently these pronouncements conflict with what little theory and empirical evidence currently exists. Others are now badly dated. Misconceptions of the issues involved may result in policies, if and when they do materialize, which are either inconsistent or misdirected, or both.

The preceding comments do illustrate two characteristics of the current urban policy debate. One is the weakness of existing analytical research on urban systems growth and the failure to provide an adequate process of monitoring urban change. The other is the recognition that public attitudes have changed. The fact that there are now agencies and ministers in most western countries to even raise the issues is a significant step. The prospects for more productive debates, and possibly for new strategies, are improving. The results will, however, be slow in coming.

Acknowledgments

Support for previous studies, from which this paper largely derives, was provided by the Canada Council and the Ministry of State for Urban Affairs, Ottawa. This support is gratefully acknowledged. The views expressed herein, however, are those of the author and not of the supporting bodies. Professor J. W. Simmons provided useful criticisms of a first draft, and a copy of Figure 1. IIASA provided travel assistance to attend the conference in Vienna at which an earlier draft of this paper was presented.

References

- [1] Alonso, W., "Equity and its relation to efficiency in urbanization," *Working Paper 78*, Center for Planning and Development Research, University of California, Berkeley, 1968
- [2] Alonso, W., "What are new towns for?" *Urban Studies* 7(1970) 37-55
- [3] Alonso, W., "The question of city size and national policy," *Working Paper 125*, Center for Planning and Development Research, University of California, Berkeley, 1970
- [4] Alonso, W., "Urban zero population growth," *Daedalus*, 102:4 (1973) 191-206
- [5] American Society of Planning Officials, "The making of a national urban growth policy," *Planning 1971*, Chicago, 1971
- [6] Beckman, N., "National urban growth policy: 1973 Congressional and Executive action," *Journal of the American Institute of Planners*, 40(1974) 226-42
- [7] Berry, B.J.L., "Deliberate change in spatial systems: goals, strategy, and their evaluation," mimeo, University of Chicago, 1972
- [8] Berry, B.J.L., *The human consequences of urbanization*, MacMillan, London, 1973
- [9] Blumenfeld, H., "The effect of public policy in the future urban system," 194-208 in [10]
- [10] Bourne, L.S., R.D. MacKinnon, J. Siegel, and J.W. Simmons, eds., *Urban futures for central Canada: perspectives on forecasting urban growth and form*, University of Toronto Press, 1974
- [11] Bourne, L.S., *Urban systems: strategies for regulation. A comparison of Australia, Canada, Britain and Sweden*, The Clarendon Press, Oxford, forthcoming 1975
- [12] Cameron, G.C., and L. Wingo, eds., *Cities, regions, and public policy*, Oliver and Boyd, Edinburgh, 1973

- [13] Charnes, A., G. Kozmetsky, and T. Ruefli,
"Information requirements for urban systems:
a view into the possible future," *Management
Science*, 19:4, Part 2 (1972) 7-20
- [14] Clawson, M., and P. Hall, *Planning and urban growth:
an Anglo-American comparison*, Resources for the
Future, Johns Hopkins University Press, Baltimore,
1973
- [15] Cooper, W.W., C. Eastman, N. Johnson, and K.O. Kortanek,
"Systems approaches to urban planning: mixed,
conditional, adaptive and other alternatives,"
Policy Sciences, 1:4 (1971) 511-29
- [16] Dye, T.R., *Understanding public policy*, Prentice-Hall,
Englewood Cliffs, N.J., 1972
- [17] Emery, F.E., and E.L. Trist, *Towards a social ecology:
contextual appreciations of the future in the present*,
Plenum Press, New York, 1972
- [18] European Free Trade Association, *National settlement
strategies: a framework for regional development*,
EFTA, Geneva, 1973
- [19] Friedmann, J., "A general theory of polarized develop-
ment," In N.M. Hansen, ed., *Growth centres in
regional economic development*, The Free Press,
New York, 1972
- [20] Friedmann, J., "The spatial organization of power and
the development of urban systems," mimeo, School
of Architecture and Urban Planning, University of
California at Los Angeles, 1972
- [21] Friedmann, J., *Urbanization, planning and national
development*, Sage Publications, Beverly Hills and
London, 1973
- [22] Hall, P., R. Thomas, H. Gracey, and R. Drewett,
The containment of urban England 1945-1970,
Allen and Unwin, London, 1973
- [23] Hochman, H.M., and G.E. Paterson, eds., *Redistribution
through public choice*, Columbia University Press,
New York, 1974
- [24] Jantsch, E., "Forecasting and the systems approach: a
critical survey," *Policy Sciences*, 3(1972) 475-98

- [25] Lasuén, J.R., "Urbanization and development: the temporal interaction between geographical clusters," *Urban Studies*, 10(1973) 163-88
- [26] Lowi, T., "Decision-making vs. policy-making: toward an antidote for technocracy," *Public Administration Review*, 28(1970) 314-25
- [27] Organization for Economic Cooperation and Development, *National urban growth policies and strategies: evaluation of implementation experience and innovation*, Environment Directorate, OECD, Paris, 1973
- [28] Ozbekhan, H., "Toward a general theory of planning," in E. Jantsch, ed., *Perspectives of Planning*, OECD, Paris, 1969, 47-158
- [29] Powell, T., "National urban strategy," *Royal Australian Planning Institute Journal*, 12:1 (1974) 7-11
- [30] Pred, A.R., "Urbanization, domestic planning problems and Swedish geographical research," *Progress in Geography*, 5(1973) 1-76
- [31] Pred, A.R., "The growth and development of systems of cities in advanced economies," In A.R. Pred, and G. Törnqvist, *Systems of cities and information flows: two essays*, Lund Studies in Geography, Series B No. 38, Gleerup, Lund, 1973
- [32] Pred, A.R., "Major job-producing organizations and systems of cities," *Resource Paper No. 27*, Commission on College Geography, Association of American Geographers, Washington, 1974
- [33] Ray, D.M., "Canada: The urban challenge of growth and change," *Working Paper B.74.3*, Ministry of State for Urban Affairs, Ottawa, 1974
- [34] Richardson, H.W., "Optimality in city size, systems of cities and urban policy: a sceptic's view," *Urban Studies*, 9(1972) 29-48
- [35] Richardson, H.W., "Theory of the distribution of city sizes: review and prospects," *Regional Studies*, 7(1973) 239-51
- [36] Richardson, H.W., *Regional growth theory*, MacMillan, London, 1973
- [37] Rodwin, L., *Nations and cities: a comparison of strategies for urban growth*, Houghton Mifflin, Boston, 1970

- [38] Rose, R., *The management of urban change in Britain and Germany*, Sage Publications, Beverly Hills, 1974
- [39] Simmons, J.W., "Canada as an urban system: a conceptual framework," *Research Paper No. 62*, Centre for Urban and Community Studies, University of Toronto, 1974
- [40] Simmons, J.W., "The growth of the Canadian urban system," *Research Paper No. 65*, Centre for Urban and Community Studies, University of Toronto, 1974
- [41] Smith, A., *The wealth of nations*, fifth ed. (1789), Random House, New York, 1937
- [42] Stöhr, W., "Interurban systems and regional economic development," *Resource Paper No. 26*, Association of American Geographers, Washington, 1974
- [43] Strong, A.L., *Planned urban environments*, Johns Hopkins University Press, Baltimore, 1971
- [44] Swain, H., "Research for the urban future," *Working Paper B.72.13*, Ministry of State for Urban Affairs, Ottawa, 1972
- [45] Thompson, W.R., "The national system of cities as an object of public policy," *Urban Studies*, 9(1972) 99-116
- [46] Vickers, Sir G., "Values, norms and policies," *Policy Sciences*, 4(1973) 103-11
- [47] Widmaier, H.P., *Infrastructure planning for the decades ahead*, Council of Europe, Strasbourg, 1970
- [48] Wingo, L., "Issues in a national urban development strategy for the United States," *Urban Studies*, 9(1972) 3-27

Australian Initiatives in Urban
and Regional Development

M. I. Logan*
Professor of Geography
Monash University
Melbourne, Australia

and

David Wilmoth
Director, Department of
Urban and Regional Development
Canberra, Australia

Introduction

There is a growing involvement of national governments in matters concerning urban and regional development. This involvement has arisen because of the increasing significance of national processes in this area and a recognition that problems associated with these processes can only be overcome effectively on a national scale. The response taken and the institutions which have been developed have varied from nation to nation. The Australian government established its first Department of Urban and Regional Development in December 1972. The Department has a very wide range of functions extending from strategy and policy formulation and resource allocation on one hand to program implementation on the other. The following paper is an attempt simply to describe what appear to us to be some of its major achievements to date and to outline thinking within the Department on certain issues. It is most important to realise that ideas on policies and programs are evolving continuously: the speculations and even contradictions within the paper are a reflection of the evolving state of knowledge about urban and regional policy issues.

The Department is not yet at a stage where it is really possible to critically review the effectiveness of its policies and of its programs. But it would be misleading for us to imply there is no room for criticism, or that relationships with lower levels of government in the federal system are proceeding easily. The entry of a new organisation into the field of urban development inevitably generates some opposition from long-existing organisations and wide discussion about its role, policies and programs. This is the position in Australia at the present time. Largely for this reason and due to the evolving nature of the national government's role in urban

* During 1974 Professor Logan was an adviser to the Department of Urban and Regional Development. The views expressed in the paper are those of the authors and not necessarily those of the Department of Urban and Regional Development.

affairs it seemed most appropriate for us to present to the Conference a summary account of the reasoning and the agreements and disagreements which are leading to the articulation of national policies and programs. It may be of value to others as a case study of the kinds of problems to be encountered, and of the opportunities which are available, when a national government in a federal political system enters the field of urban and regional development.

I. The Australian Settlement System

The distribution of Australia's population and economic activities is strongly influenced by the colonial origins of the nation and the comparative recency of the federation of the six states (Robinson [21;22]). European contact is entirely post Industrial Revolution which means that economic growth throughout most of the nineteenth century proceeded mainly on the basis of the export of primary products and the import of manufactured goods. The great importance of trade gave an impetus to the growth of the six port cities established by the British as their colonial administration centres. These six cities, described as "pure products of the nineteenth-century expansion of capitalism" have continued to dominate the national settlement system (McCarty [14]).

Trade and commerce have stayed at the foci of transport routes, and the radial extension of road--and later rail--routes from the colonial centres served to strengthen the magnetism of the state capitals. These transport routes did not connect villages and towns that already existed. Thus, from the beginning, regional service centres in Australia have displayed uncharacteristically high dependence on the capital cities, to some extent denying access to higher order services to those unable to frequently visit these cities. This situation remains to the present time.

The settlement pattern of each state, then, is characterised by a high degree of metropolitan primacy (Rose [24]). Considered at the national level, however, the settlement pattern is not dominated by a single city, but by a number of medium-sized cities. Overseas migration has always been a much more important component of metropolitan growth than rural-urban migration. During the nineteenth century, immigration was heavily subsidised by private and some public funds; it was closely associated with capital inflow, irregular in volume, and biased towards young adult males. The cultural preferences of nineteenth-century settlers, mainly from Great Britain and Ireland, were for town life, and not the rural settlement of an inhospitable continent. Whereas in European history the rural population was drawn into urban centres by industrialisation, in Australia the process was to some extent reversed: the large cities developed in advance of both industrialisation and rural settlement.

By the 1860's, Australia was already highly urbanised without significant industrialisation, but subsequent rapid capital formation and industrialisation was associated with the high degree of urbanisation (Butlin [5]). From 1860 to 1900 a very high proportion of new capital formation went directly into the building of cities, with residential building and transport construction leading other investments in commercial and industrial structures, public buildings and water and sewerage systems.

As the cities grew, their internal structures underwent considerable change. The original close-packed, mixed arrangement of activities was later surrounded by lower-density residential development made possible by successive improvements in transport technology. The abundance of land--and speculation on its development--encouraged the low density mode of suburbanisation characteristic of today's cities. The commercial dominance of the central area declined as other centres developed around railway stations, tram stops and car parks, despite rapid increases in the rate of development of inner-city areas in the 1950's and 1960's.

More Recent Trends

The consistent population growth of the capital cities over the past fifty years is summarised in Table 1. In the case of every state the metropolitan area has increased its share of the state's total population. In 1947, 51 percent of the population lived in the state capitals, but by 1971 this proportion had increased to 60 percent. The actual degree of urbanisation of the nation's population appears much greater when consideration is given to smaller urban places. In 1971 there were 120 towns and cities in Australia with a population greater than 5,000 and these urban areas accounted for 10,425,000 people, or 82 percent of the population. An increasing proportion of the total population lives in urban areas; this proportion has risen from 48 percent in 1954 to 86 percent in 1971.

The continued growth in the urban population has occurred with a simultaneous decline of the rural population. In 1947, 31 percent of the population lived in rural areas but by 1971 this had fallen to 14.5 percent. The changing structure of the rural economy, together with its declining significance in the total national economy, has been the main factor in the relative slowdown in the population growth of the rural areas. This is associated with the historical concentration of the bulk of Australian manufacturing industry in the state capitals (Linge [12]; Logan [13]; Bunker [4]).

Table 1. Population of the states: 1921-1971.
(thousands of persons)

	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.
1921	2,100.4	1,531.3	756.0	495.2	332.7	213.8
1933	2,600.8	1,820.3	947.5	580.9	438.9	227.6
1947	2,984.8	2,054.7	1,106.4	646.1	502.5	257.1
1954	3,423.5	2,452.3	1,318.3	797.1	639.8	308.8
1961	3,917.0	2,930.1	1,518.8	969.3	736.6	350.3
1966	4,237.9	3,220.2	1,674.3	1,095.0	848.1	371.4
1971	4,601.2	3,502.4	1,827.1	1,173.7	1,030.5	390.4

Population of state capital cities: 1921-1971.¹
(thousands of persons)

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart
1921 ²	912.8 ³	800.5	217.7	259.6	155.6	53.9
1933	1,237.1 ³	995.8*	301.3	313.0	209.0	62.2
1947	1,489.6*	1,228.3*	404.6	388.0	276.0	76.5
1954	1,863.2	1,524.1	502.3	483.5	348.6	95.2
1961	2,303.8	1,984.9	692.9	659.3	475.6	130.2
1966	2,542.2	2,230.8	778.2	771.6	559.3	141.3
1971	2,807.8	2,503.5	867.8	842.7	703.2	153.7

¹Capital city statistical divisions.

²Figures prior to 1961 exclude full-blood Aborigines.

³Where a boundary has been extended the first figure in the series based on the new boundary is indicated by an asterisk.

The System of Cities

The ten largest cities (the six state capitals plus Canberra, Newcastle, Wollongong and Geelong) contain about 70 percent of the nation's population (see Figure 1). Between 1961 and 1971 the same cities accounted for 89 percent of the total population growth. The actual concentration of population is heightened when consideration is given to the growth of some large nonmetropolitan centres. In New South Wales for example, the steel producing centre Wollongong grew by well over 100 percent from 1947 to 1971 (almost one-half of the total increase was composed of immigrants from overseas). Newcastle, the other steel producing centre to the north of Sydney, did not increase its population substantially, but the two centres together with Sydney make up a huge concentration of people in the central coast of NSW. Likewise, in Victoria, Geelong experienced a growth of over 200 percent between 1947 and 1971, the main development thrust being not

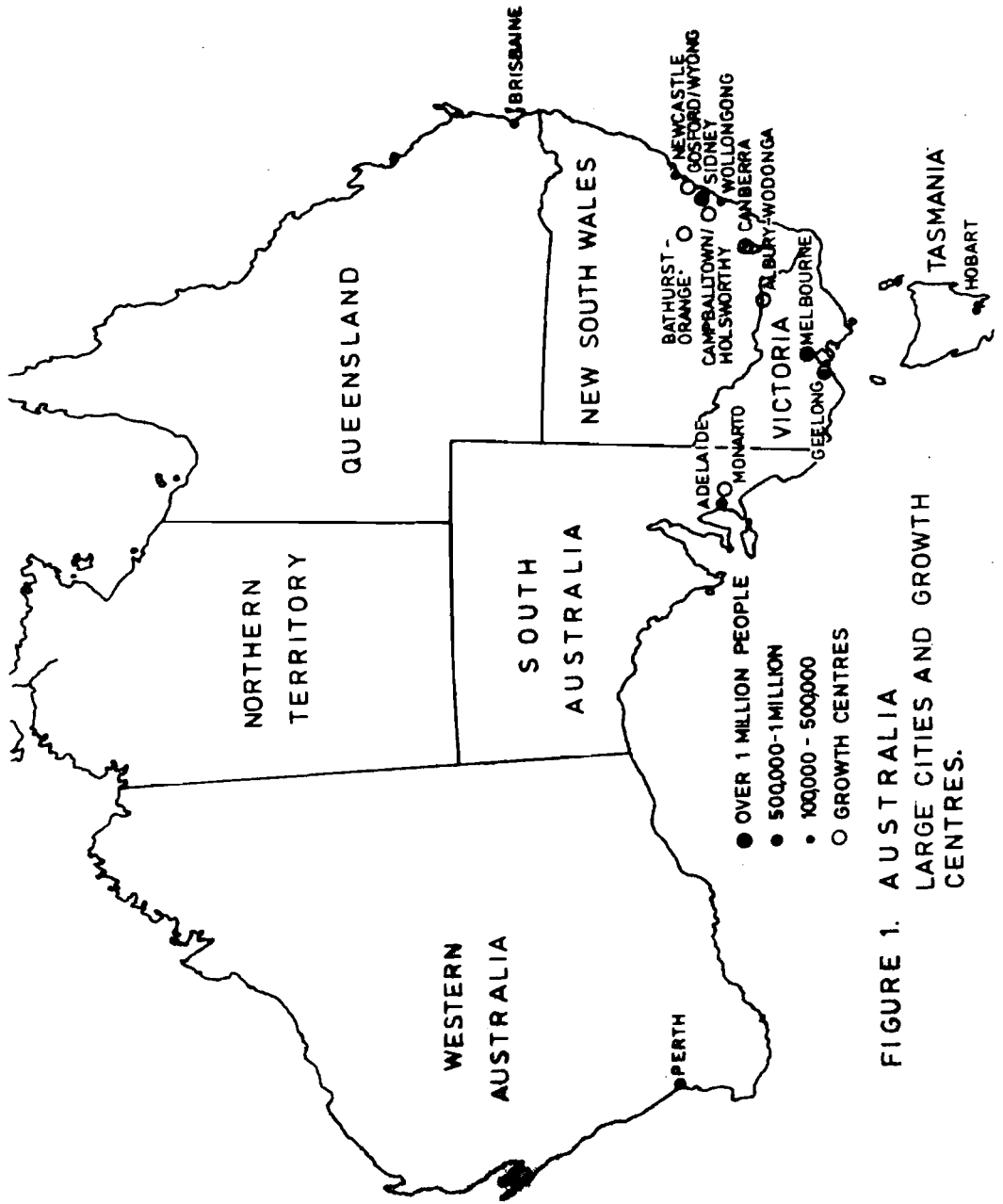


FIGURE 1. AUSTRALIA
LARGE CITIES AND GROWTH
CENTRES.

steel as in Wollongong, but woollen textile and car body manufacturing. In Queensland, the expansion of the Goldcoast, based on tourism, and of Toowoomba have reinforced the concentration of the population in the southeastern corner of the state. The only large centre physically isolated from a capital city to grow rapidly was Townsville in northern Queensland; it is the main export port for ores from central Queensland and is the site for a large copper refinery.

The number of towns with populations more than 10,000 but fewer than 50,000 also increased from thirty-three in 1947 to fifty-seven in 1971, but their share of the total population remained constant at 9 percent. In general their growth rates were lower than for the nation as a whole: some of them actually experienced a loss of population through out-migration to other areas. This is a very important group of towns: they are the regional service centres for the rural population. Any policies oriented towards improving the delivery of social, cultural and commercial services to rural dwellers has to focus on towns of this size range.

At the tail of the hierarchy there is a large number of towns with a population of below 5,000--377 in 1971. It is possible that policies directed towards building up a selected number of regional centres of between 10,000 and 50,000 will necessitate policies to shift population from some very small centres. The rather depressed state of the agricultural industries generally indicates that these small centres have no real growth prospects.

Components of Urban Growth

The Australian population is fairly mobile by world standards; the 1971 census showed that two in every five people had changed their place of residence since the 1966 census. Most moves were local and had no influence on the growth rates of the city or region, but longer distance moves were sufficient to have a significant impact on the growth of Australian cities and towns.

Generally, in the 1947-54 intercensal period all the state capitals gained population by internal migration of the Australian-born population except Sydney and Melbourne which experienced net losses of 43,000 and 21,000 persons respectively. In contrast, in the 1954 to 1961 intercensal period, Sydney gained 42,000 Australian-born persons through internal migration of whom 64 percent came from outside NSW. In Melbourne there was a gain of 36,000 of whom almost 90 percent were from outside Victoria. During 1961-1966, however, both Melbourne and Sydney experienced substantial losses of people born in their own states. For Melbourne this loss was so great that it overbalanced the gain from other states, so that there was a net loss of 13,000 persons.

More importantly, immigration has been the main demographic component of Australian capital city growth since 1945 (Choi and Burnley [6]). Table 2 presents a breakdown of the total increase in the capital cities from 1947 to 1966 into three components, natural increase, the net migration of Australian-born and the net migration of foreign-born. In the cases of Sydney, Melbourne, Adelaide and Perth, net migration of foreign-born has been the most important component.

Table 2 also shows the relatively insignificant role of the net migration of the Australian-born, i.e. the rural-urban shift, as a component of capital city growth. Indeed it can be argued that Sydney and Melbourne have actually exported population to other cities, especially to Brisbane and to large provincial centres. It is apparent from the few preliminary studies made so far that internal migration patterns in Australia are more complex than they are generally considered to be and warrant more detailed study. It is also apparent that a reduction in the rate of immigrant intake will lead to a sharp reduction in the growth rates of Melbourne and Sydney.

Table 2. Components of capital city population growth in Australia, 1947-1966.

Metropolitan divisions	Natural increase	Net migration of Australian-born	Net migration of foreign-born	Total growth
<u>Numbers</u>				
Sydney	378,784	266	463,413	842,463
Melbourne	365,649	1,438	522,111	889,198
Brisbane	123,672	87,720	108,820	320,212
Adelaide	10,372	52,579	203,887	360,838
Perth	103,910	37,455	114,408	255,853
Hobart	28,746	9,946	18,286	56,978
<u>Percentages</u>				
Sydney	45.0	0.0	55.0	100.0
Melbourne	41.1	0.2	58.7	100.0
Brisbane	38.6	27.4	34.0	100.0
Adelaide	28.9	14.6	56.5	100.0
Perth	40.6	14.6	44.8	100.0
Hobart	50.4	17.5	32.1	100.0

Source: Unpublished data, National Population Enquiry, 1973.

II. The Postwar Role of the Public Sector in the Settlement System

For a brief period at the end of the Second World War there was considerable interest by the national government in urban and regional development. The report of the Commonwealth Housing Commission [7], which had been formed to inquire into national housing needs, included a number of positive statements on national, regional and city planning (Harrison [11]). Amongst other things it outlined for the first time a type of national strategy:

National and regional planning may be described as a conscious effort to guide the development of the resources of the nation, and their use in productive enterprise, so as to provide a rising national income and therefore, a rising standard of human welfare.... In the past, national development, has been largely in the hands of private enterprise, and has thus been governed by the possibilities of profit-making rather than by the needs of the community. We consider that national, regional and town planning is an urgent national need.

This same report urged governments to decentralise industry and create "satellite towns" because of the deteriorating living conditions in the major cities. It also gave rise to the Commonwealth and State Housing Agreement Act (1945) which provided for the states low-cost housing programs to be financed by the national government. In the same period the Federal Ministry of Postwar Reconstruction reached agreement with the states for the two levels of government to plan development and decentralisation on a regional basis (Department of Postwar Reconstruction [9]). The nation was divided into ninety-three regions for each of which resources were to be surveyed, growth potential assessed and development planned in a co-operative manner by national, state and local governments. This period also gave rise to the first metropolitan plan in Australia, the plan for Sydney prepared by the Cumberland County Council [8], a second-tier agency elected by the councils of the Sydney region.

It is to the credit of the six state governments that regionalism has at least been kept alive. Indeed, in recent years there has been something of an upsurge of interest in regional development. In NSW, for example, largely because of the ineffectiveness of the advisory Regional Development Committees, an Interdepartmental Committee on Regional Organisations (1970) was formed to consider ways in which regionalism could be made more effective. The Regional Organisation Act, 1972 arose from the Committee's work. The Act recognised the need for fewer and larger regions and the value of common regions for most government departments and

agencies. Likewise in 1972 the Victorian government announced modifications to its decentralisation policy which involved dividing the state into ten regions each with a regional centre and a number of district centres. The decentralisation of public administration is seen as a vehicle for stimulating the growth of selected urban centres. In the remaining states there is similar evidence of reasonably strong interest in regionalism but of a general lack of political understanding and economic commitment to regional development. Decentralisation policies have never been fully integrated with policies to foster the growth of selected regions. Few countries in the world have such an obvious need for regional development policies as Australia, but our record to date is extremely poor.

At the metropolitan scale, the responsibility for urban affairs has been largely given by the state governments to local government and to certain authorities and commissions. In contrast to the situation in many countries where local government carries such major responsibilities as education, health and police protection, in Australia it is concerned primarily with such minor matters as building regulations, health regulations, road construction, waste disposal and so on. In the large metropolitan areas, however, the state governments have been concerned with the need for some city-wide planning organisation. This concern, the absence of city government and the general ineffectiveness of metropolitan planning in Australian cities are discussed by Harrison [11]. For the last two decades of rapid growth, the private sector has taken the lead in development and the public sector has become little more than the supplier of utility services. Quite apart from the general ineffectiveness of planning, there is the problem of the appropriateness of the physical orientation of planning in Australia when socio-economic problems are so clearly important issues in urban development.

By the 1960's continuing metropolitan growth was causing some strains, and public issues of transport provision, re-development, rural depopulation and local government fragmentation began to be linked to demands for federal action. Many states grappled, with only limited success, with policies for metropolitan planning, population decentralisation, and transport planning.

During the late 1960's the Australian Labour Party began to develop explicit urban and regional policies, and to put them together into an "urban affairs" platform. As Leader of the Opposition, Mr. Gough Whitlam championed such causes as revitalising local government, eliminating the sewerage backlog, encouraging public transport systems, and building new cities.

It is high time that the goals of urban development were made explicit. It is high time that a national framework of urban planning was established, and specific appropriate planning responsibilities assigned within that framework to the Commonwealth government, to the State governments and to regional government. It is high time that the Commonwealth accepted a proper share of the financial responsibility for urban development in all its forms.... A Labour government would not deny State governments and local government finance adequate for the functions which they are incomparably best able to perform or by default impose upon them functions better performed at a national level (Whitlam [25]).

He also proposed a means of making these goals for urban development influence resource allocation:

The big problem with urban and regional planning in Australia is that, with the exception of Brisbane and Canberra, the planning organisation is not the organisation which spends the funds and the organisations which do spend them see their responsibilities in terms of running trains, generating electricity, supplying water, building schools and so on. The spending organisations, in other words, have instrumental goals which they quite rightly pursue in the way which seems most efficient from their own sectional point of view. They spend the funds allocated to them by the Loan Council in the way which suits their own sub-systems best....The basic requirement is simply that, before a State or local government authority comes to the Commonwealth for funds for urban development, it should prepare an integrated programme budget which covers the total requirements of the area for which it is responsible. The very process of co-ordination required at the local and regional level to construct a total specification of requirements will force planners to take into account the varying interests of the instrumentalities which will construct and operate the sub-systems within their overall design.

The year 1972 was Australia's most decisive for the development and public acceptance of co-ordinated national intervention in urban and regional affairs. The cautious but not pessimistic *Report of the Committee of Commonwealth/State Officials on Decentralisation* [20] and the timely and programmatic report on *New Cities for Australia* by the Australian Institute of Urban Studies [2] set the scene for the debate.

The McMahon government (Liberal-Country Party) took some initiative in this area just prior to the national election late in 1972, with the National Urban and Regional Development

Authority (NURDA). The formulation of a national strategy for urban and regional development, and the influence that this strategy would have on the allocation of federal money to the states, were important aspects of NURDA's role. Equally important was NURDA's responsibility for the identification and promotion of growth centres. NURDA was also authorised to directly carry out some pilot projects, such as the Glebe rehabilitation project in Sydney, later initiated by the Department of Urban and Regional Development. The executive responsibilities of NURDA were limited; its influence would have resided in its proximity to the centre of power, the Prime Minister.

After an election campaign in which urban issues figured prominently, the December 1972 elections brought the Labour Party to government and led to the immediate establishment of a Ministerial Department of Urban and Regional Development. A simple description of the Department's responsibilities is contained in an initial statement of functions endorsed by the government during 1973. The Department has the following functions:

- a) Development and implementation of a national urban and regional development strategy.
- b) Development and monitoring of an urban and regional budget program to co-ordinate resources allocated for investment in urban and regional services by federal departments, state and local governing bodies.
- c) Development of an urban economic and long-term resource planning capacity.
- d) Initiation and co-ordination of federal department activities in urban and regional development.
- e) Co-ordination of advice to ministers.
- f) Negotiation with and provision of advice and assistance to the states, semi-government and local government authorities in the preparation and implementation of plans for cities and regions.
- g) Jointly with the Department of Transport, the assessment of demands for transport services arising from initiatives in restructuring urban areas or for regional development. Ensuring that the urban and regional budget program makes appropriate provision for investment in transport services.
- h) Initiation and co-ordination of research into urban and regional development.

- i) Establishment, then supervision of the activities of Australian and State Land Commissions.
- j) Administrative responsibility for the success of the New Cities Program.
- k) Development and advice to the Australian government on a National Estate Program designed to protect and enhance land and buildings of national importance.

The Ministry for Urban and Regional Development is made up of the Department, the Cities Commission, the National Capital Development Commission, and the Albury-Wodonga Development Corporation, with a number of other organisations either indirectly linked or yet to be established. These are shown in Figure 2. The formal structure of the Department as shown in Figure 3 reflects the functions, but does not convey in detail the full range of activities undertaken, nor the way in which Departmental activities are organised.

III. National Goals

It is appropriate that the national government should intervene directly in the process of urban and regional development. The problems are essentially national in character, arising from the impact of processes which operate throughout the entire system. Although many of the activities of the national government have always had important spatial effects, the spatial dimension has, until recently, never been made explicit. In Australia only the central government has the financial resources that are needed for such major initiatives as building new cities or restructuring the settlement system or rearranging the shape and functions of cities. The national concern in this area is in keeping with similar events in other countries notably Sweden and Canada.

The concern has been associated with an attempt to identify national goals and to translate these into more specific objectives in urban and regional development. Once again this is consistent with what has been happening in many other Western countries (Wingo [27]; Miles [16]; Rodwin [23]; Beckman [3]). In August 1973 the Australian Government announced the appointment of a Priorities Review Staff, which has, amongst other things, also sought to identify the broad goals of the government. It claims that the basic concerns of the present government are with: the degree of equality between various members of the community; the quality of life; the stable growth of prosperity; the preservation and expansion of civil rights; national identity, purpose and security; a greater measure of international justice (Priorities Review Staff [19]).

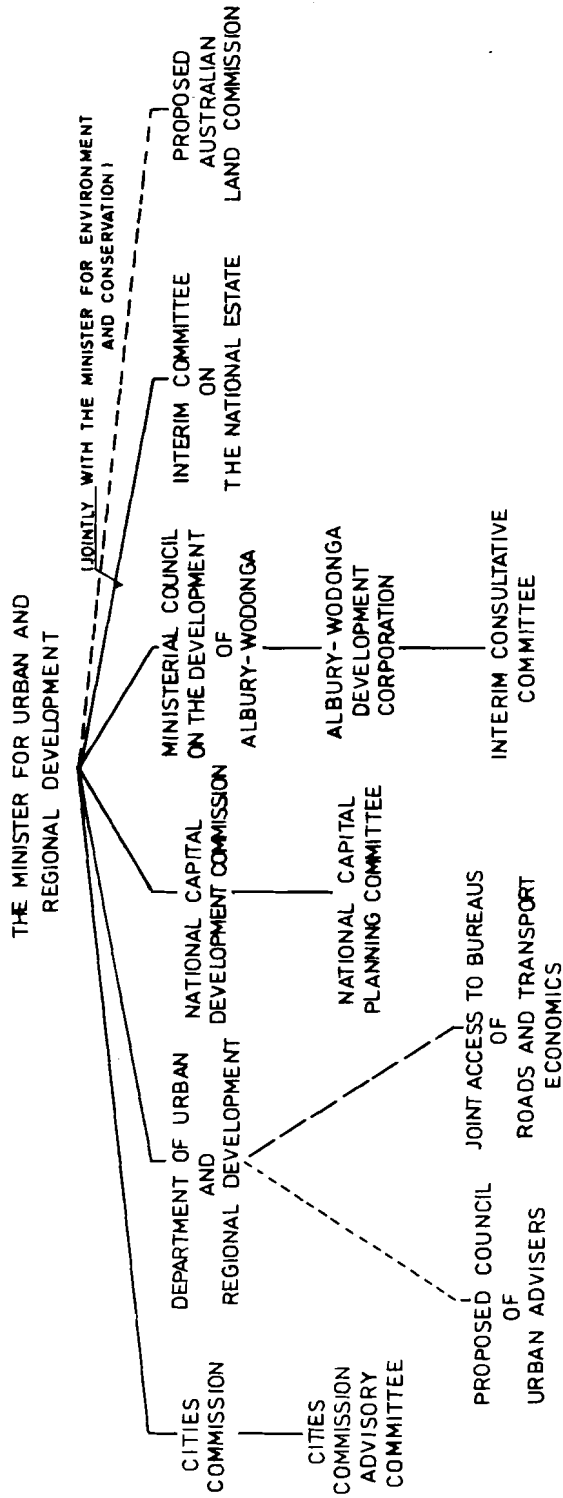


FIGURE 2. THE MINISTRY FOR URBAN AND REGIONAL DEVELOPMENT.

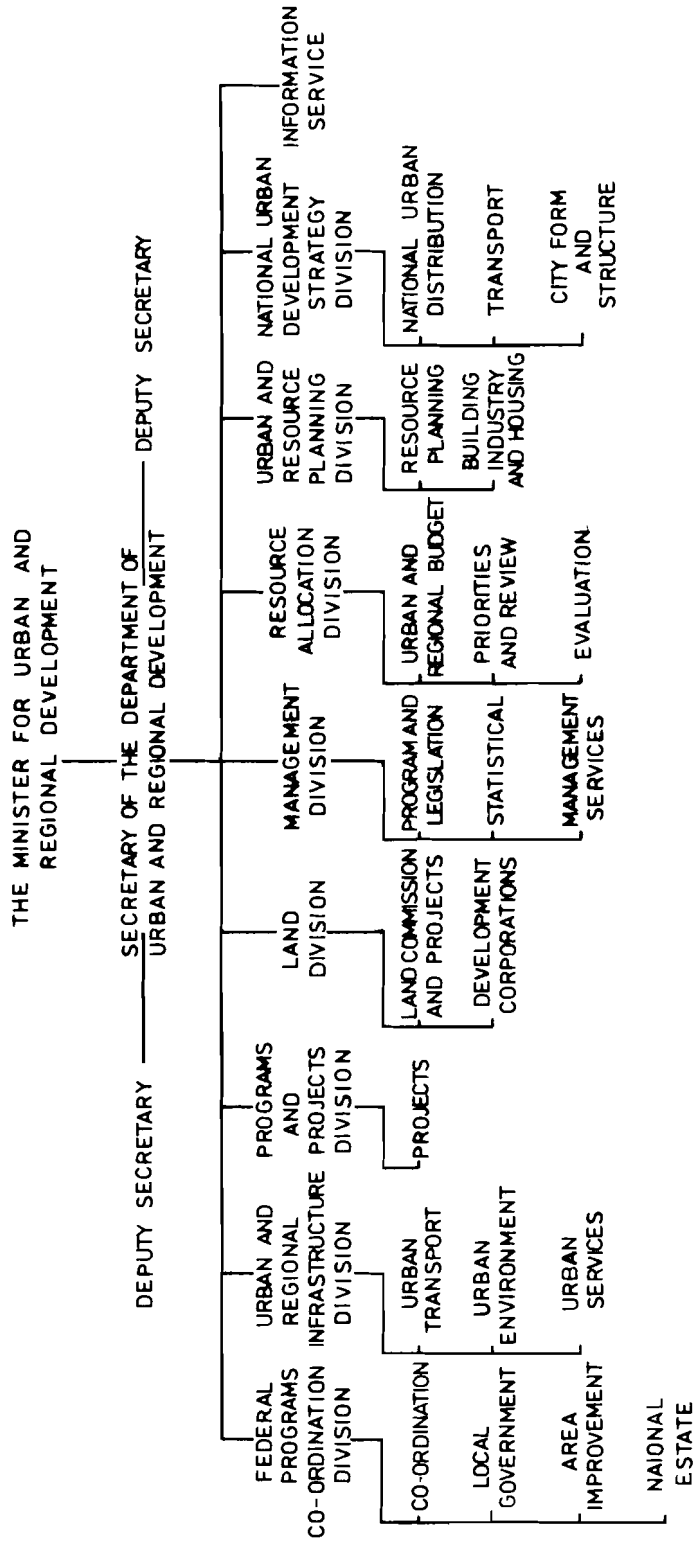


FIGURE 3. THE DEPARTMENT OF URBAN AND REGIONAL DEVELOPMENT (OPERATIONAL ARRANGEMENTS AS AT 30 JUNE 1974).

Some sort of broad goal and objective formulation is necessary to guide policy and to evaluate the effectiveness of programs. But a set of goals and policies can never remain constant, especially in the field of urban and regional development. It is also possible that a set of urban goals will not always fit neatly together. William Alonso [1] suggests a useful comparison between foreign policy and national urban and regional policy.

Foreign policy deals with relations with foreign territories, urban and regional policy with domestic territories. No one would suggest a master plan approach for foreign policy. It is understood that such policy is a permanent and continuing function of government, with aspects of it fixed in particular documents and protocols, but in general following some general purposes and strategies, adapting them to different regions, to new developments and new insights, and recognising that, realistically, it quite often will contain some internal contradictions. It is also recognised that other areas of government policy, such as taxation, monetary policies, technology policies, and even urban and regional policies, affect the circumstances and purposes for the conduct of foreign policy.

At any point in time there can never be a comprehensive, logically articulated and self-consistent statement of urban and regional policy; rather, broad strategic guidelines should be developed to guide tactical decisions as opportunities and contingencies arise. At the most general level, action should be informed by goals, values and attitudes that are as far as possible ends in themselves, and not merely means towards other ends. The search for basic goals, however, runs the risk of reducing goal statements to vague generalisations.

It would be irresponsible for a Department of Urban and Regional Development to spend all of its resources in seeking to define general goals without taking any action. Many public attitudes are formed only by responses to particular actions. However, as the range of action widens, it becomes more and more necessary to develop policies so that every problem that arises does not have to be solved by going back to first principles. For a national government to exist and act, it must assume some degree of consensus about goals.

The primary source of these goals lies in the intentions of elected governments, both as expressed in policy statements and election platforms, and as implied by government decisions as they are made. Secondary sources include the full apparatus of the party structures, advice from and decisions taken

by the bureaucracies, and a wide range of other policy advisers. There is bound to be conflict among these sources, and there are often elaborate methods for resolving these conflicts. If this policy-making system is to become more sophisticated and democratised, further secondary sources should include the participation of community groups in the formulation of policies, and the results of policy-oriented research into urban and regional problems.

The broad national goals relevant to urban and regional development are generally based on the "three great aims" expressed by the Australian Prime Minister in the Labour Party Policy Speech in 1972:

- Our program has three great aims. They are:
- to promote equality,
 - to involve the people of Australia in the decision-making processes of our land, and
 - to liberate the talents and uplift the horizons of the Australian people (Whitlam [26]).

The following discussion represents an attempt to outline a set of goals most pertinent to urban and regional development. The points presented are an interpretation of material presented in policy speeches and in other statements. The goals can be summarised as follows:

- 1) To reduce inequalities in the distribution of income, wealth, and individual opportunities.

This goal implies the intervention of governments in a range of areas to protect disadvantaged segments of society, and to encourage basic change in the society, the economy and the policy so that severe inequalities do not arise in the future. The Prime Minister's 1972 policy speech makes it clear that equity is the primary goal of the government's urban and regional policies:

Even the most enlightened and equal approach to social welfare can only scratch the surface of the basic problem of equality and well-being of most of our citizens. We can double and treble social benefits, but we can never make up through cash payments for what we take away in mental and physical well-being of community life and community identity. Whatever benefits employees may secure through negotiation or arbitration will be immediately eroded by the costs of living in their cities; no amount of wealth redistribution through higher wages or lower taxes can really offset the inequalities

imposed by the physical nature of the cities. Increasingly, a citizen's real standard of living, the health of himself and his family, his children's opportunities for education and self-improvement, his access to employment opportunities, his ability to enjoy the nation's resources for recreation and culture, his ability to participate in the decisions and actions of the community are determined not by his income, not by the hours he works, but by where he lives. This is why Labour believes that the national government must involve itself directly in cities. Practically every major national problem relates to cities. A national government which cuts itself off from responsibility for the nation's cities is cutting itself off from the nation's real life. A national government which has nothing to say about cities has nothing relevant or enduring to say about the nation or the nation's future.

The general promotion of equality can be expressed in many ways. The distinctive aim of urban and regional policies and programs in this area is to promote equality according to location. Both within cities and between regions, a broad policy goal is to reduce disparities in standards of living. However, it is not possible, nor is it desirable when other goals are considered, to aim to make all areas identical. This would reduce the range of alternative places for people to live, and would be a highly inefficient allocation of resources. The real issue is not so much to equalise but to ensure that all people irrespective of where they live enjoy a minimum acceptable standard of living.

- 2) To ensure that citizens have more equal access to a full range of public services.

This related goal is directly concerned with public sector activities, their quality and range, and the distribution of their availability. Inequalities in the past have been allowed to develop, sometimes with severe social consequence. Some government services have been available more readily to those areas or groups sufficiently well-organised to secure such services, and in the past these have not normally been low-income areas and groups. The location and range of services provided is the most important aspect of this goal, but there are other factors which need to be considered. A service does not become "available" just because it is located nearby. There may be, for example, language difficulties

of access for migrants. A particular service may not be appropriate to the needs of a region, but only people living in the region may be able to point this out. To this extent there is a difference between physical accessibility and real availability. The realisation of this goal is a major task for the whole government, but in its locational dimension, it becomes a vital aim for the Department of Urban and Regional Development.

3) To achieve greater efficiency in the allocation of resources.

Greater efficiency is a worthwhile goal even if the initial distribution of gains is not entirely acceptable to the government, since the government can, in principle, consider taking supplementary measures to make this distribution acceptable. While action should be taken to assist processes of structural change in the economy, this should be done in such a way that resources will be efficiently located without undue hardship to the people concerned.

In some situations a mixture of gains and losses to different people may be involved, even though the total gains exceed the total losses. In such cases the distribution of the gains *and* losses can be very important. If it is acceptable, supplementary measures to penalise gainers and compensate losers may be required, or the proposal to change resource allocation may even have to be rejected on equity grounds.

The importance of this goal should not be under-estimated. There is a considerable body of theory and evidence to the effect that, without the intervention of government, resource allocation would be far from efficient. Even with the intervention of government, there remains a need to ensure that the government's activities themselves employ resources in the most efficient way. Efficient allocation of resources is said to be a benefit of the operation of the market system; it is also a widely accepted aim of economic policies. The efficient *spatial* allocation of resources is as important as the more common reading of efficient product or industrial allocation of resources. The concept of efficient *spatial* allocation of resources is important to the theoretical base of the activities of the Department of Urban and Regional Development and as a guide for administrative action.

- 4) To open the processes of government and planning to effective citizen participation and to decentralise decision making and administration.

This goal is based not only on the need to make the activities of government more visible and more open to the community, but to widen the sources of advice traditionally available to governments. In his 1972 Policy Speech, Mr. Whitlam said:

We want the Australian people to know the facts, to know the need, to know the choices before them. We want them always to help us as a government to make the decisions and to make the right decisions ... The Australian Labour Party will build into the administration of the affairs of this nation machinery that will prevent any government, Labour or Liberal, from ever again cloaking your affairs under excessive and needless secrecy.

There are, of course, significant trade-offs to be made in the operationalisation of this goal. It is important that public decisions be discussed widely before major commitments are made, and that these discussions involve those affected by such commitments, and not only the powerful lobby groups. Many local pressure groups are parochial in their emphasis, but to ignore the advice of community groups, particularly in urban and regional affairs, is to ignore a source of valuable ideas and energy. Of course, achieving genuine participation in formulating a national strategy and a set of national policies can be extremely difficult. The decentralisation of decision making, particularly to the regional scale, both within the Australian government and outside it, will necessarily be a slow process. But there is wide agreement on the general principle that public decisions should be made as close as possible to those affected by the decision, and with as wide a debate as possible.

- 5) To preserve and enhance the natural and manmade environment and conserve natural resources, particularly energy resources.

As with other goals, there is likely to be little disagreement with the principles expressed by such a statement: all political parties place a high priority on environmental and resource policies. While the conservation and co-ordinated development of resources have

long been goals of government, in recent years environmental questions have assumed relatively greater importance. The possible deletion of certain natural resources and increased environmental pollution have brought about fundamental re-assessments of national goals in countries such as Japan and the USA, and such a re-assessment is occurring in Australia. One of the most important aims of urban and regional policies and programs must be the improvement of the natural and manmade environment, and the conservation and wise management of resources. There is a close relation between this goal and questions of equity and economic growth, so that whatever objectives are derived from environmental considerations must reflect this fact.

- 6) To maintain full employment, maximise variety of job opportunities and promote job enrichment.

There is a complex area of policy and institutional arrangements that are aimed at maintaining full employment and a satisfactory employment for all those able and willing to work, which has a direct bearing on urban and regional problems. Opportunities to enter into the work force and the type of employment available vary widely within and between urban and regional centres. Many regions are highly dependent on one main industry. In such communities employment opportunities are dependent on the economic well-being of that industry. However, the need to rationalise certain industries may dictate a policy of assisted out-migration from regions with declining economic prospects, rather than a policy of artificial inducement of employment in such regions. Under-utilisation of married women and lack of employment opportunities for special skills in an area are problems for urban and regional policy as well as the work force as a whole.

- 7) To provide the conditions for a wide range of lifestyles within the population, without discrimination according to race, age, sex, religion or class.

As western society becomes outwardly more diverse, governments have sought to provide suitable conditions for a plural society. But the removal of discrimination against minority groups is a concomitant goal. In a discussion on racial inequality the Priorities Review Staff [19] suggest:

Aboriginal policy should continue to present opportunities to Aborigines who want to raise their material standards and become part of white society, while also allowing those who want to develop a separate identity to do so.

Policies which assume a homogeneous society are likely to be unsuccessful. Some groups face complex sets of problems for which they often do not have the resources to solve for themselves. Such groups would include recent migrants, Aborigines, unmarried mothers, old age pensioners, and homeless men and women. Government policies should sometimes be specific to particular groups. Increasingly, more privileged groups are choosing to pursue life-styles at variance from the cultural mainstream, and the promotion of such freedom to choose becomes a goal in its own right, subject of course to a number of constraints.

IV. A National Settlement Strategy

In order to achieve the broad goals outlined above the Department has attempted to translate them into appropriate policy objectives and to formulate a general strategy of urban and regional development. The strategy, in turn, is implemented by a series of programs. The Department of Urban and Regional Development, therefore, has a very broad range of responsibilities extending from national goals and policy formulation to actual implementation of policy on the ground. The implementation occurs through the Department's own programs and through the co-ordination of the activities of other Departments.

The approach taken to date has been largely to embark on a development program before the actual details of an overall strategy have been determined. This sequence has occurred for a number of reasons. Certain problems such as a national backlog of sewerage provision, service deficiencies in the outer western suburbs of the two largest cities, Sydney and Melbourne, the unsatisfactory financial position of local government, and deteriorating living conditions in inner city areas, are clearly apparent and warrant immediate action. Other programs, such as the national effort to develop new cities, are of such a long-term nature that pilot projects were planned as soon as the feasibilities of certain regions were assessed. A further reason for deciding to develop a number of programs in advance of a detailed strategy was, and still is, the high level of public expectation to see results "on the ground."

The strategy is conceptualised as a process of achieving public objectives concerning urban and regional development. There are clearly many directions which the strategy could take as a result of public discussion, research and consultation. The approach to the development of a national strategy currently preferred is to establish a process of policy and program co-ordination in order that the activities of the Australian government, state and local governments, private organisations and citizens all combine to direct changes in urban and regional

development towards the achievement of national objectives. This approach implies some degree of consensus about ends and about means and depends on a great deal of co-operation, co-ordination and good will.

Because the strategy is particularly directed at locational change, it becomes necessary to translate social objectives into policies concerning the arrangement of people and their activities on the ground. That is, a strategy for urban and regional development should focus not only on single components of development or sectors of the economy, but also on the integration of public and private activities within and between regions. It needs to be concerned more with processes of social change than with physical development. For its success in the public sector it will depend on the spatial co-ordination of activities in the various levels of government which directly and indirectly affect urban and regional development, including education, health, social security and welfare, housing, recreation, immigration, transport and communication, water supply and electricity and industry assistance. In the private sector, its success will depend more on co-operation with decision makers and those affected by their decisions, than by strict controls bluntly applied from above.

The strategy is concerned with tactics to overcome problems to do with the distribution, size and functions of settlements; the internal structure and processes of change in metropolitan areas; the location of employment opportunities and public and commercial services; patterns of resource availability and regional development; environmental constraints and opportunities; the nature of government and planning processes; patterns of land use and other attributes of land; and national systems of transport and communication. It provides the rationale for two kinds of action: the co-ordination of decisions taken outside the Department and the execution of remedial and developmental programs within the Department.

The Constraints on a National Strategy

Although there is a clear necessity for Australian government involvement in urban and regional development, there are a number of difficulties which constrain policy implementation. The processes underlying the symptoms are inordinately complex as are the structure and function of the urban system. For example, proposals to alter the distribution of population and the settlement pattern require an understanding of the slowness of change in population distributions and of the massive diversion of resources needed to effect such changes.

In Australia there is unfamiliarity with comprehensive national policies about urban and regional development. While the planning and regulation of certain economic sectors and social services at the national scale have become commonplace,

the spatial dimension of economic and social development has been largely ignored. Furthermore, because the Australian government has at its disposal the use of powers different from, and in some cases stronger than, the better-known land use controlling powers of state and local governments, the expression of the national strategy is not familiar. It will not appear in the form of a land use plan but ultimately in the form of a spatially-specific program and budgeting system.

The federal structure of the Australian Constitution and Government, the maintenance of residual powers by the states and, more specifically, the retention of most urban and regional planning powers by state governments create problems and challenges for a national strategy. Local government is solely constituted under State Acts. But there are many areas of overlapping and joint responsibility between the three levels of government. The Federal government is the main revenue-raising agency and makes allocations to the states. It therefore becomes especially necessary to develop a co-operative system of federalism for urban and regional affairs.

The time-scales for urban and regional changes are so long that there is a need for a good deal of national consensus on urban and regional issues. The long-term nature of change also presents problems for the successful monitoring of programs.

Probably the most difficult constraint of all is our lack of understanding and knowledge about urban and regional change generally. In Australia, and indeed, internationally, there is a lack of research directly relevant to policy formation and review. Research into urban and regional characteristics has been state-biased and we know little about the national system. The translation of socio-economic objectives into spatial policies is extremely difficult.

Finally, there is an absence of planning in general in Australia. For example, no economic planning framework exists to complement an urban strategy. It is, therefore, necessary for the Department of Urban and Regional Development to develop some economic tools of its own such as an urban and regional budget system, which will allow areal disaggregation for forward estimates.

Issues in a National Strategy

The Department is in the process of identifying issues and arguments to provide a basis for discussions which will lead to the formulation of a national strategy. The strategy will provide a bridge between the national goals and the action programs of the Department: that is, it seeks to translate national goals into more specific policies and operational procedures relevant to urban areas. The programs, in turn, will carry out the policies. The main issues currently being discussed are summarised below.

4.1. National Settlement Policy

Each city and town is a part of a national urban system, which has evolved as a response to Australia's particular pattern of economic development. Policies related to this system may be called *national settlement policies* or *population distribution policies*. Ideally every region and every urban settlement in Australia should have a clear policy status, derived in a co-operative way, so that settlement policy may be related to national objectives and may have a practical application.

There is no consensus in the community about the appropriate population sizes of metropolitan areas. While popular opinion and political rhetoric appear to indicate that Sydney and Melbourne have grown to be too large, it may be that the size of metropolitan areas is a less appropriate expression of policy than their rate of growth. Although it may be virtually impossible to both set a limit to the population size of a city and also to steer growth in such a way that this limit is achieved, it is still proper and desirable for governments to have policy views about distribution of population.

4.1.a. Sydney and Melbourne

Policies about the rate of growth of Sydney and Melbourne appear more useful than policies concerning their optimum size. Many past problems of service provision and social stress can be traced to a population growth more rapid than that of the ability of social networks and public authorities to support and service it. Furthermore, the burden of rapid growth does not fall evenly. Those social groups less able to defend their own interests in the city lose more through growth; those who are able to have the resources to organise to gain the benefits of growth do so.

Attempts to remedy the problems of rapid growth must be supported by the more basic policy objective of slowing down the rates of growth of Sydney and Melbourne. This policy objective is designed to achieve the goal of equity in particular, while at the same time allocating national resources in an efficient manner. Slower rates of metropolitan growth for these cities would reduce the rate at which outdoor recreation and other resources come under severe pressure. Public services, by being better able to cope with growth, will be more equally available to people, other things remaining equal.

Reduction of Sydney and Melbourne's rates of growth should be pursued jointly by the state and Australian governments. Relevant metropolitan agencies would appear to support this aim. The Melbourne and Metropolitan Board of Works [15] states that:

... unless actions of the various levels of government are effectively co-ordinated and directed towards achieving an integrated strategy, much of the action undertaken to influence the development of Melbourne could be self-defeating.... Both Commonwealth and State Governments are now committed to policies aimed at decentralising activities from the main cities in Australia....

The New South Wales State Planning Authority's *Sydney Region Outline Plan* states:

After careful consideration, the State Planning Authority has concluded that an integral part of the population strategy for the Sydney Region should be the adoption of a *provisional aim to steer 500,000 of Sydney's projected growth to new centres in other areas of the State, outside the Sydney Region.*

4.1.b. Adelaide, Brisbane and Perth

The three next largest capital cities provide a dilemma for a national settlement policy. On the one hand, there are pressures for policies which strongly limit the rate of growth of these cities, partly because the dominance of metropolitan areas within the states is held by many to be undesirable generally. However, there is capacity within and around these cities to accommodate additional growth, and for most people the standard of services and facilities would be comparable to Sydney and Melbourne. For these and other reasons, it may not be desirable to limit severely the growth of these cities at present, although such limits may be necessary in the future. Indeed, from a national perspective, these cities are alternative locations for some of the growth occurring in Sydney and Melbourne. But it is necessary to safeguard the long-term economic future of these cities, and particular action may be needed in the case of Adelaide, which could suffer from too-rapid rationalisation of manufacturing industry or from the effects of a possible economic down-turn if general economic policy is not guided by a sound regional economic policy. An appropriate policy objective is for Adelaide, Brisbane and Perth to experience steady population growth and a widening of their economic bases. This objective is very general and should be examined more carefully. For example, it is uncertain whether in Queensland the degree of metropolitan dominance should increase, even if the size of Brisbane increases. A well-developed system of provincial cities is a feature of Queensland, a result of the development of transport routes, the off-centre location of Brisbane, and the application of decentralisation policies.

In the case of Adelaide, a slowing of its population growth and the rapid growth of Monarto may occur, but these may still not be sufficient to restrict the population of Adelaide to less than one million persons. The longer-term economic future of Adelaide, and the continued avoidance of unemployment there, is in some doubt unless growth and stabilisation in its employment base is encouraged as a matter of policy.

The Australian urban system is often characterised as one exhibiting a high degree of metropolitan primacy, without a range of medium-sized cities. As has been pointed out earlier in this paper such statements are not entirely accurate if cities around the half-million mark are regarded as medium-sized, and if the measure of primacy is the degree of national dominance, as distinct from state dominance. The cities of Brisbane, Perth and Adelaide, while currently exhibiting a range of problems, represent good opportunities in the future for medium-sized alternatives to Sydney and Melbourne, but their growth must be closely guided so as to avoid the problems of larger and faster-growing cities.

4.1.c. Newcastle, Wollongong, Hobart and Geelong

With Canberra, these cities constitute a group of the next five largest cities in Australia, but Canberra should be discussed separately as a planned growth centre. The remaining four present unusual problems. For example, while Newcastle and Wollongong are larger than Hobart, the last is better supplied with public services because it is a state capital and because it is a beneficiary of state-by-state resource allocation arrangements.

Newcastle, Geelong and Wollongong all rely on manufacturing employment bases, and face dangers of their local economies remaining too narrow with respect to both industry and particular companies. The economies of cities dominated by single industries or single companies is subject to fluctuations, and thereby to variations in employment opportunities and unemployment levels. A policy is needed to encourage the diversification and stabilisation of the employment bases of these cities.

These three cities are all near larger metropolitan areas and their economies are becoming bound up with them, as evidenced by the increasing numbers of people commuting from one city to work in the other. These functional connections are likely to become more intensive and more complex, and this integration could well be facilitated as a matter of policy.

Along with this growing functional interdependence there is likely to occur a degree of physical coalescence as separate "fronts" of urban development join. Not only is the identity

of discrete urban areas at stake, but also the preservation of intervening outdoor recreation areas sufficiently large to meet future needs. Another characteristic common to Newcastle, Wollongong and Geelong is that they all occupy sites with potentially very pleasant living conditions, but which are marred by the environmental effects of manufacturing and the mining industry. Hobart, while less industrialised, is also located on a magnificent site. These cities demand stronger policies of environmental protection.

There appears to be a case for accommodating significant population growth in and around these centres and away from Sydney and Melbourne. It could be argued, however, that the encouragement of further growth within the urbanising regions of the two largest cities would, given the continuing centralisation of tertiary and quaternary industries, strengthen the power of the centres of Sydney and Melbourne and thereby contribute towards further centralisation.

Hobart, while likely to suffer somewhat from Launceston's growing relationships with Melbourne, also needs long-range economic stability. Closer industry linkages with the mainland should be modified according to Hobart's loss of the natural protection of distance.

In summary, the economic structure of Newcastle, Wollongong, Geelong and Hobart should be diversified and stabilised; they should be better linked to Sydney and Melbourne; their environmental standards should be improved and their capacity for accommodating significant population growth more closely investigated.

4.1.d. Regional Growth Centres

An important component of a strategy to relieve the pressures of metropolitan growth are regional growth centres. Figure 1 shows the location of nominated growth centres throughout Australia. The Australian Government aims to develop a limited number of growth centres in selected regions outside the major metropolitan regions.

The success of a regional growth centre will depend upon a large number of factors including its location with respect to the major population centres and the communication network that connects the urban system. Albury-Wodonga, which is being developed as a growth centre, is strategically located on the major corridor between Australia's two largest cities.

The growth of Albury-Wodonga, and any regional growth centres to be nominated in the future, will be directly related to the ability to draw population and economic activity away from Sydney, Melbourne, and other places. A strategy for

creating growth centres is still embryonic in the Australian context; the growth centres program has been formulated in a quite pragmatic way. While a good deal of effort has been directed towards agreements with the states and other institutional arrangements, relatively little has been done to establish strategies for the attraction of economic activity. The economic base for most new centres will have to be the private sector. The Canberra model is, therefore, not generally applicable.

Although the manufacturing sector has previously been treated as the basis of urban growth, the tertiary sector will play an increasingly important role in the growth of these centres. An essential factor will be the extent to which good quality transport and communication services can be established to overcome the "tyranny of distance." The fact remains, however, that a national policy on incentives and ways to achieve the economic development of extra metropolitan growth centres has yet to be devised. In view of the inherent tendencies of the economic system towards continuing concentration in a spatial as well as a corporate sense, and the hitherto predominantly centralising policies of the federal and state governments, the question remains as to what system of incentives and disincentives would be adequate to overcome the momentum of the past and the trends of the present towards further concentration. Having answered the question: "In principle, what would be a sound regional growth centres policy?" the next question is "How feasible is such a policy in view of budgetary, resource and political constraints?"

State governments have for some time offered incentives chiefly for the decentralisation of secondary industry. Typical measures include the provision of cheap land, low-interest loans and loan guarantees, rail freight subsidies, relocation and retraining assistance for certain employees, and a host of particular measures tailored to attract particular firms. Evidence shows, however, that the effectiveness of these policy instruments has been limited for several reasons: adherence to a policy of non-selective decentralisation, competition between states for industrial development, the absence of disincentives for industrial location in metropolitan areas, and the size of the costs involved in non-metropolitan locations.

The conscious use of disincentives to continued metropolitan location, as part of a broad strategy for industrial decentralisation, has not occurred in Australia. Disincentives of various forms may be necessary, however, to supplement the range of positive relocation incentives in promoting regional development outside metropolitan areas.

If a large proportion of the expected population increase by the year 2000 is to be located in growth centres, it will be necessary to take action quickly, especially in the urbanising south-east of the continent. The accelerated growth of Albury-Wodonga, Monarto, Geelong and Bathurst-Orange can begin to accommodate some of this growth. Their rates of growth can be monitored according to changes in fertility and net overseas migration. Campbelltown and Gosford-Wyong, while essentially part of Sydney's metropolitan strategy, should fairly quickly be able to accommodate much of Sydney's growth through planned urban development. However, further assistance to structure Sydney and Melbourne's growth may be necessary. Metropolitan growth centres for Brisbane and Perth, once designated, could become important elements in the metropolitan strategies of these cities. A strategy for identifying rural service centres suitable for some degree of accelerated and structured growth in all states should be investigated as part of formulating growth centre policy, but there is a real danger of proliferation of designated growth centres, causing unrealistic local expectations, and a diffusion of effort.

4.1.e. Regional Service Centres

From the above discussion it can be seen that while regional growth centres should command a very high priority within a national strategy for urban and regional development, few regions can expect regional growth centres.

However, many non-metropolitan areas suffer from poorer services than the metropolitan areas. These services are often scattered, so that one government department might be represented in one rural centre, and another department in another rural centre. Because of the lack of spatial co-ordination of government services, accompanying privately provided services often are not available. Whenever public and private services are concentrated in one or two centres in a region, higher-order services such as specialist medical facilities and specialty shops are more likely to emerge than if service locations are scattered. The standard of services in each region can be raised simply by agreeing to concentrate service provision in one centre. In contrast to the development of regional growth centres, this change if conducted over time need involve no extra program resources of governments than would otherwise be spent. By rationalising the use of facilities in this manner, the costs of public service provision are reduced. In order to bring urban amenities within reach of country dwellers, it is necessary to encourage a continuation of opportunities in larger country towns.

Some regions do not have a town of sufficient size to be designated a regional service centre; others may have more than one town. Some services such as primary schools must be located in many places within a region; other services such as large hospitals cannot be provided for every region.

However, the principle of concentrating public services in selected regional administrative centres is accepted by several state governments, and by the Australian government, on the grounds of efficiency in service delivery, equity in service provision, and the promotion of regional identity. Figure 4, based somewhat arbitrarily on Australian government employment concentration in Grants Commission regions, illustrates a pattern which may be a basis for discussion.

In summary, the emergence of viable regional service centres should be encouraged so that services of a higher order become available in non-metropolitan regions than would otherwise be the case, and so that urbanisation in a number of country towns can be encouraged without jeopardising the effectiveness of the growth centres program or incurring additional expenditure.

4.1.f. Rural Settlements

In 1971, 24 percent (3.1 million) of the nation's population lived in towns of less than 10,000 people or non-urban areas. Most of these small towns function primarily as service centres for the surrounding hinterland, and their economic prospects are closely tied to fluctuation in the agricultural industry. The local employment base is small and usually very restricted in scope, with a noticeable deficiency in the range and availability of jobs for females. The low population thresholds make the provision of a wide range of private sector activities, including many types of retailing and business services, uneconomic for the same reasons. Many public services, including specialised health and education facilities, cannot be provided for individual towns. Together these factors inhibit the prospects for future growth of these small towns.

To improve living standards, however, it may be necessary to redistribute resources and opportunities in favour of certain rural regions. But in cases where a region has a declining population base, rundown facilities and a bleak long-run economic future, may be more appropriate to encourage voluntary out-migration to more prosperous regions, rather than to make extensive efforts to prop up the employment base of the declining regions.

4.2 Regional Policy

In Australia, the term "regional policy" refers to a wide range of public sector policies and programs which are concerned with the social and economic development of particular regions. It also is concerned with efforts to introduce a more appropriate level of planning and administration that lies between existing state and local government boundaries.

At this stage in the evolution of regionalism in Australia, regional policies are of two kinds: those which are directed towards establishing a regional framework and making it work; and those which use the regional framework, or operate within it. Although the Australian and state governments have policies and programs of a regional nature, the following discussion will concentrate on regional policy issues for the Australian government.

4.2.a. Regionalisation of Administration

This involves the devolution of administrative functions to the regional level. This devolution will allow a degree of regional autonomy which is designed to bring government closer to the people. It will increase the accessibility of "branch" offices to the community and widen employment opportunities within the region. The administration of some government functions is more appropriate to regionalisation than others. For example, transport systems can be less easily regionalised than health services. In particular, the Australian government is currently taking steps to regionalise the administration of education, health and welfare services. Where possible a policy of encouraging similar trends in the administration of state government responsibilities could also be followed.

4.2.b. Adoption of Common Regional Boundaries

Another important issue is the need to avoid problems of overlap and confusion arising from different regional programs. At present there is some overlapping of boundaries, as well as a complicated division of responsibilities between many agencies of both state and Australian governments. One co-ordinating device is the adoption of policies to ensure maximum possible coincidence of regional boundaries for government programs. It may be necessary for all government agencies to take steps to conform to an adopted set of regional boundaries. Where necessary, the adoption of sub-regions or the amalgamation of regional units into larger areas would not be inconsistent with this general concept.

The recommended boundary framework for the regionalisation of administration is the set of regions initially approved for purposes of the Grants Commission as amended by further discussions with the states, shown in Figure 4. The proposed regional framework includes a division of metropolitan areas as well as country areas. In all cases it comprises groups of complete local government areas. These boundaries are based on the states' regional initiatives as well as studies of social and economic interaction carried out by the Department of Urban and Regional Development (1973).

A common regional framework for government functions allows those which have decentralised their administrations to co-operate more closely in the planning and delivery of services to common regions. The adoption of a common regional framework for government functions also makes it possible to move closer to the co-ordination of programs between levels of government. For this reason, the proposed Australian government regions are based as closely as possible on state government regions.

4.2.c. Regional Administrative Centres

One consequence of adopting common regional boundaries would be a policy of establishing regional administrative (service) centres as the points at which regional administration is conducted. There is already a tendency for Australian government employment to be concentrated in no more than a few towns in each of the proposed Australian government regions. This tendency could be encouraged and so become a means of restructuring the settlement system. It is not envisaged, of course, that all regional offices of government would be relocated quickly to nominated administrative centres. The process should occur over a longer period of time: it is more likely to mean that when new regional offices are established, they are located in the administrative centres.

4.2.d. Regional Organisations

Steps towards genuine regionalism require the devolution of certain responsibilities by the Australian and state governments to the regional level, and a growing regional awareness on the part of local government. The Australian government has already taken several steps to encourage the formation of regional organisations of local councils as a means of providing more effective local government involvement in regional development: for example, by enabling regional groupings of councils to have access to the Grants Commission. It is inappropriate to impose a uniform system of regional groupings on local government throughout Australia. Through programs of financial assistance it may be possible to offer selective assistance to those regional organisations willing to undertake research and planning activities.

An important question is the relationship between regional organisations encouraged by the Australian government and those established by state governments. At this stage the principle of establishing local government as the core unit of regional planning structures seems the most appropriate means of ensuring local participation in regional development, while at the same time preserving longer-term legitimacy. Official recognition of these regional organisations by state and Australian government agencies is a key factor in their success.

4.2.e. Promoting Regional Planning

In Australia the region is an appropriate scale for planning at a level removed from the detail of local issues but below the scale of state and national planning. Although some states have legislated to introduce regional planning and associated administrative arrangements, the Australian government may also foster the adoption of regional planning as a major element of its regional policy throughout Australia. In particular, it may be necessary to promote the process of regional planning which embraces the social and environmental aspects of regional development as well as "physical" considerations, and to encourage more effective forms of community participation in public sector planning processes.

4.2.f. Regional Economic Policies

Apart from general economic policy which often takes little account of regional resources and problems, a number of specific economic policies can be directly applied within a regional framework. Some of the more important instruments of regional economic policy include: the establishment of regional growth centres; incentives for industrial relocation; promotion of economic development in certain regions; and specific measures for ameliorating regional economic and social problems caused by changes in domestic and international economic environments. Collectively these economic tools provide a strong basis for implementing many aspects of a national strategy. From previous experience it is apparent that a policy of selective decentralisation will have the best chance of success.

4.3. Metropolitan Policies

If present population trends continue--and there is a vigorous debate about whether they will or should--over three-quarters of the total Australian population will be living in the ten major urban areas by the year 2001. This contrasts with over two-thirds living in these areas in 1971 and just over half in 1931. Even if regional growth centre policies are successful in diverting some of this projected growth from the present metropolitan areas, it is clear that the large cities will retain the major concentrations of Australia's population.

Not only will the major metropolitan areas be where most Australians live and work, but also they will be the locus for many of the basic problems and challenges of Australian society. In particular, the problems of unequal distribution of income, opportunities and services, inefficient resource allocation, a deteriorating natural environment, and lack of citizen participation in decision making may be more obvious in metropolitan areas. Success in dealing with issues in the cities will largely determine success nationally.

A strategy for metropolitan areas is needed so that Australian, state and local government activities in metropolitan areas can be co-ordinated into an efficient and purposeful contribution to the task of tackling the problems of the cities. It is not the purpose of the Department of Urban and Regional Development or of the Australian Government to attempt to duplicate the plans and policies of state and local authorities, nor to encroach upon their legitimate responsibilities. Rather the intention is to foster communication and co-operation among the three tiers of government in an integrated and constructive approach to metropolitan planning. This has become especially relevant since the formation of a national ministry concerned with urban affairs and possessing resources of use to the two tiers of government with more immediate responsibility for our metropolitan areas.

4.3.a. Metropolitan Objectives

It is necessary to derive from the national goals specific metropolitan objectives; the following appear to be most relevant at this stage:

- i) To seek co-operation with, and to support initiatives taken by, state and local governments to bring about desirable changes in the form, structure and size of the metropolitan cities.
- ii) To guide the location of business and residential activities in order to shorten the journey to work and to ensure, as far as possible, more equality in the availability of job opportunities for men and women of all skills.
- iii) To provide residential land at a reasonable price and to diversify methods of land tenure. This policy objective is designed to lower the income barrier to home ownership, as well as to remove a whole range of inefficiencies in the urban land market.
- iv) To work with other departments in order to ensure an adequate supply of housing, especially for low income groups, at a cost in keeping with ability to pay and at a location that is accessible to employment and other opportunities.
- v) To ensure that urban development or redevelopment occurs in such a way as to reduce inequalities and to preserve or enhance the social fabric and community identity, especially of minority or disadvantaged communities. The implementation of this policy objective involves trade-offs between social change and social stability.

- vi) To improve public transport systems.
- vii) To ensure, as far as possible, that all citizens irrespective of where they live in a city, have reasonable access to basic public facilities and services.
- viii) To improve the processes of public planning and the participation of citizens in it. (This policy is elaborated below).
- ix) To improve the quality of the environment and to preserve and enhance the national estate. This objective is related both to the natural environment and to air, water and other forms of pollution, as well as to the character of the built environment.
- x) To ensure that investment in urban infrastructure by federal, state, local and private agencies is well planned, efficient and co-ordinated, that backlog situations are removed and do not arise again in the future.

4.3.b. Metropolitan Policies

Such objectives have implications for the nature of the metropolitan developments that would be desirable over the next few decades. It appears to be fairly widely accepted in Australia that the continued rapid growth of the large cities is not desirable. Selective decentralisation policies, furthered by the regional growth centres program, are a response to this consensus. However, it is also necessary to confront the problem that most Australians live in large cities and to adopt policies relating to the internal structure and size of these cities.

i) Metropolitan growth centres: Many urban problems can be related to the internal arrangement of cities, rather than to their actual size. In particular, the fact that metropolitan areas in Australia are single-centred rather than multi-centred is thought to contribute significantly to transport and other problems. Most suburban centres are essentially retail centres, and lack the full range of services found in the CBD. A policy response to this phenomenon is to use public planning to develop significant sub-centres which provide people in the outlying areas with a full range of metropolitan services conveniently located. The development of metropolitan growth centres should perhaps receive the highest priority, especially in Sydney and Melbourne. Metropolitan plans formulated by state planning agencies have in a general way foreshadowed the development of such centres. The establishment of metropolitan growth centres should be preceded by public acquisition of land and the provision of services in phase with demand. Public acquisition is designed to eliminate unearned increments from public investment going into private

hands and, therefore, to keep land prices lower; servicing ahead of requirements is designed to minimise the long-term costs of service provision.

ii) Redevelopment policies: Within metropolitan areas, particularly within the central city, redevelopment is constantly taking place. Public policies should ensure that redevelopment occurs in such a way as to preserve or enhance community identity, and desirable aspects of the social structure. Essentially this means that market forces which motivate redevelopment should be regulated according to social need criteria in determining the nature, extent and timing of development. Policy in this area falls broadly into two categories:

- a) disincentives for private investment that would clearly be at variance with national goals, and incentives for private investment that clearly promotes such goals; and
- b) public policy with respect to freeways, work force location, the expansion of public institutions, and other factors consistent with national goals.

In addition to systems of incentives and disincentives to deal with market failure and mis-allocation of resources, the redevelopment activities of the public sector itself have important effects upon metropolitan structure. According to one view, the public sector has performed poorly in this respect. Indeed it has been argued that urban freeway programs, the location of public employees and institutions in the central city, and the expansion of these activities arguably constitute as great a threat to the social structure of the inner city as the much-maligned private developers. Fortunately, public policy in this respect is changing. The Australian government is attempting to restrict the construction of radial freeways through inner city areas. It aims to ensure that no future freeway projects will be approved unless they meet a set of social, environmental and economic criteria.

iii) Inner city policies: The central city presents special problems. Buildings, including housing, tend to be old, and in need of redevelopment in some cases. There are higher concentrations of poor people and groups with special needs such as migrants, Aborigines, single-parent families, single-person households and the elderly. Many public bodies and private organisations provide services to inner city residents, but such services are often inadequate. Services that need to be co-ordinated include housing; tertiary production; job placement and retraining; family planning, maternal health and infant care; child care and kindergarten; consumer protection, legal aid, pensions and other welfare benefits; and assistance to special groups such as migrants and Aborigines. In particular, it is essential to maintain a range of job opportunities

consistent with the skills of the resident population in the inner city. If this objective is to be realised it is also necessary to control the growth of the central business district in order to relieve the pressure for high density redevelopment within inner city communities.

iv) Submetropolitan centres: A complementary set of policies is concerned with the encouragement of submetropolitan centres. By this we mean large centres of employment well away from central areas. These centres, with carefully planned growth in employment, should reduce disparities in access to service opportunities. Employment opportunities available nearer to residential areas will not only reduce the length of journeys to work but may for the first time make it possible for many women, including housewives, to enter or re-enter the work force. However, these centres need adequate public transport provision if they are not to rely on high levels of car ownership.

4.4. Land Policies

Policies relating to the planning, development, administration, pricing, and use of land are an integral part of the national strategy. In the metropolitan areas most responsibilities associated with land use controls rest with state planning and servicing agencies, and with local government. The private sector also makes a large contribution, spanning a wide spectrum of tasks from land acquisition and assembly to development, finance, planning, sub-division, construction, and sales. A very few large companies integrate all parts of the process. Although there are some significant tracts of land remaining in public ownership, most land on metropolitan fringes is held in private ownership. This situation has important consequences for the timing and cost of land release in fringe areas. Elsewhere in the states, the proportion of land in public ownership is much greater although its location tends to be restricted to the less accessible and less productive areas.

Policies for the use and development of land resources in the non-urban areas of each state are the responsibility of a number of state and semi-public authorities. In some states there has been a serious attempt to develop comprehensive management policies for public land. In the past, federal governments have taken little interest in urban land policies, leaving these tasks almost solely to the states, the only notable exception being the development of Canberra in the A.C.T. However, the Australian government owns significant parcels of land in and around the major cities, and by various means has had an indirect effect on many aspects of the land question, ranging from monetary economic policies to the allocation of grants for housing.

For a more efficient use of land, long-term planning and land use controls are needed. For efficient use of resources, control over the timing of urban development is also extremely important to ensure that land and services are available when needed. Public management and control of land, especially just prior to and during development, is one of the ways to achieve co-ordinated rational development of urban areas, and may be particularly important when rapid growth is occurring. Citizens with similar interests and needs for obtaining land should have equal opportunities to do so. At present, high and rapidly inflating land prices discriminate in favour of existing land owners at the expense of tenants and prospective buyers. This makes it increasingly difficult for future home owners to get into the market. When land remains under private control, a government policy to develop a particular area leads to large increases in land prices. This can then make it difficult for the government to buy the land needed to implement the original policy, and so attempts to co-ordinate and rationalise the development of urban areas are defeated.

Placing a proportion of land under a public authority such as a land commission before and during the development stage would help prevent speculative rises in the prices of land and would enable public authorities to execute planned urban development with the help of public decision making and finance. Private developers would have an important role in the development of land under the control of a land commission, or other public sector development agency. The public sector would be responsible for the management and control of the land but private developers would be involved on a contract basis in the servicing and developing of the land. The valuable organisation and entrepreneurial skills of the private sector would thus be used in a way that would benefit both the developers and the community.

4.5. Transport and Communication

4.5.a. Transport Policies

Public attitudes to urban transportation are in a period of change and uncertainty. This change is related to the shifts in public values concerning such issues as environmental quality and the utilisation of scarce resources, preservation of local communities, the distribution of the benefits of transportation expenditure as well as widespread feeling that transportation systems are not achieving their planned objectives.

Some of the broader objectives for the urban transportation system could be

- to provide the means whereby people and freight move from place to place in a safe and efficient manner;

- to conserve energy;
- to provide a transportation system in which many modes (car, bus, train, plane, ferry, bicycle, walking, etc.) are represented and in which each mode is being used to its best advantage;
- to reduce inequalities by ensuring that the benefits and costs of transportation programs fall equitably-- not necessarily equally--on all sections of the community;
- to preserve and enhance the social and physical environment;
- to improve the transportation opportunities to the young, old, disadvantaged and non-car users;
- to encourage the introduction of future technological advances in public transportation, where these can be shown to be socially desirable;
- to promote and support other national, urban and regional development policies.

These broad goals and objectives are neither internally consistent nor complete, but the following programs could contribute towards the achievement of some of the above objectives:

- Priority should be given to developing a comfortable, frequent and reliable public transport system, directed to increasing the use of public transport, especially for going to and from work.
- The construction of inner-city freeways cannot be supported if such freeways encourage car-dependence, promote unnecessary growth of the CBD and destroy inner-city communities.
- The planning of outer-city freeways also needs to be assessed more carefully in terms of the above objectives, particularly in view of their important structuring effects on urban growth.
- Transport terminals, particularly airports and seaports, are major structural features of cities. Therefore their location, type, scale and development should be consistent with the urban and regional development policies being pursued.
- Citizen participation must be encouraged in all aspects of transportation planning.
- The full range of road pricing policies (petrol tax, road tolls, peak hour tolls, parking fees, bus fares, CBD payroll tax, etc.) could be used to ensure that the true social and environmental costs are being met by the users of the road system.
- Finally, there is an apparent need to encourage the use of bicycles and walking by planning the cities for such activities.

An overriding aim should be to provide an integrated transport system that is able to cope adequately with the total urban transportation task while at the same time serving the goals of society and the individual. Such a system should also have the potential for development to meet future needs.

The inter-urban and inter-regional scale is of particular interest to urban and regional policy: the roads, rails, airways, waterways, pipelines, and terminal facilities of the nation. The increasing public concern at the high rate of consumption of energy in the form of fossil fuels is particularly relevant with regard to the planning of future inter-urban transportation links. Cars and trucks travelling at high speeds have particularly low efficiencies in energy utilisation, as do short-haul aircraft. The inherent advantage of rail transportation on the "line-haul" sections needs to be further developed. The location and development of the transportation system infrastructure, particularly terminals, and the integration of the various transport modes to ensure that, consistent with the requirements of urban and regional policies, they perform the task for which they are most suited, may have a significant effect in reducing the rate of consumption of energy and of other resources. However, greater gains are possible through the rationalisation of terminal facilities such as airports and seaports. This can be achieved through organisational uniformity so that transport terminals operate to national ends and on a continental scale. More importantly, it should not be overlooked that inter-urban transport facilities provide a means for implementing various urban and regional growth policies.

4.5.b. Telecommunication Policies

Telecommunications affect urban and regional development in fundamental and complex ways, and it is important for an urban and regional strategy to develop ideas about ways and means of steering telecommunication systems towards agreed objectives.

Telecommunication and broadcasting systems are important services which are provided unevenly across the country, although the responsible authorities are pursuing the objective of maximum population coverage when they make decisions to extend services incrementally. It is important to treat the public communication system as a social facility which can be allocated among regions in different ways. In particular, as technological innovations become tested and developed in the community, it is important to allocate opportunities according to social need as well as economic viability.

Another objective for telecommunications is that the introduction of new services should be as compatible with the urban development process as possible. For example, if it were decided to proceed with the public provision of a broadband cable network to deliver a wide range of information and

entertainment services, based around cable television, then this is most sensibly provided in phase with new urban development. Savings incurred by such co-ordinated methods of introduction may outweigh the cost of providing a service in advance of demand. There is wide scope for developing multiple-utility corridors--"utilidors"--and the provision of communication facilities should be connected.

Telecommunication and broadcasting services should be organised to ensure maximum public access, especially with broadcast media, and that this public access be used to foster regional awareness, identity and action. This policy would mean, for example, support of lower-power broadcast facilities which provide public access, however parochial the programming might appear to be, to many regions.

New technology should be introduced to solve social problems and to promote social change, rather than develop as a ready-made solution looking for a problem to solve. Useful urban applications of communication technology include the delivery of health and medical services, community information centres, education and leisure activities, municipal services and urban planning.

Telecommunication facilities can provide incentives for forms of regional development held to be desirable. As mentioned above, advanced forms of technology and unusually good access to information can provide a stimulus to local decisions. On the other hand, the everyday telephone can be used as a regional development instrument, by encouraging tertiary institutions to relocate to locations favoured by policy. While telephone charges are generally a small part of a firm's operating expenses, regardless of whether in the country or city, the necessity to rely on long-distance calls creates a psychological barrier and probably a sales barrier. However, in the provision of telecommunication incentives to growth centres, Area Improvement Regions and other locations, it is desirable that subsidies be made explicit and not be met by the telecommunication provision agency.

Telecommunication systems have a structuring effect on urban and regional development, both within cities and between cities. Within cities, the complex relationship between transport and telecommunication is changing in the direction of favouring a limited degree of transport-communication substitution but also a growth in certain types of trips. At a larger scale, the shape of the national telecommunication system will influence the pattern of urban development, and vice versa. Therefore an important policy should be to integrate the long term plans of the providers of communication service--the National Telecommunication Plan is a good example--with the formulation of a national urban and regional development strategy.

Finally, it is important that the activities of communication-based activities, especially telecommunication employees, should be located in such a way as to generate linkages which generate employment and land use patterns supporting an urban strategy.

4.6. Community Processes

Many government objectives are concerned with changing the nature of community processes, the ways in which decisions are made, rather than using past methods of decision making for new purposes.

4.6.a. Citizen Participation

The promotion of citizen participation in urban and regional planning processes involves a concerted effort at all levels of government. Such a commitment initially involves conflict between citizen and administrative groups since what is being changed is the process of decision making. The groups will differ over the priority assigned to the value of participation, over perceptions about the situation, of how time may best be used in arriving at good decisions and over the extent to which power is to be shared between citizen and governing authorities. These problems are very real ones and to those who wish to go beyond a rhetoric of participation to a genuine program the possibility of these conflicts leading to short-term inefficiency have to be accepted. This is particularly relevant if the objective of participation is related to the overall considerations of equity that guide so many Australian government initiatives. Simply achieving open government through adopting participative measures could merely favour the more powerful and articulate groups in society.

4.6.b. Access to Information

The process of participation that involves sharing decision making between various groups is critically dependent upon all the groups having equal access to information. Various ways of guaranteeing such access through legislation or alteration of legislation have been suggested. A legal framework which safeguarded all citizen rights to information is a necessary framework but by itself does not exhaust the possibilities. In particular the question of access alone, like open government, does not guarantee that the chief benefit will accrue to the less powerful groups in the society. Rather special efforts will need to be made to improve the access of the less powerful and unorganised groups in society to information resources.

4.6.c. Planning

Processes so far considered--those of participation and access to information--have mainly been concerned with development in terms of enlarging people's areas of action as a means of enhancing community development. When we consider planning it is assumed that these same objectives are operative but here attention is focussed more on the technical aspects of urban and regional development.

The structure of planning in Australia differs in many ways. One of the major objectives of a national strategy should be to improve the processes of planning throughout the nation and to ensure that these processes are available at all levels throughout the nation. The successful achievement of long-range urban and regional objectives depends on the development of economic and social planning capabilities. As well as widening the nature of planning concern at a national level, active assistance should be made available to encourage certain types of planning and initiatives taken in three areas at other levels, particularly state, metropolitan and regional levels. In particular, the importance of the regional level should be emphasised. At a local level many of the present methods of town and country planning leave much to be desired.

Furthermore it is important to foster innovation and experimentation with methods of urban and regional planning, encouraging a diversity of approaches perhaps according to particular needs of regions, cities or communities. Such an objective requires the promotion of research in the urban and regional development field and an integral part of a national strategy ought to be an ongoing program of research enabling an understanding of the processes of urban and regional change.

4.6.d. Government

It cannot be emphasised too strongly that the encouragement of co-operative federal/state approaches where there are joint responsibilities and initiatives in urban and regional affairs is seen as crucial to the national strategy. Government processes designed to achieve community objectives are unlikely to be successful without such a co-operative approach.

V. Implementation of Policies

The Ministry of Urban and Regional Development has two sets of instruments with which to implement the policies discussed above: administration of its own programs; and the policy co-ordination of other public and private sector activities. Although as shown in Table 3 the Ministry will spend around A\$434 million during 1974/75, in the longer run it will be the ability to influence patterns of expenditure in such areas as housing which will be more important.

Apart from the formulation of a national strategy for urban and regional development, discussed throughout this paper, the Department is developing a strong resource planning capability and number of resource allocation instruments, the most important of which is the development of an urban and regional budget.

Table 3. URD ministry programs: summary.
(\$ million)

Programs	1972-73	1973-74	1974-75 budget estimate	1975-76 forward est. ¹	1976-77 forward est. ¹
Land Commission		8.0	56.9	165.0	185.0
Sewerage		27.9	104.7	112.0	119.0
Urban water supply			4.4	8.5	13.5
Growth centres -					
Canberra ²	77.8	104.1	140.0	166.2	187.1
Others		9.2	82.7	133.9	167.3
Area improvement		7.4	14.1	21.3	24.3
Urban rehabilita- tion		5.3	16.8	10.5	10.5
Regional organi- sations assis- tance			0.3	0.4	0.6
National estate	0.1	0.8	8.0	15.0	20.0
General admini- stration n.e.c.	1.4	4.4	5.7	7.6	7.6
Total URD Ministry Programs	79.3	167.1	433.6	640.4	734.9

¹Excluding imputed advances for capitalised interest.

²Including outlays of the National Capital Development Commission on national works, and Australian government offices located in the Australian Capital Territory.

Source: Urban and Regional Development 1974/75, Budget Paper No. 8. Circulated by Tom Uren, MP, Minister for Urban and Regional Development.

5.1. Urban Economic and Resource Planning

Resource planning work is primarily concerned with evaluating and comparing the demands for urban and regional development with the resources which might be available for such purposes. These resources include building materials, transport equipment, and, most importantly, the services provided by the building and construction industry.

An indication of the demand for resources by the public sector for urban and regional development, both in terms of the type of resources and the location of this demand, will arise

initially from the strategy and more directly from the expression of this strategy through the urban and regional budget system. The evaluation and comparison of these demands with available resources should not be seen merely as a forecasting exercise seeking to identify possible incompatibilities between demands and supply possibilities. The planning involves the evaluation of the competing claims of urban and non-urban uses of resources; the consideration of the extent to which changes in the balance of urban programs, or rescheduling parts of those programs, might release resources; and the extent to which the available supply of resources can be improved by training programs and the early warning of future needs to manufacturers of materials and contractors. In this connection it is important to recognise that while it may not be possible to do very much to influence the supply possibilities in the short-run, in the medium-term of five years much more is possible. This, combined with the size and long gestation period of many urban development programs, means that it will be desirable to ensure that attention is given to the resource implications of government policies and programs in the medium and longer term.

At the same time efforts are being made to uncover possible constraints to urban development, such as might arise through a shortage of water, through limited capacity in the construction industry, in the supply of various types of skilled manpower, or through the geographical immobility of resources. The benefit of long-term resource planning lies in its ability to indicate where there is a danger of long-run supply problems or scarcity developing for particular resources in certain regions.

5.2. Resource Allocation

Resource allocation activities cover a wide range of economic and financial matters, but first priority has been given to the formulation of an *urban and regional budget system* which will provide a framework for co-ordinating urban and regional expenditures by federal departments, state and local governing bodies. All levels of government in Australia carry out functions which have a spatial component and which involve substantial expenditures and commitment of resources. The Australian government is involved in this process because it is responsible for the provision of nation-wide services (e.g. communications, air transport), because it provides financial assistance to the states under Section 96 of the Constitution, and because it also influences the flow of funds for public investment purposes through Loan Council decisions and through its overall responsibility for economic management. The Australian government has also undertaken programs that will progressively improve urban services already provided and encourage the more efficient provision of a better future urban environment.

A fully-fledged urban and regional budget system will be based on a statistical system capable of showing a complete dissection of public authority expenditure in Australia, and would be complemented by a set of performance measures showing the output (usually expressed in physical terms) produced in respect of each item of expenditure.

The long-term intention of establishing the urban and regional budget is to progressively move towards what amounts to a planning-programming-budgeting system (PPBS) of decision making and operation with respect to public expenditure in its spatial aspects, but with a number of innovations designed to overcome problems which have arisen with other PPB systems. The immediate purpose of the urban and regional budget will be to focus on the expenditure on, and financing of, important functions of all levels of government. This will be done to estimate the future requirements of current programs of urban and regional development, the demands on resources and finance of future programs. Detailed study of the information concerning the financing of urban and regional development programs will concentrate primarily on the equity and income distribution implications of different financing proposals.

Because the bulk of capital expenditure in urban and regional development is the direct responsibility of state governments, and their authorities, close co-operation is essential between different levels of government in developing an urban and regional budget system. Initially also, it will be more feasible to obtain forward estimates of selected capital expenditures on a state-wide basis rather than trying to work with information based on a regional dissection of expenditure.

The long-term objectives of the urban and regional budget system may be stated as the provision of a decision-making framework which may be used:

- to improve decision making, the allocation of resources and the distribution of welfare within the community by attention to the spatial pattern of public sector economic activity;
- to assist in determining the resources required over time in order to further the objectives of the Australian government;
- to assess the levels of resources which might reasonably be made available and to ensure, as far as possible, that the programs are commensurate with those resources;
- to promote understanding of the processes of urban and regional development, and of the involvement of the three levels of government in it, and to encourage wider public involvement in these processes.

The means by which these two areas of work translate the strategy into action need not be elaborated here. They include the usual apparatus of committees of ministers, inter-departmental committees, intergovernmental arrangements, research and publication, government fiscal machinery, and so on. Some of the more important programs are outlined below.

5.3. The Growth Centres Program

The Cities Commission is primarily responsible for the initiation of this program, with development corporations progressively assuming greater responsibility. The program has two basic aims:

- 1) through Australian government initiatives, to sponsor the rapid growth of a small number of regional centres to a size where they offer an attractive alternative to the present metropolitan regions, thereby assisting to ease the growth pressures in those regions, and providing a wider choice of life styles for Australians; and
- 2) to provide for comprehensive planning and development of selected areas adjoining the metropolitan regions to ensure that inevitable metropolitan expansion is assisted and guided into desirable locations, which can be developed as cities in their own right.

Several criteria for the choice of regions for growth centres have been developed to ensure that new cities are as self-supporting as possible:

- potential for becoming a dominant regional service centre;
- potential for the economic growth of basic industries;
- satisfactory physical resource base for city development;
- favourable environmental impact on the region;
- access to existing metropolitan areas;
- potential for offering new opportunities for a variety of life-styles;
- compatibility with existing national infrastructure; and
- political consensus on the region selected.

The Australian government offers financial assistance to state governments for the purposes of land acquisition, developmental works, municipal works and institutional development relating to twelve areas nominated by the Cities Commission as potential growth centres. In general, a number of terms and conditions were accepted by the Australian government as necessary for expenditure relating to new cities. These included: the need for a Development Corporation or an equivalent agency to manage each project; public acquisition of the major part of the land to be developed; application of land price stabilization; the use of loans to fund revenue-producing lands (areas to be developed), and the use of grants on a matching basis for non-revenue-producing lands (reserves); and the development of land tenure principles in the light of the findings of the Commission of Inquiry into Land Tenures.

The Albury-Wodonga Development Corporation is the first institution to be created under the New Cities program. The development of a viable growth centres program involving such centres as Albury-Wodonga, Bathurst-Orange, Sydney South West sector, Gosford-Wyong, Geelong, Townsville, Monarto, and possibly a number of other centres under investigation, could accommodate up to 32 percent of Australia's population increase between 1971 and 2000. In addition to such new growth centres, it should be emphasised that the national capital, Canberra, is at present by far the most important growth centre according to its current absorption of 6 percent of Australia's annual population increase.

5.4. Urban Rehabilitation Program

The Department is developing an inner city strategy for the major cities as part of the formulation of strategies for controlling metropolitan development in the longer term and directing it towards achieving social, not merely private, ends. However, it has been considered important to explore ways of dealing with the worst features of the problem in the short term.

Three opportunities have been given to the Australian government to demonstrate what can be done--two in Sydney and one in Melbourne. In all three cases the government's action has been taken with the following specific objectives in mind:

- to preserve accommodation in the inner suburbs for low-income households;
- to achieve a suitably broad socio-economic mixture in the population of the areas affected;
- to preserve the historic landscape qualities of the older inner suburbs;

- to foster community participation in the planning, development and management of neighbourhoods; and
- to test the suitability of a particular approach to coping with pressures for redevelopment, for possible extension to other areas.

The three opportunities are:

- i) *Emerald Hill*: This year, the Australian government will lend money to the Victorian government for the purchase of 2.1 hectares of land in South Melbourne. The area consists mainly of shops and housing and is owned by the Melbourne Family Care Organisation. In the absence of public acquisition the area would probably have been redeveloped for commercial purposes, because of its proximity to the City of Melbourne. Public acquisition is intended to ensure that the area is retained predominantly for housing and that a piece of historical townscape is preserved.

Rehabilitation of properties in the area will be carried out by the Victorian Urban Renewal Authority using existing Commonwealth-State Housing Agreement finance. A liaison committee, consisting of representatives of the Australian and Victorian governments, and the South Melbourne City Council will be formed to oversee the urban renewal process.

The Emerald Hill project is illustrative of how successful co-operation between the three levels of government can achieve worthwhile action consonant with urban and regional development objectives.

- ii) *Glebe*: The project involves Australian government acquisition of 700 dwellings on nineteen hectares of land in Glebe from the Anglican Church for rehabilitation of dwellings and retention of a large proportion of the dwellings as low income public housing.
- iii) *Woolloomooloo*: The Australian government is currently in the first stages of negotiation with the NSW government and the City of Sydney Council in Woolloomooloo.

All three projects are aimed at the preservation and enhancement of certain places for low-income households to live, as well as the more advantaged socio-economic sections of the population. In addition, it is hoped that the historical landscape qualities of the old-timer suburbs can be preserved and that the redevelopment process occurs with increased participation at all stages: planning, development and management of neighbourhoods.

5.5. Area Improvement Program

A number of Area Improvement Programs in operation and planned are designed to assist certain regions with significant service deficiencies, problems of rapid urban growth, and outstanding urban development and co-ordination opportunities. Resources are provided for a variety of functions not covered by single function programs elsewhere, but a strong emphasis is placed on co-ordinating existing Australian government programs.

These programs seek to involve all three levels of government and community groups in a co-operative approach to problems of deficiency and development within certain areas with severe service deficiencies, problems of rapid urban growth, and particular development opportunities. During the first year of operation the programs have been confined to the western regions of Sydney and Melbourne and an assessment has been made of the results of this first year with a view to determining future directions including the possible expansion of such programs to other regions. The objectives of the program are:

- to identify the principal deficiencies, pressures and assets of a chosen region and the needs of its inhabitants as a basis for selecting priorities for remedial action by governments and complementary activity by the community and the private sector;
- to encourage the formulation by all three levels of government of clear statements of objectives and priorities for the region, and to assist planning and public evaluation of conditions in the region;
- to encourage private investment and development programs in accordance with the aims of public policies;
- to assist in formulating a means of planning, programming and budgeting at the regional scale, aimed at the achievement of objectives agreed upon by the major groups involved;
- to allow local government to participate more effectively in the development and administration of a region, by improving its resources, thereby making it a more effective partner with state and national government in the three-tier system;
- to assist the establishment of an effective means for all three levels of government to act with the residents, in co-ordinated programs for the region's advancement;

- to involve the people of the region in making decisions which affect their patterns of daily living;
- to learn useful lessons in the implementation of policy and the investment of public funds for application through possible Area Improvement Programs or other programs elsewhere.

The type of project for which money is granted includes:

- projects and studies that will further strategic urban and environmental planning;
- acquisition of park lands and open space;
- landscape design and construction, including tree planting and related activities;
- municipal drainage programs;
- improvements to waterways and their environs, particularly where such waterways are important recreational resources to the people of the region (or are potentially so), or are environmentally threatened;
- planning management and provision of solid waste disposal systems;
- other environmental protection;
- the acquisition of land and buildings, or assistance in the building of cultural and other community facilities;
- information resources and services to collect and disseminate information about the region;
- support for administrative services to the regional organisation of local councils;
- public education activities on urban issues.

As with other regional programs, not all regions can be chosen. Criteria for the selection of regions are:

- current or anticipated rapid urban growth where urban infrastructure and community services cannot keep pace;
- evidence of deficiencies in urban infrastructure and community services, or an imbalance of opportunities;
- special impact of Australian government activities;
- significance to strategic planning.

The Minister for Urban and Regional Development has announced that the following regions are likely to be chosen:

- Western Region of Sydney, New South Wales
- Southern Sydney, NSW,
- South-eastern NSW,
- Hunter, NSW,
- Illawarra, NSW,
- Western Melbourne, Victoria
- Northern Melbourne, Vic.,
- North-western Melbourne, Vic.,
- Outer Eastern Melbourne, Vic.,
- Moreton, Queensland
- Fitzroy-Gladstone, Qld.,
- Northern Spencer Gulf, South Australia
- Perth (part), Western Australia

5.6. Regionalisation Programs

The government recognises the existence of social and economic problems that extend over more than one local government area, but are not as extensive as whole states, and wishes to encourage the formation of regional groupings which are co-extensive with the areas in which such problems occur.

The Grants Commission has been revised to enable local government bodies to have access to general revenue grants provided by the Australian government. For this purpose, local government bodies have come together to form regional organisations which, when approved by the Minister for Urban and Regional Development, are entitled to make submissions for equalisation grants for local governing bodies in each region. The general aim of this extension of the Grants Commission's role is the reduction of regional--and local--disparities in the standards of local government equity. More specifically, the objectives of the Grants Commission's provision of special assistance for local government services are:

- the provision of assistance so as to promote equalisation of the fiscal capacity of local governments considered both individually and in respect of their collective activities through regional organisations; and

- the fostering of co-operative action by local government through designated regional consortia.

Unlike other regional programs, eligibility for access to the Grants Commission extends to all regions outside the Australian Territories. To date, seventy-nine regions have been delimited across Australia, and approval granted to regional organisations to enable them to make submissions to the Grants Commission. These regions, re-negotiated and adjusted, are shown in Figure 4. In order to encourage local governments to tackle regional problems through co-operation with one another via the medium of regional organisations, and to encourage regional organisations to play an active role in assessing regional needs and making regional submissions to appropriate authorities, regional organisations have received further assistance for secretarial and other purposes.

5.7. Land Commissions

The Australian government is negotiating with the states on the establishment of Land Commissions, or Urban Land Councils working within the existing administrative framework, for the assembly, management and disposal of land required for urban development in growth areas particularly on the fringes of existing major urban centres. It is anticipated that, in general, these agencies will also be responsible for land assembly in growth centres identified by the state governments in consultation with the Australian government. The Land Commissions will be state agencies on which there will be Australian government representation. An Australian Land Commission will be established to consider the level of financial assistance to be made available to the various state bodies for land acquisition, servicing and development of land acquired, urban renewal and redevelopment. The Commission is to report on the progress of programs being undertaken by the state bodies.

As a prerequisite to the provision of financial assistance to the states, the Australian government has sought the exchange of Statements of Principle on the operation of Land Commissions or Urban Land Councils setting out the objectives and policies agreed upon between two governments.

Similarly, Statements of Principle on the introduction of land price stabilisation legislation will be exchanged with the states. Legislation will reduce that component of land values caused by an expectation of future urban development on change of use. It provides landholders with a right to nominate an acquisition date and contains provisions for early acquisition in situations of financial hardship. Further, the legislation will provide for a factor designed to preserve the value of the land from the date of designation of a particular

area to the date of acquisition. The objectives of the Land Commissions are:

- to facilitate the equitable and efficient planning and development of new urban areas;
- to make available adequate land for residential and associated uses;
- to facilitate the renewal and development of existing urban areas;
- to retain in community ownership as far as is possible the unearned increment in value arising from major land use planning decisions.

5.8. National Sewerage Program

The primary objective of the National Sewerage Program is to provide a sewerage service in the shortest possible time to the estimated 1.5 million people in the major Australian cities who are now living in houses not connected to a sewerage system. This involves the financing of sewerage reticulation in neighbourhoods not at present served. The Australian government, however, also finances the upgrading of sewerage treatment facilities, main services and pumping stations, so that they will be both able to cope with expected increases in population and prevent the pollution that sewerage effluent causes to city streams and beaches. In so doing the program will ensure that all new subdivisions will have adequate and environmentally acceptable sewerage treatment facilities and that all houses being built in 1982 will be connected immediately to a complete sewerage system.

Table 4 indicates the number of unsewered dwellings and the number of people living in those dwellings. However, the size of the problem is only partially illustrated by the numbers of people involved: account has also to be taken of the large sewer mains, pumping stations and treatment plants that will be necessary to cope with these people as well as the expected continued population growth. Major new trunk sewers and treatment plants are required in Melbourne, Brisbane, Hobart, Launceston and the Gold Coast. On present estimates it will take about ten years to remove the sewerage backlog, depending on the availability of funds and resources in the years ahead. It is hoped to achieve a reduction in the numbers of people without sewerage to about 180,000 each year during the first six years of the program and about 200,000 each year during the last four years. It should be stressed that the rate of achievement must be dependent on the priorities determined on the use of available funds in the years ahead.

Table 4. Backlog of unsewered dwellings and population in principal urban areas in 1973-74.

Urban Areas	Unsewered Dwellings		Unsewered Population	
	No. (thousands)	Proportion of all dwellings (%)	No. (millions)	Proportion of all population (%)
Sydney	135	14.1	0.420	13.6
Melbourne	125	17.0	0.420	17.4
Brisbane	43	16.0	0.119	13.0
Adelaide	14	4.8	0.025	2.8
Perth	102	40.6	0.352	46.7
Newcastle	16	14.7	0.064	17.6
Hobart	2	4.8	0.017	11.0
Gold Coast	22	57.0	0.045	56.2
Launceston	0.9	4.3	0.002	3.2
Townsville	2.3	10.9	0.008	10.3
TOTAL	462.2	17.0	1.472	17.0

5.9. The National Estate

The National Estate is considered to include:

- national parks and nature reserves;
- buildings and structures of historical, architectural or other importance, areas of special scientific interest;
- areas of special archaeological interest;
- the coastline;
- inland waters;
- urban parks, gardens and recreation areas;
- extra-urban recreation resources; and
- key landscapes.

The broad objectives of the program are to preserve and enhance land area buildings of historical, aesthetic, environmental or scientific interest as a heritage for the Australian

people. The objectives of the National Estate Program are discussed at length in a published report of the Task Force on the National Estate.

In conjunction with state, local and private bodies the following activities are being undertaken within broad policy guidelines for urban and regional development:

- the acquisition of land and buildings;
- the restoration, preservation and enhancement of properties;
- studies relating to such matters as the preservation of historic buildings, townscapes and landscapes, land use studies, architecture and other matters relating to the National Estate;
- direct grants for administrative expenses to National Trusts.

5.10. Information Programs

Lasting changes in urban affairs need to be stimulated and sustained by changes in attitudes and understanding. The Department is committed to a major attempt to expand public awareness of urban and environmental issues and to uplift the level of public debate. Accordingly, its communication and community relations policies have been assigned high priority.

Specific projects and activities in progress, or scheduled to start shortly, include:

- publication of a monthly news magazine, *Community*, as a vehicle for news and discussion among a wide range of government agencies, developers, community groups, academics, etc.;
- convening of a series of seminars on major policy issues relating to national urban strategy, land tenure, telecommunications, etc.;
- planning for the production of a colour television series to explain and foster the idea of the National Estate;
- co-operation with the Curriculum Development Centre and other educational authorities on the development of films, audio-visual packages, and other educational material for use in pre-schools, primary and secondary schools;

- commissioning a series of *Urban Papers* to provide a forum for substantial contributions to the study of urban and regional issues; among the first to appear will be a paper on rural retreats, and a symposium on citizen participation in planning;
- establishment, in collaboration with the National Library, of a major library and information service on urban affairs to serve not only the Australian government but other interested individuals and groups.

Through the preparation of a variety of publications, the use of all appropriate media, and the development of an active community relations program, the Department is fulfilling its commitment to involve the nation at large in the effort to ameliorate urban problems.

References

- [1] Alonso, W., *A report on Australian urban development issues*, DURD, Canberra, 1973
- [2] Australian Institute of Urban Studies, *New Cities for Australia*, Canberra, 1972
- [3] Beckman, N., "Toward development of a national urban growth policy: legislative review 1971," *Journal of the American Institute of Planners*, 38 (1972), 231-249.
- [4] Bunker, R., "Australia since the war, a study of economic growth and physical planning," *Town Planning Review*, 35 (1965), 311-328.
- [5] Butlin, N.G., "Australian domestic product, investment and foreign borrowing 1861-1938-39," 1962. For a somewhat contrary view, see Brian Fitzpatrick, *The British Empire in Australia*, 1949
- [6] Choi, C.Y. and Burnley, I.H., "Population components in the growth of cities," in I.H. Burnley, ed., *Urbanization in Australia*, 1974
- [7] Commonwealth Housing Commission, *Final report*, 1944
- [8] Cumberland County Council, *The planning scheme for the County of Cumberland*, 1948
- [9] Department of Postwar Construction, *Regional planning in Australia*, 1949
- [10] Department of Urban and Regional Development, *Regions*, 1973
- [11] Harrison, P., "Planning the metropolitan areas," in I.H. Burnley, ed., *Urbanization in Australia*, 1974
- [12] Linge, G.J.R., "The location of industry in Australia," in A. Honter, ed., *The economics of Australian industry*, 1963
- [13] Logan, M.I., "Capital city manufacturing in Australia," *Economic Geography*, 42 (1966), 139-151
- [14] McCarty, J.W., *A general approach to Australian economic development 1845-1895*, Department of Economics, Monash University, Melbourne, 1973

- [15] Melbourne and Metropolitan Board of Works, *Report on general concept objectives*, 1974
- [16] Miles, S., "Developing a Canadian urban policy: some issues from abroad," *Plan Canada*, 12 (1972), 88-156.
- [17] New South Wales, *Report of the interdepartmental committee on regional organisation*, 1970
- [18] New South Wales State Planning Authority, *Sydney region outline plan*, 1968
- [19] Priorities Review Staff, *Goals and strategies*, interim report, 1973
- [20] *Report of the Committee of Commonwealth/State Officials on Decentralisation*, 1972
- [21] Robinson, K.W., "Processes and patterns of urbanisation in Australia and New Zealand," *New Zealand Geographer*, 18 (1962), 32-49
- [22] Robinson, K.W., "Sixty years of federation in Australia," *Geographical Review*, 51, 1 (1961), 1-20
- [23] Rodwin, L., *Nations and cities: a comparison of strategies for urban growth*, 1970
- [24] Rose, A.J., "Dissent from Down Under: metropolitan primacy as the normal state," *Pacific Viewpoint*, 7 (1966), 1-27
- [25] Whitlam, E.G., "An urban nation," *Victorian Fabian Society*, 19 (1967)
- [26] Whitlam, E.G., *Labour Party Society speech*, 1972
- [27] Wingo, L., "Issues in a national urban development strategy for the United States," *Urban Studies*, 9 (1972), 3-27

National Urban Policies in the French Sixth Plan

Michel Rousselot

Director General of the New Town of Marne-la-Vallée

I. The Framework of the French Planning System

French National Plans are mostly indicative, which means for the most part that the final documents as approved by Parliament do not list actual decisions taken either in the public sector (state or local governments) or by private decision makers. The Plans essentially give goals, forecasts and proposals for action.

Only a few important programs are really decided within the framework of the planning system. All other programs must be decided afterward, generally in the budgeting process, by the responsible authorities.

Nevertheless, the preparation of the Plan is an important work, organized over two to three years, with the participation of a large number of representatives from national ministries and local governments and from the various economic enterprises, along with experts of different kinds. Many important problems are thoroughly examined. Policies are evaluated, and projects are proposed to the Government and precisely estimated.

In this general framework, the Sixth Plan, covering the 1971-1975 period, has given due attention to national urban policies. These policies have been discussed by two Commissions which worked mainly in 1969 and 1970 and had a large number of members representing the regional authorities and the local governments:

- the *Commissions des villes*,
- the *Commission nationale d'aménagement du territoire*.

The latter did most of the work relating to the spatial structure of the country's settlement pattern, the spatial distribution of urban population, and the functions of towns.

But most of these works already had been undertaken for the preparation of the previous Plans (the Fourth Plan and mainly the Fifth Plan) and already had fostered governmental decisions and programs. The Sixth Plan gave an evaluation of these programs and proposed some modifications and additions,

the general orientations being confirmed. We shall first summarize these general orientations.

II. The Broad Orientations of the French National Urban Policies

These orientations are based on a certain image of the desirable spatial structure of the economic and social development (which in French is called *l'aménagement du territoire*).

The basic idea is that the concentration of people and activities in Paris and in the Paris region is too large and it came about too fast. The Parisian urban agglomeration has not been able to organize its growth so that its ability to assume the functions of a capital city are put into question. In the meantime, all the other French cities have remained relatively small and relatively underdeveloped. The main cities have limited capacities to stimulate and organize regional development: in particular, their tertiary activities and of course their quaternary activities are weak. This ill-balanced structure is responsible for the insufficient industrialization of many regions, which, in turn, has compelled many young people looking for job opportunities to migrate toward the Paris region. The main goal of the policies for *aménagement du territoire* has been to turn back this cumulative process which otherwise would have endangered the nation's developmental possibilities.

Some objectives which were proposed in the Fifth Plan have been carried out in the Sixth:

1) The rate of growth of the population of the urban agglomeration of Paris must be slowed down. The number of industrial jobs in this region must be stabilized.

2) Eight major towns or groups of towns have been selected as *métropoles d'équilibre*: Lyon-Saint-Etienne-Grenoble, Marseille-Aix, Lille-Roubaix-Tourcoing, Metz-Nancy, Bordeaux, Toulouse, Nantes-Saint-Nazaire, and Strasbourg. Their tertiary and quaternary activities must be developed so that they may stimulate and organize the economic growth of their regions.

3) Job opportunities (industrial and tertiary activities) must be developed all over the country and especially in the towns and in the zones where the modernization of agriculture brings many young people to the labor market (mainly in the western and south-western regions).

4) The Sixth Plan has given more attention to the *villes moyennes*: i.e. towns with a population of 20,000 to 100,000 inhabitants which should be developed and improved so as to keep their populations and attract people who, otherwise, would have migrated toward bigger towns.

In accordance with these objectives, normative population projections have been calculated and circulated with the official planning documents. These figures are *projections* and not objectives, because it is impossible in the French general political and economic decision-making system to *decide* population objectives for towns or regions.

But they are *normative* projections, in the sense that the mere extrapolation of measured trends would have produced other projections: the normative projections are associated with national urban policies and take in account their expected effects.

These figures are not given in planning and official documents so that they are not mixed with real objectives and formal decisions. For example, the normative projection of the population of the Paris region for 1985 is 11.6 million inhabitants, to be compared to the figure of 12.9 million given by extrapolation. The normative projections of population for each of the twenty-two regions calculated in the framework of the Sixth Plan for 1976 are given in Table 1.

At the regional level, regional institutions have also taken part in the preparation of the Fifth and Sixth Plans, and have prepared regional programs closely linked to the national programs of the Plan. This process is called *régionalisation du plan*. During this process, regional commissions have been invited to calculate normative population projections coherent with the national projections, taking into account the expected effects of national and regional policies. In this way normative population projections for 1976 and 1985 have been calculated for most of the important towns (more than 50,000 inhabitants) of the country.

III. Instruments and Programs

Here is the weak part of the system. However clear and simple to describe, the processes of urban cumulative growth or decline, the processes of regional development or recession, the processes of migration are most difficult to explain. Scientific models are not available. The choice of instrumental variables is therefore most difficult, and the effects of public decisions are almost impossible to forecast. French national urban policies use a very limited number of instruments which have been selected mostly by intuition and whose intensities and combinations are tuned mainly on the basis of empirical evidence. We shall first describe the most efficient instruments and then the weaker ones.

1. Administrative Control of the Growth of Economic Activities in the Paris Region

In the Paris region, any creation or extension of industrial

Table 1. Total population and working population of each region.
(Thousands)

Regions	Total population			Working population	
	1968	1/1/1971	1/1/1976	1968	1/1/1976
Région Parisienne	9,248	9,638	10,354	4,294	4,796
Champagne	1,280	1,315	1,382	508	554
Picardie	1,575	1,623	1,723	605	695
Haute-Normandie	1,497	1,547	1,679	611	693
Centre	1,988	2,056	2,165	799	873
Basse-Normandie	1,262	1,285	1,334	532	557
Bourgogne	1,504	1,534	1,583	588	623
Nord	3,824	3,824	4,038	1,337	1,442
Lorraine	2,278	2,323	2,439	838	920
Alsace	1,411	1,454	1,570	560	627
Franche-Comté	994	1,026	1,074	396	431
Pays de la Loire	2,586	2,637	2,735	1,044	1,101
Bourgogne	2,472	2,503	2,583	992	1,011
Poitou-Charantes	1,479	1,496	1,532	570	593
Aquitaine	2,461	2,493	2,575	976	1,035
Midi-Pyrénées	2,186	2,208	2,258	828	853
Limousin	738	740	747	307	304
Rhône-Alpes	4,418	4,592	4,929	1,833	2,026
Auvergne	1,314	1,329	1,365	529	549
Languedoc	1,707	1,742	1,802	574	609
Provence-Côte d'Azur	3,288	3,408	3,712	1,192	1,351
Corse	209	218	232	59	70
Total	49,719	50,991	53,811	19,972	21,713

space of more than 1,500 square meters, any creation or extension of office space of more than 1,000 square meters must be specially authorized by the *Ministre de l'Équipement*. The demands are examined by a special commission which tries to reject all the projects which could be technically realized in other regions.

If the project is accepted, a special tax of FF 25 to FF 150 per square meter of industrial space and FF 100 to FF 400 per square meter of office space must be paid. This instrument is highly efficient and it has compelled many firms to modify their projects and actively look for locations in other regions which they would never have considered otherwise.

2. The Special Program of New Towns

The Sixth Plan contains a very limited number of formal decisions taken by the Government. One of these relates to the priority program of new towns. There are nine new towns in this program: five, in the Paris region, should promote a better organization of the urban growth of this region; three are to be built in the *métropoles d'équilibre* of Lille-Roubaix-Tourcoing, Lyon-Saint-Etienne-Grenoble, and Marseille-Aix; one is in the valley of the Seine.

Quantitative objectives have been fixed for the growth of each of these towns, the number of jobs to be offered, the volume of industrial and office buildings to be built, and the number of houses. The ways and means by which these objectives will be achieved are precisely described. Responsibilities are outlined for the different administrative units in charge of the program.

Different kinds of public investments have been decided for each of these new towns in the five years period. Their total amount is FF 3,360 million. These investments, including all the necessary infrastructures (expressways, roads, water distribution, sewage) and the public services (schools, equipment for sports and cultural activities, sanitary equipment) are strongly coordinated and realized at a satisfactory rhythm. Private and public investors are now contracting with the new towns authorities to locate housing programs, factories, office buildings, stores there. This is the only example--in the urban field--of a complete planning programming and budgeting organization formally built at the national level.

3. Public Investment Programs in the *Métropoles d'Équilibre*

The general objectives of the *métropoles d'équilibre* project were defined in 1963. Since that time, detailed studies have been conducted in each of the *métropoles*. The physical planning has been produced in the *schémas directeurs*. The main actions to be undertaken are improvement of the cities; investments allowing their growth and their ability to promote tertiary and quaternary activities; new transportation facilities by

all means of transportation between the *métropoles*, Paris, and other large towns in France and abroad.

On the basis of these studies, and taking account of the investments realized during the past few years, important investment decisions have been taken in the framework of the Sixth Plan: construction of expressways and local transit systems (in Lyon and Marseille), modernization of the central business districts. Only the most important investments have been decided in this way. Other investments are only mentioned in the indicative part of the Plan. There is no systematic and exhaustive program for the *métropoles d'équilibre*.

But the fact that the most important investments in the *métropoles d'équilibre* have been formally decided in the Sixth Plan gives a real advantage to these towns. All people interested by the growth of these towns and especially the investors who have to decide new locations for their factories or offices and the builders of houses can make sound forecasts and investment plans in these towns.

The real impact of the public investment decisions on private investment decisions and finally, on the growth of urban population and urban activities depends, of course, on:

- 1) the practical effects of the statements of the Sixth Plan on the real administrative decision-making process (which is a question of administrative organization), and
- 2) the private deciders' opinions on the effects of public decisions on the course of economic and social development at all levels.

4. The Overall Planning of Investments in Towns

The Sixth Plan gives broad estimates of different kinds of investments for urban development all over the country. Some of these figures are accompanied by "priority statements" issued by the Government: this means that if the forecasts of public investments have to be reduced in the five year period for economic reasons, the priority investments should be kept at their normal level. Priority statements have been issued for urban transportation investments, land reservations, solid-waste disposal investments, and green areas.

All the regional planning studies (*régionalisation du Plan*) are based on the figures of the National Plan. The national forecasts of investments in towns are split at the regional level and, finally, public investment forecasts are made for most of the towns of more than 50,000 inhabitants. The normative population projections which have been described in the previous section of this paper are largely used to calculate these local

investment forecasts in a manner consistent with the figures of the National Plan.

Of course these figures are not as sound as those directly written in the National Plan. Nevertheless these forecasts are very useful for all public and even private investors operating in towns. Their practical effect on the private investment decisions also depends on the efficiency of the planning system inside the administrative organizations and on the ability of the Plan to influence and modify the private deciders' anticipations.

5. The Subsidies to Regional Development Investments

Private economic investments (for industrial or tertiary activities) may receive State subsidies representing 12, 15, 20, and in some cases 25 percent, of the amount of the investment when these investments take place in the regions which are to be developed (mainly western and south-western France). Tax exemptions may also be allowed in the same regions. More than FF 400 million have been spent each year for these subsidies.

Combined with the administrative control of investments in the Paris region, this system of incentives is very powerful: between 1963 and 1973, more than 300,000 new job opportunities were created in this way.

6. The Planning of Housing Programs

In the Sixth Plan, there are important statements relating to housing policy. General regulations and financial circuits are set up to achieve national objectives relating to the total number of houses to be built during the five-year period, and to the number of subsidized programs for low-rent houses. But the Sixth Plan does not fix any regional or local objective for housing programs. It is by way of regional studies (*régionalisation du Plan*) that normative forecasts of housing investments are calculated in each region, and, in each region, for each of the major towns (of more than 50,000 inhabitants). These forecasts are coherent with the normative population projections described above, the indicative investment programs of the Sixth Plan, and the indicative investment programs produced at the regional level for each town of more than 50,000 inhabitants.

Although highly indicative and subject to changes due to economic and financial difficulties, the housing forecasts and the public investment programs of each major town are the basic references used by all local administrative bodies to prepare the budgets and their day-to-day programs of action. This is a most important part of the complex mechanism of the *planification à la française*.

IV. An Evaluation

We have tried to summarize the Sixth Plan's statements relating to the goals, objectives and means of French national urban policies. If we try to sketch the logical relationships between the goals and means we obtain the following graph (Figure 1).

We see that direct relationships between goals and action exist only for the control of growth of the Paris region. Administrative regulations are relatively precise. The priority program of new towns is one of the most detailed of the Sixth Plan. The efficiency of this system is certainly high.

But for all other goals, the relation to programs of action is more uncertain. Three black boxes have been introduced in Figure 1 to symbolize these uncertainties, due to lack of scientific knowledge and to specific uncertainties.

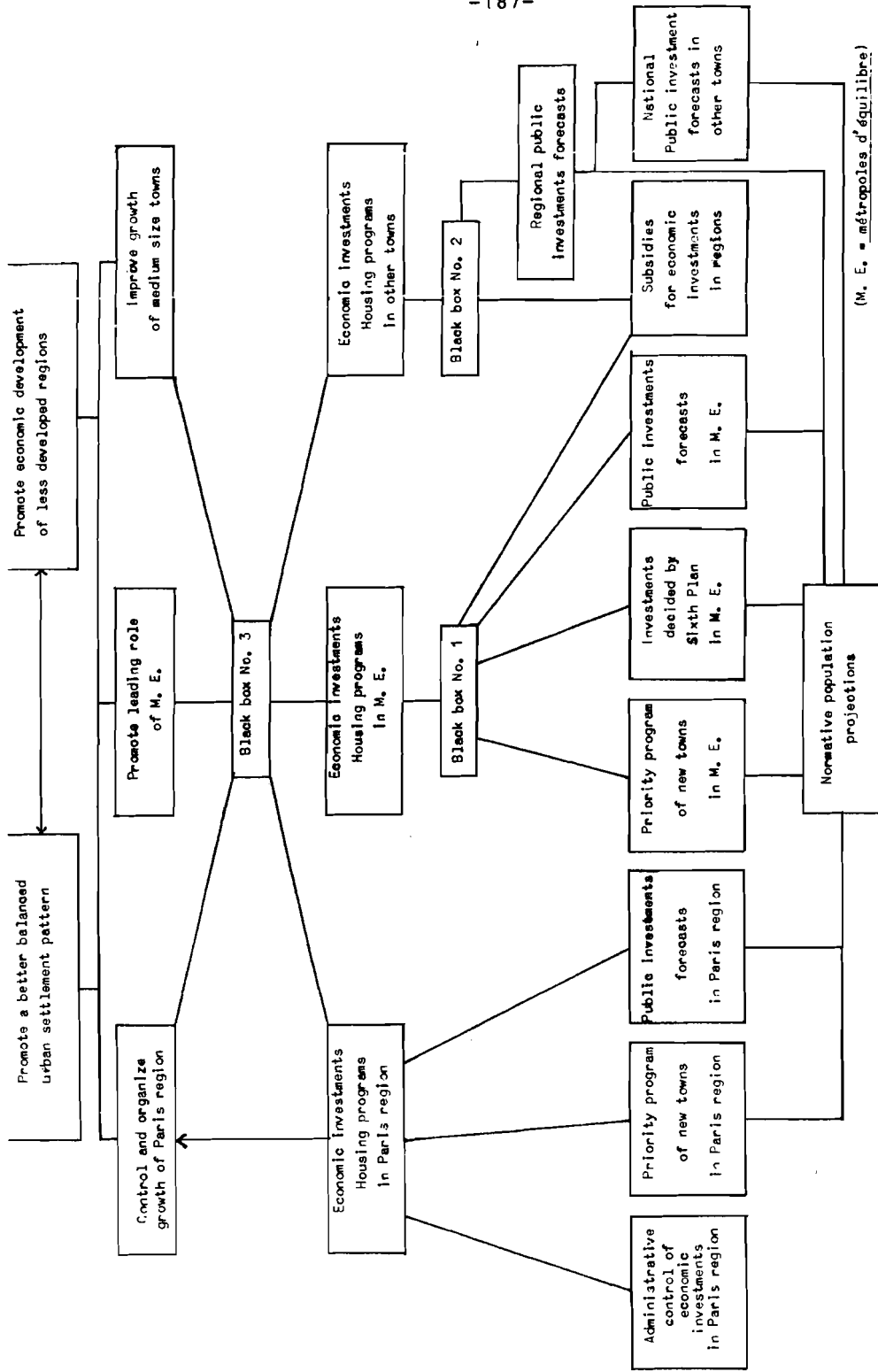
Black box No. 1 represents the behavior of investors who have to decide housing programs and economic investments in the *métropoles d'équilibre*.

Black box No. 2 represents the behavior of investors who have to decide the same investments in other towns. We know that these decisions depend on many economic and other variables. But the influence of public decisions is strong, especially in the *métropoles d'équilibre*, for which the Sixth Plan gives more important national decisions (the new towns program and the main public investments). The influence of public decisions is more difficult to evaluate for the other towns: there are very few decisions for these towns in the Sixth Plan. Regional public investment forecasts are calculated only at the regional level and their realization is uncertain.

In both cases, the influence of the system of subsidies for economic investments in underdeveloped regions is certainly important. But the attempts made to measure this influence by scientific tools have not yet been successful.

Recent studies have showed differences between the behavior of small- and medium-size firms, working at a regional level, and the behavior of big firms working at the national or the international level.

The former need a strong economic environment to develop their activities. They are much interested by the growth and organization of the large towns and the *métropoles d'équilibre* and the development of tertiary and quaternary activities. With these kinds of firms, there is a strong relationship between



(M. E. = métropoles d'équilibre)

Figure 1. Ends and means in French national urban policies.

economic policy--especially regional development policy-- and the national urban policies.

In contrast, the very large firms develop their plans at national and international levels: their needs for tertiary and quaternary activities are satisfied by the location of headquarters in Paris or other capitals abroad. This behavior reinforces the French trend toward economic and political centralization and makes the promotion of a better national urban settlement pattern more difficult.

Very large firms consider regional locations only for specialized industrial work. Sites are selected mainly on the criteria of available manpower or transportation facilities, or low-cost energy, and land. The growth and organization of towns is of much less importance for large firms. In some cases, big factories are located in places where the urban system is still very weak.

It should also be noted that the relative importance of the second group of firms (the very big ones) is growing, making the planning of national urban policies increasingly difficult.

In the upper part of Figure 1, we suppose that the whole set of public and private investments has been determined for the Paris region, for the *métropoles d'équilibre* and for the other towns.

Black box No. 3 represents the very intricate mechanisms relating these investment programs to the real growth of these different groups of towns. Almost all of the variables are interdependent. A leading role is certainly played by the migration of population which depends on the *relative positions* of all towns with respect to housing facilities, job opportunities, public services, and attractiveness. The influence of new job opportunities is probably heavy and this point stresses the importance of the system of subsidies and other aids to the economic development of underdeveloped regions.

Feedback relations should also be added to the graph. We know that, in most cases, the rapid growth of a medium-sized or large town (for example a population growth of 3 to 4 percent per year in a town with 100,000 inhabitants) calls for a heavy flow of public investments and large housing programs, which, in turn, stimulate new economic investments and new migrations toward this town. Thus, the rates of growth of the different towns should be important inputs to all the Black Boxes, explaining the heavy trend of cumulative growth of the big towns. Only very strong countermeasures can fight these trends, for example, the strict administrative control of private investments in the Paris region.

V. Final Remarks

The tentative evaluation made in the previous section leads to two types of questions.

1) The first set of questions relates to the need for better scientific tools for the preparation of national urban policies. Figure 1 suggests that scientific research should be developed in two fields:

- a) the field of private investment decision processes interacting with public investment decisions and economic policies; and
- b) the field of differential regional and urban developments paying special attention to the mechanisms of migrations toward different kinds of towns.

2) The second set of questions relates to the real influence of scientific analyses on the public and private decision-making processes. The efficiency of the French planning system can be examined by this way.

In the public sector, some decisions are actually taken inside the planning work itself. But most of the public decisions are only influenced--often strongly influenced--by the planning work. The example of the normative population projections shows how this influence works. In the complex and highly interactive organization of the French administration, a large number of conflicts between specialized bodies have to be regulated. The Plan gives general projections and forecasts which have two qualities: first, these projections are the only sophisticated and coherent projections available in the country for a given period; second, they have an official label given by the Government and the Parliament permitting agreements between administrative organizations on the basis of these official projections. Thus, by construction, the credibility of these projections is rather high.

In the private sector, decision makers also need good projections of the general economic and social development and sound forecasts of the public decisions, especially in the public investments field. If there is a general consensus on the credibility of the forecasts given by the Plan itself and in the framework of the Plan, then private anticipations will be coherent with this general system of "official" forecasts.

But we know that, in some periods, the credibility of the Plan's forecasts are seriously called into question. We also know that some powerful private firms are able to act

in the political field, especially at the governmental level. In this case, the indications given by the Plan have a smaller importance: other decisions may take place, even in the public sector.

These different aspects of the rather complex and subtle French planning system must be kept in mind for any attempt to analyze and evaluate the French national urban policies.

Selected Bibliography

Editor's note

While M. Rousselot's paper did not include specific references to the voluminous French literature, he has been kind enough in previous correspondence to indicate several of the more important sources, which I have supplemented with materials available at IIASA. This bibliography is therefore the editor's responsibility, and while hardly exhaustive, ought to be at least indicative.

Abbreviations: CGP: Commissariat général du Plan
CNAT: Commission nationale d'aménagement du territoire
DATAR: Délégation à l'aménagement du territoire et à l'action régionale

Anfré, J., "Entreprises multirégionales et concentration des sièges sociaux," *Economie et Statistique*, Sept. 1969, 27-41

Astorg, M., *Les politiques de développement régional et d'aménagement du territoire en France de 1954 à 1972*, CGP Service régional et urbain, Paris, 1972

Beaujeu-Garnier, J., "Toward a new equilibrium in France?" *Annals of the Association of American Geographers*, 64:1 (March 1974) 113-25

- Courbis, R., and J.-C. Prager, "Analyse régionale et planification nationale: le projet de modèle 'Régina'," *Les collections de l'I.N.S.E.E.*, Série R, No. 12 (May 1973) 5-32
- Courbis, R., "Urban analysis in the regional-national Régina model of the French economy," paper read at Conference on National Settlement Systems and Strategies, IIASA, Laxenburg, Austria, Dec. 1974
- Courbis, R., "Le modèle Régina: modèle du développement national, régional et urbain de l'économie française," paper read at Second International Colloquium on Applied Econometrics, Nice, February 1975; GAMA mimeo, Université de Paris-X Nanterre, 1975
- Falise, M., and A. Lepas, "Les motivations de localisation des investissements internationaux de l'Europe du Nord-ouest," *Revue Economique*, Jan. 1970, 103-9
- France, CGP, *Plan et perspectives*, various volumes but esp. 1 and 2 ("Les villes: la société urbaine" and "Les villes: l'urbanisation") Armand Colin, Paris, 1970
- France, CGP, *Les programmes régionaux de développement et d'équipement du VIe Plan*, La Documentation Française, Paris, 1973
- France, CGP, CNAT, *Premier rapport*, La Documentation Française, Paris
- France, CGP, CNAT, *Rapport pour l'orientation du VIème Plan*, La Documentation Française, Paris
- France, DATAR, *Décentralisation des activités tertiaires*, La Documentation Française, Paris
- Gravier, J.F., *Paris et le désert français*, Flammarion, Paris, 1947 and 1958
- Hansen, N.M., "Regional planning in a mixed economy," *Southern Economic Journal*, 32:2 (Oct. 1965) 176-90
- Hansen, N.M., "Human resources and regional development: some lessons from French experience," *Southern Economic Journal*, 34:1 (July 1967) 123-32
- Hansen, N.M., *French regional planning*, Indiana University Press, Bloomington, 1968
- Hansen, N.M., "French regional planning experience," *Journal of the American Institute of Planners*, 35:6 (Nov. 1969) 362-8

- de Lanversin, J., *L'aménagement du territoire et la régionalisation*, second ed., Librairies Techniques, Paris, 1970
- Monod, J., *Transformation d'un pays: pour une géographie de la liberté*, Favard, Paris, 1974
- Monod, J., and Ph. de Castelbajac, *L'aménagement du territoire*, Que sais-je No. 987, Presses Universitaires de France, Paris, 1971
- Pouyet, B., *La Délégation à l'aménagement du territoire et à l'action régionale*, Cujas, Paris, 1968 (Cahiers de l'Institut d'Etudes Politiques de l'Université de Grenoble)
- Prud'homme, R., "Costs and financing of urban development in France," *Urban Studies*, 10:2 (1973) 189-98
- Prud'homme, R., "Regional economic policy in France, 1962-1972," mimeo, University of Lille I, August 1973
- Prud'homme, R., "Regional economic policy in France," 33-63 in N.M. Hansen, ed., *Public policy and regional economic development: The experience of nine Western countries*, Ballinger, Cambridge, Mass., 1974
- Rousselot, M., "La régionalisation du VIème Plan," *Aménagement du territoire et développement régional*, 6 (1973) 40-96 (Institut d'Etudes Politiques de l'Université de Grenoble)

In addition to the works listed, two series ought to be consulted in detail by the serious reader, both available from La Documentation Française, 29-31 Quai Voltaire, 75340 Paris. These are *Revue 2000* and *Travaux et recherches de prospective*. Examples of the former are "Une image de la France en l'an 2000" (No. 20) and "Nouvelles villes" (No. 24); of the latter, "Approches de la réalité urbaine" (No. 38), "Le peuplement urbain français" (No. 43), and "Régions de villes--régions urbaines" (No. 44).

Appendix 1:
Selected Bibliography on Problems of Urbanization
and the Development of Settlement Systems in
the German Democratic Republic (1970-1974)*

Frankdieter Grimm
Head, Department of Economic
Geography, Institute of
Geography, Academy of
Sciences, GDR

Peter Weinhold
Institute of Geography
Academy of Sciences, GDR

Heinz Luedemann
Director, Institute of Geography
Academy of Sciences, GDR

Preface

The present bibliography is comprised of papers on problems of urbanization and the development of settlement systems in the German Democratic Republic published in the period 1970-1974. We selected only titles that can be assumed to be of interest also to scientists of other countries.

All publications listed in this bibliography are among the books in the library of the Institute of Geography of the Academy of Sciences, GDR. We hope that this bibliography, as a supplement to "IIASA Holdings of Materials on National Settlement Systems and Policies" (September 1974) by H. Swain and K. McCusker, will be of service in further work within the framework of the IIASA Project "Urban and Regional Systems."

* Presented to the participants of the Conference with the compliments of the Institute of Geography of the Academy of Sciences, GDR.

Andrae, Joachim

Einfluss von Wegezeit und Entfernung zwischen Wohn- und Arbeitsort auf die Groesse der Pendlerbeziehungen im Ballungsgebiet Karl-Marx-Stadt

DDR Verkehr, Berlin 5 (1972) 4, S. 143-148, 4 Diagr., 6 Tab., 3 Lit.

Arnhold, H.

Flaechen fuer Freizeit und Erholung - Entwicklungstendenzen, Erfassung, Bewertung und Einordnung in ein Gesamtsystem der Territorialstruktur

Mitt.-Bl., Geogr. Ges. DDR, Fachverb. Berufsgeogr., Leipzig (1971) 6-7, S. 43-49

Arnhold, Helmut

Zur Bewertung von Eigenausstattung und Umland fuer die kurzfristige Erholung am Beispiel von groesseren Staedten der Deutschen Demokratischen Republik

In: Sozialistische Gesellschaft und Territorium in der DDR, Wiss. Abh. Geogr. Ges. DDR, Leipzig 9 (1972), S. 69-83, 3 Abb., 3 Tab., 11 Lit. (russ. Zusf. S. 260; engl. Zusf. S. 272)

Bach, Joachim

Einige Probleme der Funktion und Gestaltung der staedtischen Lebensumwelt

Wiss. Z. Hochsch. Arch. u. Bauwes. Weimar, Weimar 18 (1971) 2, S. 147-158, 5 Fot., 2 Pl., 16 Lit.

Bach, Joachim

Studie zur Generalbebauungsplanung der Staedte Saalfeld, Rudolstadt, Bad Blankenburg - ein Ergebnis des wissenschaftlich-produktiven Studiums der Gebietsplanung und des Staedtebaues

Wiss. Z. Hochsch. Archit. Bauwes. Weimar, Weimar 20 (1973) 4, S. 339-351, 11 Kt.-Sk., 1 Schema, 2 Tab.

Baschleben, D.

Zur Erarbeitung diagnostischer Einschaetzungen ueber die Entwicklung des Siedlungssystems auf der Ebene der Kreise (dargestellt und untersucht am Beispiel des Kreises Weissenfels)

Halle, Martin Luther Univ., Leitungs-, Rechts- u. Wirtschaftswiss. Fak., Diss. v. Mai 1971

Halle: 1971, 208 S., 17 Kt.-Sk. u. Tab. als Anl. 3Kt.-Sk., 2 Diagr., 30 Uebers. im Text, zahlr. Lit.

Becher, E.

Die Bedeutung des raeumlichen Aspektes bei der stichprobenmaessigen Erfassung der Verkehrsstroeme im grosstaedtischen Ballungsgebiet

Strasse, Berlin 11 (1971) 2, S. 70-74, 3 Abb., 3 Tab., 7 Lit.

Becher, Eberhard

Die Planung des Naherholungsverkehrs im grosstaedtischen Ballungsgebiet - eine Konzeption und erste Untersuchungsergebnisse

DDR Verkehr, Berlin 5 (1972) 10, S. 427-430, 11 Lit. u. H. 11, S. 514-517

Benedict, E.

Bemerkungen zu Tendenzen der Entwicklung der Territorialstruktur in urbanisierten Agglomerationsraeumen

Mitt.-Bl., Geogr. Ges. DDR, Fachverb. Berufsgeogr., Leipzig (1971) 6-7, S. 50-57

Beutel, Martin u. Spiegel, Rudolf

Verschluesselung und Verarbeitung territorialer Daten
Beitraege zum Koordinatenraaster als Bezugssystem, zur Optimierung der Einzugsbereiche gesellschaftlicher Einrichtungen und zur automatischen graphischen Datenverarbeitung

Berlin: Dt. Bauinform. 1971, 52 S., 16 Kt.-Sk., 1 Abb., 6 Schem., (Schr.-R. Bauforsch., R. Staedtebau u. Archit., 36)

Boehme, Hans-Joachim; Casper, Dieter u. Langnickel, Ingeborg
Zur Oekonomie der technischen Ressourcen- und Infrastruktur

In: Territorialoekonomie und -planung

Berlin: Hochsch. f. Oekonomie Berlin, Zentrum f. wirtsch.-wiss. Inform. 1972. 76 S., 1 Kt.-Sk., 2 Schem., 9 Lit.
(Lehrbrief)

Boenisch, Rolf

Die Anwendung oekonomisch-mathematischer Methoden bei der optimalen Gestaltung der territorialen Reproduktionsbeziehungen

Territorialoekonomie u. -planung

Berlin: Hochsch. f. Oekonomie Berlin, Zentrum f. wirtsch.-wiss. Inform. 1972. 90 S., 9 Schem., 4 Lit.
(Lehrbrief 10)

Boenisch, Rolf

Die Wechselbeziehungen von territorialer Prognostik und Planung in der Standortoptimierung

Wiss. Z. Hochsch. Oekon. Berlin, Berlin 18 (1973) 3, S. 108-116, 3 Lit., Fussn.

Boenisch, Rolf u. Kehrer, Gerhard

Die Planung der Standortverteilung der Produktivkraefte in der Volkswirtschaft

Territorialoekon. u. -plan., Hochsch. f. Oekonomie Berlin, Berlin (1972) Lehrbr. 2, 102 S., 1 Schem., 2 Uebers., 6 Anl., 14 Lit.

- Boenisch, Rolf u. Ostwald, Werner
Zur Planung der Territorialstruktur der gesellschaftlichen Reproduktion
Volkswirtschaftspl., Beitr. Theorie u. Praxis, Berlin (1971) 1, 75 S., 10 Schem.
- Boenisch, Rolf u. Voigtsberger, Siegfried
Die Hauptaufgaben der Territorialoekonomie und -planung bei der Entwicklung der sozialistischen Gesellschaft und die ihnen zugrundeliegenden oekonomischen Gesetze
Territorialoekon. u. -plan., Hochsch. f. Oekonomie Berlin, Berlin (1972) Lehrbr. 1. 84 S., 2 Tab., 1 Abb., 2 Anl., 18 Lit.
- Bose, Gerhard
Einige Hauptaspekte der ueberregionalen Binnenwanderung der Deutschen Demokratischen Republik
S.-Dr. aus: Wiss. Z. Schiller-Univ. Jena, math.-naturwiss. R., Jena 19 (1970) 5-6, S. 795-812, 4 Kt.-Sk., 5 Tab., 6 Lit.
- Brendel, Kurt; Haendel, Dieter; Hohl, Rudolf u. a.
Zu einigen geologischen Fragen der Umwelt-Mensch-Beziehungen im industriellen Ballungsgebiet Halle-Leipzig
Geologie, Berlin 21 (1972) 4-5, S. 608-622, 1 Kt.-Sk., 1 geol. Schnitt, 2 Tab., zahlr. Lit. (engl. u. russ. Zuf.)
- Breuer, Siegfried
Die raeumlichen Beziehungen bei der Gemuese- und Obstversorgung eines Ballungsgebietes am Beispiel Dresdens
Peterm. geogr. Mitt., Gotha/Leipzig 116 (1972) 1 ("Ballung und Ballungsgebiete"), S. 35-44, 4 Kt.-Sk., 3 Schem., 12 Lit. (engl. u. russ. Zuf.)
- Clemens, G.
Praktische Ergebnisse der MTTKOS-Rechnung fuer die langfristige Planung der Siedlungsstruktur
In: Vortragsthesen zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm. o. J. S. 154-157
- Czysch, Bernd
Gedanken zur Planung und zum Bau der Chemiewerkerstadt Halle-Neustadt
Dt. Archit., Berlin 20 (1971) 9, S. 532-537, 11 Fot.

Dohms, Werner; Gruenberg, Hans; Picht, Klaus u.a.
Sozialistische Rekonstruktion von Doerfern in der DDR
Beitrag zur Verbesserung der Lebensverhaeltnisse der Land-
bevoelkerung

Berlin, Bauinform. 1973, 56 S., zahlr. Pl., Kt.-Sk. u. a.
Abb. (russ., engl. u. frz. Zusf. S. 3)
(Schr.-R. Bauforsch., Reihe: Landwirtschaftsbau, H. 25)

Ermer, W. u. Salm, J.

*Die Einbeziehung methodologischer und methodischer Grundsaeetze
der Fachspezifik "Verkehr" bei der Erforschung und Planung
laendlicher Wirtschaftsgebiete*

Strasse, Berlin 13 (1973) 8, S. 362-366, 1 Abb., 1 Schema, 11 Lit.

Ermer, W. u. Salm, J.

*Einige Entwicklungstendenzen und Probleme bei der sozialistischen
Umgestaltung des Siedlungsnetzes in laendlichen Gebieten und
ihrer technischen Erschliessung*

Wiss. Z. Techn. Univ. Dresden, Dresden 22 (1973) 1, S. 125-128,
12 Lit.

Fege, Berthold; Goede, Ingrid; Gringmuth, Werner u. a.
Aufgaben der Planung in den Bezirken

Territorialoekon. u. -plan., Hochsch. f. Oekonomie Berlin, Berlin
(1972) Lehrbr. 3, 72 S., 6 Lit.

Fege, Berthold; Meissner, Friedhelm u. Menge, Wolfgang
*Aufgaben der Territorialplanung bei der Entwicklung der Sied-
lungsstruktur in der DDR*

Territorialoekon. und -plan., Hochsch. f. Oekonomie Berlin, Berlin
(1972) Lehrbr. 5, 80 S., 1 Tab., 9 Anl.

Fege, Berthold; Meissner, Friedhelm u. Menge, Wolfgang
Die Entwicklung des Siedlungssystems

In: Territoriale Oekonomie und Planung, Lehrbrief 6
Berlin-Karlshorst: Hochsch. f. Oekonomie 1970. 77 S., 5 Tab.

Fuetterer, Walter

Erholungsplanung im Bezirk Erfurt

Dt. Archit., Berlin 21 (1972) 5, S. 292-294, 3 Phot., 1 Lagepl.

Gallander, B.

*Einige Wechselbeziehungen zwischen der Siedlungsstruktur und
dem Personennahverkehr in Ballungsgebieten*

Inform. d. Forschungsleitst. f. Territorialplan., Berlin (1972) 9,
S. 35-42, 9 Lit.

Geier, H.

Die Planung und Entwicklung der Siedlungsstruktur in den Bezirken, dargestellt am Beispiel des Bezirkes Magdeburg

In: *Vortragsthesen zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR"*, v. 1. bis 3. Nov. 1973 in Leipzig
o. O. Forsch.-Leitst. f. Territorialplan. d. Staatl. Plankomm.
o. J. S. 37-44

Glaeser, Heinz

Die Entwicklung der Siedlungsstruktur in der DDR und einige Konsequenzen fuer das Verkehrswesen

DDR Verkehr, Berlin 6 (1973) 5, S. 1974-198, 2 Abb., 4 Tab., 5 Lit.

Glaeser, Heinz

Entwicklung der Siedlungsstruktur der DDR

DDR Verkehr, Berlin 7 (1974) 2, S. 83-85, 2 Lit.

Glaeser, Heinz

Wege und Moeglichkeiten der Bewertung der Stadt-Umland-Beziehungen aus der Sicht des Verkehrswesens

DDR Verkehr, Berlin 6 (1973) 8, S. 319-322, 1 Tab., 4 Lit.

Glaeser, Heinz

Zu Problemen des Verkehrs in Naherholungsgebieten unter besonderer Beruecksichtigung des Strassenverkehrs - dargestellt am Beispiel der Hauptstadt der DDR, Berlin

Geogr. Ber., Gotha/Leipzig 59 (1971) 2, S. 134-150, 2 Kt.-Sk., 2 Diagr., 1 Tab., 7 Lit. (russ. u. engl. Zusf.)

Gradow, G. A.

Stadt und Lebensweise

Dt. Bearbeit. Gert Gibbels

Berlin: Verl. f. Bauwesen 1970. 248 S., zahlr. Phot., Kt.-Sk., Tab., Schem. u. Sk., 65 Lit.

Grimm, Frankdieter

Zur Beruecksichtigung von Stadt-Umland-Beziehungen bei der Entwicklung der Siedlungsstruktur

(Thesen zum Arbeitsseminar der Forschungsleitstelle im Oktober 1972)

Inform. d. Forschungsleitst. f. Territorialpl. d. Staatl. Plankomm., Berlin 3 (1973) 3, S. 1-12

Grimm, F. u. Hoensch, I.

Typisierung der Staedte der DDR nach ihrer Umlandbedeutung

In: *Vortragsthesen zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR"*, v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.
o. J. S. 109-121.

Grimm, Frankdieter; Hoensch, Ingrid und Taege, Guenter
*Gebietliche Zentren in der DDR und ihre verkehrsbezogenen
Dominanzbereiche*
Geogr. Ber., Gotha/Leipzig 17 (1972) 3-4 (64-65), S. 205-217,
1 Tab., 1 Kt.-Beil., 16 Lit. (russ. u. engl. Zusf.)

Gringmuth, Werner
*Einige Ergebnisse und Entwicklungen des Prozesses der terri-
torialen Konzentration und Kombination in der DDR*
In: Sozialistische Gesellschaft und Territorium in der DDR
Wiss. Abh. Geogr. Ges. DDR, Leipzig 9 (1972), S. 163-170
(russ. Zusf. S. 263; engl. Zusf. S. 275)

Gringmuth, Werner
*Grundlagen, Aufbau und Methoden der Informationen fuer die
Territorialplanung*
In: Territorialoekonomie u. -planung
Berlin: Hochschule f. Oekonomie Berlin, Zentrum f. wirtsch.-wiss.
Information 1972. 60 S., 6 Schem., 9 Lit.
(Lehrbrief 11)

Grundmann, L. u. Neumann, H.
Territoriale Probleme der Pendelwanderung
In: Vortragsthesen zur Arbeitstagung: "Entwicklung der Siedlungs-
struktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.
o. J. S. 68-71

Gutzer, Werner
*Die Funktionen der Stadtrandzone in der Grosstadtregion unter
besonderer Beruecksichtigung der wirtschaftlichen Aufgaben des
grosstaedtischen Kerngebietes*
dargestellt am Beispiel der Grosstadtregion Halle
Halle-Wittenberg, Fak. f. Rechts- u. Wirtsch.-Wiss. d. Wiss.
Rates d. Luther-Univ., Diss. v. Juni 1972
Halle (Saale): 1972. 231 S., 20 S. Thesen, 14 Tab.-Anl., 6 Kt.-
Beil., 45 Uebers., zahlr. Lit. (masch.-schr. vervielf.)

Haase, Guenter u. Luedemann, Heinz
Flaechennutzung und Territorialforschung
Geogr. Ber., Gotha/Leipzig 17 (1972) 3-4 (64-65),
S. 13-15 (russ. u. engl. Zusf.)

Haase, Guenter und Markuse, G.
Siedlungsstruktur und natuerliche Umweltbedingungen
In: Vortragsthesen zur Arbeitstagung: "Entwicklung der Siedlungs-
struktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.
o. J. S. 95-103

Hager, U.

Entwicklung kleiner Siedlungen

In: Vortragsthesen zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.
o. J. S. 135-137

Hecker, Thomas

Grundzuege der Siedlungsstruktur im Bezirk Karl-Marx-Stadt

Geogr. Ber., Gotha/Leipzig 18 (1973) 2 (67), S. 80-92, 2 Kt.-Sk., 2 Tab., 2 Lit. (engl. u. russ. Zusfg.)

Heidenreich, Gotthard

Betrachtungen zur Zentralitaetstheorie in der Siedlungsforschung

Wiss. Z. Hochsch. Archit. Bauwes. Weimar, Weimar 20 (1973) 4, S. 355-359, 9 Lit.

Heidenreich, Gotthard

Die Beziehungen zwischen Stadt und Gebiet und ihr Einfluss auf Inhalt und Methode der raemlichen Planung - untersucht am Beispiel ausgewaehlter Grosstaedte der DDR

Weimar, Hochsch. f. Architektur u. Bauwes., Diss. v. 27. 11. 1969.
Weimar: 1970, 236 S., 64 Abb., 33 Tab., 156 Lit.

Heidenreich, Gotthard

Stadt-Umland-Planung

Berlin: Bauinformation. DDR, Bauakad. 1972. 68 S., zahlr. Kt.-Sk. u. a. Abb., 42 Lit.
(Schr.-R. Bauforsch., R.: Staedtebau u. Archit., Bd. 40)

Heim, Bernd u. Illgen, Konrad

Erste Ergebnisse der Ermittlung zentraler Einkaufsorte in der DDR

Inform. d. Forschungsleitstelle f. Territorialplan. d. Staatl. Plankommission, Berlin 3 (1973) 2, S. 1-14, zahlr. Tab. u. Heft 3, S. 24-36, 3 Kt.-Sk., 3 Tab., 10 Lit.

Heinzmann, Joachim

Probleme und Tendenzen der Entwicklung der industriellen Struktur in grosstaedtischen Ballungskernen

In: Sozialistische Gesellschaft und Territorium in der DDR
Wiss. Abh. Geogr. Ges. DDR, Leipzig 9 (1972), S. 153-162,
1 Abb., 16 Lit. (russ. Zusfg. S. 263; engl. Zusfg. S. 275)

Hendl, M.; Marcinek, J.; Markuse, G. u. a.

Das Erholungsgebiet Koethen, Kreis Koenigs Wusterhausen. Ein Beitrag zur funktionellen Gliederung eines isolierten Erholungsgebietes am Aussensaum des Naherholungsquertels einer Agglomeration

Wiss. Z. Humboldt-Univ., math.-naturwiss. R., Berlin 20 (1971) 4-5, S. 821-823, 1 Pl. (russ., engl. u. frz. Zsfg.)

Hendl, M.; Marcinek, J.; Markuse, G. u. a.
Theoretische Untersuchungen zur Methodik der Aufnahme und zur Bewertung von Seeufer-Regionen im Umland der Hauptstadt Berlin fuer Zwecke der Naherholung mit Hilfe eines Kennziffern-Systems
Wiss. Z. Humboldt-Univ., math.-naturwiss. R., Berlin 20 (1971) 4-5, S. 811-820, 3 Tab., 1 Kt.-Sk. (russ., engl. u. frz. Zsfg.)

Hendl, M.; Marcinek, J.; Markuse, G. u. a.
Zur raeumlichen Ordnung in Erholungsgebieten (Verallgemeinerungen aus einer Untersuchung im Kreis Koenigs Wusterhausen)
Wiss. Z. Humboldt-Univ., math.-naturwiss. R., Berlin 20 (1971) 4-5, S. 793-797, 1 Kt.-Sk. (russ., engl. u. frz. Zsfg.)

Herzog, Rainer
Zusammenhaenge zwischen Industriestruktur und Bevoelkerungsentwicklung - dargestellt am Beispiel des Industriestandortes Greiz
S.-Dr. aus: Wiss. Z. Schiller-Univ. Jena, math.-naturwiss. R., Jena 19 (1970) 5-6, S. 813-824, 1 Kt.-Sk., 5 Diagr., 1 Schema, 10 Lit.

Hoensch, Fritz
Der Einfluss des Industriekomplexes Boehlen-Espenhain auf die Entwicklung der Landesplanung im westsaechsischen Braunkohlengebiet
Geogr. Ber., Gotha/Leipzig 18 (1973) 3 (68), S. 206-214, 1 Kt.-Sk., 9 Lit. (russ. u. engl. Zsfg.)

Illgen, Konrad
Probleme der Einordnung des Handels in die gesellschaftliche und wirtschaftliche Entwicklung des Territoriums
Inform. Forsch.-Leitst. f. Territorialplan., Berlin (1972) 2, S. 1-11

Illgen, Konrad
Zum Problem der funktionellen Reichweite zentraler Einkaufsorte
Geogr. Ber., Gotha 16 (1971) 3, S. 193-202, 3 Kartogr., 9 Lit., (russ. u. engl. Zsfg.)

Jacob, Guenter
Forschungen zum Problem "Sozialistische Stadt und Verkehr"
In: Sozialistische Gesellschaft und Territorium in der DDR
Wiss. Abh. Geogr. Ges. DDR, Leipzig 9 (1972), S. 125-134
(russ. Zsfg. S. 262; engl. Zsfg. S. 274)

Junghanns, Dietrich

Die Planung des oeffentlichen Personennahverkehrs in gross-staedtischen Raeumen und Ballungsgebieten unter dem Einfluss des Wandels der Siedlungs-, Wirtschafts- und Verkehrsstruktur bei besonderer Beruecksichtigung der Zusammenarbeit der Personenbefoerderungsbetriebe - dargestellt am Ballungsgebiet "Obere Elbtalweitung"

Aus: *Wirtsch.-Wiss.*, Berlin 21 (1973) 12, S. 1887

Kaenel, Alfred von

Aktuelle Probleme des siedlungsgeographischen Strukturwandels in den Nordbezirken der Deutschen Demokratischen Republik

In: *Sozialistische Gesellschaft und Territorium in der DDR*
Wiss. Abh. Geogr. Ges. DDR, Leipzig 9 (1972), S. 85-98, 1 Tab., 13 Lit. (russ. Zusp. S. 260; engl. Zusp. S. 272)

Kaenel, Alfred von

Das nordmecklenburgische Boddengebiet. Eine siedlungsgeographische Charakteristik

Wiss. Z. Arndt-Univ. Greifswald, math.-naturwiss. R., Greifswald 20 (1971) 1-2, S. 69-77, 2 Tab., 1 Kt.-Sk., 3 Abb., 13 Lit.

Kaenel, Alfred von

Siedlungsstruktur und Siedlungssysteme des Bezirkes Rostock - Eine oekonomisch-geographische Untersuchung -

(Greifswald, *Mathemat.-naturwiss. Fak. E.-M.-Arndt-Univ.*,
Habil.-Schrift v. Febr. 1969)
Greifswald: 1969. 517 S., 40 Tab., zahlr. Lit. u. Tab. (Anh.);
Tab.- u. Ktn.- Band: 23 Kt., 29 Kt.-Sk., Diagr. u. Schem.

Kaenel, Alfred von

Zur Entwicklung und Wirtschaftsstruktur der Siedlungen im Kreis Wolgast

Greifswald-Stralsunder Jb., Rostock 8 (1968/69), S. 69-98,
5 Kt.-Sk., 5 Tab., zahlr. Lit.

Kaenel, Alfred von u. Kroenert, Rudolf

Die Stadt-Umland-Beziehungen und ihre Analyse, dargestellt am Beispiel von Greifswald und Dessau

Geogr. Ber., Gotha/Leipzig 17 (1972) 3-4 (64-65), S. 218-223,
4 Lit. (engl. u. russ. Zsfg.)

Kehrer, G.

Stadtfunktionen, Infrastruktur und rationelle Flaechennuetzung am Beispiel des Ballungskernes Berlin und seiner Randgebiete

In: *Probleme d. Flaechennuetzung bei der Entwicklung d. Territorialstruktur*

Vortraege d. 3. Arb.-Tag. d. Fachverb. d. Berufsgeogr. i. d. Geogr. Ges. d. DDR am 11. u. 12. 11. 1971 in Leipzig.

Leipzig: 1971, S. 70-76, 1 Kt.-Sk., 1 Tab., 1 Lit. (masch.-schrif. verv.)

Kind, Gerold

Zur Methodik der Einbeziehung staetebaulicher und landeskultureller Gesichtspunkte in die komplexe Planung des Territoriums

Wiss. Z. Techn. Univ. Dresden, Dresden 22 (1973) 4, S. 584-589

...

Klein- und Mittelstaedte

Probleme ihrer staetebaulichen Entwicklung im Siedlungsnetz

Dt. Bauinform., Berlin (1970), 112 S., 2 Kt., 2 Kt.-Sk.,
4 graph. Darst., 19 Tab., 6 Diagr., 3 Schem., zahlr. Pl.,
28 Lit. (russ., engl. u. frz. Zsfg.)

(Schrift.-R. d. Bauforsch., R.: Staedtebau u. Archit., H. 32)

Kind, G. u. Bossdorf, G.

Anwendungen von Modellen zur Planung der Siedlungsstruktur eines Kreises

In: Vortragsthesen zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.
o. J. S. 158-163)

Kind, G. u. Steindorf, H.

Zur Berechnung kostenguenstiger Varianten der Siedlungsnetz-entwicklung in einem Landkreis

Wiss. Z. Techn. Univ. Dresden, Dresden 22 (1973) 1, S. 133-146,
6 B., 10 Tab., 22 Lit.

Kellner Brigitta

Der Raum Graefenhainichen - ein Beispiel fuer die Entwicklung eines Wirtschafts- und Lebensgebietes unter sozialistischen Bedingungen

Halle, Luther-Univ., Fak. Naturwiss., Diss. v. Maerz 1970

Halle: 1970. 224 S., 11 Kt.-Sk., 6 Diagr., 4 Kt. i. Anh.,
1 fbg. Kt.-Beil., 2 Abb., 34 Tab., 71 Lit. A 4
(Maschinenschr. vervielf.)

Kluge, K.

Die Entwicklung des Siedlungsnetzes im Bezirk Neubrandenburg unter dem Aspekt einer rationellen Flaechennutzung

In: Probleme d. Flaechennutzung bei der Entwicklung d. Territorialstruktur

Vortraege d. 3. Arb.-Tag. d. Fachverb. d. Berufsgeogr. i. d. Geogr. Ges. d. DDR am 11. und 12. 11. 1971 in Leipzig.
Leipzig: 1971. S. 77-91 (masch.-schrif. verv.)

Kluge, K.

Rolle und Bedeutung der Siedlungskategorien bei der Entwicklung der Siedlungsstruktur der DDR

In: Vortragsthesen zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.
o. J. S. 18-27

Kluge, K.

Vorschlaege zur Bestimmung von Siedlungskategorien und ihre Anwendung bei der langfristigen Planung
(Thesen zum Arbeitsseminar der Forschungsleitstelle im Oktober 1972)

Inform. d. Forschungsleitstelle f. Territorialpl. d. Staatl. Plankommission, Berlin 3 (1973) 2, S. 15-17

Koker, Thomas

Entwicklung der Siedlungsstruktur und der Verkehrserschliessung und -bedienung durch den oeffentlichen Personenkraftverkehr - dargestellt am Beispiel des Bezirkes Dresden

Dresden, Fak. f. Gesellsch.-Wiss., Wiss. Rat d. Hochsch. Verkehrswes., Diss. v. 13. Nov. 1972

Dresden: 1972, 178 S., 12 Kt.-Sk., 1 B., 5 Diagr., 1 Schema, 17 Tab., 3 Kt., u. 1 Schema im Anh., zahlr. Lit.

(Masch.-schr. vervielf.) NfD

Koker, Thomas

Qualitaetsmerkmale fuer die Verkehrserschliessung und -bedienung des laendlichen Siedlungsnetzes durch den oeffentlichen Personenkraftverkehr

DDR Verkehr: Berlin 6 (1973) 8, S. 327-330, 4 Tab., 8 Lit.

Koplin, Walter; Lenz, Joachim u. Sieg, Guenter

Methoden der Erarbeitung und Qualifizierung des Generalverkehrsplanes der Hauptstadt der DDR, Berlin

DDR Verkehr, Berlin 4 (1971) 3, S. 93-99, 3 Aufstell, 7 Lit.

Kramer, Erwin u. Ruedinger, Heinz

Zur Rolle des oeffentlichen Nahverkehrs bei der Verkehrsbedienung in Ballungsgebieten

DDR Verkehr, Berlin 6 (1973) 11, S. 447-453, 5 Abb., 3 Lit.

Kress, Siegfried

Organisation und Gestaltung von Wohngebieten

Berlin: Dt. Bauinformation 1971. S. 9-83, zahlr. Diagr., Tab., Sk. u. Pl.

(Schr.-R. Bauforsch., R. Staedtebau und Architektur, Nr. 33)

Krieche, G.

Informationsbereitstellung durch die Statistik fuer die Siedlungsstrukturforschung und -planung

In: Vortragsthese zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.
o. J. S. 149-153

Kroenert, R. u. Schmidt, R.

Das Umland von Gross- und Mittelstaedten

In: Vortragsthesen zur Arbeitstagung "Entwicklung der Siedlungsstruktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.
o. J. S. 122-130

Kukowiza, Elenora W. u. Lohse, Dieter

Berechnungsmethoden der Zuordnung von Arbeitsstaetten und Wohnstandorten

Strasse, Berlin 12 (1972) 6, S. 224-228, 11 Lit.

Lindenau, G.

Die Bedeutung der Infrastruktur fuer die langfristige Planung der Siedlungsstruktur

In: Vortragsthesen zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR" v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.
o. J. S. 83-87

Lindenau, Gisela

Zur infrastrukturellen Ausstattung von Siedlungen

Inform. d. Forschungsleitstelle f. Territorialpl. d. Staatl. Plankommision, Berlin 3 (1973) 1, S. 1-6, 2 Tab.

Luedemann, Heinz

Entwicklungstendenzen der geographischen Forschung in der Deutschen Demokratischen Republik

In: Sozialistische Gesellschaft und Territorium in der DDR
Wiss. Abh. Geogr. Ges. DDR, Leipzig 9 (1972), S. 9-18, 17 Lit.
(russ. Zusp. S. 257; engl. Zusp. S. 269)

Luedemann, Heinz

Probleme der Flaechnennutzung im Rahmen der Forschungsarbeiten zur Territorialstruktur

Mitt.-Bl., Geogr. Ges. DDR, Fachverb. Berufsgeogr., Leipzig (1971) S. 5-10

Luedemann, Heinz u. Heinzmann, Joachim

Die Rolle der Stadt-Umland-Beziehungen bei der Entwicklung der Siedlungsstruktur

In: Vortragsthesen zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialplan. d. Staatl. Plankomm.,
o. J. S. 28-36

Mai, Bernhard u. Eschefeld, Egon

*Die Planung des oeffentlichen Personenverkehrs im Umland
groesserer Staedte und in Landkreisen*

DDR Verkehr, Berlin 5 (1972) 2, S. 53-60, 2 Kt.-Sk., 2 Diagr.,
1 Abb., 2 Lit.

Menge, Wolfgang

*Wechselbeziehungen zwischen Siedlungsstruktur und
territorialer Produktionsstruktur*

In: Vortragsthesen zur Arbeitstagung: "Entwicklung der Siedlungs-
struktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.,
o. J. S. 72-77

Menge, Wolfgang

*Zu den wechselseitigen Beziehungen von territorialer Produktions-
struktur und Siedlungsstruktur im Sozialismus*
(Thesen zum Arbeitsseminar der Forschungsleitstelle im Oktober
1972)

Inform. d. Forschungsleitstelle f. Territorialplan. d. Staatl.
Plankommission, Berlin 3 (1973) 1, S. 18-40, 1 Schema

Moebius, D. u. Nitz, B.

*Zur Problematik der territorialen Beziehungen zwischen den
Funktionen Arbeiten, Wohnen und Erholen, dargestellt am
Naherholungsgebiet Wuhlheide*

Wiss. Z. Humboldt-Univ., math.-naturwiss. R., Berlin 20 (1971)
4-5, S. 799-804, 3 Lit. (russ., engl. u. frz. Zuf.)

Mohs, Gerhard

*Strukturentwicklung und Planung von Ballungsgebieten als Problem
und Aufgabe der territorialen Strukturforchung*

Peterm. geogr. Mitt., Gotha/Leipzig 116 (1972) 1,
("Ballung und Ballungsgebiete"), S. 3-6

Mohs, Gerhard

*Zusammenhaenge zwischen der Entwicklung des sozialistischen
Lebens und der territorialen Struktur der DDR*

Wiss. Z. Techn. Univ. Dresden, Dresden 22 (1973) 4, S. 564-569,
10 Lit.

Mohs, Gerhard; Schmidt, Helga u. Scholz, Dieter

*Die territoriale Konzentration als Problem und Aufgabe der
territorialen Strukturentwicklung in der Deutschen Demokratischen
Republik*

In: Sozialistische Gesellschaft und Territorium in der DDR
Wiss. Abh. Geogr. Ges. DDR, Leipzig 9 (1972), S. 19-31,
1 Kt.-Sk., 2 Schem., 12 Lit. (russ., Zuf. S. 257; engl. Zuf.
S. 269)

Morgenstern, A.

Zur langfristigen Planung der Staedte der Makrostruktur

In: Vortragsthesen zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. fuer Territorialpl. d. Staatl. Plankomm.
o. J. S. 104-108

Neef, Ernst

Funktionsueberlagerung im Territorium als Problem und als Aufgabe der Territorialforschung in der sozialistischen Gesellschaft

Wiss. Z. Techn. Univ. Dresden, Dresden 22 (1973) 4, S. 580-584
2 Lit.

Neef, Ernst

Die Interferenzanalyse als Grundlage territorialer Entscheidungen

In: Sozialistische Gesellschaft und Territorium in der DDR
Wiss. Abh. Geogr. Ges. DDR, Leipzig 9 (1972), S. 171-182,
2 Abb. (russ. Zuf. S. 264; engl. Zuf. S. 275)

Neumeister, H.

Die Anwendung der Faktorenanalyse in der territorialen Strukturforshung - dargestellt an einem Beispiel

Inform. d. Forschungsleitst. f. Territorialplanung, Berlin (1972) 9,
S. 28-34

Neumeister, Wolfgang u. Hoppe, Ulrich

Verkehrliche Untersuchungen im Einzugsgebiet von Karl-Marx-Stadt

Wiss. Z. Hochsch. Archit. Bauwes., Weimar 20 (1973) 4,
S. 411-422, 1 Kat.-Sk., 1 Diagr., 1 Schema, 1 Lit.

Oelke, Eckhard u. Tauché, Bruno

Zu methodischen Problemen bei der Analyse und Gestaltung von Siedlungsnetzen unter Bezugnahme auf das Umland des Ballungskernes Halle/Halle-Neustadt

In: Sozialistische Gesellschaft und Territorium in der DDR
Wiss. Abh. Geogr. Ges. DDR, Leipzig 9 (1972), S. 99-110,
3 Abb., 15 Lit. (russ. Zuf. S. 261; engl. Zuf. S. 273)

Ostwald, Werner

Zur Entwicklung und planmaessigen Gestaltung der Siedlungsstruktur der DDR

Inform. d. Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm., Berlin 3 (1973) 12, S. 1-18

Paetzold, Wolfram

Die Entwicklung des Personenverkehrs in den Grosstaedten und Ballungsgebieten der DDR

DDR Verkehr, Berlin 5 (1972) 5, S. 184-191, 2 Kt.-Sk.,
3 Diagr., 4 graph. Darst., 1 Pl., 2 Tab., 8 Lit.

Pueschel, Konrad

Dorfsiedlung und Stadterweiterung

Wiss. Z. Hochsch. Archit. Bauwes. Weimar, Weimar 20 (1973) 2,
S. 179-184, 11 Sk. u. Pl., 2 Lit.

Reimann, Georg

*Veraenderungen in der regionalen Verteilung der Bevoelkerung der
DDR zwischen den beiden letzten Volkszaehlungen*

Statist. Praxis, Berlin 28 (1973) 4, S. 156-158, 1 Diagr.,
5 Tab.

Roubitschek, W.

*Kartierung der Siedlungsstruktur der DDR nach Materialien der
VBWGZ vom 1. 1. 1971 (im Arbeitskreis III der Arbeitstagung
"Entwicklung der Siedlungsstruktur der DDR")*

In: Vortragsthese zur Arbeitstagung: "Entwicklung der Siedlungs-
struktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.
o. J. S. 170-172

Rumpf, H. u. Janus, M.

*Analyse und Entwicklungsmoeglichkeiten der Naerholungsbedingungen
an der Spree im Bereich des Gebietes Oberschoeneweide unter Be-
ruecksichtigung der Ufernutzung*

Wiss. Z. Humboldt-Univ., math.-naturwiss. R., Berlin 20 (1971)
4-5, S. 805-810, 1 Abb., 1 Tab. (russ., engl. u. frz. Zusf.)

Rumpf, Hans u. Zimm, Alfred

*Zum Problem der Optimierung territorialer Beziehungen zwischen
den Funktionen der Reproduktionslinie Arbeiten - Wohnen -
Naerholung in Agglomerationen*
(am Beispiel der Hauptstadt der DDR, Berlin)

In: Sozialistische Gesellschaft und Territorium in der DDR
Wiss. Abh. Geogr. Ges. DDR, Leipzig 9 (1972), S. 55-67,
1 Schema, 7 Lit. (russ. Zusf. S. 259; engl. Zusf. S. 271)

Saupe, Gabriele

*Probleme der Siedlungsnetzgliederung in agrarisch-struktu-
rierten Gebieten - dargestellt am Beispiel des Kreises Kyritz*

Wiss. Z. Paedagog. Hochsch. Potsdam, Potsdam 14 (1970) 4,
S. 725-735, 2 Kt.-Sk., 2 Diagr., 3 Tab., 10 Lit.

Saupe, Gabriele u. Viehrig, Hans

Zur Frage raeumlicher Funktionsbereiche im Kreis Neuruppin

In: Sozialistische Gesellschaft und Territorium in der DDR
Wiss. Abh. Geogr. Ges. DDR, Leipzig 9 (1972), S. 111-124,
3 Tab., 2 Kt.-Sk., 5 Lit. (russ. Zusf. S. 261; engl. Zusf.
S. 273)

Scherf, K.

Zu den Wechselbeziehungen zwischen Siedlungsstruktur und anderen territorialen Teilstrukturen

In: Vortragsthese zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.
o. J. S. 11-17

Schleife, Hans-Werner

Die komplexe Generalverkehrsplanung und die Nutzung von langfristigen Proportionalitätsberechnungen

DDR Verkehr, Berlin 4 (1971) 10, S. 415-423, 6 Diagr., 2 Aufstell., 1 Tab.

Schleife, Hans-Werner u. Theurer, Eberhard

Internationale Erkenntnisse und Erfahrungen ueber die Weiterentwicklung der Verkehrsplanung in Staedten und Ballungsraeumen

DDR Verkehr, Berlin 5 (1972) 8, S. 313-317

Schmidt, Helga u. Reitinger, Heinrich

Die Randzone als potentieller Erweiterungsraum des Ballungsgebietes - dargestellt am Ballungsgebiet Halle-Leipzig

Perm. geogr. Mitt., Gotha/Leipzig 116 (1972) 1,
("Ballung und Ballungsgebiete"), S. 28-30, 4 Tab.

Schmidt, Helga u. Rosenkranz, Christa

*Produktionsstruktur und Siedlungsnetz
Entwicklungstendenzen in den Ballungsgebieten der DDR*

Geogr. Ber., Gotha/Leipzig 17 (1972) 3-4 (64-65), S. 224-231,
2 Kt.-Sk., 5 Lit. (russ. u. engl. Zusf.)

Schmidt, U.

Methoden der Siedlungsstrukturplanung und -forschung

In: Vortragsthese zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.
o. J. S, 45-56

Schmidt-Renner, Gerhard

Ueber die Siedlung als Umwelt-Studie zum Mensch-Umwelt-Verhaeltnis

Wiss. Z. Hochsch. Oekon. Berlin, Berlin 18 (1973) 4, S. 103-113
9 Lit.

Schmidt-Renner, Gerhard

Ueber territoriale Verhaltensweisen bei der Reproduktion von Arbeitskraft und Bevoelkerung in der DDR

Peterm. geogr. Mitt., Gotha/Leipzig 117 (1973) 3, S. 192-205,
20 Tab., 50 Lit. in Fussn. (engl. u. russ. Zusf.)

Schmidt-Renner, Gerhard

Zur sozialistischen Oekologie des Menschen in Siedlungen

Peterm. geogr. Mitt., Gotha/Leipzig 116 (1972) 3, S. 161-175,
18 Lit. (engl. u. russ. Zulf.)

Schmidt-Renner, Gerhard u. Schulze, Guenter

*Territoriale Reproduktionsbedingungen von Arbeitskraft und
Bevoelkerung*

Territorialoekon. u. -plan., Hochsch. f. Oekonomie Berlin,
Berlin (1972) Lehrbr. 6, 78 S., 5 Tab. als Anl., 13 Lit.

Scholz, Dieter

*Territorialer Strukturwandel und Rationalisierung im
Ballungsgebiet Halle-Leipzig*

Peterm. geogr. Mitt., Gotha/Leipzig 116 (1972) 1,
("Ballung und Ballungsgebiete"), S. 25-27, 3 Lit.

Scholz, Dieter

*Zur Terminologie des Begriffes Ballungsgebiet und
seiner Teilgebiete in der DDR*

Peterm. geogr. Mitt., Gotha/Leipzig 116 (1972) 1,
("Ballung und Ballungsgebiete"), S. 6-10, 1 Tab.

Siegel, Horst

*Zu Problemen der Funktionsverflechtung und Funktionsueber-
lagerung in staedtischen Siedlungssystemen sowie zu daraus
resultierenden Aufgaben fuer die sozialistische Stadtplanung*

Wiss. Z. Techn. Univ. Dresden, Dresden 22 (1973) 4, S.
569-575, 4 Schem., 2 Pl., 13 Lit.

Siegel, H. u. a.

*Komplexe Stadtplanung als wesentliche Grundlage fuer die
Lebensbedingungen in Wohngebieten der Deutschen Demokratischen
Republik (unter Beachtung praktischer Planungs- und Bauaufgaben
im industriellen Ballungsraum Halle-Leipzig)*

Wiss. Z. Techn. Univ. Dresden, Dresden 22 (1973) 1, S. 129-132

...

Sozialistische Umweltgestaltung

*Probleme der planmaessigen proportionalen Entwicklung und der
Funktionsueberlagerung im Territorium*

(Schlussbericht Wiss. Tagung v. 21. - 24. Nov. 1972)

Wiss. Z. Techn. Univ. Dresden, Dresden 22 (1973) 4, S. 549-708,
zahl. Phot., Kt.-Sk., Schem., Diagr. u. a. Abb., zahlr. Tab.
u. Lit.

Stabenow, Erwin

*Entwicklungstendenzen im Siedlungsgefuege agrarisch
strukturierter Gebiete der DDR*

Wirtschaftswissenschaft, Berlin 21 (1973) 10, S. 1492-1508,
33 Lit. in Fussn.

Stams, Werner

Die kartographische Gestaltung der Karten zur Siedlung und Bevoelkerung im Atlas DDR

Peterm. geogr. Mitt., Gotha/Leipzig 114 (1970) 4, S. 303-308, 3 Kt. i. Anh., 16 Lit. (engl. u. russ. Züsuf.)

Stams, Werner

Kartographische Methoden zur Erfassung des Siedlungsnetzes

Vermessungstechnik, Berlin 21 (1973) 6, S. 220-224, 4 Tab., 17 Lit.

Stempell, Dieter

Die Anwendung der Faktorenanalyse auf Staedte der Makrostruktur der DDR (Industrie- und Infrastrukturvergleich)

Inform. d. Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm., Berlin 4 (1974) 1, S. 18-33, 7 Tab., 5 Abb.

Taege, G.

Ermittlung der Verkehrsanbindung als eine Methode zur Analyse und Planung der Siedlungsstruktur - methodische Handreichung und Bewertung -

In: Vortragsthese zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.
o. J. S. 164-169

Tiedt, Hans-Georg

Die Beziehung Stadt - Industriegebiet

Wiss. Z. Techn. Univ. Dresden, Dresden 20 (1971) 4, S. 1041-1047, 2 Pl.- 2 Fot., 4 Tab., 3 Lit.

Ulbrich, P.

Ausstattung von Gemeinden mit ausgewaehlten Kapazitaeten der sozialen Infrastruktur und ihre Wechselbeziehungen zur Entwicklung der Siedlungsstruktur

In: Vortragsthese zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.
o. J. S. 88-94

Ullmann, F.

Einige Gesichtspunkte zur Siedlungskategorie "grosse Mittelstaedte"

In: Vortragsthese zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.
o. J. S. 131-134

Ullmann, Fritz

Die Stellung der Mittelstadt mit gebietlicher Funktion im Siedlungssystem der DDR und ihre Aufgaben zur Gewährleistung der vollen Nutzung und planmaessig rationellen Gestaltung der Infrastruktur durch Anwendung von Normativen als Planungsbasis
(dargestellt am Beispiel der Stadt Freiberg)

(Halle-Wittenberg, Luther-Univ., Leitungs-, Rechts- und Wirtschaftswiss. Fak., Diss. v. o. Datum)
Freiberg: 1972, 181 S., 148 Lit., 1 Anl.-Bd. m. 39 Kt.-Sk.,
Diagr. u. Tab., A 4

Voigt, M.; Melzer, H.; Weigel, W. u. a.
Generalbebauungsplan der Staedte der DDR

Dt. Bauinform., Berlin (1970), 80 S., 6 Kt.-Sk., 2 Diagr.,
3 Pl., 10 Lit. (russ., engl. u. frz. Zusf.)
(Schr.-R. d. Bauforsch., R.: Staedteb. u. Archit., H. 29)

Voigtsberger, Siegfried u. a.

Diskussionsmaterial zur Arbeitstagung
*"Probleme der Planung der territorialen Produktionsstruktur
und ihrer Beziehungen zur Infra- und Siedlungsstruktur"*

am 11. und 12. Dezember 1973 in Berlin

Leipzig: Geogr. Ges. d. DDR, Fachsektion Oekonom. Geogr. 1973
(Nov.), 82 S.
(Mitteilungsbl. Geogr. Ges. d. DDR, Nr. 4-5)

Wagner, G.

Grundfragen und Wege der Entwicklung von Siedlungssystemen

In: Vortragsthesen zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR", v. 1. bis 3 Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.
o. J. S. 138-142

Wagner, G.

Zu Grundfragen und Wegen der optimalen Entwicklung von Siedlungssystemen

Berlin, Dt. Bauakd. (Wiss. Rat), Diss. v. 12. Okt. 1972
Berlin: 1972. 180 S., 2 Tab., im Anh.: 18 Schem. u. Abb.,
46 Lit.

Wagner, Gottfried; Lindner, Horst; Grundmann, Werner u. a.
Optimierung von Siedlungssystemen

Schr.-R. Bauforsch., R. Staedtebau u. Archit., Berlin (1971)
34, S. 9-30, 2 Schem., 3 Tab., 11 Lit.

Weber, E.

Wechselbeziehungen zwischen Siedlungsstruktur und territorialer Bevoelkerungsstruktur, dargestellt an Beispielen der natuerlichen Bevoelkerungsentwicklung und Binnenwanderung in vorwiegend agrarstrukturierten Gebieten

In: Vortragsthesen zur Arbeitstagung: "Entwicklung der Siedlungsstruktur der DDR", v. 1. bis 3. Nov. 1973 in Leipzig
o. O.: Forsch.-Leitst. f. Territorialpl. d. Staatl. Plankomm.,
o. J. S. 57-67, 1 Tab., 7 Lit.

Wehner, Wilfried

Ausgewaehlte Reproduktionsbedingungen von Siedlungen zwischen 4 000 und 6 000 Einwohnern in unterschiedlich strukturierten territorialen Einheiten des Bezirkes Dresden

Inform. d. Forschungsleitst. f. Territorialpl., Berlin 3 (1973)
6, S. 1-21, 5 Abb., 4 Lit. (russ. u. engl. Zusf. S. 32-33)

Wehner, Wilfried

Die territoriale Sicherung der Naherholung in Konzentrationsgebieten, dargestellt am Beispiel des Ballungsgebietes Dresden

Halle-Wittenberg, Luther-Univ., Math.-Naturw. Fak., Diss. v. 24. Juni 1971

Dresden: 1970. 177 S., zahlr. Abb., Taf. u. graph. Darst., 248 S., A 4
(Maschinenschrif. vervielf.)

Wehner, W.

Zur Bestimmung des Eignungswertes von Landschaften fuer die territoriale Sicherung der Naherholung

Landschaftsarchitektur, Berlin 2 (1973) 4, S. 112-113,
1 Diagr.

Weinrich, Kurt

Die Stadt als Bestandteil der Territorialstruktur

Dt. Archit., Berlin 22 (1973) 7, S. 436-438, 1 Schema, 15 Lit.

Werner, Ingrid; Jadghold, Dorothea u. Herrmann, Gunda (Bearb.)
Erholung im Ballungsraum. 1960-1972 (Bibliographie)

Beitrag d. Univ.-Bil. z. Wiss. Tagung Soz. Umweltgestaltg.-
Probl. d. planmaessigen proportionalen Entwickl. u. d. Funktions-
ueberlagerung im Territorium Dresden v. 21. - 24. 11. 72

Erfurt: Kombinat Geod. u. Kart. o. J., 56 S.
(Bibl. d. TU Dresden, Bibliogr. Arb. Nr. 8)

Windelband, Ursula

Typologisierung staedtischer Siedlungen

Erkenntnistheoretische Probleme in der oekonomischen Geographie
Gotha/Leipzig: Haack 1973. 116 S., 5 Abb., 3 Tab., zahlr. Lit.

Wirth, Hermann

Die Siedlungsform als planungsgeschichtliches Problem

Wiss. Z. Hochsch. Archit. Bauwes. Weimar, Weimar 20 (1973) 4,
S. 423-429

Zauche, Gerhard

Sozialistische Landeskultur und Umweltschutz als Aufgabenkomplex in Gebietsplanung und Staedtebau

Eine Skizze zu den Hauptproblemen

Wiss. Z. Hochsch. Archit. Bauwes. Weimar, Weimar 20 (1973) 2,
S. 207-213, 1 Uebers., 8 Lit.

Zimm, A.; Rumpf, H. u. Lange, J.

Studie zu territorialen Problemen der Reproduktion der Arbeitskraft - dargestellt am Beispiel des Wirtschafts- und Lebensgebietes der Hauptstadt der DDR, Berlin

Wiss. Z. Humboldt-Univ., math.-naturwiss. R., Berlin 20 (1974)
4-5, S. 781-787, 3 Tab. (russ., engl. u. frz. Zusf.)

Appendix 2:

Selected Bibliography on Modern Hungarian Urbanization

Editor's note

The following bibliography was provided in August, 1974 through the courtesy of Dr. Sándor Ganczer, Deputy Director of the Hungarian Regional Planning Office and Hungarian Council Member of IIASA.

- Apró, Éva, "Mi késleltette a magyar városfejlődést?" ("What retarded urban development in Hungary?") *Társadalmi Szemle*, 6(1972)
- Bácskai Vera, "A mezővárosok Kialakulásának történelmi folyamata," ("The historic process of the coming-into-being of market-towns") *Városépítés*, 3(1971) 11
- Balogh, B., "A megyei településhálózatfejlesztési tervek végrehajtása és várható hatása," ("The realization of the plans for settlement network development of the countries and their probable impact") *Építésügyi Szemle*, 2(1971)
- Balogh, B., J. Korodi, and Gy. Wirth, "Országos Településhálózatfejlesztési Konceptió," ("A national project for developing the settlement network") *Területi Statisztika*, 3(1971) 233-48
- Balogh B., "A falusi településhálózat átalakulásának problémái," ("Problems of the transformation of the rural settlement network") *Városépítés*, 1(1973) 6-9
- Balogh, B., "A tanyai településrendszer átalakulása," ("The transformation of the settlement systems of detached farms") *Építésügyi Szemle*, 6(1974) 163-70
- Beluszky, P., "A települések osztályozásának elvi-módszertani kérdése," ("Questions of methodological principle in classifying settlements," *Területi Statisztika*, 6(1969)
- Boros, F., "A magyar városhálózat új elemei," ("New elements in the urban network in Hungary") *Földrajzi Közlemények*, 3(1968)

- Csikós-Nagy, B., *Socialist economic policy*, Akadémiai Kiadó, Budapest, 1973
- Dercsényi, D., "Városméretű műemlékvédelem Magyarországon," ("Protection of monuments of arts on a city-wide scale in Hungary") *Városépítés*, 1:2, 46
- Enyedi, Gy., "A magyar urbanizáció kérdőjelei," ("Questions in Hungarian urbanization") *Valóság*, 3(1972)
- Erdei, F., "Az átalakuló magyar falu," ("The changing Hungarian village") *Társadalmi Szemle*, 12(1969) 23-32
- Erdei, F., "Fejezetek az urbanizáció köréből," ("Chapters from the sphere of urbanization") *Valóság*, 3(1970)
- Erdei, F., "Város és vidéke," ("The town and its environment") *Akadémiai Kiadó*, Budapest, 1970
- Faragó, K., "A vidéki városok fejlesztése és építése a felszabadulás után," ("Development and construction of rural towns after the liberation") *Városépítés*, 1:2 (1970) 22
- Fodor, L., "A budapesti agglomerációhoz tartozó települések fejlesztésének problémái," ("Development problems of the settlements belonging to the Budapest agglomeration")
- Fodor, L., and J. Schultz, "Les grandes villes du monde," *Notes et Etudes Documentaires*, la Documentation Française, Paris, (1972) 3886-87
- Fóris, P., "Városépítés és jövőkutatás," ("Town construction and futurology") *Városépítés*, 4(1973) 28
- Friss, I., ed., *Reform of the economic mechanism in Hungary*, Akadémiai Kiadó, Budapest, 1971
- Gárdos, M., ed., *Hungary 74*, Pannonia Press, Budapest, 1974
- Hegedüs, M., "Adalékok a hazai urbanizáció megítéléséhez," ("A contribution to the evaluation of Hungarian urbanization") *Városépítés*, 3:4 (1972)
- Hegedüs, M., *Gazdasági fejlődés és az urbanizáció*, ("Economic development and urbanization") Akadémiai Kiadó, 1973
- Kádas, K., "A hazai urbanizálódás és közlekedésfejlődés prognózisa," ("A forecast of urbanization and transport development in Hungary") *Városépítés*, 2(1971) 22

- Királyi, I., and A. Simon, "A budapesti városfejlesztéssel összefüggő ipari decentralizáció," ("Industrial decentralization in connection with the urban development of Budapest") *Területi Statisztika*, 1(1973) 31-8
- Kismarty, L.Gy., "Kisvárosok fejlesztésének általános problémái," ("General problems of the development of small towns") *Városépítés*, 4(1969) 11
- Kocsis, F., "A városfejlesztés tervezési, szervezési és irányítási kérdései," ("Questions of planning, organizing and controlling urban development") *Építésügyi Szemle*, 1971, 221-26
- Koncz, P., "A tanyai település fejlődésének problémái," ("Problems of the development of detached farm settlements") *Városépítés*, 4(1970) 20-3
- Koncz, P., "Alföldi városaink településfejlődési problémái" ("Settlement development problems of the cities of the Alföld region") *Városépítés*, 3(1973) 30-3
- Konrád, and Szelényi, "A késleltetett városfejlődés társadalmi konfliktusai," ("Social conflicts of retarded urban development") *Valóság*, 2(1971)
- Körmendi, Klára, "A településhálózat fejlesztéséről," ("On the development of the settlement network") *Városépítés*, 5(1970) 28-33
- Körmendi, Klára, "Az új városok helye a magyar településhálózatban," ("The place of new cities in the Hungarian settlement network") *Városépítés*, 4(1973) 6
- Körmendi, Klára, "A budapesti agglomeráció fejlesztési problémái," ("Development problems of the Budapest agglomeration") *Építésügyi Szemle*, 2(1973) 45-9
- Kóródi, J., and Gy. Kőszegfalvi, "*Városfejlesztés Magyarországon*," ("Urban development in Hungary") Kossuth Könyvkiadó, Budapest, 1971
- Korompai, A., "Kísérlet a hazai városi népesség arányának nagytávlatú előrejelzésére," ("An attempt at a long-range forecast of the proportions of the urban population in Hungary") *Földrajzi Értesítő*, 1(1973) 71-82
- Kőszegfalvi, Gy., "Budapest és a budapesti régió fejlesztésének néhány kérdése," ("Some questions on the development of Budapest and the Budapest region") *Városépítés*, 1(1969) 6

- Kőszegfalvi, Gy., "Településhálózatunk fejlesztésének néhány kérdése," ("Some questions on the development of the Hungarian settlement network") *Területi Statisztika*, 6(1969)
- Kőszegfalvi, Gy., "Az ipar felszabadulás utáni fejlődésének hatása az ország gazdaságának térszerkezetére és a településhálózat fejlődésére," ("The impact of postwar industrial development on the spatial structure of the national economy and on the development of the settlement network") *Területi Statisztika*, 2(1970)
- Kőszegfalvi, Gy., "A gazdálkodás integrálódásának hatása a falusi települések fejlődésére," ("The impact of the integration of economic activities on the development of rural settlements") *Városépítés*, 3(1973) 9-10
- Kovács, T., "A város és a falu közlekedésének kérdéséhez," ("On the question of transport of town and village") *Területi Statisztika*, 2, 1970
- Lázár, I., "Kisvárosok sorsa," ("The fate of small towns") *Valóság*, 12(1971)
- Lettrich, Edit, "Urbanizálódás Magyarországon," ("Urbanization in Hungary") Akadémiai Kiadó, Budapest, 1965
- Palotás, Z., "Az infrastruktúra a településfejlesztésben," ("Infrastructure in settlement development") *Városépítés*, 4(1971) 12
- Perczel, K., "A magyar faluhálózat eddigi fejlődése és jövője," ("The past development and the future of the Hungarian village network") *Városépítés*, 6(1970) 5
- Perényi, I., "A magyar városok rekonstrukciója," ("The reconstruction of Hungarian cities") *Városépítés*, 3(1973) 27-32
- Perényi, I., "A szocialista városépítés 25 éve Magyarországon," ("25 years of socialist urban construction in Hungary") *Városépítés*, 1:2, 9
- Pongrácz, P., "Új városok," ("New cities") *Városépítés*, 4(1973) 5
- Preisich G., "A budapesti városépítés eredményei - 25 év mérlege," ("The results of urban construction in Budapest - a balance of 25 years") *Városépítés*, 1:2, 17

- Preisich, G., "Budapest fejlesztésének néhány alapvető problémája," ("Some fundamental problems of the development of Budapest") *Településtudományi Közlemények*, 2(1968)
- Romány, P., "Mai tanyák," ("Detached farms today") *Valóság*, 12(1972)
- Szelényi, I., "Társadalmi problémák Budapest városépítésében," ("Social problems in the urban architecture of Budapest") *Városépítés*, 6(1971) 10
- Szilágyi, L., "Településhálózatunk korszerűsítése," ("Modernizing our settlement network") *Népszabadság*, 4:18 (1971)
- Szilágyi, L., "A terület - és településfejlesztés koncepciója," ("The project of our regional and settlement development") *Építésügyi Szemle*, 1971, 157-62
- Thuránszky, Attila, "Településfejlesztés és tanyakérdés," ("Regional development and the problem of detached farms") *Településtervezési Tájékoztató*, 2:171, 34-49
- Turáni, J., "A városok helye és szerepe a településhálózatban," ("The place and role of cities in the settlement network") *Területi Statisztika*, 1(1972)
- Wirth, Gy., "A város és a településhálózat szerepe a régiókban," ("The role of the city and the settlement network in the regions") *Területi Statisztika*, 4(1972)
- Zoltán, Z., "Településstruktúránk fejlesztésének időszerű kérdései," ("Some recent questions of the development of our settlement structure") *Városépítés*, 5(1970) 25-26

