

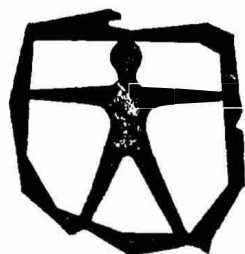


**POLISH PEOPLE'S REPUBLIC**  
**national report**

to the

**HABITAT: THE UNITED NATIONS**  
**CONFERENCE ON HUMAN**  
**SETTLEMENTS**

**(Vancouver - Canada 31 May - 11 June 1976)**



**This Report has been prepared by  
the Research Institute on Environmental  
Development in cooperation with the Ministry  
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and Environmental Protection**

**Warsaw - Poland, April 1976**



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# **INTRODUCTION**

## **A. The basic principles of socio-economic system :**

1. Nationalization of the key production means.
2. Establishment of the planned economy system depending upon comprehensive development programmes for all fields of economic activity directed at the achievement of definite social goals.
3. Equal rights for all citizens to the qualities and values of man-made environment.

State regulated redistribution of GNP, implemented partially through the subsidies for popular housing, common education and health services and also for other development programmes and projects.

## **B. General directions of urbanization policy:**

1. Poland conducts a country-wide policy in the field of settlements development, institutionalized by the existing planning system, and subjected to approval by the Government and Local Authorities.
2. Balanced and harmonious development of urban settlements network was the basis of planning policy during the past 30 years, realized by :
  - a) promotion of less developed regions of the country,
  - b) controlled growth rate in the most developed regions,
  - c) development of medium-sized and small towns, combined with the control of the largest cities expansion,
  - d) reconstruction, rehabilitation and urban renewal of older city districts.
3. The National Development Plan elaborated in the years 1972–74 formulates the programme of redevelopment of the country's settlement network.

The main features of this plan are :

- a) the leading focus of growth shall be represented by 23 urban agglomerations and, additionally, more than 30 major cities of national importance,
- b) the network of towns of regional importance shall play a complementary role,
- c) small towns as local centres shall provide necessary services for agricultural hinterland,
- d) selected areas of considerable importance for the natural environment shall be retained for agricultural and tourism development, and shall be protected against industrial activities and settlements expansion,
- e) the further balancing of urban and rural living conditions will take place.

4. The housing policy is the vital component of the general principles for the national and the urban development.

According to this policy :

- everyone has equal rights to a dwelling of nation-wide approved standards; the size of dwelling depends, in the first place, on the size of the family,
- the housing programme is subsidized by the State,
- the housing locations are considered to be an element of the general development concept of the human settlements system,
- housing co-operatives of different character are the basic form of dwelling ownership.

### **C. The implementation tools for urbanization policy:**

1. The system for physical development planning consists of 3 levels:
  - the national – for the whole country,
  - the regional – for each particular region,
  - the local – for individual cities, towns and settlement units.
2. The National Physical Development Plan is an integral part of the socio-economic development programme.
3. The socio-economic and spatial development of every city is co-ordinated by appropriate physical development plans. Those plans define among others:
  - the programme for economic growth as well as the basic development functions, interrelated with the estimated demographic changes,
  - the functional pattern and the land use system,

- the development and arrangement principles for housing, industrial, recreational and other areas,
- the network systems for social and technical infrastructure facilities,
- the principles for spatial composition,
- the staging of town development in terms of programme and of spatial arrangement.

4. The location of industry, service centres and basic extensions of technical infrastructures of national and regional importance represents one of the main tools to control the urbanization processes.

5. The main tools for implementation of the State policy in respect to human settlements development are:

- a) central guidance and control for the leading investments of strategic character,
- b) national (state) housing development policy,
- c) town planning and housing standards,
- d) controlled distribution of financial means for infrastructure investments of national, regional and local importance,
- e) rules and regulations referring to land tenure and management (expropriation authority, regulations as to protection of selected land and environmental qualities),
- f) national building policy comprising building technologies, building enterprises, plant, equipment etc.,
- g) three-level organization system (country-region-town) of the physical planning authorities and of the supervision of plans implementation.



# **I. THE HUMAN SETTLEMENTS DEVELOPMENT POLICY ON THE BACKGROUND OF THE GENERAL DEVELOPMENT OF NATIONAL ECONOMY IN THE LAST 30 YEARS**

1. Poland, within the post-war boundaries, is a country of homogeneous population of ca 34 million inhabitants, with practically no national minorities. The area of the country is over 300.000 sq. kms, and until 1975 was administratively divided into 17 voivodship provinces (administrative-economic regions), about 320 districts („powiat”), and about 2500 urban and rural communes („gmina”). In mid-1975, the new two-level administrative system was introduced, and put into effect. Actually, the country is divided into 49 voivodship provinces.

2. In 1944, at the time when the People’s Republic was established, Poland was a country completely devastated by the war and by the Nazi occupation. Out of 33 million population, 6 million people lost their lives in the war actions, in the concentration camps and as the result of other acts of violence. About 40% of the material assets were destroyed, including most of the industrial plants, transportation network and urban fabric. The capital city of Warsaw was completely destroyed both by the war actions, and the planned devastation carried out by the Nazis. Also completely destroyed were such large cities as i.e. Wrocław and Gdańsk, as well as medium-size towns of Białystok, Łomża, Koszalin, Słupsk and hundreds of others.

3. During the reconstruction period (1944–1949) the first task was to put the transportation system into operation, to start production in the less damaged industrial plants, and to provide the population with shelter even at the minimum standards.

Already at that time work was initiated on the development plans for the country, for its regions and towns, establishing suitable organization for administration and planning. However, at that time the implementation of these plans could be undertaken to a limited degree only, as the extent of destruction and the limited means of national

economy forced the reconstruction on original sites, even when it was not justified from the point of view of rational overall development. The state of settlements development, and particularly the standards of towns, were at that time characterized by large disproportions resulting from the fact that during the period of strong urbanization in the 19th century, Poland was divided between the three neighbouring countries, implementing different policies.

4. In 1945, out of 24 million of the country's population, about 7,5 million lived in towns. The settlements network, inherited from the preceding periods of historic development, was considerably dense. It amounted to about 700 towns and urban settlements, most of which have originated in the mediaeval times. The network of these towns, in respect to size classification, was characterized by very uniform distribution :

Size in no. of inhs.	No. of towns
over 500,000	2
200-500,000	4
100-200,000	10
20-100,000	62
10- 20,000	76
under 10,000	550

But the distribution of towns, in respect of network density and town sizes, differed considerably in the western and eastern parts of the country. The settlements network in Poland was also characterized by extensive dispersal of rural settlements. There was, and still are, about 45,000 of villages, and together with hamlets there are about 70,000 rural settlements units. This represents one of the basic difficulties for the modernization of agricultural production and for the adequate servicing of rural population.

5. The ambitious task of eliminating the disproportions in the country's development and in the population living standards, was put forward during the period of the first five-year plan (1950-1955). The basic goal of the economic policy at that time was to establish solid foundations for the development of national economy, first of all, by building up the key industries, that is mining, power and energy production, metallurgy and chemical industry. In result of the implemen-

tation of this plan, the national income have increased in 1955 by 50% of the 1950 figure. The industrial production has increased more than twice and the employment in industry by 32%. Over 600 large industrial plants were constructed, a considerable number of them in the areas where there was practically no industry before the war.

The new industrial plants were the basic factor of the towns' development, and housing construction mainly accompanied the enlarged or newly built industry.

Warsaw was the only exception, as its reconstruction and development had to provide for the functions of the capital city, irrespective of the development of industry which was also located there. It also should be pointed out, that during all this time, much attention has been paid to the reconstruction of the destroyed historic town centres, which was answering the needs and aspirations of the Polish people. The so-called "Polish School of Historic Monuments Protection" became a guiding example for many countries, all over the world.

6. In the subsequent period (1956–1970), the efforts to eliminate differences in living standards in the separate parts of the country were still continued, but particular attention was given to the effectiveness of industrial investments. This meant that those investments were located mainly in the already existing industrial areas and centres, taking advantage of the existing infrastructure and of skilled labour resources. Completely new industrial areas were intensively developed in those locations only, where geologic explorations indicated the valuable raw materials resources, particularly of coal, lignite, sulphur, copper, potassium salt and rock-salt.

As the result of the intensive economic development, the index of national income, taken as 100 in 1950, has increased to 450 in 1974, the increase rate of industrial production has respectively risen to 762, and the employment in industry have increased from 2 million to nearly 4.3 million.

7. During the last 30 years, rapid urbanization processes took place, under the influence of dynamic development of national economy. The urban population have increased to over 18 million, what represents 55% of the total population. However, this percentage is not the only index characterizing the process of urbanization.

It seems that more essential is the fact, that non-agricultural employment has increased to over 60% of total employment. These figures indicate that the rural population amounted, all the time, to a constant figure of about 16 million, and whole population increase was concentrated in towns, which was facilitated by the development of

industry and of the third sector. There was also a constant increase of the population living in the rural areas but working in the rural services or in towns.

The highest increase, in actual numbers, took place in large towns (over 200,000 inhabitants), as the population living in them increased from 2,4 million to 5,7 million.

8. In order to create proper living conditions for further development beyond the big cities, the construction of some new towns was started at that time, and several towns were selected as poles of rapid growth. For example, the new town of Nowa Huta, built in 1950–1974 near the large new centre of heavy industry, had quickly reached the population of 100,000 inhabitants, and then – combined administratively – it has grown into one urban agglomeration with the neighbouring Cracow, with combined population amounting to over 600,000 inhabitants. Another new town, Tychy, built from 1950 and conceived initially as a “dormitory town” on the fringe of the mining and industrial agglomeration, has already reached about 100,000 inhabitants. Meanwhile, it has lost its originally assumed character, as industrial development took place within its boundaries. The other new town Jastrzębie, within the period of 1960–1974 had reached the population number of 70.000 inhabitants. At the same time many medium-sized towns have grown considerably, so that the towns amounting 20,000–50,000 inhabitants were then characterized by the highest rate of growth.

9. In 1970, the national political authorities have initiated new socio-economic policies, characterized by the change of proportions in the development of separate branches of national economy, and giving more emphasis to the fulfilment of the inhabitants’ needs, considering this as a precondition for further intensive development of the country. This new socio-economic policy is expressed in the priorities presently given to the development of housing, municipal services, health services, education and culture.

The development of consumer goods industries is also emphasized, including food processing based on modernized agriculture. Following the implementation of this policy in the years 1971–1975, the income of the population has increased by 46%, the housing situation has improved (the occupancy rate of 1.37 persons per room in 1970 has decreased to 1.26), the service facilities were considerably extended and so on.

10. During the past 30 years, a noteworthy evolution of priorities given to different types of goals, and also evolution of criteria for

decision making in development took place. At first in the face of extensive devastation and limited means priority was given to development of means of production, but afterwards, as the result of progressing economic development, the means have increased and more attention has been given to the direct social goals. Recently, the problems of the natural environment protection are also gaining growing concern and attention.

11. The fact that the comprehensive fulfilment of the population needs was recognized as the ultimate goal of national economy, has essentially influenced the part played by physical planning in the whole system of national economic planning. The physical planning organization and its methods of operation have been developing for nearly 50 years. In the post-war period physical planning was incorporated into the general planning system. However, it is still being continuously improved and adjusted to the new tasks, connected with the quick development of the country.



## **II. PHYSICAL PLANNING IN THE SYSTEM OF PLANNING AND CENTRAL ADMINISTRATION IN POLAND**

12. Physical planning is one of the basic tools for the realization of the State policy in respect to human settlements, and the natural environment.

Its operation is regulated by the Physical Planning Act, passed by the Sejm on 31st January, 1961, providing for the elaboration of the following plans:

- a) the national physical development plan for the area of the whole country, as a component part of the long-range plans for the development of the whole national economy,
- b) the general and detail regional plans for the area of separate Voivodships (provinces), or for their parts, as the component elements of the long-range plans for the development of these Voivodships.
- c) the local plans (master plans) for the separate towns, for groups or parts of towns, and also for rural areas, recreational areas, etc.

13. The original concept of the system was based on the assumption that the character of physical planning is the same at all the levels, and only the scale of the areas covered by different plans, does change. However, in the actual fact, the development of the planning methods, at the different levels, took a slightly different course. Local planning, based initially on town planning methods elaborated by architects, restrained the scope of decisions related to physical development of space. The national and regional planning was developing on the basis of experience gained by economists and geographers and was introducing the element of physical space to the economic outlook. The regional plans have the character of socio-economic plans for regional development.

This difference of character is stressed by the fact, that the national and regional planning is supervised by the National Planning Commis-



sion and the local planning by the Ministry of Administration, Land Economy and Environmental Protection.

14. The general strategy for the development of the country and its economy is defined by the National Long-range Plan which formulates the directions for the social development, embracing the plans for the development of separate branches of economy as well as the National Physical Development Plan. The National Physical Development Plan together with the National Socio-economic Development Plan is the subject of appraisal and then adoption by the highest State Authorities.

15. The general regional plans are elaborated for each Voivodship. The detailed regional plans are prepared for those selected areas where large-scale investments are proposed. These plans cover either a part of a Voivodship, or parts of adjoining Voivodships, disregarding the administrative boundaries.

The general and detailed regional plans are elaborated in the Regional Planning Offices, which operate within the Voivodship Administrative Offices. The regional plans are approved by the Voivodship Councils (the members of which are elected by the inhabitants) after an opinion is passed on them by the National Planning Commission. The key and strategical elements of the regional plans are approved by the Council of Ministers.

16. The local plans are elaborated for all towns and cities, for urban agglomerations and for rural areas. These plans are prepared in the Voivodship or Municipal Town Planning Offices, or in specially appointed Town Development Planning Offices, operating within the Voivodship or Municipal Administration. The local planning is supervised by the Ministry of Administration, Land Economy and Environmental Protection.

17. The Physical Planning Act provides for the possibility to elaborate regional plans for areas larger than one Voivodship. On this basis work was commenced on the plans for eight macroregions. This work is being carried out by specially appointed planning teams.

18. The basic time horizon for physical development plans is established by the period covered by the long-range Plan, that is 20 years, presently covering the period 1971–1990. However, some elements of the plans project beyond that closing date. This particularly refers to the key elements of technical infrastructure system and also to the principles and direction in the management of natural environment resources.

19. The National Physical Development Plan holds a superior position in relation to the remaining physical development plans. The long-range plan for the physical development of the country is of strategic character, that is it defines the general goals, principles and direction of physical development policy and the means of its realization. The leading elements of the Plan embrace the following problems :

- the geographic distribution of population and the migration directions, the development of settlements system and the distribution of social infrastructure,
- the distribution of industrial and agricultural production,
- the distribution of technical infrastructure,
- the management of natural environment resources, particularly in respect to water economy,
- the determination of inter-regional propositions of socio-economic development.

20. The National Physical Development Plan, irrespective of being a strategic plan, does also include some decisions of execution plan character.

This particularly refers to :

- the principles for determining types of land use pattern,
- the investment location policy,
- the development directions and leading functions of separate regions and agglomerations,
- the policy for migration control,
- the implementation stage for long-range decisions.

In this respect the long-range plan initiates and controls the 5-year and 1-year development plans.

21. The regional plans comprise the leading problems of socio-economic development and of physical development for every region. There are not just "physical" plans, but their function is similar to the one fulfilled by the national long-range Plan in respect to the whole country. The regional plans embrace all the socio-economic activities located within the given region, including the activities controlled by regional and local authorities, as well as those controlled by different Ministries, and therefore centrally operated. On the basis of the long-range regional plans, 5-year plans are prepared in every Voivodship.

22. The basic elaboration among the local plans is the general master plan, which is prepared for the areas of every settlement unit within its administrative boundaries.

The general master plans are also prepared for areas which are not settlement units, such as for example national parks.

The general master plans represent the basic document determining the local legal regulations, referring to the manner of land use and development of particular areas. The master plans determine the general spatial structure, the distribution of housing and work places, of service centres and recreational areas, as well as the conditions for the use and development of particular sites. They also define stipulations in respect of programme of services, and establish the principles for the transportation pattern, for the regulation of water economy, for water and power supply, sewage and solid waste disposal, together with locations for basic sources and disposal facilities and routes for supply mains and main sewers.

23. In addition to master plans the following are elaborated as the needs arise :

- the plans for groups of settlement units when it is necessary to provide close co-ordination in the development of several functionally linked neighbouring towns,
- the detailed plans for areas of particularly intensive investment activities, concentrated in time.

24. The basic master plan document illustrates the state of the town 20 years ahead. However, this represents just a conventional period after which the town shall continue to develop. Therefore, it is necessary to establish whether the implementation of the projected plan shall not close up the possibilities for further development and extension. This essential question can be answered by the long-range development studies.

Those studies embrace a period longer than 20 years, but not precisely defined in time. They attempt to consider development in dynamic approach, by successive studies of expected limitations. Those studies are not related to any definite investment programme. Only general assumptions are accepted, as for example in respect to the character of the town's functions, or of the type of industry. However, these assumptions are still varied in the course of the studies, by their confrontation with the actual local, physical, economic and social conditions. The long-range development studies are as a rule elaborated in several alternatives.

25. The long-range plans are based on the assumed needs, which are expected to arise in the 20-year period. Therefore, they are not sufficiently precise tools for determination of the current policy.

For this reason it is necessary, particularly in those towns where a greater concentration of investments is expected, to elaborate studies related to a shorter time period, embracing the first stage of plan implementation, related to the nearest 5 years national economic development plan. These elaborations are called "staging studies" and they deal with, both the spatial distribution of new investments and with the time sequence of their realization. The objective of those studies is to provide indications for the municipal authorities as to the way in which the activities of different developers should be co-ordinated.

26. The general course of plans elaboration process is practically uniform in all planning offices in the country. It has taken shape on the basis of the experiences of the last 30 years, and it is also defined by the relevant planning legislation and regulations. The elaboration of plans is an element of the continuous planning activity, carried on in the regional and the municipal planning offices, subordinated to the local authorities.

According to regulations the plans should be reviewed every 5 years, and their time horizon should be put forward by further 5 years, so as to cover the next 20 years. This principle is responsible for the periodical character of the work of the plans.

In the meantime, the planning office's work on additional studies, often connected with unpredicted situations, or with the necessity to put more details into the basic plans. The town planning offices actively participate in the programming of local investments and in the decision-making in respect to locations for other investment undertakings.

Therefore, in practice, the development planning is a continuous process.

27. The chief tool for the implementation of physical development plans is the investments location policy. The physical development plans of all levels, represent one of the bases for determination of investments locations. The location decision comprises the indication of the locality and of the actual site on which the given project is to be implemented. This decision represents the statutory document, entitling the developer to prepare the design project and to process

with purchase or expropriation of land, if it is privately owned. The location decisions are made, on the application of the developer, by :

- the Government, if the investment is of particular importance for the whole national economy,
- the National Planning Commission for larger investments,
- the Voivodship Planning Commissions, operating within the Voivodship Administrative Office, for all remaining investments.

In all instances, an opinion is passed on the developers applications, by the local authorities in respect of the concurrence of the investment project with the regional and local plans.

28. The physical development plans also represent the bases for land management, for programming of investments connected with housing, services and technical infrastructure, as well as for preparation of design stipulations for the development of separate sites.

### **III. THE SETTLEMENTS SYSTEM AND THE DIRECTIONS OF ITS DEVELOPMENT**

29. The policy in respect of the settlements network development for the period up to 1990 is defined by the National Physical Development Plan, elaborated in the years 1972-74. The long-range assumptions for the development of national economy (embracing the period up to 1990) include the definition of several development goals, such as fourfold increase of the national income and the resulting threefold increase of the population incomes and the standard of living.

In the National Development Plan wider goals are determined. Generally, these goals can be classified into four groups: The objectives concerning a healthy biological development of the society, objectives of the rational management of physical space, the objectives related to the elimination of disproportions in the economic development of regions and the objectives related to the development of individuals, particularly in the scope of science, culture and social participation.

30. The first precondition for the rational management of physical space is the appropriate use of the natural and man-made resources in all of the separate regions of the country. It is obvious from the economic point of view, that it is better to take advantage of these resources where they do exist locally than to create them artificially somewhere else. Therefore the plans at the economic specialization of the regions within the whole national economy, are made.

It is clear that this specialization should refer to the exogenous functions, that is to the scope of the region's participation in the national economy. The endogenous functions must be developed in all the regions, in proportion to the population number.

31. The precondition for the efficiency of utilization of productive forces is the appropriate level of concentration. Concentration gives several external advantages to the industrial establishments.

However, there exist some threshold limitations which should not be



over-stepped, as this would produce various negative results. In the situation of strong concentration of industry and population in the southern regions, the National Physical Development Plan has formulated the ambitious task to relocate part of the economic potential to the North and to the East of the country.

32. The above problems are connected with the next group of goals related to the elimination of disproportions in the inhabitants life conditions in the different regions of the country. Generally, the standards of living are defined in the assumptions for the long-range development of national economy. Actually, the separate areas of the country, are for many reasons considerably differentiated. In spite of the policy clearly directed at the elimination of disproportions, the produced national income per one inhabitant in 1970 deviated in particular regions, in the extreme cases up to 30% up and down from the average. However, as the result of secondary redistribution possible in the socialist economy, the index of distributed national income per one inhabitant deviated by 20% only.

33. The presently defined goal is not the uniform distribution of industry, but proper balancing of population living conditions in all regions of the country.

The precondition for the achievement of this goal is to reduce the differences in the individual consumption fund between the regions. Therefore, such conditions must be created where the population could obtain sufficient income not only by employment in industry but also in other functions such as agriculture or tourism for which some regions are particularly predisposed. The other condition is the development of technical and social infrastructure in every region, proportionally to the population. This means that irrespective of the industrialization level in any region the housing construction must correspond with the housing needs. Further, the economic, social and cultural services must be proportionally developed, both at the local level in small commune centres and at the higher level in the different grades of urban centres. The inhabitants of even the larger cities must be provided with the possibilities of daily and week-end recreation in the open green spaces, in addition to the opportunities for holiday recreation.

34. Separate group of goals refer to the widely understood development of the individuals. Primarily it means the provision of opportunities for social promotion, and the increased participation of the individuals in the life of the society and in the development of culture. The fulfilment of these goals partly depends on spatial organization. In the scope of the social ties this organization must comprise the ap-

appropriate programming of social services, the elimination of "provincial" attitudes in the smaller towns and settlements, and the division of the agglomerations and of the larger towns into clear structural units, allowing for the identification of the individual with the community, eliminating social alienation and providing for the development of constructive social initiatives.

35. The new policy directions and the present rapid economic growth are responsible for the essential changes in the social and economic structure of the country, which shall take place during the next years. These changes require undertaking of a long-term operation which should lead to the redevelopment of the settlement system. The National Physical Development Plan is not just a projection of the present trends, but it is attempting to take advantage of them in a planned manner. For this reason it has been based on various studies and research in respect of the past experiences.

36. The conventionally accepted manner of considering the network of towns as separate locations isolated from the surrounding rural areas, does not fully relate to the essential features of the contemporary urbanization processes taking place in our country. Such a fundamental feature is the spatial integration of separate settlement units into functional groups, and first of all the growth of urban agglomerations. The studies carried out for the National Physical Development Plan allowed for the definition of:

- 10 already developed agglomerations (9 million inhs.)
- 7 presently developing agglomerations (1,8 million inhs.)
- 6 larger cities (0,7 million inhs.) which may become agglomerations during the next 20 years, if intense economic activity shall take place there. These have been called the potential agglomerations.

37. The urban agglomerations create suitable conditions for the development of modern transformations in the country; that is under the condition that the scale of this development and its spatial structure shall ensure the rise in the quality of life of the population and that the growth of agglomerations shall not involve exceeding costs of infrastructure necessary for their efficient performance. The development of urban agglomerations – understood as concentrations of population and of places of work, linked by social and techno-economic infrastructure – has been recognized in the National Physical Development Plan as its fundamental element.

38. The urban agglomerations are planned as growth areas, concentrating the centres of higher education and science, culture, specialized

health service, and also industry. The development directions for industry are primarily connected with the modernization of its existing concentrations. Treating the urban agglomerations in the country as one interrelated system, it was accepted that an urban agglomeration in Poland should not exceed the scale of ca 1 million inhabitants. This scale of concentration already facilitates the grouping of essential sets of services, but does not necessarily involve a costly infrastructure system. In addition, it is then easier to provide for such spatial structures which shall ensure proper quality of life. Finally, in the situation existing in Poland, the scale of ca 1 million population is concurrent with the principle of polycentric development. According to this principle there shall be an urban agglomeration in every region in the nineties. But the separate agglomerations would be differentiated in respect to development scale and spatial structure. The only deviation from the general assumption is represented by two largest, already existing urban agglomerations of Katowice and Warsaw, each numbering a few million inhabitants.

39. In every agglomeration the following were accepted as the basic development objectives:

- the rearrangement of the existing spatial patterns in order to improve the efficiency of their performance, to improve the quality and the conditions of the inhabitants' life, and to rise the spatial aesthetic values;
- the successive modernization of the productive industrial assets, particularly in those branches which are vehicles of technical and managerial innovations;
- enlargement and modernization of the housing fund, as well as the development of the technical infrastructure, particularly in the scope of municipal management, transportation and communications;
- the growth of the service sector, and especially the sector of science and higher education.

40. The distribution of the network of these 23 agglomerations, already concentrating about 65% of the country's industrial potential and about 90% of the services activity of higher levels, is not sufficiently uniform in relation to the need to serve the population of the different parts of the country. The highest number of agglomerations exists in the southern belt of highest industrial development and in the central part of the country. On the other hand the western, northern and eastern parts – except for the strongly developed harbour towns of Gdansk and Szczecin – do not have any developed agglomerations. Therefore 15 urban centres have been selected in the National Physical Development

Plan, which are supposed to complement the agglomerations pattern, representing centres of growth of country-wide importance. Additionally, 30 centres of growth of regional importance have been also chosen.

41. The settlement network of the country is presently treated as one system, which is divided into three sub-systems:

- agglomerations as the main links of the socio-economic life in the country,
- network of selected centres of growth, complementing the agglomerations sub-system and
- remaining network of small towns and rural settlements which shall provide direct services for the agricultural, forestry and recreational areas.

42. According to demographic forecasts it can be expected that the population of Poland at the beginning of the 21st century shall stabilize at the level of about 40 million inhabitants. This results from the constantly falling natural increase which has now come down to 1% in comparison to 2% in 1945. This situation, which unfavorably affects the labour force increase, is presently the subject of discerning studies. It is also certain that the growth of the country's population which shall reach about 37,5 million inhabitants in 1990, shall be accompanied by the high increase of urban population. According to the forecasts of the National Physical Development Plan, the population of the 23 agglomerations shall reach about 16,5 million inhabitants (that is 44% of the country's population), and the growth centres of national importance shall increase their population from the present 0,9 million to about 2 million inhabitants. In result, the remaining towns shall number about 6,2 million inhabitants and the rural population shall decrease from 15,6 million (in 1970) to 12,7 million inhabitants. Such changes in the demographic structure are essential not only because of the increasing employment in the developing industry and the services sector, but also for the improvement of the organizational structure in agriculture and for the rising of its productivity.

43. This means that the policy in respect of the towns and human settlements development must be directed at the three main strategic goals of equal importance:

- the first goal is the controlled growth of already developed agglomerations, and the reshaping of their spatial structure in order to improve their functioning and all aspects of services for their inhabitants,
- the second strategic goal is the intensive growth of developing and potential agglomerations and development of the selected growth

centres, particularly in the northern and eastern parts of the country, in order to relocate the economic potential in these directions, and to create conditions for providing the population of these areas with full scope of services.

– the third goal is the redevelopment of settlements structure in the rural areas, aimed at its higher concentration allowing for the decrease of rural population, but in accordance with the postulated increase of production level and modernization of agriculture and also provision of suitable services for the rural population.

44. It should be noted that parallel with the economic development of the country the amount of goods and passengers traffic is constantly increasing. The sevenfold growth of the country's industrial production, assumed in the National Physical Development Plan, shall face the transport system with a difficult task to perform. In this scope, the rational management of physical space does not depend on the development of transportation system only, but on the intentional reduction of the amount of goods to be transported, by the appropriate location of the processing industries in relation to the relevant resources of raw materials and to ready markets. Another necessity is the integration of all means of transport into one efficiently operating system. Up to now, the separate networks of conventional transport, of pipe-lines and power lines were frequently developed independently, in order to minimize the direct costs, but this was responsible for the difficulties in securing efficient service for the production centres and the settlements network. Therefore the present National Physical Development Plan particularly stresses the integration of different infrastructure systems, not only in the organizational sense, but also in respect to combined routes which would provide most economic service for the whole country. The newly created infrastructure belts shall be considered as paths of economic development.

## **IV. TOWN PLANNING AND MUNICIPAL ECONOMY**

45. The planning for the development of towns is based on the social and economic policy assumptions described above. Town planning has long and progressive traditions in Poland. Already in 1928 the Building Regulations Law included a large chapter dealing with town planning, and one of the paragraphs made provisions for the preparation of joint plan for several adjoining communes, should the need arise. on this basis, regional planning was introduced already in 1935, appreciating the principle of interrelations between the different levels of physical planning. The leading achievement at that time was the study for „Functional Warsaw” elaborated by J. Chmielewski and Sz. Syrkus for one of the CIAM (Congress Internationale d' Architecture Mondial) Congresses. On the basis of discerning analyses of physiographic, techno-economic and social conditions, the authors of this study have presented the concept for large city deconcentration, based on the belts of multiple transportation lines. This model was really representing the prototype of urbanized region and had an essential influence on the crystallisation of outlooks and development of Polish town planning ideas.

46. In the years between the two World Wars, most progressive groups of professionals were engaged in urban planning, always being fully conscious of its social aspects. This direction was continued and developed in the new socio-political system in Poland after the Second World War. As the town planners had become the officers of the local authorities, they have combined the search for appropriate solutions for the spatial organization of towns with the realization of the basic principle of socialistic policy and philosophy. In physical planning these basic principles have been executed by:

– the right to work, by appropriate balance between the number of population and the number of work places,



- the right to a decent dwelling, by elaboration of long-term demographic development forecasts, as base for programming of housing investments and by securing in all physical plans the adequate areas for residential purposes for all actual and future inhabitants,
- the right to recreation, by reserving and programming suitable areas for every-day and week-end recreation and for sport grounds,
- the right to adequate living conditions in towns, by suitable location and programming of service centres, concentrating the facilities for science, culture, education, shopping, etc., and planned development of environment,
- the principles of social equality, by application of equal living standards in respect of all social groups.

47. This social philosophy, the extensive scope of tasks and new wide opportunities for action have successively led to the formulation of a way of thinking, which was often described as “the Polish Town Planning School”. Despite of insufficient means resulted from the immensity of tasks, the effects of this “school” have led to basic redevelopment of the spatial towns structure in Poland.

48. It has to be generally said, that development of Polish towns is still mainly based on the principle of concentric growth. This principle gives good social and techno-economical effects in case of towns under 400-500.000 population. A town of even this size (with considerable percentage of organized multistorey development) reaches an area of about 50 sq. km only, with radius of about 4 km. This distance, even with the use of conventional means of public transport (tram, bus), can be covered in about 10 to 15 minutes, meaning that the centre can be reached in that time. Agglomerations with larger number of inhabitants are developing in the system of bands, extending from the central districts along well equipped routes and transportation infrastructure.

Depending on the topographic conditions and on the functional relations they take the form of either single or multi-belt simple patterns (as in the case of Warsaw and Gdansk agglomerations), or they develop into more complicated patterns (as in case of the Upper Silesia industrial conurbation).

49. The following features are characteristic for the new spatial structures of towns;

- the attempt to „loosen up” the pattern by location of the structural units (districts) within the system of public green open spaces, penetrating the whole town,

– the grouping of noxious industrial plants into separate zones, isolated from the residential districts, but at the same time the distribution of the not noxious plants within the residential areas, in order to achieve better functional balance between the places of work and the places of residence,

– the creation of a system of service centres, embracing the whole area of the town, based on the leading principle of uniform attendance of all settlements and towns,

50. The process of town planning, influencing the physical environment of human life, is of basic importance for the development of the nation's culture.

In this respect, the spatial order and the beauty of the created surroundings can be considered as the key elements. In order to achieve these objectives positive attitude to historic monuments must be maintained and due attention must be paid to the architectural form of the new buildings and to their suitable relation to the surroundings. In the scope of historic monuments reconstruction, considerable achievements are unquestionable in Poland. The historic districts, so called "old towns", have been reconstructed in all those places where sufficient historic documentation existed or were able to be reproduced. However, there is still a lot to be done, so that the newly created forms would answer the growing aspirations of the society.

51. The housing stock in Poland in 1975 amounted to 9 million dwellings, out of which over 5 million were in towns. In the years 1950–1975 approximately over 4 million dwellings were built, out of which nearly about 3 million in towns and cities.

According to the long-range assumptions, further 6 million dwellings shall be built up to 1990. In the years immediately after the war the housing investments were mainly carried out by the specially created National Housing Board, which held the function of central developer for the whole country. Gradually the task of housing development was transferred to the local authorities and to the various employment establishments. In the recent years housing cooperatives have grown in importance, and presently they carry out most of the housing investments, being the chief developer and organizer of housing in Poland. The housing investments are carried out by public developer (actually approximately over 75% of newly constructed dwellings) and also by private developers, who are in charge of one-family housing, located mostly in the rural areas.

52. The public housing development is as a rule implemented in the form of complete structural units, that is housing estates or groups of them.

These groups are equipped with a determined set of service facilities, open green areas for recreation and climatic isolation, sport grounds, internal network of vehicular roads, parking areas and pedestrian paths. The housing units are also provided with water supply and sewerage facilities, electricity, gas, central heating and hot water installations. Therefore the standard of conveniences is wholly modern, but the size of dwellings (in floor area per inhabitant) is still comparatively modest, mainly because of the persisting housing demand and the still insufficient potential of building contracting enterprises. The residential floor area (that is the living area excluding the auxiliary areas) had at first amounted to 7 sq.m per inhabitant, has presently increased to 12 sq.m, and shall reach 17 sq.m per person in the future.

The average size of newly built dwelling units was 45 sq.m and this size will be increased to 65 sq.m. The flats in newly built multi-family residential buildings are corresponding with the various family sizes (from 1-room to 6-room flats). The average occupancy ratio amounts at present to 1,23 persons per room.

53. The town planning standards determine obligatory development densities, which are measured by floor space index nett (for sites taken over by the dwelling buildings and their immediate surroundings) and by floor space index gross (for complete neighbourhoods including the service facilities, green open spaces and internal transportation network). Depending on the average height of buildings (from 3 to 16 storeys), the floor space index gross ranges from 0.38 to 0.7. Relevant indices determine also the sizes of building plots and the number of inhabitants per hectare (residential density) for one-family housing. The town planning standards also include regulations in respect of the elements influencing the biological conditions of the inhabitants, way of living such as for example the isolation of dwellings, the area of green open spaces, the distances between parking areas and dwelling buildings, etc.

54. The great demand for new housing had forced not only the organized forms of investing, but also the application of new mass-production technologies for residential development. Ever since the post-war years many theoretical elaborations were devoted to the modular design methods, which would facilitate mass prefabrication. The prefabrication which has been developing for several years now, had at first been directed at the production of small elements, but presently in all agglomerations and in larger urban centres, so called "house factories" are being built, which shall allow to reduce the site works to the assembly of ready made large elements.

55. In the public housing development a separate problem is represented by the maintenance and administration of the housing fund. In Poland, the low rent policy has been introduced. The housing rents, which cover only the most direct running and maintenance costs, stand for less than 10% of average family budget. All major repairs are executed from State endowment.

The position of recently built by public Cooperative's housing stock (approximately 15% of total urban housing stock) is far better, as the dwellers are covering by themselves the full running and technical maintenance expenditures.

56. In the preceding period of towns development the main objective was the growth of new districts and structural units. Besides the reconstruction of central areas, where they were destroyed during the war, not much has been done until the recent years in the way of redevelopment of the old existing urban fabric. This resulted mainly from the need to retain it as long as possible because of the great housing shortages and of the insufficient potential of the building contracting enterprises. However, presently such renewal is becoming one of a basic problems for urban authorities.

57. The problem of the appropriate distribution of service facilities in the town is given much attention by the town planners. These facilities, depending on their character, are implemented by different institutions subordinated to relevant ministries. The ministries possess suitable scientific research groups where the programmes and service technologies for the networks of relevant service facilities are being elaborated. These programmes are co-ordinated with the master plans for towns. Priority is given to the basic service facilities located in the housing areas. However, recently both in the urban agglomerations and in the medium-sized towns, there are trends to create modern multifunctional service centres. Particularly, in the large agglomerations the work on the implementation of modern town centres and district centres (relieving the main centres) has already commenced.

58. One of the achievements of Polish town planning is also represented by the practice of industrial districts development in towns. Such joint location for industry allows for more economic use of technical and social infrastructure and for the isolation of the noxious plants from the residential areas.

The industrial development is financed by the different branches of industry and implemented by various developers on the basis of blue prints prepared in relevant specialized design offices. One of the main elements of the blue print is the general site lay-out for the given plant

which is coordinated with the local town planning authorities. Among others, the water supply and sewerage facilities which are often partly used by the town are implemented according to this lay-out plan.

59. The programmes and blue prints for technical infrastructure in towns are elaborated on the basis of the general master plans. These investments are financed from the municipal budgets, often with considerable participation of the industrial establishments. In the situation of great needs existing in this respect the economic design of infrastructure is given much attention. The attempts to optimize the infrastructure networks do considerably influence the spatial and functional solutions in the master plans for towns. Presently, besides the permanent extension of areas provided with technical infrastructure facilities attention is chiefly given to the following:

- a) development and modernization of the urban transportation pattern. The road junctions in towns are being rebuilt to meet the demands of the increasing traffic. Recently, sectors of urban highways are being contracted in the largest agglomerations (Warsaw, Upper Silesia, Gdańsk, Poznań). The projects for the construction of rapid urban railway systems are well under way in those agglomerations. First priority is given to the public transport. Conventional railway is frequently used to provide transportation links with the suburban zone,
- b) development of the central heating systems for towns which already exist in the larger agglomerations and change of fuel balances concerned particular human settlements and level of pollution,
- c) development of the water supply networks, often as in case of Łódź and Upper Silesia, from distant water intakes by artificial water reservoirs, also the provision of sewage treatment plants in towns.

60. The land in Polish towns is mostly privately owned, however the private land market is limited and controlled. This fact creates some difficulties for municipal economy although there is a definite acquisition procedure. The urban communes do not usually possess sufficient municipal land for exchange of the acquired private freeholds according to the regulations. The State investors try to avoid the necessity for expropriation, because of the long lasting formal procedure. In the process of town development, the acquisition of land, creates the technical hardships only, and do not create any real barrier for development concepts, and disposal arrangements.

## **V. PLANNED DEVELOPMENT OF ENVIRONMENT**

**61. The planning for the healthy conditions of biological development of the society is one of the basic goals of physical planning understood in Poland as the planned development of the human environment.**

**The realization of the goal depends primarily on the protection and rational use of the natural environment resources and also on the creation of new man-made environment, by the use of proper development programmes securing the desired level of quality of life and frames for social development. The decisions in this respect, depending on their character and the area they refer to, are taken on all three levels of physical planning. The Government has initiated work on the long-term comprehensive programme for environment protection, in which the physical planning plays an important role.**

**62. Unpolluted air is recognized as one of the most important natural resources. In many parts of Poland, particularly in agglomerations and industrial regions, the authorities undertook the decisive battle for clean air, first of all through comprehensive energy policy, including new technologies, installation of air filters, establishing "smoke control areas" etc.**

**The best tool for air protection is however the appropriate location of industry and the provision of green isolation belts.**

**63. Another main natural resource is water. Poland is a country of considerably low water resources, which in addition are not well distributed in relation to the areas of concentrated socio-economic activity. In the large areas of the country there already exists shortage of fresh water. The National Physical Development Plan places a particular emphasis on rational water economy. Besides the obligatory treatment of noxious sewage, it was decided to provide full protection to the basins of some rivers, which are considered as sources of fresh**



water. Measures are being taken to increase water retention and to rationalize the use of potable water. Additionally, it shall be attempted to reduce the demand for water by the introduction of closed water circulation, not only in power production and industrial plants, but also in the regional scale, as well as to provide possibilities for the industry to utilize water previously used for domestic purposes after its suitable purification.

64. Another natural resource requiring protection is good soil. In Poland it is now legally prohibited to use the land with higher quality soils for any other purpose than agriculture. Action has been now taken, based on discerning scientific research, for the recultivation of land devastated by industry, mining and dumping of poisonous wastes. In result of these measures the thousand hectares of land, degraded by industry and mining has been rehabilitated.

65. In the situation of extensive devastation of forests during the last war, and the large demand for timber in industry and building, the problems of forestry are of particular concern. All the forests in Poland are now under the State control. The areas of the forests has increased from 24% to 27% of the total area of the country, as the result of the permanent afforestation action on the poorest soils. The forests are often affected by severe losses in result of noxious influence of industry. The National Physical Development Plan provides for the increase of forest areas to over 30% of the total area of the country. The legal protection for all the forest areas has been introduced.

66. The nature conservation is also a basic problem of essential importance not only for tourism but also for the health and well-being of the inhabitants. Besides the mountains in the south and the beautiful sandy beaches on the Baltic coast, Poland possesses the unique landscape of the lake districts. The National Physical Development Plan, concentrating the urban growth mainly within the agglomerations, had also delineated areas of outstanding natural beauty, distributed in the different geographic zones of the country. These areas shall be protected against the location of any industry and excessive development of urban settlements. They shall be provided with suitable facilities for the purpose of tourism and recreation. It should be noted here, that since 1918 there exists in Poland the Nature Protection Council, which has contributed to the delimitation of National Parks and nature reservations which are provided with full legal protection.

67. In most of the medium-sized and small towns there are not too many dangers to the natural environment. The sites of these towns and

the principles for green areas patterns allow for close contact with the surrounding open landscape and the atmospheric pollution by industry and motorcars is negligible. The situation is different in the towns which are located in the heavy industry regions. They are affected by air and water pollution resulting from the concentration of industrial plants. The intensive programme of sewage treatment plants has been already introduced. However, the radical solution for clean water can be expected only with the introduction of changes in the industrial production technologies, and with the creation of closed circulation of water not only within the separate industrial plants but also in the scale of the whole regions. The National Physical Development Plan provides for the introduction of these measures, first of all in the areas most endangered by the degradation of natural environment.

68. In the urban agglomerations, particularly those closely connected with mining, power production, chemical and metallurgic industries, the dangers to natural environment are naturally much greater. The recently elaborated plans for the development of industrial production also allow for several measures for the creation of ecologic balance in those large concentration of socio-economic activities.

69. The next measure is represented by the principle of separate and isolated locations for noxious industrial plants, on such orientated sites, where the prevailing winds would take eventual smoke and dusts away from the residential districts.

70. Another principle is the conscious composition of the public green open spaces, so that they would penetrate the built-up areas and create reservoirs of fresh air and ventilation ducts.

The town planning standards for public green spaces are considerably high. They allow for over 12 sq.m per inhabitant of parks and squares in addition to the green spaces accompanying residential areas. Together with the unorganized green spaces, cemeteries and plot gardens (allotments), this index amounts to 20 sq.m per inhabitant within the developed urban areas. Particularly, in our biggest agglomeration of the Upper Silesia, the work on the realization of parks and green belts, on the recultivation of dumps and old mining areas has been carried on for some time. Right in the center of the agglomeration large park of 800 ha has been laid-out allowing for the creation of its own micro-climate.

71. The protection of environment also require suitable measures in respect of technical infrastructure. The urban central heating system is being extended abolishing the local boiler houses. This considerably limits

the amount of smoke pollution and at the same time allows for the use of the cooling water for the central heating and agriculture purposes. An essential condition is also the development, according to needs of water supply sewage treatment and refuse disposal systems. In respect of transportation the general guiding principles are to isolate the urban highways and speed roads from residential development, and to create separate isolation areas of pedestrian traffic in the agglomeration centres.

72. The housing and town planning standards representing the bases for the design of housing areas, as well as the norms referring to the design of schools, hospitals, offices and other buildings, widely provide for the requirements resulting from the task of creating suitable biological conditions for the population. These standards and norms represent the lowest level in the system of planned development of human environment, which highest level is represented by the National Physical Development Plan.

## **VI. RESEARCH AND METHODOLOGY**

**73. The integrated system of physical planning is based on the wide background of research represented by:**

- The Institute of Geography and Physical Development at the Polish Academy of Sciences-in respect of the bases for national and regional planning.**
- The Research Institute on Environmental Development subordinated to the Ministry of Administration, Land Economy and Environmental Protection in respect of the bases for local planning.**
- The Institutes of different Universities in the scope of economy, engineering, town planning, geography, sociology, biology etc.**
- The Committee for the Physical Development of the Country, and other Committees of the Polish Academy of Sciences.**
- The Study Groups of the town planning offices and the design offices, subordinated to the regional and municipal authorities.**

**74. The research studies are financed in Poland from three main groups of sources:**

- a) programmes for the research studies directed at the solution of problems of particular importance for the development of society and economy, are approved by the Government in the five-year plan, and financed by the Ministry of Science, Higher Education and Technology. Out of the presently carried on programmes, one deals with "The Bases for the Physical Development of the Country", and another with "Housing Development".**
- b) research studies directed at practical purposes, but of wider scope of application (for example, elaboration of the bases for standards or explanation of problems occurring in several towns) are commissioned by the relevant Ministries,**
- c) research studies connected with a given town are financed by the authorities responsible for the elaboration of the relevant plan.**

In addition the Institutes receive subsidies for the execution of studies of fundamental character.

75. The methodology for urban planning was developing in Poland by the way of gathering practical experiences, and was usually the subject of research in relevant scientific institutes. The most characteristic feature of the Polish planning method is its comprehensive nature and multi-disciplinary approach. This last feature is evident in the planning process in the co-operation of various specialists from many disciplines such as architects, engineers, economists, sociologists, biologists, and others.

The comprehensive nature is expressed by the fact that the town plan is considered on the background of the region in which it is situated, allowing for all aspects of development, that is the natural and geographic condition, the social goals and the techno-economical possibilities.

The planning process in Poland is divided into three separate phases: the first one embraces all types of inventory surveys of geographic features, of land use, of development and of the technical infrastructure networks and the diagnosis, that is appraisal of the life conditions, of the town's functioning and also of the up-to-date development.

In the second phase, on the bases of the conducted appraisal, and of the regional stipulations, the goals of the plan are being determined in quantified approach, that is in the form of socio-economic programme, and of land requirements.

In the third phase, various possible alternative solutions are formulated basing on the theoretical models and contained within the so-called "scope of possible solutions", predetermined in the way of threshold analysis.

In the fourth phase, the optimization procedure is carried out resulting in the selection of such alternative solution which shall fulfil the given goals but shall at the same time be most effective economically and technically possible to implement.

Out of the elaborated alternatives, the selection of one solution is made which then becomes the basis for formal elaboration of the plan.

76. Out of the detailed methods the following should be particularly mentioned:

- the method of "threshold analysis" which on the basis of threshold (barriers) limitations studies, allows to determine the scope of rational solutions for the plan,

- the method of long-range studies elaborated for the period longer than the economic perspective (that is for 31 to 40 years ahead), for which

no precise programme of socio-economic development can be defined,  
– the so-called Warsaw optimization method, which on the basis of formalized mathematic models allows for determination of solutions most effective in the techno-economic aspects;  
– the method of plan implementation by stages related to the stipulations of economic planning,  
– also the network methods used for the optimization of the plan implementation process.

It should be also stressed that the use of town planning standards, determining the functional conditions and the spatial norms for all urban facilities, can be considered as methodological facility.

77. This substantial development of the methodology for elaboration and implementation of urban plans was possible because already in 1949 the Research Institute of Town-Planning and Architecture was organized, which provided the research background for urban planning. Recently, this Institute, together with the Research Institutes of Housing Economy, Municipal Economy and of Environment Protection were incorporated into the previously mentioned Research Institute on Environmental Development.

78. The tasks of physical development formulated by the programme for the development of national economy up to 1990, require substantial increase in the number of planning staff. The physical planners education system was established already in the post war years. In principle it depends on studies for a master's degree at different technical university colleges, chiefly at the Departments of Architecture but also Geography, Economy, Sociology and various departments of Municipal Engineering, and also on inter-departmental post-graduate studies carried on at some technical universities and schools of economics. The general assumption is that a physical planner should be basically educated in a given branch of knowledge, and only then he is ready for practical cooperation with the representatives of other branches. This means that the period of studies is extended by two years, but in practice, some employee of the town planning offices or design offices are commissioned to take up post-graduate courses. The post-graduate studies enable the simultaneous professional employment. This system works in practice and gives good results, providing the improvement of the knowledge of the existing staff, and not for the increase of their number. Therefore, work has been commenced on the reform for the programme of studies at the departments interested in the physical planning problems so that the recruitment of candidates could be increased.



## **VII. INTERNATIONAL CO-OPERATION**

79. The permanent intensification of human activities and the constantly increasing scope of international relations are responsible for the fact that the development of human settlements cannot be solved as an internal problem only of a particular country.

None of the countries has sufficient possibilities to solve all the problems by its own means. Therefore, there is an essential necessity for wide international exchange of experiences in the field of programming, planning and research on human settlements and for assistance in cases of natural disasters, for joint solutions of border-zones problems and finally for international trade in building materials.

80. Poland pays much attention to the problems of international co-operation. It actively participates in the work of the UN activities related to housing, building and planning and in the programme for environmental protection. As Poland has numerous experienced and highly qualified planning experts we were able to offer help at the times of several natural disasters and post war reconstruction. Polish experts take part in the implementation of several UNO programmes in the developing countries. Poland also actively participates in the works of the Economic Commission for Europe. These works offer the opportunity for exchange of experiences and for common search for various solutions with countries which often differ in political systems but have similar problems to solve.

Much importance is attached to the programmes of cooperation between the scientific institutes in the field of urban research.

81. Particularly close co-operation exists between Poland and other socialist countries within the framework of the Council for Mutual Economic Assistance. The same political systems and the common aim at economic integration allow for complex and direct exchange of experience and help also to undertake mutual provisions.

82. Poland participates in many international organizations dealing with the problems of settlements and has signed many bilateral agreements. Therefore, there exist all the necessary conditions for the development of international co-operation, which would be profitable for all the interested countries.

83. Polish experiences have already been useful to other countries at many instances. Poland can offer assistance in the following fields:

- elaboration of complex and comprehensive physical development plans,
- the organization of the physical planning service in the scale of the whole country, of the region, of the individual towns and urban agglomerations,
- the urban planning methods, both the general (the planning process) and the detail ones (the threshold analysis, Warsaw optimization, stage implementation methods and the network methods for plans implementation),
- the elaboration of projects for legal regulations in the scope of physical planning and human environment protection,
- the elaboration of projects for legal regulations in the scope of physical planning and human environment protection,
- the elaboration of town planning and housing standards,
- concept and means for protection of historic monuments and sites.

84. Poland is interested in further development of its planning system and in the search for the best solution in the field of human settlements problems. Therefore, there is an interest in obtaining foreign experiences in those fields which are presently essential for Poland.

These are:

- the methods and concepts for redevelopment of city central areas,
- the professional and vocational training and education,
- the solutions in the scope of municipal techniques, particularly referring to water economy and waste disposal,
- the organization of the monitoring system for settlements development and protection of natural and man-made environment.

# VIII. TABLES

Table 1

## Biological losses of the Polish population

Cause of death	Number of victims in 1000	In % of total population
Military operation	644	2,4
Dead in extermination camps because of pacifications, executions and liquidations of ghettos	3577	13,3
Dead in prisons and camps because of epidemics, emaciations, bad treatment etc.	1286	4,7
Dead of emaciations outside of camps because of wounds, injuries, excessive work etc.	521	1,8
Totally	6028	22,2
Number of population of 1 September 1939	27007	

from „War losses of Poland in the years 1939–1945” Wydawnictwo Zachodnie Poznań, Warszawa 1962 page 41

Diagram 1

## Dimensions of biological losses of Warsaw

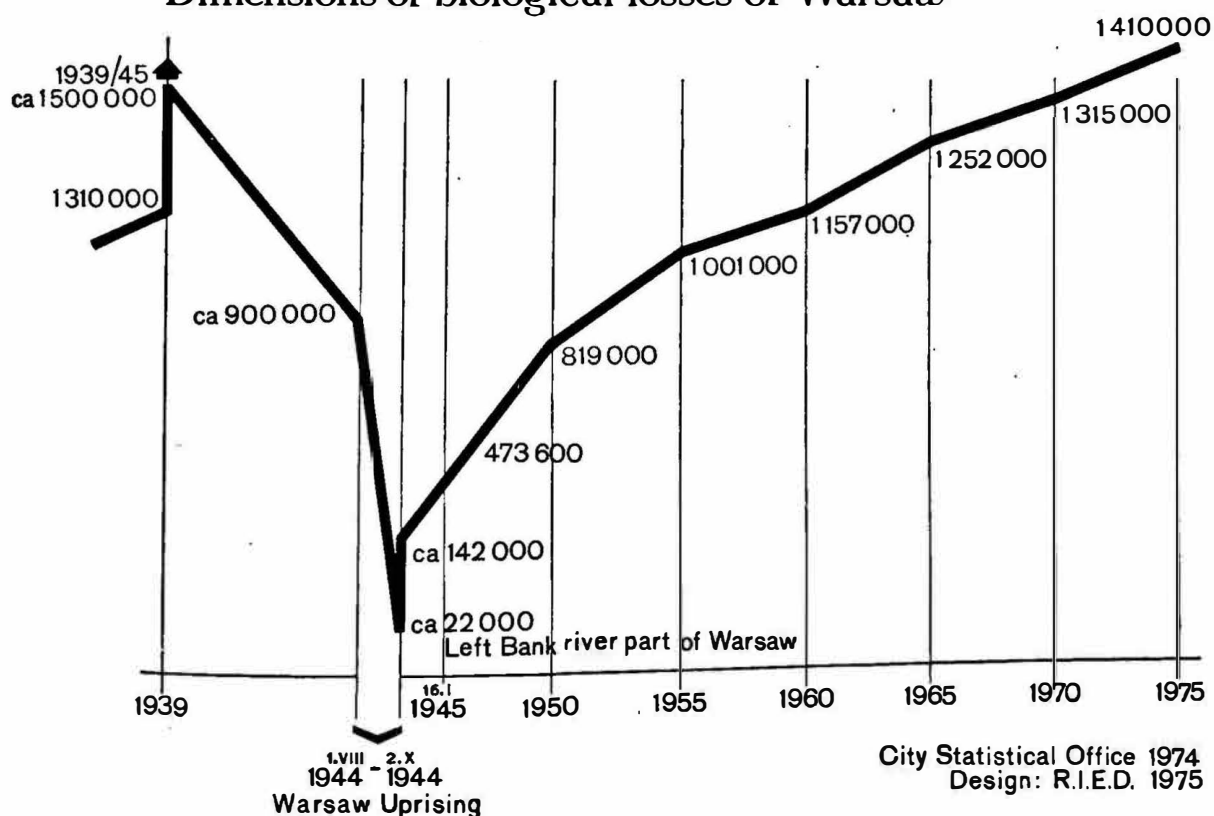


Table 2

**War losses of fixed material assets of Poland in the years 1939—1944**

Or-di-nal	Specifications	Losses in billions zł. in prices of 1938*)	% of losses
1	Industry	11,04	33
2	Agriculture	5,24	35
3	Forestry	3,58	28
4	Transport	8,79	50
5	Post	0,56	62
6	Trade	7,10	65
7	Dweling-houses	9,69	30
8	Values of culture and arts	5,36	43
9	Schools and Sciانتific Institutions	1,36	60
10	Health Service	0,54	55
11	Public Administration	3,00	60
	<b>Total National fixed material assets</b>	<b>56,76</b>	<b>38</b>

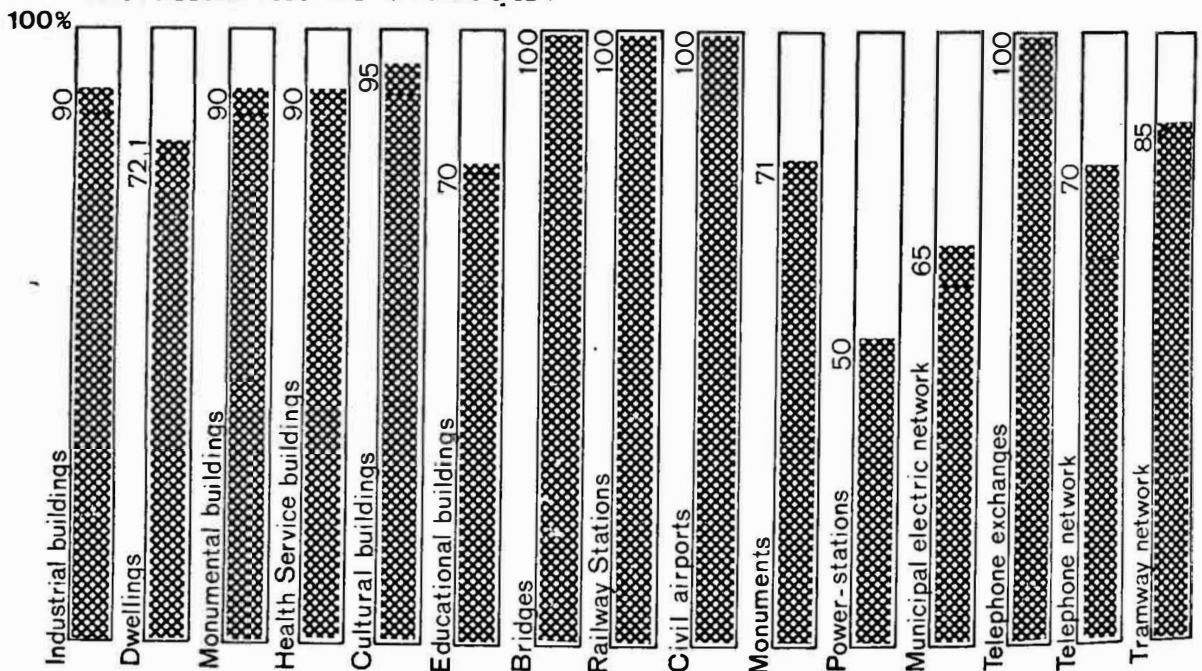
\*) 1 US\$ = ca 5 zł.

from Kazimierz Secomski "Analysis of realization of 3-years plan"

Polskie Wydawnictwa Gospodarcze 1950 page 12

Diagram 2

### Damages of buildings and engineering installations of Warsaw



Sources: City Statistical Office and General Development Plan of Warsaw

Design: R.I.E.D. 1975

Table 3

## Volume of damages

Ordinal	Towns	Number of inhabitants in 1939	Damages, percentage of total volumen of buildings		
			for the whole town	for the centre	for histo- rials di- stricts
1	Warszawa	1.200.000	81	95	100
2	Wrocław	639.700	78	85	80
3	Gdańsk	258.000	60	40	100
4	Poznań	272.000	45	60	70
5	Białystok	107.000	75	95	100
6	Szczecin	383.000	40	75	98
7	Elbląg	85.900	45	90	100
8	Racibórz	50.000	60	90	90
9	Koszalin	28.812	20	60	80
10	Łomża	25.065	60	80	80

Source: Adolf Ciborowski "Polish Town — Planning 1945–1955" published 1956

Table 4

## Total population of Poland against the urban population in the years 1946–1975

Year	Population in millions			Percentage of urban population
	total	urban areas	rural areas	
1946*)	23,9	7,5	16,1	31,8
1950*)	25,0	9,6	15,0	39,0
1960*)	29,8	14,2	15,2	48,4
1970*)	32,6	17,0	15,6	52,3
1975**)	34,2	18,9	15,3	55,2

\*) Data according to the General Censuses of the Central Statistical Office.  
In the years 1946–1960 a certain small part of the population was not included in the division of areas into urban and rural ones.

\*\*\*) Estimates

Table 5

**Population, households and housing stock in the years 1950, 1960, 1970\*) and 1975**

Specification	Total	In urban areas	in rural areas	Percentage share- in towns
	in thousands			
Population total:				
1950	25 008	9 605	15 009	38,4
1960	29 776	14 219	15 187	47,8
1970	32 642	17 064	15 578	52,3
1975**)	34 160	18 873	15 287	55,2
Households:				
1950	.	3 259	.	.
1960	8 253	4 356	2 897	52,8
1970	9 376	5 390	3 986	57,5
1975**)	10 361	6 219	4 142	60,0
Dwellings:				
1950	5 851	2 456	3 395	42,0
1960	7 026	2 564	3 462	50,7
1970	8 081	4 507	3 574	55,8
1975**)	9 026	5 264	3 764	58,3

\*) Data according to the General Censuses, Central Statistical Office.

\*\*) Estimates

Table 6

**Changes in housing situation of the population in the years 1950-1975**

Year	Towns		Rural areas			
	number					
	of dwell- ings per inhabi- tants	of house- holds per 100 dwell- ings	of persons per room	of dwell- ings per 1000 in- habitants	of house- holds per 100 dwell ings	of persons per room
1950*)	251	132	1,54	223	.	1,92
1960*)	247	122	1,53	225	113	1,80
1970*)	264	120	1,32	229	112	1,44
1975*)	279	118	1,24	246	110	1,32

\*) According to the sources given in Table 2.

\*\*) Estimates



Table 7

**Changes in the average size of dwellings in the years 1950–1975**

Specification	Totally	Towns	Rural areas
Average number of rooms per dwelling			
in 1950*)	2,34	2,44	2,26
in 1960*)	2,46	2,50	2,42
in 1970*)	2,88	2,77	3,01
Average floor spaces in dwellings in sq.m.			
in 1970	50,7	46,8	55,7
in 1975**)	51,6	47,4	57,4

\*) According to the source given in Table 5.

\*\*\*) Estimates.

Table 8

**Structure of age of housing stock in 1970**

Specification	Number of dwellings total in thousands*)	Percentage share of dwellings in buildings **)		
		before 1918	1918–1944	1945–1970
Total	8 102	31	30	39
Towns	4 521	30	27	43
Rural areas	3 581	31	34	35

\*) Data of the General Census, 1970

\*\*\*) Data according to the estimates by the Housing Institute.

Table 9

**Investment outlays on housing in the years 1951–1974**

(prices of 1971\*)

Years	Average yearly outlays in billions zł	In % of the total investment outlays
1951–1955	8,7	13,8
1956–1960	20,2	21,8
1961–1965	24,5	18,0
1966–1970	31,1	15,2
1971–1974	46,1	13,2

\*) Data according to the Year Book 1972 and Concise Statistical Year Book 1973 and 1975, Central Statistical Office.

Table 10

**Place of housing investment in the national economy in selected years\*)**  
(current prices)

Year	Investment outlays on housing in billions zł	Percentage share of outlays on housing	
		in the national Gross income to be distributed	in the investment outlays, totally
1960	18,8	4,6	19,8
1965	20,8	3,5	15,0
1970	32,3	3,9	15,6
1971	37,9	4,0	15,4
1972	42,1	4,0	13,9
1973	50,5	4,1	13,3
1974	55,5	.	12,1

\*) Vide Table 9.

Table 11

**Housing in the years 1951-1974\***

Years	Dwelling transmitted for use, in thousands			Rooms transmitted for use, in thousands		
	total	urban	rural	total	urban	rural
1951-1955	322	219	123	926	619	307
1956-1960	622	370	252	1 761	1 048	713
1961-1965	754	560	194	2 235	1 626	609
1966-1970	942	700	242	2 882	2 048	834
1950	60	37	23	157	104	53
1955	89	54	35	238	145	93
1960	142	94	48	415	273	142
1965	171	131	40	500	372	128
1970	194	142	52	630	440	190
1971	191	137	54	643	443	200
1972	205	154	51	697	505	192
1973	227	173	54	798	587	211
1974	248	191	57	888	663	225

\*) Statistical Year Book 1972, and Concise Statistical Year Book 1973 and 1975, Central Statistical Office.

**Intensity of housing in Poland in selected years<sup>\*)</sup>**

**Table 12**

Year	Dwellings transmitted for use per 1000 inhabitants		
	totally	in urban areas	in rural areas
1950	2,4	3,9	1,6
1955	3,3	4,5	2,3
1960	4,8	6,6	3,1
1965	5,4	8,4	2,5
1970	6,0	8,4	3,4
1971	5,8	7,9	3,5
1972	6,2	8,8	3,3
1973 <sup>**)</sup>	6,8	9,6	3,5
1974 <sup>**)</sup>	7,4	10,4	3,7

<sup>\*)</sup> Recalculation made by the Housing Institute based on the data of the Central Statistical Office.

<sup>\*\*)</sup> Concise Statistical Year Book 1975, Central Statistical Office.

**Table 13**

**Expected changes in the housing conditions of the population in the years 1970-1990**

Year	Urban areas			Rural areas		
	number of					
	dwellings per 1000 inhabitants	households dwellings	persons per room	dwellings per 1000 inhabitants	households per 100 dwellings	persons per room
1970	266	117	1,31	230	110	1,43
1980	312	113	1,06	261	109	1,15
1990	354	104	0,8	314-318	100-101	0,8

Table 14

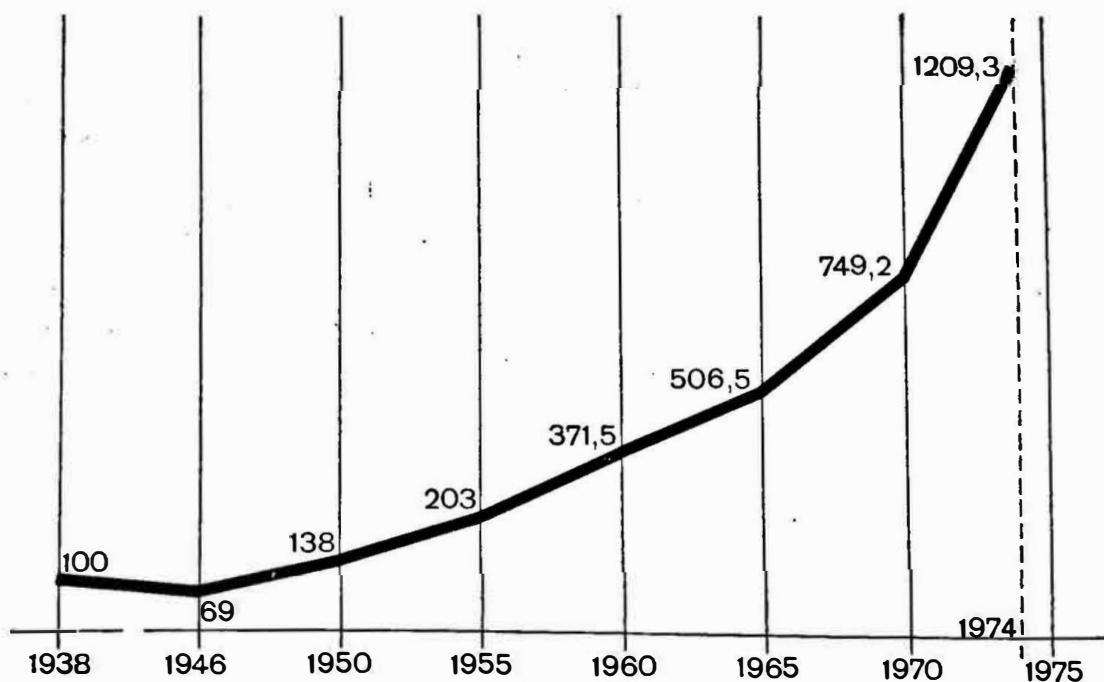
## Population in towns of various sizes\*)

Groups of towns, according to their size	Towns		Population			
			in thousands		in percentage of the total number of population	
	1950	1974	1950	1974	1950	1974
Total	706	836	9 605	18 487	39,0	54,6
Below 5 thous.	393	294	1 066	909	4,3	2,6
5-10 thous.	159	203	1 113	1 449	4,5	4,3
10-20 thous.	76	172	1 034	2 413	4,2	7,1
20-50 thous.	50	111	1 523	3 438	6,2	10,2
50-100 thous.	12	31	833	2 225	3,4	6,6
100-200 thous.	11	13	1 640	2 026	6,7	6,0
200 thous. and more	5	12	2 397	6 027	9,7	17,8

\* Concise Statistical Year Book 1975, Central Statistical Office.

Diagram 3

### Index of National Income (G.N.P.) in the years 1946-1974



According to: (1) POLISH STATISTICAL YEARBOOK 1961, 1965, 1971, 1975  
(2) THE PLANNING COMMISSION OF THE COUNCIL OF MINISTRIES