

**REGIONAL DEVELOPMENT
IN
JAPAN AND POLAND**

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THE BASIC ELEMENTS OF A THEORY OF THE SOCIO-ECONOMIC DEVELOPMENT OF A COUNTRY AS A REGIONAL SYSTEM

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The present paper attempts to determine basic elements of a theory of the development of a country as a regional system under a planned economy. What I intend is to give an analysis providing conceptual foundations for the understanding of regional socio-economic development, and not present the official doctrine of regional policy expressing the views on regional development of authorities in the planning system (cf. B.Winiarski 1980).

The opinion underlying the regional approach to a country's socio-economic development holds that its processes are spatially differentiated and take place at different scales (global, regional and local), and that in this approach it is possible to gain better insight into socio-economic development. This opinion is reflected in the various concepts and methods of studies of the spatial differentiation of socio-economic development.

Without going into details of the assumptions concerning the subject of research on the spatial differentiation of the socio-economic development, I think two principal standpoints should be distinguished in this matter: 1) instrumental, and 2) real.

The instrumental standpoint sees the spatial differentiation as a useful analytical tool for making the studied phenomena more precise. As a consequence, the spatial differentiation of socio-economic phenomena is treated in terms of various spatial divisions. The choice of this or that division into spatial units is basically a matter of convenience or need, and not the way

reality is built. In this approach, regionalization is also of a purely analytical character and a region is a tool of analysis. A classical representative of this standpoint is D. Whittlesey, according to whom we should "see the region as a device for selecting and studying areal groupings of the complex phenomena found on the earth. (...) So defined, a region is not an object, either self-determined or nature-given" (1954: 30).¹

The real standpoint, in turn, relates spatial differentiation to the spatial patterns formed by socio-economic phenomena, or, to put it differently, to the spatial structure of reality. This is the standpoint I subscribe to, and I shall try to develop it further on in a systems framework. Because it is the systems approach which gives the fullest and most consistent interpretation of the real conception of the whole structure of the world. By treating systems as complex objects composed of other concrete objects which are so interconnected that they constitute real wholes distinguished from the environment, we create a basis for an exact categorization of the world at different levels (cf. Bunge 1979). In the social sphere this allows the distinction of different objective components constituting broadly understood social systems and especially territorial social systems.

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¹ Cf. also Wrobel (1965: 12 ff.). A critique of the analytical conception of a region is given in K. Dziewonski (1957: 722).

Thus, the determination of the elements of a theory of the development of a country as a regional system rests on the system interpretation of social reality in the framework of which I shall formulate the notions of a territorial social system, a

country, a region, the regional system of a country, regional structure, development, and other ones. It should be emphasized, however, that it will not be a proper, *sensu stricto* theory, but rather a pre-theory, that is, providing the conceptual foundations of the theory proper.

1. Basic concepts and assumptions

Both the concepts of a regional system of a country and socio-economic development require definition to start with, as they are not unequivocal.

1.1. Territorial social systems

Social reality, on the systems interpretation, is a multi-level, multi-aspectual and multi functional phenomenon and consists of various social systems occurring at different levels and in different forms. Social systems arise and change as a result of changes and transformations of social reality. A special kind of social systems, of fundamental importance for people's lives, are countries and regions, which are territorial social systems. Thus, we shall outline a conception of a territorial social system and on this basis discuss a country and a region with their mutual relations as well as the regional system of country (cf. Z.Chojnicki in press).

A territorial social system is an integral multi-functional social system constituting a territorial unit within the spatial limits of which people's lives and activities are organized. Within this system a human community permanently occupies, develops any real system, it is characterized by a definite composition, environment and structure.

The elementary constituents of a territorial social system

include not only people, but also natural elements of the earth's surface layer (parts of the epigosphere) as well as technical products of human activity (artifacts).

The environment of a territorial social system can be divided to internal and external. The internal, or proper, one is the existential environment of people; it is composed of natural and technical patterns constituting the so-called natural and technical environment of man. The external environment, or better the surroundings, of the system is made up of other territorial social systems with which it develops mutual relations.

The structure of a territorial social system is a set of relations, in particular of social, i.e. economic, cultural, political, technical and ecological interactions taking place among the system's constituents as well as between the system and its surroundings, that is, other systems.

The properties that make territorial social system is expressed in a human community occupying and controlling a given area which is a territorial (spatial) unit with delineated boundaries. It is to the formation of the territorial nature of social systems that "in Western tradition, a boundary (...) arises in connection with two related developments: (1) the organization of space under conditions where property can be owned, and (2) the view of a legal and political system which resolved conflicts within the structure of territorially legitimized criteria of justice". The authors summarize the role and essence of territoriality succinctly: "Societies and the rules which govern them have come to be regarded as territorially defined" (1979: 93).

It should be noted here that not every pattern of units of a

territorial division constitutes a set of territorial social systems, since the latter must meet the condition of being the system.

Re 2. The heterogeneity of elementary components of a territorial social system consists in the fact that there occur natural and technical elements besides human beings, and it causes the system to be divided into two kinds of subsystems: 1) subsystems proper, 2) activity subsystems.

Subsystems proper are territorial social systems of lower order, e.g. socio-economic regions are subsystems proper of a country. This is so because territorial social systems are typically composed of many levels. The basic ones are the local, regional, national, supra-national and global levels.

Activity subsystems rest on the distinction between three main types of social activities and links: economic, cultural and political ones. Each of these types of activities and links determines the occurrence of the economic, cultural and political subsystems, respectively. All the three activity subsystems share the same natural and artificial environments and co-exist and interact within a territorial system.

Activity subsystems are mainly artificial systems composed of a certain kind of units (firms, plants, institutions) performing specialized functions. An economic subsystem is divided into sectors: industrial (embracing a set of interconnected industrial plants), agricultural, etc.

Re 3. The autonomy of a territorial social system manifests itself as the independence of the system from its surroundings, i.e. other systems, and as the system's self-control of its activity; both features are gradable.

Now let us pass to the concepts of a country and a region as territorial social systems. I do not propose to give them a full treatment in a system approach, but only to indicate those properties which play a role in their mutual relations and which affect their functions in socio-economic development.

A **country** is a territorial social system whose specific legal and institutional organization as well as the principles of operation of central authorities and administration determine the character and mode of political, economic and cultural activity of people living in its area, make up its subjectivity and territorial sovereignty, and give it the status of a state. To put it in the words of E.W.Soja (1971:33), "the acme of politically defined human territoriality is reached in the modern nation-state system".

A country-state is thus a social system with the highest degree of autonomy, self-organization, integration, integration and closure of political, social and cultural activity. This degree is out of reach of territorial systems of both higher order, like supra-state organizations, and lower order, i.e. regions and local units.

Under socialism, the legal organization as well as the functioning and activity of society are characterized by: 1) socialized (state-owned) means of production, and 2) central planning of production and the processes of economic development. According to A.Lukaszewicz (1978: 1018), "a society which bases its economic processes on the social ownership of means of production must plan its production. Development planning is thus a necessary link between the social ownership and management on the one hand and the social organization of economic processes on

the other; in this way it gives this organization a planned form".

A region as a subsystem of a country is a compact part of its territory with a defined scope of territorial self-government and individual social and especially economic activity based on specific features of the environment, technical and civilizational facilities and socio-economic potential. The degree of autonomy, self-organization and closure of this subsystem is determined by the degree of management decentralization and by its social and natural properties. Following K.Secomski (1982: 26), we can characterize it as follows: "Such a region closely corresponds to the boundaries of an administrative unit (usually a voivodship) established by a legal act regulating the territorial division of given country. The capital of an administrative region is usually its economic centre performing the functions of planning and management. Regional authorities have the rights of a decision centre, determining the basic moves of regional policy".

However, normative administrative delineation of a region's boundaries can lead to a situation in which the resulting administrative unit is not a territorial subsystem proper, because its internal structure does not form the pattern of links proper to system.

Before proceeding to the definition of a regional system of a country it should be noted that it follows from the assumptions and notional definitions accepted.

A regional system of a country includes the totality (set) of regions of the country among which there occur string links constituting its regional structure. By the accepted assumptions,

the characteristics of a country's regional system comprise its components, structure and surroundings.

The components of a country's regional system are territorial units constituting socio-economic regions, i.e. territorial systems, and not arbitrary units of a territorial divisions.

Thus, a country's regional system is composed of socio-economic regions. The disputes concerning the nature and ways of delimiting them taking place in geography and spatial-economic studies are well known and therefore will not be presented here. From a systems point of view, a region is not merely a territorial unit or an area, but a territorial whole distinguished from its surroundings on the basis of its internal links. A concept close to this approach is that of a nodal region, where the regional division of a country is seen not only as a tool of disaggregation of social and economic quantities, but as an expression of actual differentiation.

The structure of a country's regional system, i.e. its regional structure, is the whole of relations binding the regional pattern. These relations form links of various types, such as flows of information, funds, labour, energy, resources, products, etc. A set of regions constitutes a country's regional system only when its regional structure produces strong inter-regional links that integrate it. The links develop when changes taking place in particular regions induce changes in the other ones. Thus, not every set of a country's regions constitutes its regional system. Historically, strong inter-regional links do not develop when regional units show an even development of various economic activities and a lack of clear specialization, and hence

a high degree of closure.

The influence of the surrounding, i.e. other countries, is indirect and operates through the links of these countries with particular regions, which in turn affects the whole system in directly.

When analyzing the properties and functions of a national regional system, two points should be considered.

1) A system cannot be treated as a regional system only, because it is made up of other kinds of systems as well, such as activity systems and technical ones. However, the basic role is played in it by territorial subsystems (regional and local), since they integrate the remaining ones along territorial lines.

2) There are two kinds of socio-economic properties of a country: global, attributable to it as a whole irrespective of its internal complexity, and partial, relating to its subsystems. After all, a country as a whole is something more than the sum of its parts. It has an emergent character, i.e. apart from properties proper to a system's elements there occur properties attributable to the whole system, but not to its components.

On the basis of the above reflections on a country's regional system it should be stated that its development consists of a series of changes both in the state and situation of the regions and in their regional structures, these two aspects being interdependent. In the economic sphere, this interdependence is mostly determined by the relations between increasing regional specialization and the openness of the regions on the one hand, and the intensity of links, especially of inter-regional flows, on the other. Thus, they are different facets of the same process and therefore should be considered jointly.

1.2. Socio-economic development

The concept of socio-economic development includes a series of directed changes or processes taking place in social systems over longer periods. This concept is interpreted in a descriptive or evaluation way.

In the descriptive formulation, socio-economic development is a change in the properties of a social system leading to an increase in its complexity and differentiation. That is how O.Lange sees development when he states: "In such development particular wholes combine to form more complicated patterns, wholes of "higher order" which exhibit new properties and new regularities which have been absent thus far" (1962: 10).

The quantitative aspect of development in the descriptive approach is accounted for by the concept of growth. It refers to quantitative changes in the components of a social, and especially economic, system. Economic growth is identified with a growth of economic potential, i.e. with an increment of the mass of goods and services as measured by the increase in global product, national income, etc. Modern economic thought of the West questions the role of economic growth, and especially of the growth of global product and national income, as measures of socio-economic development and social welfare, and puts forward the idea of zero growth (cf. E.L.Mishan 1977).

In the evaluative formulation, socio-economic development is considered from the point of view of the realization of social goals through changes in the social system. Development is understood as, e.g., a process which brings about a general advance in civilization and the solution of social issues.

The evaluative approach also covers the concept of progress, which is sometimes used interchangeably with development. However, attention should be drawn to the difficulties with the establishment of criteria of the evaluation of process termed progress, since, as has frequently been observed, they are subjective in character.

Thus, the concept of socio-economic development in a broad sense combining both the descriptive and evaluative interpretations, attention should be given to four aspects characterizing socio-economic development.

The **first** aspects concerns the reference and content of socio-economic development, and these are social reality in the form of social systems. Social reality undergoes constant changes or processes affecting social systems, not only their components but also their structures, i.e. relations and interactions among the components and between the systems and their environments.

The **second** aspects concerns the goals of socio-economic development. The processes that make it up can be directed towards specific goals.

The goals of socio-economic development refer to the three hierarchical levels of activity:

1) a superordinate level - "what we want to and should strive for, what has the highest value for us, universal and timeless";

2) a strategic level - "what is the most important and urgent in view of our supreme aims and the present situation of man and the world, what concrete goals should be given priority right now at the scale of the whole of civilization";

3) an operational level - "how to attain strategic aims

best" (T.Kocowski 1982: 271).

At the superordinate level, the goals of socio-economic development are chosen on the basis of the system of values accepted by society. The determination and choice of these goals is of particular importance in a socialist socio-economic system with the dominant role of central planning, it provides doctrinal justification for long-range decisions, especially concerning investments in perspective planning.

At the strategic level, in turn, the choice of goals is crucially affected by societal needs (cf. M.Pohorille 1980). In reflections on this subject the category of needs is replaced by that of demand. As is argued by J.W.Kolodko (1960: 17), however, "demand is by no means the sole expression of human needs, especially in a socialist society in which, with its development, more and more needs are fulfilled by the consumed part of the national income. Here we enter the domain of distribution relations holding under socialism, where apart from the primary distribution according to the quantity and quality of labour, a substantial part of the national income for consumption is distributed according to needs. Therefore, it is necessary for socio-economic policy to take into account also needs not backed up by purchasing power, and hence not expressed in effective demand in the market of the means of consumption". Thus, an analysis of individual and social needs is a basic element of the choice of development goals.

At the operational level, account should be taken of specific means and conditions limiting socio-economic development, which should then be confronted with the adopted goals and needs.

The **third** aspect relates to the mechanism of development, or more precisely to its underlying factors. The determination of these factors has become the subject of the so-called positive theories of economic development, which concentrate on finding the factors of growth in developed industrialized countries, their obstacles and operation in various institutional conditions. These theories, however, are mainly economic in character and have not been successful either in explanation or prediction. In a systems approach, attention is due not only to economic factors but also to political, cultural, demographic and ecological ones, both positive and negative, i.e. stimulating or retarding development.

The **fourth** aspect of socio-economic development concerns its control, which is a subject-matter of socio-economic policy. Without going into details, let us notice that controlling development requires the knowledge not only of its underlying factors but also of its goals.

2. Main aspects of the socio-economic development of a country's regional system

The socio-economic development of a country's regional system is characterized by the following basic and universal properties:

- 1) the development includes changes in both, the states and character of the system's components, viz. regions, and in the links between them;
- 2) the development is differentiated spatially, which means that it varies in intensity and character with the region;
- 3) certain properties of the development of the regional system as a whole are not the sum or the resultant of the properties of

the development of the regions; in particular, the optimal development of the regional system as a whole is not equal to the maximum rate of the growth in the regions; and

4) the development is teleonomical in character, i.e. it tends towards the realization of certain states of the system.

These properties are basic because they set up a framework affecting the occurrence and shape of other properties, and they are universal because they refer to territorial social systems at different levels of social reality.

We shall call the development of a country's regional system a regional development for short keeping in mind, however, that the term will denote the development of the country's regional whole, and not of individual regions.

The character of regional development is determined by its object, i.e. a regional system, which has been presented earlier, and by its goals and factors.

The statement of the goals of regional development is the starting-point for pre-theoretical analysis since it reveals axiological assumptions delimiting the field of possible directions of the development. The statement of the factors of development, in turn, means presenting preliminary hypothesis concerning the extent to which regional development is determined.

The goals of regional development are specified states of the regional system the attainment of which brings about the attainment of certain social values. The factor of regional development, in turn, are those constituents of the regional system and its environment and surroundings, and those types of activity which determine the development of the system.

The goals and factors of development are the two principal elements in the building of a theory of regional development. This theory, as any socio-economic theory, must contain both, axiological-normative elements as well as empirical ones. There is a special kind of relation between them. The axiological elements relate to the aims and directions, while the empirical ones to the factors and mechanisms of development.

2.1. The goals of regional development

As has been stated already, the goals of regional development are certain specified states of a country's regional system whose attainment brings about specified social values.

It would be hard to find the goals at the superordinate level, among such basic human values as the survival of the human species, the perfection of individual and specific features of human beings, their welfare and freedom, etc., since these goals are rather strategic in character.

At the strategic level, the choice of the goals of regional development is of course connected with an analysis of general aims of socio-economic development. This does not mean that the goals of regional development are merely their concrete form or disaggregation. They are their extension and complement, and even their limitation.

It is impossible to give the various conceptions of these goals in such a short presentation. According to A.Kuklinski (1971: 10), such national goals which have started to gain prominence in economic and social policy in the last 30-40 years include: economic growth, full employment and social equality. We might add here a high quality of the natural environment.

In an attempt to define and systematize the goals of the development of a country's regional system, four kinds can be distinguished: 1) social, 2) economic, 3) ecological, and 4) spatial-structural. Social and economic goals are promotional in character, while ecological and spatial-structural ones are corrective and regulating.

2.1.1. Social goals

The variously formulated social goals of regional development make first of all of the idea of egalitarianism, that is, equality as the standard and level of living of the population as the aim of regional development.

This idea is variously justified. Some derive it from the principles of social justice, some from pragmatically understood advantages of homogenous development. In the Marxian approach to social equality the emphasis is placed on the abolition of differences among classes and socialization of the means of production as a basis of creation of the same conditions of work and life for everyone (cf. K.Mihailovic 1972: 25).

The egalitarian conception has two forms: strong and weak. It assumes its strong form when it refers to the equality of the level of living. It is represented by, e.g., J.Tinbergen (1964: 39) when he lists the reduction of differences in the level of the population's incomes as a goal of regional development. It takes on a weak form when it refers to the equalization of the population's living conditions, that is, to the creation of equal opportunities. Thus B.K.Prandecka (1971: 41) sets as a social aim "the elimination of the differences in the living conditions of the populations of various regions".

According to K.Michailovic (1972: 25-26), "equality has left

deep traces on the treatment of regional development:

a) equality favoured the fostering of underdeveloped regions, and the policy of regional development came down therefore almost solely to this type of region;

b Equality has left a political and social imprint on regional development. This is why social motives for the development of these regions could not be ignored;

c)The territorial allocation of economic activities has been viewed in the light of investment efficiency as the "allocation of production forces". Thus the single process of regional development was split into the socio-political and the economic processes;

d) The existence of two aspects of regional development does not mean that they are not interrelated. Socio-political criteria are often applied to the location of economic activities as well as to social services. There is, on the other hand, a tendency for the policy of regional development to be aimed solely at economic efficiency, in the medium term, of course. As a result, the relation between social and economic goals is often unclear, as can best be seen in the controversial interpretation of the term "political investment" (cf. also A.Kuklinski 1983).

Social equality is in principle a long-term goal of regional development. While there is a clear conflict between this goal and economic growth over a short period of time, this discrepancy if not vanishes then at least lessens over longer periods.

Social equality as a social goal is hard to be made operational since it is multi-dimensional. In addition to the economic dimension, it covers equal conditions for education, medical and social insurance, political influence and social

mobility.

2.1.2. Economic goals

While economic goals of regional development are connected with the aspiration for high economic growth and its stability, they are not identical with them because they refer to differentiated pattern whose directions and speed of structural changes are conditioned by the properties of the regions and dependences holding among them B.Winiarski seems to hit the mark when he defines the goals of regional development as "optimal (...) utilization, over a period of time, of the conditions and resources of the regions as well as maximization of the effectiveness of productive factors engaged in economic activity" (1976: 197).

However, so defined, the economic goals of regional development are hard to interpret and do not allow unambiguous operational directives to be formulated. The difficulties are as follows:

1) Resources are a fairly heterogenous aggregate whose utilization requires economic inputs, i.e. making use of other resources, which however, because of their limitation, can be allotted to other kinds of economic activity.

2) The economic optimality of resource utilization (even disregarding the known difficulties with its definition) is relative and undergoes constant changes over time, under the influence of both, new discoveries and their implementation within the regional system, and outside factors such as prices in the world market.

3) Major productive factors include, besides the already

existing technical infrastructure, labour resources which can be employed in their places of residence or in other regions through migration, which of course also involves appropriate inputs.

The last issue concerns full employment as an aim of regional development. It is worth quoting the opinion of A.Kuklinski on the subject when he states (1971: 12): "The discussion on the regional aspect (...) of employment usually concentrates on one issue: whether it is people who should follow jobs, or jobs people. Regional planners seem as a rule to exhibit a professional tendency to emphasize the necessity of bringing jobs to population centres in order to reduce migration from underdeveloped to well-developed regions. In some cases this may yield satisfactory results, but in general it is advisable to stimulate shifts of both people and jobs".

It should be added at this point that full employment is not only an economic goal, but primarily a social one connected with a basic social value - people's welfare.

2.1.3. Ecological goals

The ecological goals of regional development are in principle a concrete form of natural environment protection and its proper use. These goals become supreme when the progressive devastation of the natural environment and the upsetting of the society-environment equilibrium jeopardizes human existence.

The ecological goals of a country's regional development provide a basis for obviating or reducing negative effects of economic growth and for its proper direction. This direction is not only strategic but also operational in character and its aim should be such a shaping of elements and aspects of development which would ensure a specified quality of the environment. What

is involved here is not only proper land use and the choice of the location of economic and civilizational activity, but also the choice of its type.

The differentiation among social, economic and ecological goals is not wholly clear-cut, as social goals not only occupy the first position but also embrace, in a broad sense, economic and ecological ones. At the operational level, however, they are partly competitive with one another, especially in short and medium periods, and partly complementary. The competitiveness of the goals stems largely from the limitation of resources, while their complementary nature is determined by the diversity of needs (cf. B.Winiarski 1976: 218).

2.1.4. Spatial-structural goals

The spatial-structural goals of regional development concern the spatial organization of the regional system of a country. They can be considered in a spatial order approach or in a spatial equilibrium approach.

The maintenance of **spatial order** is often thought to be the principal goal of a country's socio-economic development, especially in a regional approach.

In regional analysis the concept of spatial order is used as a kind of ideal goal of development, but no definition of it is offered. A classical example is the work of A.Lösch entitled *Die räumliche Ordnung der Wirtschaft*, or "The spatial order of the economy", which, however, has been translated into English, incorrectly, as **The economics of location**.

The concept of spatial order is used first of all to regulate the long-range socio-economic development of a country's

regional system, i.e. at the strategic level. The generality of the concept, however, makes it necessary to established its criteria. As the fundamental one we may propose "the principle of optimal utilization of space for the welfare of man, for the satisfaction of his needs, and for safeguarding socio-economic development" (K.Secomski 1986: 29). This principle, however, is very difficult to translate into operational terms, since optimal utilization can be variously interpreted according to different specific criteria. It requires the building of normative models of space use as standards of evaluation and rejection of regional development plans. This need not lead to a homogeneity of the development of the regional system, but rather to rational utilization of the existing properties of the areas.

It seems that spatial order can be defined as a state of the spatial pattern of social, economic and technical elements which ensures optimal performance of specific functions in the process of socio-economic development. According to K.Secomski (1986: 27-28), "the notion of spatial order becomes a fundamental element for laying down the tenets of adequate development. (...) In formulating the concept of spatial order we must take account not only of the basic element of a well ordered spatial structure, but also of a number of social, economic and ecological aspects. The idea of spatial order and, with it, of a rational utilization of space in the long run is a functional assumption of any program of development and not a constraint or check upon it".

Another goal of regional development is the creation and maintenance of **spatial equilibrium**. According to S.M.Zawadzki (1971: 27), "spatial equilibrium in economic development is understood to mean maintaining such proportions in the

territorial allocation of the population, the process of production and the process of distribution which ensure an optimal development of the whole of the national economy". Generally speaking, these proportions are relations holding among the components of the system, which are involved in various interactions. Of course, the proportions concerned are not arbitrary, but those evaluated positively. These are proportions which ensure or condition the optimization of development and/or minimization of economic and social tensions. The spatial equilibrium of a regional system implies therefore also such proportions which make it impossible for negative social and economic phenomena to occur in particular parts of the system, i.e. in particular regions.

The spatial equilibrium of a regional system involves macro-proportions concerning the process of reproduction (of the national income, accumulation, investments and production) on the one hand, and its social and economic state of the environment on the other hand.

The spatial equilibrium of the regional system of a country includes: 1) intra-regional equilibrium, 2) an equilibrium between the development of a region and the country, and 3) a balanced development of the regional system of the country ensuring an equilibrium in the development of particular regions in relation to one another.

The concept of spatial equilibrium is not as a matter of fact competitive with that of spatial order, but complementary. Together they harmonize regional development and constitute its two general criteria.

An ordering of the goals of regional development to form a

harmonious whole is particularly difficult since it must rest on a knowledge of the system of human needs, and the task of establishing one seems to be simply hopeless. It is enough to recall that the needs are not only complementary and changeably, but also that the satisfaction of some leads to the creation of others.

The set of goals of regional development should not be assigned an absolute value; it takes different shapes in countries with different socio-economic formations and economic levels. While in countries at a low level of economic development priority is given to economic goals, usually connected with growth maximization, together with social goals, especially in socialist countries, with a rising economic level there appears postulate of a better harmonization of the goals and of consideration of economic ones.

2.2. Factors of regional development

A proper definition of factors determining the maintenance or transformation of systems is possible only within exact theory. The lack of such a theory of regional development makes the present attempt at defining its underlying factors only tentative; it should be seen as a preliminary classificational hypotheses (cf. A.Kuklinski 1974). It rests on the assumptions concerning the properties of a country's regional system and the goals of regional development. The distinctions of these factors has analytical significance and is not clear-cut because of their interrelations.

We shall distinguish four groups of factors of regional development:

- 1) basic or substantial factors,
- 2) activity factors,
- 3) spatial-structural factors, and
- 4) external factors.

2.2.1. Basic or substantial factors

These factors include: 1) the state and growth of the population, 2) the state and growth of fixed assets, that is, production, service and settlement facilities as well as the technical infrastructure, and 3) the natural environment and natural resources (cf. K.Secomski 1982: 135). They do not require detailed discussion as they are traditionally well recognized as the elementary carriers of economic growth. Each of them is considered in different aspects and fulfills different functions.

Thus, the population is mainly considered in its demographic (population increase and ageing) and economic (labour) aspects, and rarely in its social aspects (preferences and needs).

In turn, fixed technical, production, service and settlement facilities as well as the technical infrastructure are mostly considered in their economic and technical aspects, and to a lesser extent in their ecological and social ones.

Also the natural environment is studied from the economic point of view (natural resources, especially raw materials and water) rather than from the ecological one (conditions of the quality of live), although this situation has been changing in the recent years.

While the impact these factors have on regional development is largely considered in terms of economic growth, they themselves are not autonomous in this respect, with the exception of demographic processes. They are set in motion through the

supply of streams of accumulation devoted to the widening of social reproduction. This supply takes the form of flows and results from interaction of two patterns, regional and sectoral. Traditionally, however, particular regions are treated as a kind of reservoirs of these factors which have to be activated by the operation of activity factors.

2.2.2. Activity factors

These factors are units constituting elementary socio-technical systems (enterprises, plants, farms institutions, etc.) which organize and are engaged in economic (manufacturing, service), administrative or cultural activity. All of them perform activities aiming at some present goals. The activity of economic units is profit-oriented, the gains derived from material production and services, and their results are the principal component of economic growth. The activity of cultural and administrative units is aimed at the production of cultural goods and services as well as at the organization and formation of social life. This activity crucially influences economic progress, especially economic productivity and effectiveness, through advances in science, technology and organization.

Without pursuing the complicated details of the activity of economic units, let us note that they operate in two patterns: sectoral and regional.

The economic activity of units in the sectoral pattern of a country (industry with its branches, agriculture, etc.) produces accumulation with their manufactured streams of goods. The streams, especially those assigned to accumulation, are allocated to particular branches and economic organizations as means

earmarked for investments, increase in employment and technological progress. This determines the nature of macro-economic factors of growth: new industrial and agricultural investments, infrastructural investments, technical innovations as well as those improving the organization of the branches, etc. (cf. B.Winiarski 1976: 230). A question that arises at this point is that of the influence of the sectoral pattern of the regional one. Particular branches of the economy vary in their influence on the level of the socio-economic development of regions, which, moreover, varies also with time. A known example that can be cited here is the change in the role of the iron and steel industry.

The economic activity of sectoral units in the regional pattern does not produce a coherent network of internal links. The intra-regional links of these units are much weaker than their sectoral links at the national scale. The regional allocation of the factors of economic activity (enterprises, plants, etc.) takes place largely via the sectoral pattern, and their gradual adaptation to the regional pattern takes place through the operation of the substantial factors of development (labour resources, the existing infrastructure and natural resources) occurring in particular regions. This is so because an appropriate mechanism of regional preferences has not developed yet. Hence, the domination of the economic goals, especially of economic growth, over the other ones.

In order to harmonize the goals of development and give more consideration to extra-economic ones, especially ecological and spatial-structural, the allocation mechanism would have to be restructured so as to include regional preferences. There is a

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clear feedback between the goals and the mechanism, since a harmonious development of the whole of the regional system can serve as the criterion of allocation.

Unlike economic activity, cultural activity is not so purely sectoral in character and is a manifestation of the more autonomous activity of local communities. The growing role of this kind of activity is a major factor in the growing independence of development of particular regions.

2.2.3. Spatial structural factors

These factors are determined by the developmental stage and the spatial location of regions as well as by their interrelations in the country's regional system. Thus, they are par excellence systemic, spatial and relational in character.

The factors connected with the developmental stage of the regions are defined in terms of differences in the levels of their economy and culture and their relative economic growth. This leads to the distinction of backward, or lagging, regions. A paradoxical question arises at this point, of the extent to which regional backwardness can be a factor of development.

Backwardness in itself is not such a factor, but it can hide a potential basis for development waiting to be utilized. It can be activated by changes in the economic position and role of other regions or by new incentives resulting from sectoral changes of economy.

The position of a region in the spatial regional pattern is just such a potential factor of development. This situation is explained and justified by various theoretical conceptions. Some, like potential or gravity models, deal with the distance factor; others, like diffusion models, are concerned with the processes

of innovation diffusion.

A major factor of regional development is the form and changes of the structure of intra- and inter-regional links. There are various approaches to this factor as well, such as dynamic models of inter-regional flows, growth pole theory, and others. Of particular interest is the mechanism of growth as presented by growth pole theory, taking place via stimulation of induced economic activity and the ensuing multiplier reactions.

2.2.4. External factors

The determination of the influence of external factors, viz. the economies of other countries, on regional development is connected with foreign trade on the one hand and the influence on the development of border regions on the other. But this is a separate issue exceeding the scope of the present paper.

Seen as a whole, the subject of the factors of regional development looks as follows. The best theoretical and model treatment, though only a partial one, is given to spatial-structural factors, whereas the remaining ones are usually considered in terms of the analysis of economic growth. Also, there is still no full theory of regional development factors. It is likely, though, that such a theory is impossible to construct.

The third issue, that is, the control of regional development, will not be pursued in this paper, since it is a problem that requires the introduction of new concepts and assumptions. However, it is of key importance in the planning of regional development.

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