

“Diagnosis of the State of Space Economy in Poland”: Methodological Problems

Written by a team of distinguished specialists in the social and natural sciences and technology led by professor Antoni Kukliński, the “Diagnosis” deals with the system of national economy in its spatial aspect.

The studies included in the book have been published largely in the Bulletin of the Polish Academy of Sciences' Committee for Space Economy and Regional Planning (nos. 111, 116, 117, 118, 120, 123). They have been selected and arranged to cover the following areas of inquiry: a) general assumptions; b) surveys of individual topics, i. e., diagnostic studies proper, and c) synthetic interpretations of the results provided in individual diagnoses. Still, this internal division only adds consistence to the collection. It forms a whole in itself while each type of work marks a logical stage along the way toward a complete diagnosis. Moreover, the studies within each area of inquiry are not only a consequence but also an analytical scholarly response to earlier research in a broadly conceived “learning process” and formulating synthetic conclusions which reach far beyond initial goals.

The methodological analysis of the “Diagnosis” aims at presenting its principal properties and cognitive and practical functions. I hope that next to being a discussion on a specific instance of a diagnosis, it will also throw some light on the methodological nature of both the research and results defined as diagnostic which increasingly mark their presence in the social and economic sciences.

I. The methodological analysis of the “Diagnosis” ought to be preceded by an outline of its methodological design. This however is not easy because the very notion of a diagnosis has not been the subject of more penetrating methodological inquiry yet. Hence it is necessary to establish the properties of a diagnosis.

The process of making a diagnosis first originated in the medical sciences where it meant a determination of a patient's health. By now a number of other sciences have adopted that idea to define the state or a change in the state of an object as part of its general evaluation.

Without going into details I think that a precise definition of a diagnosis in the field of socio-economic phenomena should include the following ele-

ments as its constitutive features: 1) empirical-descriptive; 2) appraisal; 3) theoretical-interpretative; 4) practical.

The empirical-descriptive element deals with recognition of a state of an object or its changes (development trends) by way of scientific inquiry.

The element of appraisal covers an evaluation of that state against an adopted standard.

The theoretical-interpretative element brings the explanation or understanding of the state of an object or its changes on the basis of adequate theoretical knowledge of relevant determinants or factors.

The practical element covers recommendations on how the desired or proposed states or their changes should be achieved.

Such an approach to a diagnosis is however too general and needs to be reconciled with the sphere of social reality of which space economy of the country is a component.

Space economy of a country, i. e., national economy in its spatial aspect understood as the subject of a diagnosis must be considered in its entire complexity, which means that it must be seen as a concrete sub-system of the real socio-territorial national system.

Owing to the complexity of national economy in its spatial aspect it is only a system approach that may create conditions for a possibly comprehensive but at the same time selective picture of its specific properties and factors responsible for its change.

Let us now describe in more detail the elements of the methodological model of a diagnosis.

1. The empirical-descriptive element of a diagnosis concerns a description of the condition of a system and its changes. This includes a determination of the system's components and their specific features as well as the internal and external links of the system and its global properties.

The properties of the components and controllable internal links constitute the functional properties of the system. They determine its global states which in turn define its functional range.

The properties of the nomological organization of a social system are not easily recognizable and therefore must be determined by way of careful scientific examination with solid theoretical support. It should be underlined that the identification of the real properties of a system and especially its functional properties proves particularly complicated.

2. The element of appraisal, which brings the evaluation of the state of a social system, constitutes an indispensable component of a diagnosis. The evaluation of the system and the tendency of its change requires a definite standard. That standard can be either axiological or instrumental-axiological. The former is made of a set of socially recognized values which form the basis for evaluation. The latter norm is composed of a set of utili-

tarian goals which qualify a given state as useful or indispensable for the achievement of adopted social goals.

3. The theoretical-interpretative element of a diagnosis boils down to a theoretical explanation of the state of a social system and its development factors. It is impossible without this element to grasp the situation of the system against a broader context of its dependencies. The absence of this element makes the cognitive and practical conclusions of the diagnosis shallow and superficial.

The chief difficulty, however, consists in the fact that the social sciences do not offer proper theories, i. e., theories which fully explain the state of social systems, while the approved theories provide general outlines sufficient to support nothing more than sketchy interpretations. Therefore explanatory interpretations are based on *ad hoc* working hypotheses which serve as a theoretical model generating conditions — predominantly necessary but not sufficient conditions — for certain phenomena. This allows a fragmentary insight into the nomological organization of a social system.

4. The practical element contains suggestions concerning the directions and methods of obtaining the desired changes in the system toward the adopted goals.

II. The methodological norm presented above provides the foundation for a characterization of the "Diagnosis" and covers 1) its assumptions; 2) its components.

1. An important assumption of the "Diagnosis" is the conception of a critical approach to space economy of the country against the background of its socio-economic situation. Its manifestation is the approach to the properties of space economy from the angle of the socio-economic crisis and conflict. Such an approach offers grounds on which individual elements of space economy in the country's socio-economic development may be detected in the light of evaluations of their functioning. Such an assumption, which could be termed social axiological commitment, is more stimulating on both the cognitive and practical planes than social axiological naturalism which is quite often adopted in analyses similar to that discussed here. It is of principal importance for the comprehension of the nature of conditions of existence of both the individual and society and for their improvement.

The second assumption is the conception of a comprehensive approach to space economy. Although it does not carry any well-defined systemic conceptualization, this approach marks a clearcut departure from traditional interdisciplinary research. The comprehensive approach manifests itself in the fact that space economy is viewed, and what is more, interpreted against a broad context as a subsystem characterized by a high degree of openness and sensitivity, one composed of interlinked partial systems and interrelated with other subsystems.

The third assumption is the idea to view the socio-economic state of the country as one historically and geographically determined, i. e., dependent on a specific mix of conditions which have shaped the country's development processes.

2. The discussion of the components of the "Diagnosis" should start — according with the adopted standard — with its empirical-descriptive component.

1) This component contains mainly the characterization of the role of individual elements shaping the economy as well as describes their factors which are important links in the cause-effect chains of the socio-economic development and whose functioning determines that development.

The characterization has the following distinctive features: a) a functional approach to individual elements of space economy. This means that their role in determining unfavourable global states of the system is specified; b) a proper definition of the role of natural environment and its resources and the technological infrastructure as the principal determinants of the living standard of the population on the one hand, and socio-economic reproduction and economic growth on the other; c) a consideration of the role of the socio-political supra-system in the form of social infrastructure and its institutional aspects which constitute the normative framework for economic activity and shaping the economy.

This characterization is predominantly pragmatic and informal in nature and its main stress is put on the empirical contents.

Yet it is not free from weaknesses which include: a) an excessive tendency to make use of aggregated values of various degree of generality; b) omission of the impact of normative-institutional factors, and especially the influence of social groups and their conflicting interests; c) omission of the role of agriculture and its interdependence with other sectors; d) stress on direct dependencies and overlooking indirect links.

2) The appraisal in the "Diagnosis" is present at every stage of its construction and constitutes not only a complement to the empirical-descriptive analysis of the state of space economy but also its theoretical interpretation. Taken as a complementary element, the appraisal is chiefly instrumental and is connected with the discussion of functionality or the degree of realization of target states. As an interpretative element it is the realization of assumptions of the critical approach and it provides a basis for formulating suggestions concerning the directions of the proposed changes.

3) The theoretical-interpretative element, most pronounced in the synthetic part of the "Diagnosis" not only attempts to give account of the state of space economy but also offers a confrontation of that state together with its development trends with postulates for its rationalization and modification aimed at high social effectiveness. Hence the interpretation presented in the "Diag-

nosis" on the one hand shifts the main emphasis from the analysis of the state of space economy onto the examination of the cause-effect mechanisms shaping space economy as a component of the socio-economic system of which it is both the causative element and its outcome.

Particularly important is the definition, if only a general one, of what impairs the feedbacks between space economy and the socio-economic system.

Although the "Diagnosis" does not employ cybernetic-systemic models, it does manage to deal with internal and external interdependencies of space economy at various levels.

On the other hand, this interpretation clearly involves a measure of evaluation based on a critical approach to socio-economic goals and choices. These goals include efforts to keep up the ecological, social and economic equilibria as a means of rationalization of further activity and, at the same time, as a prerequisite for economic growth.

This interpretation has found its most concrete expression in the conception of the industrialization model being the chief link in the system of space economy.

4) The practical element of the "Diagnosis" is not directive in nature but it points to the foundations of the strategy for action to modify the mechanisms shaping space economy toward the desired social goals and objectives.

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It should be said in conclusion that the "Diagnosis" and especially its synthetic-interpretative part presents an attempt at outlining a new and far-reaching programme of research in space economy. It is characterized by a multi-dimensional and multidisciplinary approach. That programme is well-entrenched in the social, political and economic realities of Poland. Its implementation will call for a new system of reference and a further specification of the problem and methodological assumptions related to the broadly conceived systems analysis.

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