Camelia Raţiu-Suciu, Ion Raţiu-Suciu

RESURSE STOCABILE ŞI NESTOCABILE

(Storable and Unstorable Resources)

Editura ştiinţifică şi enciclopedică, Bucharest, 1987

The intensive, qualitatively higher development of the Romanian economy in the context of the contemporary technical and scientific revolution implies the harmonious and balanced development of all branches of activity and requires to a greater extent the judicious use of its human and material resources.

In the present stage, the preponderently intensive economy enhances the importance of the qualitative factors of growth, that is of turning to best account its own means and resources, of increasing the standard of labour training and improvement, of using modern methods and technologies in the practice of production and labour menagement and optimization.

At present, the careful and complex analysis of resources is a major need since they point to the possibilities of development and define the sphere of the approached problems.

The property to be or not storable is essential for the analysis of each resource; thus, the storable resources (raw and related materials, money, etc.) are consumed with the materialization of work, the available stock being diminished through consumption; the unstorable resources (labour force, the production unit, etc.) have a level of daily availability, the nonconsumption of the daily available funds is conducive to losing the difference not used in the respectiveperiod of time.

The difference in conduct between the two types of resources is reflected in a much greater flexibility of the conditions linked with the use of the storable resources.

The work is divided into six chapters presenting the role of resources in the context of modernizing the structure of the Romanian economy, the industrial production process and the need of resources, the complex analysis of storable and unstorable resources, the agricultural production process and the agro-silvicultural resources, the resources of informatic systems.

Considering the way in which the work was thought/out, it tackles resources in the light of the time factor which can influence their dimension or qualitative parameters at the level of the two basic branches in our economy (industry and agriculture) the problems of which should be solved by means of computing technology, hence the need of a distinct approach to the resources of the informatic systems, too.

The complex analysis of the storable resources is achieved by starting from the systemic approach to the technical-material supply process in the industrial unit by observing the present legislation in our country. Presented are the component subsystems and the dependence between them.

An important place is held by the administartion of the raw and related materials stocks which are tackled with a view to improving the optimizing-stocking decision.

A series of models found in a less degree in specialist literature is presented, models that have been adapted to the requirements of economic practice-emphasis is alid on the models of a dynamic-stochastic type.

The extension of the raw materials and energy nasis, an essential task of socio-economic development, also depends on the recovery and full use of the reusable resources, the recycling of the recovered materials, the reconditioning and reuse of the spare parts.

The recovered resources are a component part of the technical material supply plan at factory level.

In the normal conditions of economic efficiency, production must be achieved by using fabrication technologies conducive to the best use of every material resource and to the registering of still more reduced secondary resources.

In order to eliminate a possible discordance between the ensurance of material resources in due time and the production denominated through the plan, the authors insist on a constant updating of the plan both at factory level and at the level of C.R.V.M.R., (which should take into consideration the possible cuts in secondary resources) with the results that can be obtained by reoptimizing the plan of production of and the recuperable materials.

The unstorable resources generally include the labour force resources and part of the material resources the size of which is conditioned in the process of using the time factor (the balancesheet of a worker's working day, the total working day per unit, the production capacity of an equipment, section or industrial unit, etc.).

Since the available capacity of production or labour force greater than the demand at a given moment cannot be stocked, the respective resource is lost. Just as the human society cannot be defined outside

the human collectivity, one cannot conceive the affirmation of the production-consumption correlation by leaving aside the human factor no matter if we refer to material goods or spiritual assets.

An extremely important part in the best unfolding of the production processes is played by the subjective factor, man, which is nothing else but the labour force resource.

The permanent increase of labour productivity is a systematic expression of the passage from the development of an extensive type industry implying a high consumption of material and human resources to the development of an intensive type characterized by the diminished consumption of resources per unit of industrial product.

The traditional methods of constructing the previsional models with a preponderently statistical character prove simplistic, unable to solve the problems of the very complex systems or with many random elements. Also appearing is the problem of combining mathematical formulations with some purely empiric constraints requiring methods used with adequate suppleness.

An instrument which has lately been used still more frequently in solving such problems is simulation having the great advantage of enabling the obtaining of scientifically elaborated forecasts on the behaviour of the systems.

The use of modern methods ensures the best implementation of the prerogatives of factory management, the increased efficiency of the activity of managerial bodies and the making of correct decisions in the basic field of the activity of economic units (the activities of forecast, the rational use of material, human and financial resources, etc.).

The development and application of operations research, of cybernetics, informatics, the mathematical modelling of the economic processes are some of the most significant gains placed by science in the service of an efficient management.

The improvement of the information system plays an important part in the general context of the process of management, organization and planning of the activity of the economic units.

An information system properly known and organized at factory level secures the information basis necessary for the industrial groups and ministries directly contributing to the proper functioning of the unitary information system of the national economy.

The work is richly illustrated with diagrams, figures, numerical examples explaining the various economic aspects. The style of the work is clear and concise and the extremely topical subject is well structured and gradually presented.

The solid theoretical basis of the work correlated with the character of applicability in economic units of the presented methods and models make it be intended for a wide circle of readers, namely specialists in production and those attending refresher or postuniversity courses as well as students of economic and technical education.

Prof. Dr. Virgil Sora