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**THEORETIC-METHODIC PRINCIPLES OF THE TOTAL CARE CONCEPTION-
OF ENVIRONMENT IN SLOVAKIA**

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The Total Care Conception of Environment in the SSR for the period of the 7th five-year plan with the perspective till 2000, which was prepared under the conduction of the Ministry for Construction and Technology of the SSR (present Slovak Commission for the Scientific Technical and Investment Development) by URBION — the State Institute for Town and Country Planning 1982, is one of the most complex works evaluating the state, development trends and respective measures in the development of basic scope (human activities) and components of environment in the land projection. Its objective is to prepare and to ameliorate the level of environment, this by a gradual liquidation of the biggest sources of pollution by transition to a small waste and wasteless technologies, using the wastes as sources of secondary raw materials, protection of the area with the first class environment as a hinterland for recreation, health treatment, research and a base of genetic funds of fauna and flora, optimization of landscape potential use, by ameliorating the environment for work, dwelling, culture and health recovery and by attaining the values established standards of the environmental basic components throughout the entire territory of the SSR.

INTRODUCTION

Environmental care is a global problem, which is touching the existential conditions of the whole humanity and must be solved in cooperation with all the countries and nations. It is why the socialist countries put forward and are systematically putting forward the solution of environmental problems equally at all the decisive international sessions, as well as at those at home. This initiative was made valid to full extent when formulating the final act at the European Conference on Safety and Cooperation held in Helsinki (1975), which states that: „...protection and improvement of environment, as well as rational use of its sources in the interest of present and future generations, are tasks of decisive importance for the well-being of nations and economic development of all countries; many environmental problems mainly in Europe can be effectively solved only in close international cooperation“. Peace cooperation is presently the most concrete form of fight against the war, which carries the most destructive consequences to environment.

The philosophic substance of environmental care in the socialist countries dwells in the optimization of protective and environment transforming measures, which based on disclosed connections between environment and existence, ensure the biologic equilibrium and give a higher quality to social and humanitarian reflection of relationship between society and environment. Solely activities with similar bearings can assure, beside the technic, technologic, hygienic, economic, esthetic and internationally legal aspects, the integrity with political, social, ideologic, cultural, esthetic, humanitarian and ethic aspects of environment. The substance of the ecologic problem dwells before all in the social factors and in the production relationships, which condition these factors in the level of advance of the technical revolution, in the quality of protective measures and in their consistent control.

BASIC PROCESS ASPECTS AND METHODIC APPROACHES

In Slovakia the environmental creation and protection is anchored in the basic political principles of care of man, purposeful use of resources and protection of repeatless nature richnesses. The situation in the environmental sphere is followed at the government level, which evaluates regularly its state and trends and imposes the respective measures.

The aim of the present paper is to become acquainted with the Total Environmental Care Conception prepared, under the conduction of the Ministry of Construction and Technology of the Slovak Socialist Republic, by URBION — State Institute for Town and Country Planning in Bratislava in 1982.

The documents of interested departments, academic, research and university institutions were used for its preparation. It was approved by the SSR government after its concept has been inter-departmentally discussed and commented by organs, institutions and professionals. In its preparation took part also the geographers, mainly the Geographical Institute of the Slovak Academy of Sciences, which in the conception stressed the task of the natural landscape potential, which in the development of industrialization and urbanism becomes limiting for the equilibrated environmental creation.

The methodic contribution of the conception against the previous works gave priority to care of dwelling, working, cultural-social and recreational-rehabilitation environment, as decisive components of living standard before the basic environmental components — atmosphere, water and soil, as well as noise, vibrations and wastes, which support or impede the conditions for the development of human activities and for a sound full-value life of the population in them and have for each environmental scope other qualitative indicators prescribed by standards. At the same time it unifies the method of environmental conception with the legalized landuse planning documentation, which is the instrument for creating optimum conditions for work, dwelling, culture and recovery.

NATURAL AND TOWN PLANNING POTENTIAL

In preparing the „Total Conception...“ the natural and town planning conditions were one the basic starting points. The carrier physiognomic landscape units in Slovakia, with differentiated internal structure and method of use, are the macrostructures of mountain ranges, basins and plains. They

are simultaneously the three characteristic regional macrostructures of environment with particular conditions for man life, demographic-town planning features and total economic structure.

From this side the SSR presents a very complicated spatial structure of contrasting landscape types, with different conditions for use. 28.5 % of the SSR territory are covered by lowland (planar and hilly country) landscape types, 23.3 % by basin and furrow landscape types, 8 % by plateau and highland landscape types and 40.2 % by landscape types of mass mountain ranges (2,5,7). It results from this differentiation that for an intense development of the socioeconomic structure, within the frame of controlled urbanization process, there is at disposal less than a third of the territory with lowland landscape types, of high potential value for economic use less than a fourth of the territory with basin and furrow landscape types which, however, are already distinguished by limiting effects.

The development of modern industry and socialization of agriculture caused the change of landscape structure in our country. Mainly the years of sixties and seventies were distinguished by a strong population concentration along the road lines in lowlands and basins. 3/4 of the population concentrated here, there are here 90 % of all towns and 90 % of industrial and service activities of the SSR [1].

In the landscape structure there is generally the zonal arrangement; however, not of large area, but irregular mosaic, whose carrier is above all the relief.

In order to build up an effective organization of space, based on the potential properties of our strongly heterogeneously structured landscape, in considering our socioeconomic position within the C.M.E.A. frame and in larger frame, it is necessary to make systematically diagnoses of landscape and socioeconomic conditions of the SSR.

The urbanization process and with it the land development, which influences markedly the environmental creation, is not isolated in the SSR settlement conditions solely to individual urban units, but the further the more are manifest the tendencies of cooperations of a group of urban units in the unified town planning system. One of the reasons is the environment overburdening of towns provoking the dispersion of town functions into a larger hinterland. In accordance with the approved landuse planning and land use technical documents (9,13) the entire development process is understood as a concentration-decentralization process, in which the concentration represent the spatial-residential structures as a system of gravity spaces and the decentralization is represented by a differentiated urbanization within each structure.

For perspective period a principle was accepted that from the stand point of environment the development process of population repartition, the housing fund, the production forces and selected activities of Tertiary and Quaternary sphere will be orientated into suitable spaces.

CARE CONCEPTION OF BASIC HUMAN ACTIVITIES

The care conception of the development of basic human activities brings out the environment, in which the primary subject is man-dwelling, working, cultural-social and recovering.

The dwelling environment was analysed in two, interconnecting positions — in the position of dwelling and in the position of living environment in residential formations. The development of the housing fund and its areal repartition shows from the controlled of urbanization stand point positive trends what regards the construction of flats and the quantity (72.3 % of the whole housing fund in the SSR were built after liberation), even what regards the areal standard (the part of one-room dwellings decreased from 46.3 % to 15.3 % and three- and multy-room dwellings increased from 11.8 % to 51.9 %). Substantially improved also the qualitative marks of the dwelling area and equipment of dwellings [4].

In the conception of forming dwelling systems stress is laid on reviving their internal spaces, abandoning monofunctional low-floor pavilion of civil equipment and one-sided concentration of business and services into large units, completion of living environment with minute qualitatively more demanding equipments, increase in variability and colourfulness of houses, as well as uniformity and function of interflat verdure.

A more sensitive solution is perspectively assumed, to preserve in towns, where new housing acquires predominance over the old land coverage, the characteristic identity of spaces and that new object of higher outfit linked to plans, heights and volumes of the historic land coverage. It is necessary to increase the time conformity of objectives, to prevent an unjustifiable number of houses under construction and unconformity of the old and new land coverage.

Favourable development tendencies of environmental living of villages in the urbanization areas are respected in the conception. In future the construction of single family houses is considered here, for which there are not suitable conditions in the core urban units, and the solution of reconstruction method of deteriorating centres of villages to higher forms of land coverage, which will prevent the outgrowth of villages into agricultural soil.

The working environment was analysed in microposition, which is the state and suggested measures in the sphere of work security, mezzo-position under which is understood the creation of operational spaces and in macroposition, to which belong the questions of integration of the industrial production functional zone (10), as well as concentrated working places of agricultural production.

In the cultural-social environment it is necessary to develop effectively the socialist way of life. Assumed is the increase in gratifying the sociopsychologic, cultural-social, biologicico-economic and compositional-asthetic needs, with priority objective the work security and quality of hygiene, orientation, informations, publicity, intimacy, hierarchic organization, land and social preference, comfort and esthetics of town-forming elements with connection to existing partner environment, materials and surrounding landscape elements.

The care state and conceptional objectives of the recreational-rehabilitation environment are solved in the position of assuring recreation in the landscape and in the frame of residential formations. The claims to recovery in the vicinity of dwelling and in the residence grow in accordance with the development of the socialist way of life. In the perspective period it is necessary to assure the claims of inhabitants mainly in the unorganized physical

culture, gardening and in other free time activities. The shortcomings in this sense were one of the main causes of explosion in building outfits for the week-end individual recreation. From the standpoint of nature protection and decrease of soil occupation for individual and family recreation it is suggested to use in a greater extent the house fund in typified recreational villages.

In the SSR recreation landscape there were evaluated by elimination method 1 345 recreational areas covering 186 675 ha, which permit a total attendance to about 1.8 mil. visitors in average per day during the summer season. In a suitable exploitation of recreational areas the overburdening will not exceed in average the tolerable measure of 10 visitors per ha, which is a favourable indicator of recreational landscape use. Till the year 2000 the total claims to short-term recreation will attain roughly 1.2 mil. visitors per day [9].

From the balance of conditions and possibilities of the recreational potential it results that the SSR territory till 2000 will be the resourcefull territory and that the major part of recreation areas, situated in a favourable landscape environment, it will be possible to consider as reserve resources and zones of silence.

COMPONENTS OF ENVIRONMENT

The conception of atmosphere protection for the period of the 7th five-year plan and perspective to year 2000 starts from the positive development of the last years and from the pace of the outfit building for the catchment of emissions. The extent of area touched by concentration above the standard is decreasing. However, the effort to decrease the gaseous emissions has not met so far with success, mainly sulfur dioxide. An increase (by 61 %) in emissions from car transport was recorded. On the opposite the effort to decrease hydrogen, chlorine squirting and other nonspecified gases has been successful.

The conceptional objectives in the SSR polluted areas are gradually realized in accordance with the technic and economic possibilities, changes in the technology and with the building up of ecologic outfits. Decrease is assumed mainly in the most affected areas.

The conception of water use in the care of environment starts from the reality that the SSR territory is entirely dependent on 36.4 mld.m³ of precipitation from which about one third is at disposal. Several water resources are threatened mainly by surface pollution. It is why the conception is aimed at the preventive protection of water resources, which is particularly pressing in deficient areas. For the water supply of inhabitants it is suggested to connect on group water mains preferably those villages or their parts, where the water is harmful, respectively to build up small common water resources where there are suitable conditions for it [11].

Water use for dynamic economy development, for recreation and sport as an active component of environment is hindered by a low quality of waters in water courses. It is why it is recommended to pay attention to finish sewage treatment plants under construction, to effective operation of those already built up and to starting the building up of new ones. Then stress

was laid on increased circulation of water in industry and on the protection of those sections of water courses which are the sources of ground water contamination.

The agricultural and forest fund represents more than 90 % of the SSR area; there is per inhabitant 0.49 ha of agricultural soil and 0.38 ha of forest soil. The conception assumes to spare and improve strictly the agricultural soil as a basic value for the sustenance of population. In accordance with the planned development of agriculture and with the state of soil production capacity it is necessary to intensify the fertilization of unproductive and devastated soils and the recultivation.

The acreage of forest soil covers 40.1 % of the SSR area. There was an increase of quality of the forest fund, of reserves in age classes and species composition of forests. Perspectively a more marking areal growth of forest soil is not counted upon, but rather upon the qualitative reconstruction, increase in the representation of protective forests and forests of particular purpose.

The accompanying phenomenon of the ever increasing human activities is the growth of noise and vibrations. This fact has a negative bearing on man's mind, his nervous and vegetative system. There is an increase mainly of noise from the transport by increasing the degree of motorization, from the production and mining activities by introducing machines of higher performance, noise in the communal sphere by increasing the outfit (pumps, boiler houses, laundries, compressor rooms), but also of noise in the dwelling environment (higher concentration of people, their movement, elevator engine rooms and lower sound isolation values of used building materials).

The most marking growth is produced by noise from the transport as a result of rapid increase in motorization. The improvement of these conditions requires relatively high investment expenses, inclusive the occupation of agricultural soil, which could help to attain the segregation of transport, deviation of transit transport from residential zones and transport management by signalization and automation.

In railway transport the noise level of locomotives decreases gradually by electrification of railway lines and by a planning replacement of old Diesel-locomotives by less noisy ones. Even further modernization of railway transport (automatic blocks, signalization, humps of formation years), has also contributed positively to decrease the noise level. It can be stated that development of railway transport on stable railway lines does not raise particular problems in our country what regards the level of noise.

Wastes and by-products as a result of man's activity in the natural and urbanized area become very important to limiting factors of further development of human society by its own physical existence, as well as by their consequences to environment of man. Their rational use together with the question of introducing little and wasteless technologies is one of the primary criteria of rentability of the Czechoslovak economy and ecologic landscape situation. Particular measures were suggested in the sphere of use, utilization, production decrease and removal of solid communal wastes, byproducts from industry and mining, tailings from sewage treatment plants and used crude oils.

The preparation of land—use projection of environmental level belongs among the most important synthetic tasks of the Total Care Conception of Environment. Precise limits were made in it of the most affected areas of the SSR; comprised in them were only homogeneous areas from the stand point of bearings of negative character of environmental components and intensity of their cumulative action. Distinguished are therefore two categories of these areas: (a) the most affected areas whose acreage covers 1.2 % of the SSR territory and (b) the most affected localities, or sections of water courses, which are affected by pollution in general only by one component.

The selection of these areas and sectors of water courses was made on the synthesis of devaluation of individual environmental components and intensity of their communicative action. The most affected areas and localities must have as the first ones preparation of more detailed analyses and conceptions of environmental creation and protection up to the level of concrete measures to solve the most important specific problems. It is assumed that the evaluation of the basic human activities and environmental components in the most affected areas of the SSR in further stage of the work will be prepared in detail at least on scale 1 : 50 000 so as to comprise all specific problems on the one hand and that the solution will respect the total conception of environmental care in the SSR on the other hand.

It is necessary that the responsible departments, based on this conception, determined the priorities in the solution of key problems of gravity ecologic buildings in the most affected areas and localities of the SSR. In the conception it counted upon the association of ecologic investments, with a consequent control of construction regimes and with preference to all-social needs, in order to put in operation the ecologic outfits simultaneously with the realization of constructions as a whole.

In accordance with care of soil, apart from the problems of its protection, valued and land—use projected are also the very persistent problems of soil devastation in connection with soil erosion, landslides and soil devaluation by infiltration of detrimental substances.

The prevention of foreign substances transition to the food chain up to man, stresses the need to evaluate in detail the agroecopotential of affected areas, with the aim to determine a suitable system of an optimum landscape use.

The sector of water management considers and projects the economically extraordinary important function of Slovakia as a significant resourcefull area, this in the predominant part of the territory and particularly in the resource areas of drinkable water — before all in the protected water management area of the Žitný Ostrov. In the connection measures were suggested also for the legislative protection of other significant source areas, as well as ground and surface sources of drinkable water.

Apart from areas and localities mostly affected by negative influences, and also other contaminated areas a new environmental category is suggested in the conception, i. e. first—quality areas with regard to a high biologic potential, landscape value and of the least pollution, which have the function of „living lungs“ of the SSR territory. These areas are not, or solely in a negligible

extent, are not affected by consequences of man's activities. From the environmental standpoint, mainly natural environment, they are precious areas, requiring a strict protection against any devastation.

Among these areas are mainly the Považský Inovec, Strážovské Vrchy, Mount, Malá Fatra, Low Tatra, High Tatra, Chočské Vrchy Mountains, Slovak Karst, Volovské Vrchy Mountains, Spiš-Gemer Karst, Veporské Vrchy Mountains, Veľká Fatra and Starohorské Vrchy Mountains. In the lowland areas of Slovakia it is the southern part of the Danubian Plain, in the Záhorie land the Chvojnická Pahorkatina hilly country, then the Hron flood-plain, the lower part of the Rimava basin and the middle part of the East Slovakian Lowland.

INSTRUMENTS FOR ASSURING ENVIRONMENTAL CARE

The management of environmental care is assured at the federal, national, regional, district and local levels in accordance with the legal adjustments. Assured also is the total land-use coordination of the environment. The protection of individual components is carried out by the respective management departments and their inspection bodies. To the efficient environmental care management instruments belongs the system of national economy, regional and land-use planning, which considers the state and development of the environment and influences it systematically.

The protection of the basic environmental components is assured by legal standards. A total of more than 350 laws, regulations and public notices have been issued. This number, however, reduces their efficiency. In the perspective period, therefore, it is necessary to prepare a comprehensive uniformly conceived system of legal standards, which will consider present and perspective needs of a complex environmental care.

A great attention is paid to the questions of State protection of nature. To September 1, 1981 in the SSR legal protection covered together 447 natural objects of a total acreage of 728 thousand ha, which represents 14.8 % of the SSR territory. In the conception it is suggested to give preference to creative approaches to a more active protection of nature and to improve the economic activities in extensive landscape areas with regard to their specialized protection [8].

In solving the environmental problems scientifically and by research an approach at the level of preventive prognostic needs and remedy and reconstruction of environment already affected.

Perspectively it is assumed to realize a narrower and more coordinated research, which permits the necessary variant solution of an optimum environmental model in the SSR. To this goal will serve also the „Ecoprogram 1981 — 1985“, which will comprise, apart from other things, the research results of ecologic informations, skeleton of ecologic stability and ecologic system of management [6].

The education in the care of environment is assured as part of the development of the Czechoslovak Educational Instruction System. For the future it is suggested to deepen the quality of action in all spheres of social events. From the information system standpoint it is counted upon the preference of interdisciplinary and land-use orientation of informations on a uniform rational basic, without the outgrowth of administration.

The Total Conception follows the objective to gratify man's requirements in the dwelling, working, cultural-social and recreational environment and in all the environmental components. It showed that even in period of development of industry it is possible by an intense care and use of all reserves to assure a gradual environment improvement in the SSR. It is an open system, frame, with a running deepening of the knowledge acting in the area and considering new factors particularly in the period of years 1981 — 1985 (i.e. of the seventh five-year plan of development of the national economy) and a long-term perspective till 2000 [3, 12].

It is counted upon that the tasks of the Total Conception will be evaluated regularly each year. Evaluated will be the changes that took place due to the ending of ecologic buildings and outfits, due to changes in technology, innovation and modernization of production processes, reduction of waste production of production processes, by organizational measures and active participation of all citizens in the environmental improvement on the basis of particularly and uniformly prepared methods.

More concrete care projections of environment are being prepared consequently in the regional conceptions, materially more detailed and timely more precise in the district ones.

Care of environment is a permanent activity, which in all time and space must be in accordance with the life events. In the further process, precision and deepening of the Total Conception of environmental care in the SSR we assume its natural coordination with the total prognostic considerations of the socio-economic development even at the level of regions, districts and communities. As each output of this character will be further on concretized in accordance with the all-national needs [5, 12].

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TEORETICKO-METODOLOGICKÉ PRINCÍPY SÚHRNNEJ KONCEPCIE
STAROSTLIVOSTI O ŽIVOTNÉ PROSTREDIE NA SLOVENSKU

Súhrnná koncepcia starostlivosti o životné prostredie v SSR na obdobie 7. 5RP s výhľadom do r. 2000, ktorú vypracoval pod gestorstvom Ministerstva výstavby a techniky SSR URBION — Štátny inštitút urbanizmu a územného plánovania r. 1982, je jednou z najkomplexnejších prác hodnotiacich stav, vývojové trendy a príslušné opatrenia vo sfére rozvoja základných okruhov (ľudských aktivít) a zložiek životného prostredia v územnom priemete.

Pre roky 1981—1985 sa pozornosť zameriava najmä na udržanie a ďalšie skvalitňovanie životného prostredia, čo treba dosiahnuť:

- postupnou likvidáciou najväčších zdrojov znečisťovania ovzdušia, vodných tokov a pôdy, postupným prechodom k málo a bezodpadovým technológiám a väčším využívaním odpadov ako zdrojov druhotných surovín,
- dôslednou ochranou územia s veľmi kvalitným prostredím ako zázemím pre rekreáciu, liečenie, výskum a základňu genetických fondov fauny a flóry,
- kontrolou ostatných území, v ktorých sa nevyhnutný únik škodlivín z rozvoja hospodárstva povolí iba do stupňa prípustných hygienických noriem.

Do r. 2000 sa má optimalizovať využitie potenciálu krajiny, zlepšiť prostredie pre prácu, bývanie, kultúru a zotavenie, dosiahnuť normami určené hodnoty základných zložiek životného prostredia na celom území SSR.

K vypracovaniu koncepcie účinne prispeli aj geografi, a to predovšetkým zvýraznením úlohy krajinného potenciálu, ktorý sa rozvojom industrializácie a urbanizácie stáva limitujúcim pre vyváženú tvorbu prostredia.

Юрай Силван

ТЕОРЕТИКО-МЕТОДОЛОГИЧЕСКИЕ ПРИНЦИПЫ ОБЩЕЙ КОНЦЕПЦИИ ЗАБОТЫ
О ОКРУЖАЮЩУЮ СРЕДУ В СЛОВАКИИ

Общая концепция заботы о окружающей среду в ССР на период седьмой пятилетки с перспективой до 2000 г., разработанная при координации Министерства строительства и техники ССР УРБИОН-ом — Государственным институтом урбанизации и территориального планирования в 1982 г., является одним из самых комплексных произведений, оценивающих состояние, тренды развития и соответствующие мероприятия в сфере развития основных видов деятельности (активности человеческого общества) и факторов окружающей среды касательно территории.

Для 1981—1985 гг. внимание сосредоточено, главным образом, на содержание и дальнейшее улучшение окружающей среды, что необходимо достигнуть путем:

- постепенной ликвидации крупнейших источников загрязнения воздуха, водотоков и почвы, посредством постепенного перехода к внедрению технологий с ничтожными или нулевыми отходами и посредством использования отходов как ресурсов вторичного сырья.
- последовательной охраны территорий с очень качественной средой, рассматриваемой как центры отдыха, лечения, исследования и как базы генетических фондов фауны и флоры.
- контроля остальных территорий, для которых вид и количество вредных выбросов, получаемых в результате развития экономики, разрешается только до степени, которую допускают гигиенические нормы.

До 2000 г. должна быть произведена оптимизация использования потенциала ландшафта, должна улучшиться среда для работы, жилья, культуры и регенерации рабочей силы,

должны быть достигнуты такие условия, при которых будут выполнены установленные значения основных факторов окружающей среды на всей территории ССР.

При разработке концепции действенный вклад внесли также географы, прежде всего тем, что повысилась роль ландшафтного потенциала, который вследствие развития индустриализации и урбанизации становится лимитирующим для формирования уравновешенной среды.

Перевод: Л. Правдова