PROTECTION OF THE ENVIRONMENT-A PART OF THE SOVIET UNION'S SCIENCE POLICY

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I am sure that we can manage to solve environmental problems on the basis of their comprehensive understanding and the promotion of international cooperation. The intensification of scientific and technological development can create better conditions for human life. However, the influence of the negative effects of that process both on man and his environment has increased simultaneously. That is why highly developed industrial countries pay great attention to the protection of the environment. The Soviet Union is not an exception.

It is well known that preventing and solving ecological problems is possible only on the basis of large-scale research and development, and this is the reason why ecological problems should be a part of state science and technology policy. In the Soviet Union, the State Committee for Science and Technology, along with the Soviet Union Academy of Science, are responsible for the development and implementation of such policies. Last February, a national conference on the problems of science and technology progress took place in Moscow. About 1,000 participants, representing the various academies, universities and industries, discussed and adopted a new state concept on the management of science and technology.

The concept proclaimed the necessity of concentrating all efforts on accelerating development of science and technology priority fields. In practice, it means the creation of state science and technology programmes as a basis for the future appearance of some new fields in the high-technology industry.

Today, there are 18 programs in fields such as high energy physics, high temperature super-conductivity, investigation of Mars, information technology, biology, health, energy, transportation and so on. It is important to stress that some of the programmes, which are immediately aimed at the protection of the biosphere, deal with the problem partially.

The concepts mentioned also stress that great attention should be devoted to the problem of training manpower. In our country where the conduct of research and the training of manpower personnel are traditionally dealt with on a planning basis, great attention is devoted to the classification systems of science fields. The system which is used for the purpose of training personnel with scientific (academic) degrees, is called the `list of scientific personnel specialities'. It consists of 22 broad fields such as mathematical and physical science, chemical science, and engineering, some of which have several sub-fields. The main structural part of the system is a scientific speciality. If the number of broad fields and sub-fields is almost constant, the number of specialities changes, because some new specialities can appear and some old ones, on the other hand, can disappear from the list.

It should be noted that the appearance of a new speciality on the list is in fact the formal recognition of its importance for science. As a result, the opportunities to lead research or to pursue scientific (academic) degrees in such a direction are deemed favorable. Thus, the changes which took place in the list during the recent years can be an indication of a country'söespecially its science community'södesire and intention to solve the problem.

I have already mentioned that environment is under the growing pressure of technological progress. This is why the members of the commission created in 1988 are anxious to update the list, particularly in the field of engineering. There are two ways to manage the problem. The first is to include some new specialities. The second is to agree that each technological speciality should include the questions devoted to the protection of the environment.

In the wake of broad discussion, both interested sides agreed to combine their points of view. Thus, in 1988, a new speciality called `Technical Devices for the Protection of the Environment', was included into the field of engineering. Previously, in 1984, the speciality called `Protection of the Environment and the Rational Use of Natural Resources', appeared in the field of geography.

Simultaneously, the decision was taken that in certain programs of study leading to science (academic) degrees in the field of energy, development of deposits of natural resources, metallurgy, chemical and food technology, civil construction, and agriculture, environmental problems should be considered. Such a decision gave a significant push to the process of training research personnel. In our country today, about 20 universities and research institutes have been given the right to confer degrees of candidate or doctor of science for investigations only in two specialities mentioned above. I am sure that in the future, that process will continue on a large-scale basis, partly due to the activity of the Biopolitics International Organization.

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