

**SUSTAINABLE DEVELOPMENT, DEMILITARIZATION,
GLOBAL AND REGIONAL SECURITY**

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The global problems facing humankind are integrated and interdependent, and should be regarded as an integral system of vigorously changing phenomena in the noosphere. The deepening of any global problem or efforts to solve any such problem lead to substantial changes in the qualitative and quantitative characteristics of the whole range of planetary, regional or local socioeconomic problems of social development. Therefore, their solution calls for united efforts of all countries. A common methodological basis is also needed to balance the priorities in the development of modern civilization. This need has brought forth the scientific concept of **environmentally sustainable economic development** on a global and regional scale. Transition to sustainable development, however, requires optimum definition of the principles, objectives, tasks and instruments, as well as identification of the specific natural conditions, socioeconomic factors and scientific and technological prerequisites for the pursuit of sustainable development.

Practical implementation of the concept of sustainable development implies harmonization of public interests and the potential of the environment. A fundamental principle of sustainable development is the interconnection between the pace and scale of development of the production of goods and services, on the one hand, and the pace and scale of solution of environmental problems, on the other. In this type of development, the scale of exploitation of natural resources, capital investment, scientific and technological reference points and legislative revisions are harmonized not only with the present but also with the future needs of society.

Sustainable development is not a state of harmony but a process of ongoing change. Defining the approaches to future development, we have to answer the following question: is it possible to combine modern standards of living in the industrialized nations with the concept of global sustainability? Besides, how long will development of the global economy be able to encourage consumer demand, and to what extent could the standards of living in a certain society be regarded as sustainable, and the differences between rich and poor countries, acceptable?

Interdependence between global problems at the end of the 20th century are ever more clearly seen through the prism of the environmental imperative in

the process of formation of a new paradigm in the worldview of humankind. For instance, the raw materials, food and population problems have a direct bearing on the questions of the capacity of the geotory and the sufficiency of the countries' natural resource potential, whereas efforts to solve such problems run up against the ever more tangible ecological limitations of social development. In this connection, militarization, which is in disharmony with the growing non-military aspects in assuring global and regional security in state-to-state relations, has a particularly adverse effect on the development of contemporary civilization.

By force of historically established tradition, the national and regional security of each country and inter-state regional alliances is, above all, military-political in character. This view of the problem prevails thanks to the dominant idea that the principal threat to the security of a certain geographical area (country or military-political alliance) is posed by other cultural-historical or political geographical areas and their armed forces. At the end of the 20th century, however, assuring the military security of a certain country or alliance is no longer sufficient to assure the national or regional security of countries since it acquires new dimensions differentiated on the geographical plane. The broader interpretation of a geographical area's security nowadays covers counteraction by processes and phenomena which armies are not in a position to handle. The sources of new threats to a country, group of countries or the countries in the world are of an entirely different nature. For instance, the problems of guaranteeing the raw-material and energy aspects of national security have acquired exceptional relevance in some regions of planet Earth, unlike others where the priority is on food, population, environmental and other problems. The aggravation and intricate conglomeration of those problems at the global level is one of the distinctive features of the present age.

Rapid globalization of social development necessitates updating scientific priorities in all spheres of human knowledge. Environmental problems are becoming particularly relevant to the future of this planet. They are a peculiar function of intertwining global problems, and the degree of their urgency multiplies by the degree of integral solution of all problems facing humankind at the regional and global levels.

Everyday human activity causes cardinal changes in the geographic environment. Interaction between nature and society is becoming a paramount universal problem based on the integrity of the environment at both continental and global levels. "Conventional" research on the impact of industry, agriculture, transport and other economic sectors on the ecosystems prevails

in the quest for a solution to environmental problems. This is largely justified, considering that to meet the steadily growing needs of humanity, annual consumption of mineral resources alone exceeds three tonnes per capita, of which merely 2% or 3% are utilized, the rest being treated as waste. Contemporary production technologies exert a steadily increasing anthropogenic pressure, leading to progressive pollution of the air, water, soil and vegetation. In the 20th century the gross world product (GWP) has grown from US\$ 0.6 trillion to US\$ 13 trillion, and is expected to quintuple by the mid-21st century if this tendency is maintained. The Earth will hardly be able to sustain such a load. The content of carbon dioxide in the atmosphere is now increasing by about 0.5% annually, and the mean air temperature has risen by some 1.2°C in the past century. Approximately 7,000,000 t of toxic waste are dumped into the World Ocean every year. Pollution is inflicting losses estimated at 3% to 5% of GWP, whereas just 0.8% to 1.5% are set aside for environmental uses.

The trend towards globalization of social development is increasingly limiting each country's potential for independent solution of the steadily expanding range of cultural, socioeconomic, military-political and environmental problems which transcend political and international borders. In this connection, it is ever more important to analyze the comprehensive interdependence between countries as an objective premise of new political thinking. Studying those problems is of particular importance for Europe, whose political map has been rapidly redrawn since 1989. The disintegration of the so-called "socialist camp" in the eastern part of the continent has been followed by a practically uncontrollable collapse of multinational states. The 36 European countries and territories with a special political status in the Atlantic-to-the-Urals area at the end of the 1980s have now multiplied to some 50 states and potential state formations, with pronounced centrifugal tendencies in some of them.

Under these political circumstances, small Europe has more states than Asia or Latin America. The Old Continent unquestionably ranks first by the density of the network of international borders. The proliferation of states has led to a considerable decrease in their average territorial potential. If in 1989 the area of a country in Europe (excluding the USSR) averaged 150,000 sq km, by mid-1992 it was 115,000 sq km (excluding the CIS republics). In this sense, the political-geographical interpretation of the geo-ecological community and regional and global interdependence of countries is particularly relevant to the present day. The environmental-political interdependence in state-to-state relations focuses the impact of many global problems - energy,

resource, military-political, socioeconomic and others. It concerns questions such as territorial environmental capacity, community of environmental area, national and regional environmental security and cooperation, and environmental controversies and conflicts between countries.

The environmental, economic and political interdependence forms a particularly intricate conglomerate in the international river basins. Their joint utilization and the qualitative and quantitative depletion of water resources generate protracted and acute political conflicts, since many rivers cross or run along international borders. Common interests are impossible to harmonize even in regions with a long track record in cooperation. For example, environmental conflicts have often erupted between the countries on the Rhine even though their first agreement on utilization of the river dates back to 1815. The Danube basin also poses a potential environmental hazard in Europe, with its 28,000 large- and medium-sized enterprises of which just 30% have state-of-the-art treatment installations. Notably, the state of the environment of the Danube basin with nine riparian countries largely determines the state of the Black Sea too. Disputes over the pollution and draining of smaller rivers such as the Elbe (Labe), Oder (Odra) and Tisza (Tisa) have become legal issues in the past few years. A typical example in the Balkans are Greece's numerous protests against heavy-metal pollution of rivers flowing from Macedonia and Bulgaria. The current political fragmentation of Eastern Europe may be eventually expected to transform internal water problems into political-environmental inter-state conflicts. Some of the rivers in question are the Morava, Drina, Sava, Dnieper, Western Dvina and Pripet.

Pollution and resource depletion of coastal seas and the continental shelf could also spark environmental conflicts. The state of the North, Black, Baltic and other European seas is particularly alarming. Satellite photos have shown thermal and biochemical abnormalities in the coastal sectors of most of them, and this is confirmed by massive extinction of fish, decline in tourism and frequent bans on swimming in many resorts. In a purely ecological aspect, oil spills from tanker wrecks and oil rig breakdowns are the most dangerous, along with pollution generated by densely populated coastal industrial areas. Environmental liability at international law for the state of such water bodies practically remains anonymous, unprovable and with a high conflict potential.

The conflicts provoked by transboundary air pollution, which is far more mobile and even harder to prove, are most familiar. In the temperate latitudes of Europe, air-mass transport is dominantly westward, which largely

determines the vector of international environmental relations on the continent. In addition, the differences in the socioeconomic development of countries and the inadequate environmental efficiency of their economies have resulted in a territorial non-identity between the worst polluting and worst polluted parts of the continent and wide margins in the country-by-country balance between "export" and "import" of pollutants. International conflicts over transboundary air pollution have broken out between all kinds of countries, not necessarily neighbouring ones. Thus, Nordic countries were the first to launch a campaign for a European forum on transboundary pollution. On the other hand, Britain's advantageous environmental-geographical location largely explains its destructive position on the questions of air pollution assessment and international control. The principal air polluters in Eastern Europe are Germany (especially the eastern Länder), Poland, the former Czechoslovakia and Hungary, with the former Soviet Union and Romania on the receiving end. Pollution could have a specific geographical direction on the regional plane. For instance, Russian enterprises on the Kola Peninsula are polluting Northern Norway and Finland. Southern Finland is polluted by Poland, the Baltics and enterprises of St Petersburg. On the local plane, the Rousse-Giurgiu and Silistra-Calarasi problems are typical examples of international environmental interdependence. In all likelihood these problems, along with the unclear ecological status of the Kozlodouj and Cernavoda nuclear power plants, will become a cornerstone of Bulgarian-Romanian relations.

The momentous contemporary changes on Europe's political map have prompted differentiation in international environmental relations on the continent. This is valid especially in the case of the new political actors that have emerged following the collapse of federal states in Eastern Europe. The new political setup calls for a new attitude to the environmental problems of newly emerged states. For example, about six tonnes of sulphur oxides per square kilometre reach the territory of former Yugoslavia, but the figure varies from two tonnes in Montenegro to ten tonnes in Slovenia. Harmful emissions into the air of the Czech Republic exceed those in Slovakia by a factor of 2 or 2.5. Ukraine occupies about 3% of the territory of the former Soviet Union but receives 15% of the total amount of pollutants in the ex-USSR. In all likelihood, the new borders in Eastern Europe will call for a political review of these problems.

Environmental interdependence gives rise to acute conflicts between neighbouring countries over location of polluting installations, transport and disposal of toxic waste in border areas. Nuclear power plants have

topped the list of contentious issues, especially since the 1986 Chernobyl accident. Typical examples of neglect for the nuclear safety of neighbouring countries are to be found along the borders between France and Germany, Britain and the Irish Republic, Austria, Germany and the Czech Republic, Bulgaria and Romania, Sweden and Denmark. The latest territorial changes, which have "moved" many nuclear plants closer to the new international borders, may be expected to create prerequisites for fresh environmental conflicts in Eastern Europe.

Notably, the priority of "conventional" environmental research currently overshadows a very important anthropogenic factor: the militarization of social development, which devours enormous resources and causes considerable damage to ecosystems. The end of the Cold War, however, has lifted the veil of secrecy on the actual state of affairs. Besides, there is growing awareness of the ever diminishing reliability of use of force as an argument in the age of globalization of problems facing humanity.

Contemporary hostilities are particularly violent not only to humans but also to the environment. This is evidenced by both world wars, as well as by the local and regional conflicts in Korea, Indochina, Afghanistan and the Gulf. Their environmental impact has been extremely severe and diverse. They have affected the relief, soil cover, wildlife, air and water. In addition, 20th century warfare is incomparable to all previous wars in terms of both scale and ever more comprehensive environmental impact.

The military inflict enormous damage to the environment not only in the course of armed conflicts but also in peacetime. More and more territory is allocated for their combat training. Military manoeuvres and new weapons tests are particularly devastating. Militaristic training in certain countries and military-political blocs has assumed absurd proportions in the second half of the 20th century. The paradox is obvious: in the name of the integrity of a state, the military are ever more ferociously locked in combat with an imaginary enemy on enormous stretches of the land they are preparing to defend. Needless to say, we should hardly be so narrow-minded as to blame the military themselves when society is continuing to apply an obsolete model of assuring security. In this sense, the aforementioned paradox should not be regarded on a personal or institutional plane but as a function of the age we are living in.

Maintenance of military security requires enormous material, labour and financial resources. In the mid-80s, the numerical strength of regular armed forces in the world approximated 25 million. Another 50 to 60 million were employed in the military industry, including 20% of the planet's brainpower.

Actual spending on military research exceeded total expenditures on development of new technologies in the energy industry, health care, improving farm productivity and environmental protection. Militarization of social development devoured a sizeable portion of energy and raw-material resources. The United Nations Conference on Environment and Development, held in Rio de Janeiro in 1992, found that military preparations consumed almost a third of the energy produced on Earth. Military equipment is the largest absolute and relative energy consumer. Military industries also have a considerable share in the consumption of metals (copper 11%; lead 8%; aluminum, nickel, silver, zinc and platinum 6%; tin, steel and mercury 5%; chrome and tungsten 4%; manganese 3%).

National and regional security are not new terms. The new thing about them is that more and more non-military meaning is being lent to them. Notably, if the traditional components of national and regional security can be developed and planned for several years ahead, their environmental aspects ought to be projected for decades in advance. Besides, if the objects of military security can still be attained at the regional or local level, environmental security as a whole is attainable only with the efforts of all humankind. The present stage of militarization of social development is of exceptional relevance to settlement of global problems. The combination of intensifying global problems and growing military consumption of resources for their settlement is particularly unfavourable. In this sense, the need of setting ecological limits to military activity is self-evident. Humanity must realize that any country's environmental policy is doomed to inefficiency unless specific measures are taken in the military sphere. Furthermore, it is precisely military structures that could be a powerful lever in the drive towards environmentally sustainable development of the Earth. They have an enormous potential in this respect.

In the conditions of growing environmental interdependence in Europe and worldwide, it is ever more important to acknowledge and apply fundamental principles of international law such as each country's liability for inflicting damage to the environment and population of other countries, indemnification of such damage, early warning of industrial and other accidents with a potential transboundary environmental impact. Concern for one's own territory is clearly no longer enough today, therefore environmental security ought to be regarded as an increasingly important component of building an international collective security system. Realizing this will give a powerful impetus to multilateral environmental cooperation and development of a new concept in the sphere, a concept that will include environmental protection

agreements at the regional and global levels. Even though the past few years have not been too optimistic in this respect, international environmental problems related to transboundary pollution *can* be solved. Europe's experience is particularly promising.

The first significant European environmental agreement is the Convention on Long-range Transboundary Air Pollution adopted under UN auspices in 1979 by 35 countries. The first concrete result of this Convention was the Protocol on the Reduction of Sulphur Emissions or Their Transboundary Fluxes by at Least 30 Per Cent, signed in 1985. The so-called Club 30% was set up by countries approving action to achieve a 30% reduction of SO_x by 1993 from 1980. Unfortunately, for obvious reasons it is very, very difficult for East European countries to honour this commitment. For the time being, partial achievements in this sphere are due only to the stagnation in heavy industry and dramatic shrinkage of production. At the same time, most Western countries are concentrating on reduction of other types of pollutants as well.

The late 1980s saw considerable progress in inter-governmental programmes on environmental assistance to East European countries through joint projects on reduction of air and water pollution, as well as by improved energy efficiency. Notwithstanding the achievements, however, it must be emphasized that unless strict measures are taken by all countries to implement the dozens of concluded agreements, the state of the environment in Europe and the world will continue to deteriorate - with unforeseeable consequences for the overall natural, resource, demographic, socioeconomic, military-political and environmental sustainability of human development.

It is self-evident that overcoming the rapid negative global trends on our planet requires the establishment of a new, far more effective institutional framework to address global problems - which would guarantee all aspects of national and regional security.