



# THE PRIORITY OF ENVIRONMENTAL POLICY

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## TOPICAL: ENVIRONMENTAL POLICY

This problem has been discussed for a long time, and now we must make a step in the right direction. We must understand the significance of certain words that often seem dull: many people do not like the word environmentalism and especially the phrase sustainable development. However, it is important to understand what they mean. Their essence gives rise to no doubts; not only environmentalists discuss this problem increasingly often but also business, clergy, and culture representatives speak about it sharply and uncompromisingly. This shows that the problem is urgent. Let us decide later how to call it; today, we must understand what we should do.

We state that we are improving the economy to ensure our welfare, but what outcome will we reach? Economists' calculations show that damage to health from pollution is comparable with GDP growth. We also know how many additional deaths air pollution causes. We face a situation where the previous guideline to recover the economy at any cost should be replaced by other slogans. The important point is not what words we should choose but what is to be done.

This was the road of many developed countries. When they began to reduce emissions, this had no negative impact on their economies. However, we should remember how much money was spent to recover the polluted and degraded environment. The cost of recovering the environment in Russia will not be lower. This is what we must remember. We should not fear that environmental requirements will stop the development of the economy (on the contrary, accounting for them will ensure long-term favorable development); we should remember that if we ignore them, economic growth will soon be stopped because of environmental restrictions.

Against the background of the observed tendencies toward unsustainable economic development, Russia is an environmental donor. However, this is not our merit. Our task is simple: harmonize what we have received from nature by our rational attitude to it, and then the role of Russia will be perfectly different. We will play the role we are able to play. Another point is a timely shift to sustainable development. We may go through a crisis, but we can also make this shift a bit earlier, because this is economically profitable. In my opinion, we should take into account these two aspects that make it possible to form the country's policy that would be attractive both for the Russian population and for the world community.

It is good that today not only environmentalists but also economists, lawyers, and politicians speak about the necessity to reject the raw-material economy in favor of diversification and innovation economy. As for environmentalists, they used to speak about this as early as 15 years ago. The goal of environmentalism is not to slow down economic growth but to ensure the economy's healthy development. If we look at environmentalism from this point of view, our attitude to it will change. It timely signals us what we should do.

Our task is difficult: we should turn our whole economic policy around. This should not be a mere declaration; we must elaborate concrete proposals. The main point is energy generation. This is a key problem for the world and especially for Russia, which has positioned itself as an energy power, i.e., a power that develops its economy largely based on energy generation. Three aspects are of importance in this respect. First, we should ensure the environmental safety for the existing trends in the development of energy generation. The second point is energy efficiency. According to

**Russia is gaining economic momentum. This is what society has delegated to the authorities. However, today, under recovery, it is time to think of whether economic development is sustainable and whether we really receive the desired effect. It may be economically unprofitable to put off necessary measures. Russia finds itself in an interesting position: all sectors agree that it is necessary to pay attention to the environment and human health. Business is for rational restrictions ensuring its long-term sustainable development. Yet, according to official estimates, in 10 to 15 years, Russia will face problems associated with the economic viability of its oil and some other reserves. Problems related to landscape degradation and environmental pollution are becoming increasingly urgent. What is the cause? It is a raw-material economy that does not satisfy anybody today. At present, all economists stress that, although our economy is developing, this development is unsustainable; the necessity to reject the raw-material orientedness of the economy is being seriously discussed.**

the most moderate estimates, we may use two times fewer energy carriers to ensure the same economic level and even to increase our GDP. Why not use these opportunities? The third point is that in the future, we will have to switch to renewable energy sources. Both concrete practical proposals and legislative measures are necessary here.

Now to the guideline that we call sustainable development. It is important to understand why the positive response to it is less pronounced than we expected. The reasons are numerous; let me mention some of them.

First, many people do not like the term itself, and attempts to move forward are limited to terminological discussions. It seems to me that the name is not the main point. There are many general notions that have no clear definitions, but this does not decrease their significance. We know what we want; let us move in this direction.

The second point is the necessity to substantiate the importance of sustainable development for future generations. If we make this task topical, we will make the situation considerably healthier. Sustainable development is an imperative of our epoch. The consequences of both local and global impacts on the environment are obvious. These are pollution, landscape degradation, depletion of resources, and climatic changes. Most likely, our descendents will state that when we discussed the coming crisis, we actually lived during this crisis.

The next point is that we like to thrust the responsibility for improving the situation on someone else. Civil society thrusts it on the authorities; the authorities, on business; and so on. Everyone should understand what he or she must do. The point is not to find a fault with this or that entity but to define clearly who should do what. This will also make the situation healthier.

Another important aspect, the appeal to restrict needs, is unpopular. Nobody wants, instead of the necessity of the Soviet times to restrict his or her desires for the sake of future generations, to face new ones – this time, for the sake of sustainable development. Economists may help in this respect. Aggregate capital consists of natural, physical, and human capitals. The inevitable exhaustion of natural capital may be compensated to a degree by developing physical and human capitals. Holland is able to subsist more people on its small territory than many other countries on their gigantic ones. Certain compensation is possible here. This does not mean restricting needs; this means the necessity to build one's activity into the natural opportunities of the environment. When opportunities increase, it becomes possible to increase needs.

Finally, we should remember that ideals are not for reaching goals but for finding ways (Hans Selye). Our ideas of sustainable development will change as we develop. We need the ideas of sustainable development to find our way.

It seems to me that, if we account for these aspects, it will make the situation healthier and allow us to move in the right direction.

Modern problems are broader than we used to think. Some people speak about social anomalies; others, about natural ones. We often disagree while trying to find the causes. Probably, we should look deeper, and then we will see that both social and natural anomalies are caused by erroneous human behavior. A consolidated opinion will help us move forward.

I would like to offer three aspects to characterize the problem. First, we should harmonize the needs of economic growth and environmental safety. Experience shows that it is economically unprofitable to solve economic problems in the first place and only then to advert to environmental issues. We should try to solve them simultaneously. The same is true with regard to social problems. We cannot put them off. This way will reliably ensure our movement in the right direction.

The priority of the economy in using natural resources should be complemented by the environmental priority in increasing the value of nature, natural resources, and human life and health. This is the second important aspect. Here, it is important to solve the problem not only at the population but also at the individual level. When we solve the problems of territories for settlement, demography, and GDP growth, not only the country but also the individual will prosper. Such an approach will undoubtedly be supported by the population and will improve the situation considerably.

The last important point is environmental culture. Everything is ultimately determined by our culture. Without it, laws will be inefficient; culture determines the rules of behavior. However, we should take into account that environmental culture implies a certain level of welfare. There is no developed country that would not pay attention to environmental problems.

The main task now is environmental prioritization. Without it, we will be unable to solve the growing number of environmental problems, many of which will disappear and others will not appear if we change our attitude to the environment. Ideas of sustainable development must penetrate into the country's policy and ideology. Environmental prioritization is a mission of civil society. In all probability, we face a situation where civil society can and must declare this priority and delegate its implementation to the authorities.

When determining any priority, we ask ourselves whether we may speak on behalf of civil society. The latest discussions leave no doubt that we do have such a right. Representatives of business, clergy, culture, and legislative and executive powers are unanimous in recognizing the significance of the environmental priority. However, even against this background, we continue to move in the opposite direction. Perhaps, this situation demands that civil society must help and show us the right way.

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## ON LEGAL POLICY IN THE ENVIRONMENTAL SPHERE

Since environmental and legal policies determine legislation, we may hardly expect legislation to solve problems that are alien to it and that should first be solved politically. In its turn, state policy is as environmental as the prevailing public interests are. From this point of view, it is quite obvious that at present there is no need for a «social order» i.e., a clearly expressed public need for the radical environmentalization of legislation. This is happening despite broad public exposure, as a result of information openness in the past decades, to both the continuous deterioration of the environment and the degradation of natural resources and the direct impact of these processes on human health. For a number of reasons, environmental priorities are still an attribute of group – most often, professional – consciousness and are not disseminated broadly enough to necessitate the real environmentalization of state policy, including legal policy. Nevertheless, since the idea that it is impossible to develop further outside the environmental context is present at the government level and in the framework of civil society (for example, the February 2007 plenary meeting of the Public Chamber and its adopted final documents), there is reason to outline those areas of legal regulation that are key to achieving environmental goals.

We need a consolidated approach to the making of environmental and nature management laws. Economic activities that are usually considered the main source of environmental problems are, in fact, nothing but various types of utilization of resources. Therefore, legal regulation must meet the real impact of industries that process natural resources on the environmental situation. Without entering into a well-known discussion on environmental legislation in the narrow and broad senses of the word, we must note that at present the trends of integrated legal regulation of environmental and natural-resource public relations have obviously (and maybe finally) gained the upper hand. A possible form of such integration is the adoption of the Environmental Code of the Russian Federation.

Now and in the long term, we must speak not only and not so much about writing a special legislative segment but about accounting for environmental requirements and nature-protective restrictions in the development of all industries and the whole system of Russian law. The recent example of a change in urban-planning regulation, which resulted in dropping the larger part of environmental review from legislation, shows the topicality of such an approach.

The prevention and recovery of environmental damage must be regarded as the main priority of state environmental policy.

Russian environmental legislation was created as a system of norms aimed directly or indirectly to prevent and minimize environmental damage. Yet the institution of liability for incurred environmental damage is traditionally developing at a slower pace. Since the compensatory function of juridical liability is not fully implemented in practice, we think that this institution has not been formed finally by now. Techniques of calculating damage are in effect not for all types of natural objects, although recently we have seen improvements here. Individual techniques need an

**Environmental policy and its efficiency largely depend on the general condition of the legal system. The way Russia's legal policy is formed and implemented also affects the extent of implementing environmental policy.**

updating of approaches in use. Meanwhile, the absence of the adequate assessment of environmental damage not only hinders compensation for damage but also, in a number of cases, does not allow a legal offence to be classified as environmental crime.

The problem of compensating for so-called old damage has not been solved so far. However, old is not only damage caused through incorrect privatization of state-owned enterprises but also newly emerging damage, which is not being duly compensated and thus increasing. For example, damage caused by unidentified persons is not compensated, and the latency of environmental offences is extremely high (some of its types reach more than 90%). Damage caused by known persons is also far from being compensated fully.

Damage to human health accumulates. Legislation is still in a stagnant phase here. Yet, even if we disregard socioeconomic advisability, we will still lack the objective grounds for introducing a series of norms that reflect legally important characteristics of such damage. We need relevant economic calculations and methods, as well as sufficient data on interdependencies in the environment-health system.

The environmental situation is largely predetermined by the extraction of energy resources and by power generation. It is encouraging that legislation starts to reflect the issues of the development of renewable energy generation, but the problem of safety is not limited to this. Thus, the extraction of primary energy resources is a major environmental threat. Alas, environmental requirements are not building up here. Some objectives in this sphere were set in the Presidential Message. Legislators, on their part, express their readiness to ban the combustion of well-head gas. Moreover, the requirement of the state environmental approval for the construction and operation of oil and gas facilities should not have been excluded from law in due time. Another aspect of the problem is that the new Forestry Code classifies the geological survey of subsurface; the development of mineral deposits; and the construction, reconstruction, and operation of pipelines as types of forest management. Traditionally, all this was considered economic activities and not forest management. Consequently, lands were to be transferred to another category, and now this is not required. Meanwhile, according to the prosecutor's office, increased violations of forest law are observable during the development of oil and gas fields.

A well-known topic is the economic stimulation of environmental activities. Yet legislators are not in a hurry to introduce the relevant mechanisms. A draft law on payments for negative environmental impacts is still being adopted. The Public Chamber gave a conditionally positive opinion on it; we recommended at least to ensure the principle of the intended expenditure of imposed charges.

Law making often disagrees with legislative standards. The legal mechanism for environmental protection has its organizational links, the legal part proper, financial support, and the cultural component. When any link fails, we may expect no effectiveness of environmental legislation. In this respect, if the principle of the inevitability of punishment does not work, any legislative improvement, including the strengthening of sanctions (which happened, for example, in the sphere of the protection of aquatic bioresources recently), will be nothing but excessive law making.

It is also obvious that «engrafting» environmental culture in people by methods of legal regulation is possible but to a low degree. There are just individual technical-legal solutions in this sphere; for example, it is possible to environmentalize state educational standards. Yet here extralegal means are applicable to a greater extent.

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## TOPICAL: TO CREATE A NATIONAL SYSTEM OF ENVIRONMENTAL SAFETY

State Environmental Reports and UN GEO-4 reports show that the quality of the environment has been stably deteriorating over the past decades. Air pollution alone causes up to 10 million premature deaths. Per capita economic losses caused by air pollution are 340 a year in France, Switzerland, and Austria, which are far from being the most environmentally affected countries. Obviously, in Russia, where more than 50 million people live in cities with air pollution above the allowable level, economic losses are even higher. However, this problem is not discussed at the federal level and has not become a priority in elaborating the state policy.

In the early 1990s, every politician would speak loudly about the environment during election campaigns. What do we have today? Putin's plan is the talk of the country. During his call-in show, Putin was asked what it meant. In response, he said that we should read his addresses to the Federal Assembly. I have read them and can tell you that they contain no word about environmentalism and environmental protection. The rules and programs of our ruling party do not contain these words either. At the same time, several serious international and public conferences are held in Russia every year, at which scientists, businesspeople, and representatives of regional and municipal governments stress that we need to elaborate a national strategy of environmental safety. The problems of sustainable development were in the focus of the plenary meeting of the Public Chamber in February 2007, which worked out concrete recommendations for state bodies, public organizations, business, and mass media.

Unfortunately, the authorities show no reaction to the opinion of their citizens. The only possible conclusion is that the authorities are deaf to the public opinion, which inevitably decreases their efficiency.

Meanwhile, I am absolutely sure: a successful implementation of national projects on demography and health is impossible without an efficient national system of environmental safety. The authorities call for increasing population and decreasing mortality. However, if newly born individuals immediately fall into an ill environment, they will work only for medicines for the rest of their lives. We will have to develop a system of healthcare to support people's lives. One of our demographers said: under such a low quality of the environment, «we will struggle not for a longer life but for a longer survival».

In this situation, everyone understands that it is time to do something. The Public Chamber adopts some decisions and resolutions. We held the All-Russian Conference on Regional and Municipal Problems of Environmental Safety last April; we held the II Congress of Municipal Environmentalists; and we sent our proposals to the authorities. Has anything changed since then? We have received no feedback. Moreover, the state environmental review has been liquidated; the way in which environmental control powers are being delegated to constituent members is beyond any criticism. Although we have governmental Resolution no. 777 on the Order of Objects Subject to State Environmental Control, which, by type of impact, clearly specifies objects that are transferred to the federal or regional levels, this resolution is not executed. The essence of the agreements that

**Successful implementation of national demographic and health projects is impossible without an efficient national system of environmental safety.**

have been concluded between the Russian Federal Service for Environmental, Technical, and Nuclear Supervision (Rostekhnadzor) and 50 constituent members can be reduced to the following: give us everything and step aside. There are very few regions that have managed to do something useful in this field. For example, Moscow oblast has issued a governmental resolution on environmental regulation and review. However, such constituent members can be counted on the fingers of one hand. The Kaliningrad oblast government has no environmental agency at all.

To change the situation cardinally, it is necessary to create a national system of environmental safety. First of all, we should understand that the environment is an integral notion and any human activity impacts all its components. In this connection, we should restore a specially authorized unified state body in the field of environmental safety and protection. After this, we should clearly delineate powers. The main point, however, is to create an effective system of control, which would start at the enterprise level, go through municipal formations and constituent members, and then reach the federal level. Only if all the levels are involved in ensuring environmental safety, we will be able to succeed. Much has been said about the priority of these or those laws. I think that, in terms of ensuring environmental safety and cardinal changes in the environment, we should first adopt a law on environmental safety. Apropos, such a law as a recommendatory and legislative act for the CIS countries was adopted back in 1992. Unfortunately, in Russia, it has not been developed.

We need a law on a special authorized body: we must have a unified body that would coordinate all the country's environmental protection activities.

For example, the new Water Code has been introduced; as a result, the regulation of the maximum permissible discharge (MPD) of pollutants to surface basins is to go to the Federal Agency for Water Resources. In accordance with the existing proposals, five bodies of different departments are approving the MPD project. According to law, each of them considers this project for at least a month. If there are comments, the procedure continues for two months. Multiply this by 5, and you will see that it will take a year to approve this project. As a result, you will not get permissions and will have to violate the environmental protection legislation.

At present, there is no objective assessment of enterprises' environmental activity. We must do our best to have it. This is especially important in the context of the coming Russia's accession to WTO, when environmental ratings of Russian enterprises starts influencing their competitive ability and capitalization. In industrially developed countries, each economic agent has a system to control the quality of the environment in compliance with the ISO 14 000 series, which is practically absent in our country.

We also need to adopt a law on environmental audit as soon as possible. This will make it possible to decrease sharply the interference of the state into the control of the quality of the environment. Each enterprise will create a system to control the quality of the environment in accordance with the ISO 14 000 standards. To assess their efficiency, an independent objective estimation is necessary, which is ensured by professional environmental auditing associations. Unfortunately, however, except for the definition of environmental audit in the federal law on environmental protection, this practice has not been developed in our country.

Economic methods should become a key tool for controlling the quality of the environment. For this, it is necessary to adopt a law on payments for negative environmental impacts and to receive the Ministry of Justice's approval of the methods of assessing environmental damage.

As for the law on environmental education, we will be unable to change anything until environmental culture becomes a part of our worldview and a component of the culture of each Russian citizen.

Thus, we have to state that we do not have even such basic laws as the law on environmental safety, the law on environmental audit, the law on environmental insurance, the law on payments for negative environmental impacts, and the law on environmental education, without which it is impossible to create an effective national system of environmental safety. These laws form a base that will allow us to preserve the environment and the quality of life. The main point is that there is no political will to create a national system of environmental safety.

As for the Affordable Housing project, I think it is good that housing construction has been removed from the competence of the state environmental review, although my attitude to the liquidation of this review as a whole is negative. When a model design with all engineering support facilities appears, it passes an environmental review. After this, it is implemented. Upon implementation, it does not require any further reviews. This problem is quite solvable and is being solved even for multistoried buildings.

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## RENEWABLE ENERGY SOURCES: THE LEGAL FRAMEWORK

On November 4, 2007, the president of the Russian Federation signed Federal Law no. 250 that establishes amendments to the Federal Law On Electric Energy Generation. For the first time in the country's history, we have a legislative system that supports the development of renewable energy generation.

This law requires that the government should develop a long-term state policy with regard to the development and efficiency of renewable energy generation. This requirement may seem formal, but the law envisages certain circumstances. When formulating this policy, the government must specify a concrete share of renewable energy generation. This immediately turns the requirement to develop such a policy into an instruction to take concrete measures.

This law requires that the government should develop respective plans and action programs that would help implement this policy. The law envisages renewable energy generation be supported directly from the federal budget.

When we began discussing the draft law jointly with the respective expert community, the Presidential Administration claimed that we did not use the federal budget and its funds and institutions to support renewable energy generation. We answered that no such practice had existed in our country before. The Administration replied that the attitude to renewable energy generation had changed considerably.

The law contains a norm that directly formulates the ways of using the federal budget for the development of renewable energy generation. For low generation (no more than 25 MW of rated capacity), tie-in costs should be covered by the federal budget. Sometimes, they may reach 30% of the total cost of an investment project. The funds will be allocated from the federal budget, which will considerably help those involved in the development of renewable energy generation of low capacity.

The state charges network organizations with buying energy from renewable sources to compensate for their technological losses. This is the only possibility to engage the network organizations in support for renewable energy generation through market mechanisms.

The provisions of this law introduce a mechanism of special extra charges to the market price of power generated from renewable energy sources. Despite our persistent proposals, the concrete amount of this extra charge has not been specified yet. At first, we offered a number of options proceeding from the variety of renewable energy sources and associated different design, construction, and operation conditions. In the course of discussions, the government told us that this disagrees with the strategic approach, which implies that we should support not renewable energy generation as a whole but only its most effective part. For this, we should establish only one extra charge that will turn into a certain economic barrier. If expenses are lower than or equal to the price, including the extra charge, technologies will be developed on the basis of commercial energy production. Technologies that are so far unable to reach

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such efficiency of production costs will remain in the «cradle» of the future technological development.

Certificates are an important element of this system. Many people know about «green certificates» and «certificates of origin». Today, the number of countries that use such certificates exceeds 60. A special authorized body, the so-called Issuing Body, which will be formed on the basis of the Market Council, will issue these certificates. They will confirm and guarantee the renewable character of megawatt hours produced by generators. The certificates will permit renewable energy generators to receive the extra charge from the market.

Let us consider how this mechanism works. Suppose that a small hydroelectric plant produces and sells electric energy. Assume that it has produced 1000 MW/h of electric energy. This plant has been accredited and qualified, and the issuing body has confirmed that it really produces energy on the basis of renewable sources and has a correct system of commercial accounting for electric energy production and transfer. If the plant has produced and sold 1000 MW/h, it issues the same number of certificates to confirm this. These certificates go to the wholesale market's commercial operator. The certificates of all small hydroelectric plants that work and receive certificates go there. The commercial operator multiplies the number of megawatt hours by the respective extra charges. The result is the amount of money that the commercial operator must pay to the generators. This sum is collected from all wholesale buyers proportionally to the volumes of electric energy they have bought. The collected funds then go to the generators.

Let us consider the basics from which we proceeded when developing our law.

It should be built into the currently effective mechanism.

It should stimulate not the whole production of renewable energy but only the part that is produced to satisfy public needs.

It is very important to support traditional generation when it uses renewable energy.

When preparing the feasibility study for this law, we calculated what benefits the state and the budget would receive upon the adoption of this draft law. The calculations covered 16 years, from 2010 until 2025. We were interested in a number of indicators. First, if we develop renewable energy generation, how will we profit by saving fossil fuels? Conditionally, we took market prices and assumed that fuel saving would bring some profits, at any rate, to the state. The assumed prices were not too high, \$60 per barrel, although today oil costs \$100 per barrel. We assumed that 1000 m<sup>3</sup> of natural gas would cost \$250 (the current wholesale price in Europe varies from \$400 to \$500), while 1 t of carbonic acid emissions

would be € 25. Now, proceeding from the price assumptions, we can calculate how much fuel has been saved and how much it costs. If we assume that this fuel has been fully exported, how much will the budget receive? How many additional investments will we receive to produce megawatt hours that allow us to save fuel and decrease carbonic acid emissions? We have obtained a unique economic result: each ruble that society will spend for the development of renewable energy generation will gain a minimum of 1.45 rubles and a maximum of 2.18 rubles.

The current paradigm in the discussion of the support and development of renewable energy generation expresses, roughly speaking, the following idea: although this generation is expensive, it increases the country's energy safety, decreases the environmental load, optimizes the fuel balance, and so on.

Unfortunately, the currently effective institutions and mechanisms for the economic assessment of improvements in the environmental situation are imperfect. However, even the existing framework (for example, the Kyoto Protocol) allows us to substantiate the idea that renewable energy saves resources for society. The question arises: if renewable energy generation is so good, why do all countries adopt systems and legislative decisions to ensure its economic support? Why does it need support, after all? The answer is the following: this is not a system of support for the development of renewable energy generation but a system of distribution of public resources, because we spend money for the construction of a renewable energy generation in one place and gain profits from it in another. To reconcile the points of expenses and the points of gain, we need a new state institution of redistribution.

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## ENVIRONMENTAL EXPECTATIONS OF COMPANIES

For any large international company, it is important to have unified conditions and rules of operation. Practically any company has its own standards and requirements that, as a rule, equally cover the company's operations in any place of the world. However, it is necessary to have uniform and, what is even more important, stable conditions in countries where companies operate. These conditions differ from country to country. Hence, every company should discover differences between its own and national standards in each country and find a way both to ensure compliance with national requirements and to observe its own standards, first of all, if they exceed national standards and requirements.

Large companies are often accused of leading a policy of double standards. For example, this or that company may act in strict correspondence with its established standards on the territory of the United States and Europe, while in African and Asian countries, where general requirements may be lower, it acts according to other requirements and sometimes even violates its own high standards. Indeed, this happens sometimes, although any large transnational company looks for uniformity in observing its corporate requirements, primarily because reputation is very important for such companies.

Another very important element in corporate operations is the stability and clarity of the «rules of the game». Unlike many small and medium businesses, large companies receive their income mainly from long-term projects and investments. The companies' goal is to preserve to the maximum the stable operating conditions for the whole investment period. In our country, this has been very difficult to do over the past several years. As a result, the environmental performance of companies' is also restricted. Russia fails to ensure stable conditions in regulating the use of natural resources and environmental protection. Sometimes, Russia also fails to reconcile its requirements with international law and standards. This hinders the activity of companies that must take into account international requirements and practices.

In a number of cases, many corporate standards in the environmental sphere and in the field of industrial labor safety and labor protection are considerably higher than the national ones. However, the observance of national laws is the main principle for any large company.

Is it profitable for an international company to have a weak and nonenvironmental national legislation? Large companies with clear and detailed environmental policies and standards oriented to match international requirements are not interested in legislations whose requirements are lower than corporate standards. A serious lag of national legislations behind corporate standards is a problem for a large company. Whatever the lag is, the company has to observe its own standards. Some companies that do not attribute great value to their reputation easily work in accordance with lower standards, while oth-

**Business and the public need a dialogue to find common interests, language, and trends of activity. Not all of these are based exclusively on financial relations. Only public organizations can help business in a number of trends, primarily, in environmentalism. However, to accomplish this, it is necessary at least to begin speaking a mutually comprehensible, if not common, language.**

ers have to observe their own standards with all implied consequences, including economic losses. Hence, large companies are interested in stability and universal requirements in the field of environmental protection.

In addition, the requirements should be clear and long-term. They may be severe and unpleasant. However, if they are comprehensible, logical, and practicable, this is not a problem.

As for our new legislation, each new law in our system of reference legal acts generates a huge number of new legal documents – regulations. It is often difficult for an ordinary user to find the right way in this mass of contradictory acts. We need a certain level of codification. From this point of view, I would like to support the idea of a unified environmental code that would systematize the norms of environmental protection. The realization of this idea is a problem. Some large companies support this idea. Last summer, the Association of Foreign Investors in Russia and the Russian Ministry of Natural Resources discussed the concept of the environmental code. The companies presented their comments and considerations in this respect.

As for our expectations associated with Russian legislative bodies, it would be good if they made our legislation less dynamic and did not introduce so many changes in legal norms, including those that determine terminology. They should seek to introduce and realize economic norms that would stimulate business to do more for environmental protection. So far, it is too early to speak about the realization of methods of economic stimulation, including tax benefits, although they have been already envisaged on paper. What do we have in practice except for payments? What opportunities do we have to stimulate environmental services? Developers of the environmental code should describe these measures clearly. As for the government, it should implement them.

Why do preferably export-oriented businesses observe strict environmental standards? Why were export-oriented enterprises and companies certified by ISO 14000 or FSC standards? This was because the Russian market of producers, as well as the market of consumers, is «environmentally insensitive». Price is still the main market factor. The majority of the population is not interested in how this or that product has been produced, what its characteristics are, and how many and what resources have been spent to produce it. As a result, the majority of companies are not interested in this either. Meanwhile, the consumer in the country to which our products are exported is interested in this. As a result, the market makes the companies pay more attention to environmental aspects of production.

This is a field for civil society. Business and the public need a dialogue to find common interests, language, and trends of activity. Not all of them are based exclusively on financial relations. Only public organizations can help business in a number of trends, primarily, in environmentalism. However, to accomplish this, it is necessary at least to begin speaking a mutually comprehensible, if not common, language.

**A.S. Shestakov**

Head of the Department of Labor Protection, Safety, and Environmental Protection of the BP Company's Representation in Russia

## ENVIRONMENTAL POLICY IN EDUCATION

I would like to say a few words about how national educational projects reflect environmental education issues. Unfortunately, they do not contain anything about the objectives of environmental education. They are not among the priorities of the educational policy of the Russian Ministry of Education and Science. This has not always been the case. Note that for a long time, beginning with the mid-1980s, the ministry had had a specialist responsible for environmental education. Many colleagues recall with nostalgia that in the 1990s we achieved much because it was an interested specialist, who promoted these topics day after day. Today the federal system of education does not have such a curator.

So far, the policy of general education has been built outside the environmental framework. Therefore, I think it important for the Commission on Environmental Security to initiate the creation of a mechanism in the country that would help promote to the priorities of state policy the modern ideas of environmental education as a general cultural component of general education. Such a mechanism could be an effective tool, coupled with the Public Chamber's authority, of introducing components of state environmental policy into the system of education. In this respect, I think it is very important to outline the priorities of our work. First, we must decide what we are going to promote and at what level: federal, regional, or interregional. If we are able to answer these questions, our actions will be sound.

Today, unfortunately, those who deal with environmental education hold that the system of education must include a subject conditionally called «environmentalism». If this subject is in place, everything will be in place. Judging from my professional experience, and I have been dealing with this issue for 37 years, I would like to say that this road is one of the least efficient. Today this road is taken by those environmentalists who poorly know the «rules of the game on the ground» of general education.

In previous years, the majority was dissatisfied with such a position, but now many share it. Although we have been dealing with environmental education for quite a while, we are still unable to define legally and clearly what result we would like to have from teaching environmentalism. By default, it is considered that, if a teacher «dumps» on the student's head a «bagful of knowledge,» from the organization of natural systems to the issues of social ecology, and the student is able to repeat it, then the latter will, consequently, be environmentally educated and will act accordingly. Yet we all know that this is not true. Therefore, the issue is, first, to define the planned results, i.e., to formulate what we would like to receive from environmental education in terms of the system of general school education and then to see what educational techniques are the best to apply for achieving the set goal.

To date, the Ministry of Education and Science is developing a second-generation draft standard of general education. The first-generation standard, adopted in 2004, is currently in effect. It was able to tie

**To date, the problem of developing environmental policy during the formation of environmental culture is topical. I would like to discuss the education system as a trend in environmental policy. Policy is a priority in the educational system, as in any other field of our life.**

in eight subjects to environmental topics. However, the educational effect is still minimal, because that standard was developed to fit in the subject structure of education. Environmental education sets general cultural objectives, trying to form environmentally valuable orientations, stereotypes of environmentally safe behavior, and the skills of environmentally responsible decision making. Today school does not prepare its students for this, and this is not on the list of requirements that its graduates must meet. Moreover, we are trying to introduce it despite the requirements of the current educational standard. We would need a different organization of the educational process....

Russia signed the Bologna agreement on entering the European educational environment and the agreement with the UN European Economic Commission on participation in the world decade of education in the interests of sustainable development. A draft national strategy in this sphere has been developed. However, all this is done by a small group of «plotters». Broad masses of teachers and educational systems and mechanisms are not exposed to it, and educational policy does not include it. The Commission on Environmental Policy and Environmental Protection of the Russian Public Chamber could include into its priorities the practical promotion of this strategy to projects that are currently developed to reform the Russian educational system.

It is important to set before the state, represented by government agencies, the requirement to make its international commitments to environmental education a real priority of its educational policy. There is already room for the constructive implementation of this approach. The new draft standard envisages not only changes in the requirements to school graduates but also a three-year experimental approbation of new educational aids in achieving these results.

Today we see the process of rethinking the social function of general education and increasing its general and cultural links with real life. Environmental education is of a general cultural nature. Its results are the needs of everyday life. However, the monitoring of the quality of education still does not imply the presence of environmental indicators. This is why today we have to struggle not for the subject «environmentalism» but for including into the educational standards requirements that would reflect the results of environmental education. In this case, all educational establishments will automatically be targeted toward achieving them. Consequently, this will need various educational means. This is an area to be developed within the priorities of environmental-educational policy.

Programs that form universal teaching actions will start to be developed soon, for example, a program for personal socialization and civil education. This is

an environmental niche to fill. Another environmental niche is the development of regional educational components.

What seems very promising to me is the design of environmental education on a modular basis: «energy generation and environmentalism», «motor transport in the urban environment», «preservation of species diversity» and so on. These modules and other structures (including environmental training courses within the regional educational component) may find their place in the system of elementary, principal, and secondary school. They have been tested in the experimental option and can comprise the new integrated educational area «environmentalism, health, and safety of living». It is very important to set the right priorities and channel our efforts to those areas of environmental policy that today can help promote and implement these ideas.

**A.N. Zakhlebnyi**

Corresponding Member of the Russian Academy of Education

## EDUCATION FOR SUSTAINABLE DEVELOPMENT

The system of environmental education, to an extent, meets the needs of society. Yet the world today, at least Europe, raises the task of developing a special type of education, which has been termed «education for sustainable development». Environmental education is also an education for sustainable development; this is quite obvious. However, a necessity has emerged to focus attention not only on environmental problems proper, with which environmental education, naturally, deals, but also on more complex and broad problems. Education for sustainable development concentrates attention on balanced approaches, problems of societal development, economics, and environmentalism.

The UN General Assembly adopted the 2005–2014 decade as the UN Decade of Education for Sustainable Development. The Kiev Conference of Environmental Ministers was charged to develop a European strategy of education for sustainable development. It was designed and adopted in Vilnius in 2005 by the representatives of 55 countries that are members of the UN Economic Commission for Europe. I, in particular, took part in this work as a Russian representative.

What do we have to keep in mind when we speak about education for sustainable development? In my opinion, the main point is to introduce the outlook for sustainable development into the educational process. What is necessary for education in natural sciences? Of course, humanitarization. Little attention has been paid to it, especially in our education. What does humanitarian education need? No doubt, environmentalization. Humanitarian education pays little attention to environmental problems. Technical education needs both.

We should switch from more rigid to less rigid, more variable, and more humanitarian patterns of education, taking into account the needs of society, the economy, and the environment.

Russia has done and is doing quite a lot in this sphere. We have the concept of rational nature management (for those who disagree with the term sustainable development).

Much is being done to develop education for sustainable development at different Russian universities: classical universities, Moscow State University, technical universities, the Mendeleev University, and a number of other universities. First, we must create the National Strategy of Education for Sustainable Development. Many European countries already have such strategies. Russia is somewhat too quiet in this activity, the Russian Ministry of Education and Science pays very little attention to it.

Now it is necessary to propose to the public, interested agencies, and the scientific and educational communities to take all necessary steps to make Russia begin the real establishment of education for sustainable development as an integral part of the country's development.

### **N.S. Kasimov**

Dean of the Geography Faculty of Moscow State University,  
RAS Corresponding Member

**I fully agree with the necessity to develop environmental education and introduce environmental problems into various training courses. Yet, to some extent, this is already a past stage.**

**Environmental education in Russia is, of course, the most interdisciplinary sphere or system of education, which covers absolutely all fields of public and economic life. We may speak that we have already created a system of environmental education in the sphere of higher education. We have basic environmental education, related to the environmental sciences and taught at classical and educational universities through disciplines such as environmentalism, geoecology, nature management, and bioecology. All the constituents of the Russian Federation have about 150 departments and faculties that carry out environmental education (these are only at classical universities).**

**Another important point is that about 150 technical universities have environmental-engineering education: environmental protection and safety of living. Thus, Russian higher education already has an integral system of environmental education. Unfortunately, the situation is much worse in secondary school, which has no such subject as environmentalism.**

## THE TOPICALITY OF ENVIRONMENTAL PROBLEMS FOR MASS MEDIA

**The Guild of Environmental Journalists works within the framework of the All-Russian Media Union. The Media Union is seven years old, and competition among environmental journalists has lasted for more than ten years. Over all these years, we have been watching attentively the dynamics of environmental journalism in our country. The situation looks contradictory. On the one hand, we receive a huge number of works each year. These are mainly newspapers, rubrics, and articles, i.e., printed mass products, which are really in abundance in the Russian regions. It is obvious that environmental problems are not ignored and, at any rate, find their reflection in press. On the other hand, we have to admit that the reader shows little interest in these problems. Evidently, this is partly the fault of the journalists who try to arouse interest in environmental questions. In my opinion, however, not only the journalists are to blame. The main point is that the discussion of these problems, which is now taking place in society, is far from being active.**

In the early 1990s, there was no political figure who would not begin his or her election speech with the word environment. At that time, this was justified and popular in society. Obviously, in the Soviet period, these problems were closed in a sense. Nobody discussed how the environment affected human health and life. Our journal, which we have been publishing since 1992, was, in a sense, a tribute to the fashion of that time. Indeed, many public groups, sometimes radical, which worked actively in the field of environmental problems, were created in that period. In the mid-1990s, the public lost its interest in this topic clearly began to decline, although, as far as I understand, the associated problems not only remained but also sharpened to a degree. However, other problems obviously became more urgent for society.

Our studies show that, although the problems of safety have become more topical for the public since then, they still do not include environmental safety. A long series of events in our life and our new history has shifted the focus of public concern. Today, my colleagues understand that environmental themes are very important, but we obviously fail to bring this home to our audience. We are unable to make our citizens participate in the environmental process and orient them to environmental problems; this is very bad. Whatever journalists do, if people are not interested in this problem, they will read articles about the Star Factory, for example, with much greater pleasure than about problems that they face in everyday life.

At the public hearings that we held last summer in St. Petersburg jointly with the Public Chamber's Committee on Environmental Policy and Protection, Peter Khlebnikov, and American journalist, was present as a guest. In his address, he said very interesting words that may be rendered as follows: you need to arouse vital concern of your readers in what you try to drive home to them. This does not mean abstract interest in the purity of air, water, and forests. You should touch upon a personal problem of your reader. Khlebnikov gave a remarkable example. He lives in Massachusetts, where maple syrup is very popular. As a matter of fact, this is a national food without which the state's population cannot do. Meanwhile, one of the local problems is connected with forests. Khlebnikov works at an environmental organization. When its members succeeded in explaining to the man in the street, who had never thought much about environmental problems, that, if the problem with forests was not solved, he would not have his maple syrup on his table, a serious public interest in this topic was aroused at once. Of course, Americans are quite pragmatic. However, I am sure that we should also act similarly and try to arouse a similar response of our readers; otherwise, they will not hear our appeals: OK, clever people have gathered together, discussed something, and gone home. This is why I am sure that only our joint efforts will allow us to drive the topicality of environmental problems home to our audience. If our citizens do not support us, all our initiatives, decisions, and resolutions will remain on paper.

**A.G. Shamrai**

Editor-in-Chief of the Ekokhronika journal



## PRIORITIES AND USEFUL TIPS

Let us be realistic. Do we have any progress in environmental policy? No progress. Any progress in legislation? There is progress but not very impressive. Then, may be we are knocking on the wrong gate? We have determined an area; no matter what it is – forest, water, atmospheric air, – and we start «drawing» a law. But why? Do we have a specific indicator, which we are to attain by applying this law? We simply do not have any. Yet life and the control system are very simple.

We are to solve our problems in a different way. We should develop a system of federal statistical indicators. What criteria must these indicators meet? The first and most important point is that an indicator must be positive and not negative, because negative information is hard to digest; that is the way we are structured. Second, an indicator must reflect economic efficiency. An important area of work is indicators of sustainable development of a region. In Tomsk and Voronezh oblasts, these indicators were developed within the framework of a Russian-British project under the aegis of the Russian Ministry of Economic Development and Trade. They were improved to the level of a settlement. I hope that we will prove the necessity of developing the indicators of sustainable development for the whole Russia.

Now, let us discuss a few problems and the way they are solved by the example of Tomsk oblast. The state environmental review is a unique phenomenon; no other country could possibly have it, but it is present in Russia. There is a law, but it cannot be put into effect, because it is emasculated. The Russian Federal Service for Environmental, Technical, and Nuclear Supervision (Rostekhnadzor) supervises only waste certificates; the Federal Veterinary and Phytosanitary Monitoring Service (Rossel'khoznadzor) monitors only hunting and fishing restrictions. There are also problems with implementing the Water Code. The methods of determining the norms of permissible discharges have been canceled, and there are no new methods. The problem of wastes would also be solved more efficiently if some definitions were clarified. For instance, all laws use the word utilization. Utilization means the processing of wastes. You know that Federal Law no. 131 envisages that waste utilization is the function of municipal authorities and waste collection and transportation is the function of rural authorities. In relation to this, municipal authorities say that they process wastes and that waste disposal is none of their business. Finally, damage calculation methods are imperfect. Since the liquidation of the Russian Federal Environmental Committee, only one regulatory document has been developed to estimate damage to water resources. We are grateful to the developer of the latest Law On Environmental Protection for giving the federal constituents the right to develop and adopt their own methods of calculating damage. Tomsk oblast has developed such methods.

I hope that the developed indicators will be used at the federal level to evaluate the development of the country as a whole, as well as the development of individual settlements.

### A.M. Adam

Dr. Sci. (Eng.), Head of the Department of Natural Resources and Environmental Protection of the Tomsk Oblast Administration

**Recently, it has often been written that the priority of economic policy – every possible use of natural resources – must complemented by the priority of environmental policy – increasing the value of natural resources not only and not so much in rubles as in the minds and hearts of people. Let us be frank: economy is economy, and it has no heart. All our environmental actions must have economic motivation. Industrialists are doing much better than the state, because they have economic incentives.**

## SUSTAINABLE DEVELOPMENT OF THE RUSSIAN REGIONS (THE TOMSK OBLAST PRACTICES)

If we draw a longitudinal-latitude cross, then Tomsk oblast is the center of Russia. It is located in Western Siberia near the Urals and is traditionally regarded as a territory for mineral extraction. Its main resources are oil and gas. There are also iron ores and other valuable minerals there. As for renewable resources, Tomsk oblast has vast forestlands and large deposits of peat and fresh water.

Thanks to a high level of its science and education and well-developed mining industries, which create a high gross regional product, Tomsk oblast is constantly in the first ten of Russia's regions in terms of the human development index. In principle, the existence and development of such a territory is impossible without serious planning.

A complex approach to socioeconomic planning since 1999 has yielded a rich experience and has allowed the region to create by now its own development strategy. The first individual environmental program for Tomsk oblast was written in 1992. It was approved by the Duma and has been implemented for ten years. After that, a program of Tomsk oblast's socioeconomic development for a five-year period was prepared. This program contained a special section called «Environmental Policy». In 2005, we adopted a law that approved the Tomsk oblast development strategy.

The process of municipal and rural planning started immediately. A unique document, which is being implemented now, is the plan of sustainable development of Tomsk district. This district is operating according to this plan. The district has adopted its environmental program, development program, and so on.

The requirement of today is balanced solutions to socioeconomic problems and the preservation of a human-friendly environment. In addition to its powerful economic section, the program of socioeconomic development envisages a solicitous attitude to natural resources, environmental measures, and the creation of favorable conditions for human development.

Initially, the strategy was primarily established as an economic instrument. However, the oblast administration launched an experiment and allowed environmentalists to participate in the planning process. As a result, the strategy turned out a really balanced document, whose strategic goals include quality control over the human environment and environmental safety.

Among the 12 key policies incorporated into the development program is the environmental policy. We see the environmental policy not as something separate but as an integral part of the oblast's strategy for socioeconomic development. It cannot be divorced from the development of the territory.

**The example of Tomsk oblast is in no way a universal recipe for development. It is a conscientious attempt of self-preservation. Regional governments, as well as businesses, are longing for stability in the conditions of a continuous reform in the nature-protective system and environmental legislation. At present, the regions are increasingly active in developing their strategies. I think that it is important to support this process and provide it with methodological backing. The objective of federal agencies, the government, and the Public Chamber is to ensure this support. The truly sustainable development of Russia is shaped by the well-developed, successful, and forward-thinking regions.**

All the policy's goals and objectives are backed up by a system of adequate measures. Realistic end results were set, and program measures were designed to match these results. We have a system of monitoring and updating these goals and results depending on what we get as we proceed. In addition to the clear-cut goals, we have developed mechanisms to ensure the implementation of the environmental policy and tuned them to the current system of environmental bodies. The number of federal bodies is large. In order to coordinate them, we have a structure called the Environmental Board. It holds regular meetings and solves issues that cannot be solved within the framework of one department. As a result, the efficiency of decision making increases sharply.

One division of the oblast administration has all information (environmental) resources. Both federal and municipal bodies use these resources and communicate with one another via a web interface. Now we are providing free access to the database for all interested parties.

Another aspect is continuous monitoring. In addition to the monitoring of socioeconomic programs, we have been publishing the bulletin Indicator of Tomsk Oblast's Sustainable Development for three years now. Since 2000, we have been annually issuing the collection Monitoring the Environment.

Much attention is also paid to energy security. We have resources left for the next 10–15 years in terms of their reproduction. Alongside traditional instruments, like improved extraction efficiency and investments into the reproduction of mineral resources, we are now seriously thinking about diversifying the economy, including the energy sector. This thought is also rooted in the strategy, which, no doubt, increases its stability.

The region is trying to develop new, primarily science-intensive, industries. There are plans to develop the nuclear industry. We have preconditions for this. Our Siberian Chemical Complex is one of the largest. The program envisages the construction of heat-and-power plants that operate on alternative fuels, including those that we have in abundance in Tomsk oblast (e.g., peat and wood waste). If it becomes possible to produce ethanol from peat, then Tomsk will become richer than Kuwait, because more than 30% of the Tomsk oblast area is boggy and peaty territories. This is a very promising area.

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tion. At present, the regions are increasingly active in developing their strategies. I think that it is important to support this process and provide it with methodological backing. The objective of federal agencies, the government, and the Public Chamber is to ensure this support. The truly sustainable development of Russia is shaped by the well-developed, successful, and forward-thinking regions.

**D.V. Volostnov**

Deputy Director, Tomsk Oblast Department of Natural Resources and Environmental Protection

## THE EARTH CHARTER INITIATIVE: THE REPUBLIC OF TATARSTAN'S PRACTICES

In April 2001, the Republic of Tatarstan's State Council approved a resolution to adopt the Earth Charter by the republic. Tatarstan has become the world's first region of practical application and implementation of the Charter principles. The document, which was developed under the UN aegis, is to form a fundamentally new approach to human values with regard to environmental protection and security.

The Earth Charter (Declaration of the Earth's Rights) is a program document that calls to all peoples to consolidate their efforts in saving our planet, preserving the biosphere, and saving humans as a biological species. The document contains 16 principles aimed toward the preservation of our planet and the development of ideas of tolerance on earth. This is a new ideology based on ethic laws. I should say that people like it very much. When we hold the Earth Charter events in Tatarstan, they always become massive.

Some think that this document is naive, others take it as pathetic, and still others call it declarative. The document looks like that because it was adopted to account for the common interests of all peoples.

What are we doing in our republic to implement the Earth Charter? First, our efforts are aimed toward preventing the environment from harmful impacts. From 2001, when the State Council resolved to adopt the Earth Charter, to 2007, the prevented damage amounted to about 14 billion rubles. Today Tatarstan has an efficient system of especially protected natural territories. It comprises 148 locations, including 10 regional and 2 federal reserves. Their total area is 93 000 ha, or 2.3% of Tatarstan's total area. We think that this is not enough.

Tatarstan's Red Book system ensures special protection and reproduction for 258 animal and 376 plant species. This is very hard everyday work, done by our regional reserves and two federal especially protected territories.

Today, about 60% of total solid household wastes, which are formed on our territory, are utilized to produce building materials. We are trying, of course, to increase this volume, because it is still small and there are spare capacities for growth.

To date, we have issued more than 100 regulations for the practical implementation of the main principles of the Earth Charter. The concept of the Tatarstan's environmental security for the period 2007–2015 has been prepared. However, our practical work shows that the implementation of the principles and ideas of this very good document is impossible without the participation of civil society.

Our objective is to form a positive attitude to nature in people with the help of the Earth Charter.

In 2003–2005, we prepared and conducted public polls in the republic, which showed that 88% of the republican population is concerned that rare animals and plants may disappear from its territory, and about

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60% of the respondents are ready to take part in environmental actions. In other words, these polls show that people have very positive attitudes to the Earth Charter's ideas.

Of course, the Republic of Tatarstan's President M.Sh. Shaimiev is a staunch supporter of this targeted environmental policy.

A special role in implementing the Earth Charter principles is played by our reserves and especially protected territories, which are a powerful and efficient tool for preserving biological and landscape diversity.

N.A. Berdyaev said that the goal of reserving lands is not to create a heaven on earth but only to prevent the emergence of hell. Today our natural reserves are the skeleton that ensures the preservation of our unique biological diversity. Since the share of our reserves is relatively small, I think that our republic, as well as other Russian regions, must develop this system of especially protected territories of both regional and federal jurisdiction.

Today we must create a state system capable of reliably withstanding the negative consequences of aggressive economic activities in rapidly developing petroleum chemistry, energy generation, agriculture, and other industries. Forty republican districts have natural monuments. Over the past six years, the area of especially protected territories has increased by 39 000 ha.

Last year it was five years since we started to implement the Earth Charter in the Republic of Tatarstan. In 2005, the Tatarstan's minister of environment and natural resources issued an order for all our regional reserves to disseminate broadly the main principles of the Earth Charter. I should say that the managers of our natural reserves are very excited about environmental education.

Today Tatarstan has seven nature-protective bodies, six federal and one regional. Among them are the Federal Service for Nature Management Supervision (Rosprirodnadzor); the Federal Service for Environmental, Technological, and Nuclear Supervision (Rostekhnadzor); the Federal Hunting Supervision Service (Rosokhotnadzor); the Federal Fishing Supervision Service (Rosrybnadzor); and so on. Yet it is the regional level that today coordinates the nature-protective policy in the republic.

All measures within the framework of the interdepartmental commission on environmental security, nature management, and sanitary-epidemiological safety of the Republic of Tatarstan are implemented together with the principles of the Earth Charter. Any circuit meeting or meeting in Kazan is opened or closed with planting Earth Charter alleys. This initiative enjoys broad public support. As a rule, we en-

gage school students, pensioners, and all interested citizens. I think that this practice of ethical education should be disseminated in other Russian regions.

Today more than 500 rare and disappearing plants, mushrooms, and animals enjoy efficient protection and reproduction in our especially protected reserves. More than 70 species are registered in Russia's Red Book; 25 species that inhabit Tatarstan territory are registered in the Red Book of the International Union for the Protection of Nature.

We actively participate in the implementation of nature-protective projects of the World Wildlife Foundation. For the third year, we have been contributing to the implementation of the Bring Your Friend international project by transferring funds for the protection of such a rare for Russia species as the leopard, as well as for the protection of Russia's virgin forests.

Today there are certain difficulties in implementing environmental policy in the constituents of the Russian Federation, and, in this respect, I would like to stress legislation. For several years in a row, we have been trying to establish three new regional reserves. We are unable to do this because of federal legislation, which does not allow federal constituents to expand their network of especially protected territories.

We are introducing the Earth Charter course in schools, and teaching aids have been prepared on the basis of the classical Earth Charter. I think that this course will instill thrilling attitudes to nature. Those who will be lectured in the Earth Charter will never be able to kill an animal.

I think that today the Public Chamber can act as a coordinating center, because it is necessary to pool the efforts of civil society to create an efficient environmental policy. The current concept is not enough. Of course, we need a strategy of environmental policies. I would like to finish my presentation with the words from the Earth Charter: «Let ours be a time remembered for the awakening of a new reverence for life, the firm resolve to achieve sustainability, the quickening of the struggle for justice and peace, and the joyful celebration of life».

**I.A. Larochkina**

State Advisor for the Republic of Tatarstan's President on Subsurface, Oil, Gas, and Environment Issues

## ECOLOGY, CULTURE, AND PUBLIC CONSCIENCE

By expert estimates, a large number of people think that the government should not neglect the public opinion. Because of such neglect, civil society generates negative processes: protest voting or even «nonvoting». Such stratification may lead to the emergence of radical groups, including environmentalists, who become hard to control. In my opinion, our society is approaching this dangerous line. A means to harmonize processes in a civil society and create a «ground» for dialogue with the authorities may become the newly created organization, the Center of Environmental Policy and Culture.

In the regions, we have to do a lot to promote it. Here we may use the already known forms of PR campaigns: press releases in mass media, information disclosures on the web sites, etc.; the main point is to make environmental problems and their relation to culture sound more often. Just one active information campaign would set a vector of public discussion. In addition, there are special mechanisms to determine the social importance of a topic under discussion by the number of presentations, which reflect a growth or decline of interest in it. If the curve is upward, it means that we should pay attention to this problem; this is our special signal for the authorities. Here it is also necessary to use nontraditional ways of disseminating the new organization's ideas and, simultaneously, of educating and developing environmental consciousness.

Such ways may include various schools, summer association of school and university students, etc. The Altai – 21st Century Foundation has accumulated rich experience in this sphere. Its international school for students living in the Great Altai area has been functioning for five years. Chinese, Mongolian, Russian, and Kazakh students get together, hold roundtables, discuss the environmental issues of the region, and, in addition to the exchange of opinions, literally spark one another with environmental topics. Yet the main point is that they form a feeling of collective responsibility for their land and region.

The efficiency of forming environmental conscience increases largely if educational and training programs cover regional topics that are close to people. It is necessary to focus people's consciousness on the problems of territories where they live. They should feel their responsibility for and unity with their land. The next step is the development of a legal framework, which must help form new conscience, use nature-saving and protecting technologies, and involve as many people as possible in the implementation of environmental projects. Conscience should constantly tell people that they are rooted to this land, that this land is theirs, that they feel the genes of this land, that they are responsible for this land, and that they can really help preserve it.

The most effective way of forming this mind-set is through culture. First, your heart is overjoyed at the sight of beautiful landscapes and the feeling that this is your land. Then you have a feeling that you should not disturb it. I know this well from our protests. Why do people protest against the Katun' hydroelectric power plant? Because the Katun' is a beautiful river. You see it once, and it is enough to become a patriot of the Katun'. You will see the Ukok Plateau once, and you will perceive a pipe that is to be laid through it to China as something monstrous.

**The sphere of our activities, environmental culture, may be a priority. The more so, it is so innocent that it is hard to ban or leave without support. Let us develop environmental culture.**

Simultaneously, the cultural way actualizes the most crucial problem of basic values. Without them, it is impossible to resolve in principle the issue of forming environmental conscience. The issue of values in culture and nature reveals wonderfully the human essence. During discussions with Gazprom representatives about pipelining through the Ukok Plateau, the experts and public gave the designers the following argument: «This is a sanctuary of the Altai people, and, to understand the reaction of the local population, tell us what you would feel if a pipe were laid through the Holy Trinity-St. Sergius Laura». The answer was very demonstrative and candid: «We will act in an economically profitable way». Such attitudes set not only Altaians but also Russians against them. Is it possible that a pipeline is laid through a sanctuary?

Attitudes to sanctuaries are a serious argument for the unification of very different people. Sanctuaries should stay undisturbed. People can put up with many things; they can live in difficult conditions and withstand a lot. In general, the adaptation mechanisms of our people are very strong. We are bred like that; this is recorded at our genetic level. In addition, convictions must not be disturbed. We would like not only our audience but also the authorities to agree to this. It is easy to hurt national feelings and take sacrilegious actions, but then sudden processes may start within society, which would take a long time to compensate. For example, the conscience of the Altaian people holds that it is impossible even to throw a stone into the Katun'. However, hotheads are going to build a hydroelectric power plant on this river.

I think that we must inevitably come to the establishment of our mass medium. I tried to find an alternative solution. Nothing will come out of it. We must tell society what we want, what we dream of, and what we would like to see, be it a web site, a newspaper, or a television broadcast. Contemporary people are attached to mass media, and it is practically impossible to form environmental conscience without a media resource.

I would also like to fix another mechanism that would facilitate the formation of environmental culture and environmental conscience; this is regional Public Chambers. The law on public chambers is poor, and their influence in the legal and expert spheres is limited to a narrow framework. However, even these conditions allow efficient work in the field of environmental culture and in other environmental fields; everything, as usual, depends on people. We were able to liven up the environmental work of the Public Chamber in Altai. It took time and effort to establish the environmental commission in the regional chamber; we had to actively prove its necessity, and it was established. We held hearings concerning the Altai gas pipeline, the Katun' hydroelectric power plant, environmental culture, prospects for the development of bioethanol facility in Altai, mechanisms for the implementation of the Kyoto Protocol, and the limitation on greenhouse gas

discharges. Deputies of the krai council, administration representatives, the public, and experts took part in these hearings. The topics were seriously discussed in mass media.

The success of the first steps of the regional chamber's environmental commission largely contributed to the promotion of the regional Law On the Environment. The model law was drawn by M.I. Vasil'eva, a Moscow State University professor and a Center for Russian Environmental Policy expert. In 2007, it was adopted after regional adaptation by the Altai Krai Council of People's Deputies. Now it is being considered by the Legislative Assembly of the Altai Republic. This law has become basic for Altai krai, and related legal acts are being developed now. It seems promising to publish a brochure about the positive practices of regional Public Chambers and send it to territories where they have not yet been established or for peer review.

In conclusion, I would like to discuss the international opportunities of the Center of Environmental Policy and Culture as far as the formation of environmental culture is concerned. There are very many pre-conditions here: the lengthy Russian border, common history with many states that are now independent, the development of environmental movements there, the topicality of solving environmental problems outside Russia (especially in the border regions), and the long-standing experience of solving complex problems outside Russia. And, of course, people abroad are very interested in the achievements and technologies of the Russian people.

Here is a short illustration from our region. Power supply is a topical problem for Altai. We may either follow the vicious road of large projects, like the Katun' hydroelectric power plant, or develop small-scale power generation and alternative energy sources. We can use the rich Chinese experience to solve this problem successfully. China has wonderful results in the use of biogas installations, wind generators, etc.

The formation of environmental culture is a very complex problem. In my opinion, we are just starting to define the scope of its psychological, philosophical, educational, project-organizational, communicational, international, and other aspects. To further progress, we, probably, need roundtables to discuss in detail individual aspects, for example, the philosophy of environmental culture and environmental education, environmental culture and modern environmental technologies, etc. One point is clear: without intensifying the work of government agencies, the public, and experts in environmental culture, our country may face huge social, economic, and environmental problems.

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