Environmental Management: the Ideology of Natural Resource Rational Use

V M Zolotukhin, V A Gogolin, M Yu Yazevich, M I Baumgarten, A V Dyagileva

T.F. Gorbachev Kuzbass State Technical University
Vesennyaya st. 28, Kemerovo, Russian Federation, 650000

E-mail: zvm64@mail.ru, gva.pm@kuzstu.ru, Maria762003@list.ru, bmi45@mail.ru, dyagileva1952@mail.ru

Abstract. The article presents an analysis of the ontological and methodological principles of environmental management. These principles form the united ideology of natural resource rational use as the environment preservation basis. Consideration of environmental issues from the environmental management point of view is stipulated by the concern of the scientific community about the existence of mankind and the sphere of its inhabiting. The need to overcome the stereotypes existing in mass consciousness about safe and environmentally friendly consumption is stressed. The process of forming environmental management policy should contribute to the stabilization (balancing) of the consumers' expectations and collective decision-making based on a public ecological consensus.

Introduction
The relationship between a human being and nature has always been controversial, but in the 20th century, human-induced impact on the natural environment has become particularly significant, and changes in this area today, as is known, are irreversible [1]. The absence of a clear and coherent strategic policy that can dramatically affect the activity of modern humanities and society is one of the reasons underlying the crisis in the field of environmental and social relations. In recent decades, social reality has undergone significant changes that were taking place under intense influence of diverse information processes, political and economic innovations, and also due to the rapid growth of scientific knowledge and technological progress [2]. It is worth mentioning that given transformations affected not only social practice, but also contributed to a serious ecological imbalance, stimulated worsening of social and natural problems on the global and local levels.

Material and Method
Under current conditions the need to build and enhance a culture of self-preservation of both human being and his environment in the framework of his philosophical paradigms is very urgent. One of the most important factors is technological, including compliance and the establishment of new regulatory standards of human activity in the industrial production. According to O. Spengler, every culture has its own quite an individual way of seeing and understanding the world-as-nature, or every culture has its own, peculiar nature. But even in higher degree every culture has its exceptionally own type [3].
the culture itself we observe the presence of anxiety feeling, waiting for something, uncertainty (when we are still in the state of environmental comfort, but the risk of transition to unfavorable situation is already appearing).

The practice of double standards in the field of environmental policy creates certain standards of behavior from the part of the ruling elites at the state and international levels. On the one hand it is the degree of interest of society as a whole, its classes, social groups, territorial communities and their mentality. On the other hand it is the political and social attitude of authorities, contributing to environmental conservation. The degree of development of the environment by human being depends on how focused and structured the public opinion is [4]. This refers not only to the implementation of mandatory standards and symbols, but also to those standing in opposition to the official ideology, and drew the natural instincts of man, in all their aggressiveness, which bears the destructive nature for human being and his natural environment.

It must be recognized that organizational issues based on a specific regulatory framework also deserve attention. The reasons for the formation of institutional mechanisms should become different models of management practices. With the help of simulation, including mathematical, there is a possibility of comparison of basic indicators of "green economy" - the investments in green growth, i.e. the transition to green economy in the countries importing and exporting hydrocarbons. These countries, the "champions" of green economy, are Korea (80.5% of all financial measures), China (37.8%) and France (21.2%) [4]. One of the drivers of green growth in these countries is the preservation of national energy security [5-8].

In terms of social, cultural and legal aspects of definition of the environmental policy the issues of creating and maintaining the appropriate for human living environment are at the topside. In this environment, a person must be guaranteed a certain environmental quality standards. This raises the question of the formation of ecological thinking, as the learned facts by themselves mean nothing. The developed thinking without necessary minimum of theoretical knowledge does not provide the required performance of daily activities too. To determine the level of ecological thinking development it is necessary to assess objectively the level of training of the population according to the established criteria of environmental education. In terms of social and cultural needs satisfaction its types are identified. For example, primitive thinking (De Broglie), as the most ancient and simple reflection of the world in thinking is described [9-11]. Currently the peculiarities of thinking of representatives of different knowledge branches (natural sciences, mathematical, biological, humanitarian, etc.) are being considered.

Currently, the situation tends to get worse and threatens the existence of human society and the natural environment on a planetary scale. This is evidenced by the conclusions of various international symposiums, the APEC summit (Vladivostok), the UN Conference in Rio de Janeiro and Japan, publications and reports of scientists from different countries. These events highlight the overall trends - increased attention to the principles of sustainable development in environmental, economic and social spheres, as well as improved maintenance practices of the balance between nature and the social world [12-13]. It is clear that without active measures in environmental policy it is impossible to maintain the delicate balance between natural processes and the realization of modern humanity needs. Environmental problems of the nearest future will be caused by water pollution [14-18], speeding up the mining machinery development [19-27], settling the neo-industrial clusters [28]. So the special attention must be paid to sustainable development of methodology [29-32] and environmental ethics [33-34]. Hence the necessity to find new solutions, the development of agreements about measures of environmental policy based on both common ideological and axiological principles and uniform legal and technical standards appears.

Results and Discussion
It should be stressed that the measures in the sphere of nature preservation policy cannot be limited by initiatives or actions from the part of individual state governments. A special need is to create a unified ecological space with global perspectives. Activities of this kind should be directed to the develop-
ment of environmentally-oriented, economically viable and socially acceptable solutions relevant to the representatives of the various communities. But the peculiarity of this situation is that pollution and natural resources are geographically localized and situated in specific geographical areas, and have not only natural, but also state and administrative borders. Thus, the management of social and environmental processes must take place within the framework of large-scale and efficient environmental policy drawn up both at the global level and by international, national, regional and municipal authorities. Greening of state procurement, primarily in the public sector, should be aimed at promoting the use of voluntary environmental certifications for the formation of a unified ecological space.

The scope of integrated environmental policy should include issues related to the improvement of the ecological situation on the planet. In its structure it is important to determine the main direction of the positive development of different levels of diverse and contradictory social and natural processes, based on the principles of environmental world outlook. Formation of such strategy may take place on the international environmental platforms, based on the independent international organizations, in environmental programs of political parties and civil society organizations. This will establish a set of legal, economic and social and political normative multi-purpose documents in the environmental regulatory system. At the same time, it must be emphasized that conflict between the legislative and executive branches is dangerous for the stability of the legal system. Overcoming of this conflict is possible in the process of finding compromises among all the subjects of law-making and law-enforcing activity in the conditions of social agreement. Formation of the environmental policy should contribute to the stabilization (balancing) the behavioral expectations and collective decision-making based on public consensus.

One of the urgent tasks of modern management today is to create an information space using ideological practices. Ideology has traditionally had a strong orientation and mobilization potential in the mass consciousness. In the context of globalization, the growth of ecological contradictions, social tension, the problem of social identity and self-identification is particularly acute, and the humanity needs definite objectives, absolute values and mobilizing ideas. So the phenomenon of a new ideological project can provide power structures and civil society institutions philosophical platform for regulation of social and environmental crises and stabilization of current conflicts in general.

Ideology has traditionally been an effective means to cause large-scale action of political and social practices, to produce the values and meanings that are relevant for specific social and historical circumstances. For example, on the basis of the state report "On the state and environmental protection of the Russian Federation in 2013", prepared by the Ministry of Natural Resources and Environment of RF: “The observation of air pollution in Russia was conducted in 252 cities, 694 posts, of which regular observations by Roshydromet were performed in 225 cities on 631 posts, additional sporadic observations were carried out in 4 settlements [35]. According to Roshydromet, in 123 towns (57% urban) the level of air pollution is estimated as high and very high and only in 22% of towns as low. In cities with high and very high levels of air pollution 54.2 million people live accounting for 52% of Russia's urban population. In 204 cities (81% of cities where observations were conducted) the average annual concentration of one or more pollutants exceeds MPC. 66.6 million people live in these cities” [36]. In this situation, when the solution of environmental problems is of vital importance, the development and implementation of global ideological project will, on the one hand, consolidate the efforts of various social groups at international and local levels; on the other, change the ethical-axiological component of social action, outlining environmental imperative as the basis of social outlook.

Today in modern social theory postmodern worldview oriented on pluralism of values, ideas, cultures and ways of life is of special interest. This tradition is opposed to the classical paradigm of modernism, which dates back to antiquity and follows the description of the world based on the metaphysical rationalism and monistic model of the universe. Richard Rorty, criticizing the rationalist bias of modernism, believes that under the Age of Enlightenment the formation of "essentialist" type of world view with the characteristic features of logocentrism, fundamentalism and universalism that led to a special relationship of man and nature was completed [37]. Earlier we noted that in these circums-
stances classical for the Western European practices scheme of relations is establishing, where a special type of person - rational, autonomous individual with political rights and claims for management is appearing. Nature in this system of relations was seen as imperfect, in need of change and reorganization in accordance with the requirements of the human mind. In classical axiological system nature was seen as a value of the secondary order, and had significance only in the context of human activities, as the only resource for the implementation of human interests. As a result social and natural relations have been reduced to a narrow utilitarian level, focused on the creation of economic advantages and material benefits.

Postmodern tradition seriously criticizes and deconstructs the anthropocentric model of being. It rejects man's position as a privileged being, a starting point of world processes. From this perspective, the interpretation of the chain relationship between man-society-nature must be based on the principles of self-worth of the natural world, the multiplicity of ways of knowing the environment and dialogical communication with Nature (Richard Rorty [37]). According to J. Habermas, one of the ways to form a correct understanding is a debate [38]. The decision of the majority can only be taken in such a way that its content is considered to be rationally motivated (although not immune from error) outcome of discussions, which is conventionally completed, because it is necessary to accept final decision. This adoption of a majority-based environmental policy is considered to be provisionally approved by the minority. J. Habermas said that nobody demands of the minority that it renounces its will, that it announces its opinion wrong; the minority is not even required to reject its purpose. But it is required from the minority to refuse practical implementation of its beliefs as long as it manages to present its arguments better and to collect the necessary number of proponents [39-40]. That is the correct understanding and application of environmental policy and environmental legislation which ensures the achievement of socially significant goals. It especially concerns development geotechnical activities and mineral resource extraction [41-43]. Designing and producing powerful mining machines, constructors and engineers must analyze ecological consequences of their implementation [44-46].

This requires reorientation of society for new social ideals and values, in which, as the priorities, it is offered to adopt the principles of unity cultural and natural environment, expressing the features of modern human being. In recent decades pluralism, multiculturalism, environmentalism having been considered as an alternative basis for the establishment of a new system of values with dominating environmental imperative as opposite to industrial civilization of modern. This will give in theoretical aspect the special importance to nature and appreciate the diversity of its forms, as well as determine as a value that any natural phenomenon (animate and inanimate natural objects) has an absolute significance. This kind of idea about the value of life diversity may be the basis for a new type of relations "human being - world", providing an opportunity to further survival of the civilization.

**Conclusion**

Thus, the "solidarity" should be the most important principle of modern society, which is based on the ideals and values of consensus, tolerance, pluralism and freedom. One of the conditions for the implementation of these guidelines may be rethinking of theoretical and ideological bases, inherited from the modern society, which will determine the right of existence for many voices in the "conversation" of humanity with nature. At the same time environmental imperative can become the principle of universal connection, unifying link between "human being and human being", "human being and society" and "human being and nature". Future social world, in this way, can be represented in the form of "mutual stories" of individuals united by "the desire of solidarity." This kind of communication will be the basis for adaptive behavior of individuals, allow adapting to modern realities and non-standard situations by adopting new values and norms of existence, developed under environmental ideology.

**References**

[1] Rogers P, Jalal K F, and Boyd J A 2007 An Introduction to Sustainable Development (Routledge: Routledge Pub.) 380 p.
[2] Bakari M K 2013 Globalization and Sustainable Development: False Twins? New Global Studies 7(3) pp 23-56.
[3] Hardy S 2001 Oswald Spengler et Gabrielle Roy: quelques pistes de lecture Cahiers franco-canadiens de l'Ouest 13 (2) pp 143–56.
[4] Kahle L R and Gurel-Atay E 2014 Communicating Sustainability for the Green Economy (New York: M.E. Sharpe) 478 p.
[5] Zhironkin S A 2001 Governmental factoring development of TEK Kuzbass Ugol' 6 p 62.
[6] Zhironkin S A 2001 Factoring and leasing development at coal mining industry of Kuzbass as an important element of its financial part Ugol’ 4 pp 29-30.
[7] Zhironkin S A 2002 About measures of vexel circulation development and vexelability definition of fuel-and-power complex' enterprises Ugol' 4 pp 47-48.
[8] Zhironkin S A 2002 Prospects and new possibilities investment attracting to Kuzbass coal mining industry Ugol’ 6 pp 31-36.
[9] Warrant L 1987 Dictionnaire de la prononciation française dans sa norme actuelle (Gembloux: Duculot) 466 p.
[10] Pierret J M 1994 Phonétique historique du français et notions de phonétique générale (Louvain-la-Neuve: Peeters) 780 p.
[11] Leroy F 2003 A Century of Nobel Prize Recipients: Chemistry, Physics, and Medicine (Birmingham: CRC Press) 562 p.
[12] APEC roadmap on FTAAP a historic decision 2014 Xi Xinhua November 11 pp 55-58.
[13] Elite Talk: A talk with APEC chief Alan Bollard on China, FTAAP, New Silk Road 2014 People's Daily Online November 10 pp 91-99.
[14] Lesin Y V Luk'yanova S and Tyulenev M 2010 Mass transfer of dispersed particles in water filtration in macro-grained media J. Journal of Mining Science 46 (1) pp 78-81.
[15] Tyulenev M A and Lesin Y V 2014 Justification complex purification technology open-pit mines wastewater Symposium of the Taishan academic forum – Project on mine disaster prevention and control pp 441-444.
[16] Tyulenev M, Zhironkin S and Litvin O 2015 The low-cost technology of quarry water purifying using the artificial filters of overburden rock Pollution Research 34 (4) pp 825-830.
[17] Lesin Y V, Luk'yanova S Y and Tyulenev M A 2015 Formation of the composition and properties of dumps on the open-pit mines of Kuzbass IOP Conference Series: Materials Science and Engineering 91 (1) 012093.
[18] Tyulenev M, Zhironkin S, Kolotov K and Garina E 2016 Background of innovative platform for substitution of quarry water purifying technology Pollution Research 35 (2) pp 221-226.
[19] Tyulenev M A, Gvozdikova T N and Zhironkin S A et al. 2016 Justification of Open Pit Mining Technology for Flat Coal Strata Processing in Relation to the Stratigraphic Positioning Rate Geotechnical and Geological Engineering 34 (6) doi:10.1007/s10706-016-0098-3.
[20] Khoreshok A A, Buyankin P V, Vorobiev A V, Dronov A A 2016 Simulation of Stress-Strain State of Shovel Rotary Support Kingpin IOP Conference Series: Materials Science and Engineering 127 012014.
[21] Khoreshok A A, Mametyev L E, Borisov A Yu and Vorobyev A V 2015 The distribution of stresses and strains in the mating elements disk tools working bodies of roadheaders. IOP Conference Series: Materials Science and Engineering 91 (1) 012084.
[22] Tyulenev M A, Zhironkin S A, Garina E A 2016 The method of coal losses reducing at mining by shovels International Journal of Mining and Mineral Engineering 7 (4) DOI: 10.1504/IJMME.2016.10000781.
[23] Aksenov V V, Khoreshok A A and Beglyakov V Y 2013 Justification of creation of an external propulsor for multipurpose shield-type heading machine - GEO-WALKER Applied Mechanics and Materials 379 pp 20-23.
[24] Lekontsev Yu M., Szazhin P V, Temiryaeva O A, Khoreshok A A and Ushakov S Yu 2013 Two-side sealer operation Journal of Mining Science 49(5) pp 757-762.
[25] Khoreshok A A 2002 On side cutting bit when operating at sheerer drums Ugol’ 7 pp 10-11.
[26] Tyulenev M A, Khoreshok A A, Garina E A, Danilov S and Zhironkin S 2016 Adaptive technology of using backhoes for full coal extraction Proceedings of the 8th Russian-Chinese Symposium “Coal in the 21st Century: Mining, Processing, Safety” pp 111-115.
[27] Khoreshok A, Tyulenev M and Vöth S 2016 Conditions for Minimum Dynamic Loading of Multi-brake Hoists Proceedings of the 8th Russian-Chinese Symposium “Coal in the 21st Century” pp 239-245.
[28] Tyulenev M A, Lesin Yu, Vik S and Zhironkin S 2016 Methodological Bases of Advanced Geoeconomic Problems Resolving in Neo-industrial Clusters Proceedings of the 8th Russian-Chinese Symposium “Coal in the 21st Century” pp 333-336.
[29] Foltz B V and Frodeman R 2004 Rethinking Nature (Indiana University Press, Bloomington North Morton Street) 601 p.
[30] Vogel S 1999 Environmental Philosophy After the End of Nature Environmental Ethics 24 (1) pp 23-39.
[31] Weston C 1999 An Invitation to Environmental Philosophy (New York: Oxford University Press) 472 p.
[32] Zimmerman M J, Callicott M and Sessions G et al. 2010 Environmental Philosophy: From Animal Rights to Radical Ecology (New Jersey: Prentice-Hall, Inc.) 632 p.
[33] Pojman L P and Pojman 2000 P Environmental Ethics (Orlando: Thomson-Wadsworth) 478 p.
[34] Sherer D and Attig T 1983 Ethics and the Environment (New Jersey: Prentice-Hall, Inc.) 554 p.
[35] Ministry of Natural Resources and Environment of the Russian Federation URL: http://www.mnr.gov.ru/english/.
[36] Rorty R 1967 The Linguistic Turn, Essays in Philosophical Method (University of Chicago press) 360 p.
[37] Habermas J 2002 Religion and Rationality: Essays on Reason, God, and Modernity (Mass.: MIT Press) 276 p.
[38] Raymond D 1986 Nascent Environmental Protection in the Second Empire // Germ. Stud. 9 pp 262-267.
[39] Giddens A 1990 The Consequences of the Modernity (Cambridge: Camb. Univ. Press) 302 p.
[40] Aksenov V V, Efremenkov A B and Beglyakov V Y 2013 The influence of relative distance between ledges on the stress-strain state of the rock at a face Applied Mechanics and Materials 379 pp 16-19.
[41] Golik V I, Rasorenov Y I and Efremenkov A B 2014 Recycling of metal ore mill tailings Applied Mechanics and Materials 682 pp 363-368.
[42] Golik V I and Efremenkov A B 2016 Physicochemical Processes of Metal Lixiviation in the Disintegrator IOP Conference Series: Materials Science and Engineering 125 (1) 012038
[43] Efremenkov A B 2011 Forming the subterranean space by means of a new tool (geohod) Proceedings of the 6th International Forum on Strategic Technology IFOST 6021037.
[44] Efremenkov A B and Timofeev V Y 2012 Determination of necessary forces for geohod movement Proceedings - 2012 7th International Forum on Strategic Technology IFOST 6357729.
[45] Efremenkov A B and Aksenov V V et al. 2012 Force parameters of geohod transmission with hydraulic drive in various movement phases Proceedings - 2012 7th International Forum on Strategic Technology IFOST 6357716.