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Environmental management factors

T I Barmashova¹ and E V Lazutkina²

- ¹ Department of Philosophy, Krasnoyarsk State Agrarian University, 90, Mira Av., Krasnoyarsk, 660049, Russia
- ² School of Philology and Language Communication, Department of Foreign Languages for Humanities, Siberian Federal University, 79 Svobodny Pr., Krasnoyarsk, 660041, Russia

E-mail: helenal20@mail.ru

Abstract. The article analyses some factors of rational nature management. The concept of the rational is specified. The prospects of explication of this concept not only in the epistemological aspect but also in the sociological, praxiological and axiological aspects are shown and essential characteristics of rationality are revealed. The main conclusions of the study are that the rational improvement of the mechanism of environmental management inevitably involves humanisation of all spheres of society: social economic, political, managerial, educational, etc. A fundamental regulator of human activity in the field of environmental management is the ethical component that contributes to the implementation of the principle of co-evolution in the relationship between man and nature and the development of optimal factors of environmental management.

One of the most pressing problems of the modern era is the problem of environmental management. Modern civilisation due to the constantly deteriorating environmental situation de facto threatens its own existence. In these circumstances, the need to understand the problems of interaction between man and nature, in particular the problem of environmental management is building up. At the same time, there is still no single definition of the concept of the rational. In the context of ambiguous solutions to the problem of environmental management, the purpose of our work is to clarify the concept of the rational and the explication of environmental factors on this basis.

It seems appropriate to preface the issue of environmental management factors with the analysis of the concept of the rational. The peculiarity of this concept is that it occurs and for a long time exists only as epistemological. Since ancient Greek philosophy (Socrates, Plato, Aristotle) it has been used in the context of the general problem of cognition and is understood by representatives of rationalism in different times (Spinoza, Descartes, Leibniz) as one of the main stages of cognition, opposite to sensual cognition.

This understanding of the rational is not sufficient. If we understand the rational categorically, based on its general understanding, its multidimensional nature should be pointed out. The famous German philosopher H. Schnädelbach seems to talk just about that criticising the attempts of explication of rationality through the reason. He places emphasis on the limitations of such approach, which created space for irrational interpretations. In his opinion, "... "rationality" is an open concept which cannot be fully explicated for any context" [1].

The rational acts as a characteristic of human activity in all its diversity of manifestations. When considering this concept only in cognition, other spheres of human reality and types of activity remain

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out of context. Whereas the rational in cognition is just one of the many manifestations of the rational inherent in individual personal and cultural historical processes. In order to convey the fullness of the concept of the rational, it is important to go beyond the purely epistemological approach and to supplement it with sociological, praxiological and axiological aspects. This approach allows a more complete interpretation of this concept, helping to understand the global problems of the modern civilisation. In the transition from the aspect of epistemology to the social practical sphere, the concept of rational is modified accordingly, acquiring a certain specificity. The rational is traditionally understood through human activities which are reasonable, appropriate and purposeful. Rational types of social and practical activities are considered as such, as a rule, on the assumption of conscious social activity of the subjects. The conscious subject acts in accordance with the historical necessity, the logic of development, objective needs of the time and personal conscious aspirations. The subject who realises his capabilities, understands the processes around him and his place in them and is aware of his essence has more opportunities for successful socially significant activities. The realisation of the objective necessity largely depends on whether it is perceived consciously as a subjective goal. To set such goals, it is necessary to know the objective laws of development and skillfully use them, which is possible only if the subject is most conscious. Awareness of the social subject largely determines the effectiveness of the functioning of society, contributes to the achievement of maximum rationality.

However, it is difficult to imagine an all-encompassing awareness even in the rational activity of the society. A convincing example of this is intuition, which is a combination of conscious and unconscious knowledge. In our opinion, the connection of awareness and unconsciousness with the rational and the irrational is mediated. It is not justified to identify the rational and the conscious on the one hand and the irrational and the unconscious on the other hand. If the actions of the subject correspond to the social historical needs of the society, do not contradict the progressive trend of development, then it is not justified to refer them to the irrational even with a certain unconsciousness. However, there are probably certain limits beyond which unconsciousness makes actions irrational. We believe it depends only on the degree and the measure of the awareness whether the action is rational or irrational.

Thus, awareness alone is not enough for environmental management. It seems unreasonable to identify the knowledge of natural laws and the organisational side of their use in practice. Manifestations of rationality in the field of interaction between man and nature as a form of social activity of the subject are impossible to imagine without organisation, planning, reasonable management and control over the activities. Whether environmental management will be rational or irrational largely depends on the technical and organisational side, the effectiveness of which involves the choice of optimal in this situation means of achieving the goals and a rational way to connect them.

Another important factor of rationality is expediency, understood as correspondence of a phenomenon or a process to a certain state, the material or ideal model of which acts as a goal; a form of manifestation of cause-and-effect relations. Assuming the goal setting, expediency includes the intent and the ability to predict their consequences. Unfortunately, even the best plans do not always come true.

A fundamental factor in the implementation of environmental management is recognition of the principle of coevolution (harmonious coexistence of man and nature) and following it. The principle of coevolution cannot be employed without harmonisation of the relationship between the individual and the society. The ideas of communitarianism, emanating from the priority of the common good over individual interests, are currently popular. Some scientists see the unity of good, virtue and community as a condition for the harmonious development of the individual and the society. Communitarianism is defined as teleological ethics based on the fact that a person is not virtuous initially, by nature. These ethics see the good as the goal to which one must move realising himself as a virtuous being [2]. In this regard, it is important from a young age to form an understanding of the dialectical inseparable unity of man and nature, which are part of a single whole. It is advisable to talk about the harmonious type of interaction between the individual and the society emphasising the principle of the humanistic factor of social development "man for society and society for man", which is able to resolve many contradictions, including between man and nature [3]. The problem of formation of reasonable human needs should be

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considered in the context of the problem of the relationship of interests of the individual and the society, which is an important factor in environmental management.

The most important component of environmental management is the moral and ethical factor. Currently, there is a considerable number of works on the moral side of the human existence and its impact on all the spheres of human activity. A number of researchers (Leschinskaya V V [4], Klimova S M [5], Nysanbayev O B [6], Subbotina N D [3], etc.) state the main role of the ethical aspect and the associated humanistic nature of environmental management. Other scholars emphasise the importance of science and technology ethics. In this regard, they write: "Introduction of complex technical systems in view of their increasing complexity is characterised by an unpredictable emergence of undesirable side effects at the time of their creation and operation. Social assessment of technology and technical ethics are designed to contribute to the creation of mechanisms of self-restraint and self-control in the conditions of uncertainty" [7].

In other words, science and technology alone are not a panacea for the effective development of civilisation. As is known, information and knowledge are the basis of the concept of post-industrial society. According to the legitimate remark of V V Leschinskaya, neither information nor knowledge as such have room for spiritual and moral principles. Namely, these value components are key in the process of humanisation and humanitarisation of society. The researcher considers the formation of ecological culture in direct dependence on the processes of humanisation and humanitarisation in the society [4]. In order to form spirituality, ecological culture and humane attitude to the surrounding world in a person, evolution of humanitarian education becomes an important factor. It is important to form love of nature, a sense of empathy and altruism from an early age.

Indeed, no awareness, even the highest, can contribute to the creative, humanistic development of the individual and the society if it goes against the truly human system of moral values. A demonstration of this is the situation of the modern society which is fully aware of the fact that nature is a prerequisite for our existence, that its preservation serves as a guarantee of our well-being. However, a human being often demonstrates an indifferent attitude to nature, mercilessly exploiting it, ignoring the principle of coevolution due to selfish interests and short-term benefits. It is not thought that deforestation, harmful emissions of plants and factories and many other things occur due to lack of understanding of the negative impact of these factors on the environment and humans. Only under the condition that awareness has a certain vector of orientation (namely moral), we can talk about socially progressive types of human activity.

In the context of a moral doctrine, some scholars speak about the ethics of responsibility, understanding them as an invariable companion of freedom [8]. The expression "to be the master of nature" is widespread. Unfortunately, this postulate is often interpreted as domination over the nature by any means, reaching extreme forms of inhumanity. Only a conscious and free person who takes on the whole burden of responsibility for his activities is able to become a true master of nature, taking care and charge of it.

The type of social and economic and political structure of the society has a significant impact on the nature of environmental management. In this respect, M B Konashev's point of view on the ecological crisis certainly deserves support: "...the main cause of the crisis is the 'market' mode of production, which should be immediately replaced by the post-capitalist mode of production and the neoliberal 'market' economy by the post-capitalist, truly human and moral economy" [9]. Indeed, the very course of the historical development of mankind convincingly confirms this position.

Analysing the problem of environmental management factors, in conclusion we would like to emphasise once again the importance of the dialectical approach according to which man and nature are inseparable sides of the whole. Another important point in solving the problem of harmonious coexistence of man and nature is to highlight the axiological aspect which postulates moral values as the main prerequisite for the rational use of natural resources. It is important to consider this problem in the context of such important philosophical problems as the interaction of man and nature, the role of morality in human life and society, the meaning of life and the purpose of the man, the prospects for the development of mankind and many others. It is this approach that helps better understand a person in

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the fullness of his natural and spiritual potentials and significantly enriches the scientific picture of the process of environmental management.

In the analysis of environmental management, a systematic approach, according to which rationality is considered through taking into account the main spheres of human activity (informational, managerial, organisational, moral), appears methodologically promising. The possibility of the existence of the following factors of environmental management within this structure should be recognised: 1. moral vector of human activity; 2. understanding the laws of nature and the laws of social development; 3. clear objective; 4. prevision of the results of activities; 5. awareness of interests contributing to the progressive development of civilisation; 6. premeditation; 7. expediency corresponding to the progressive development of the society; 8. systematic character; 9. certain level of organisation; 10. control over implementation of activities; 11. responsibility for the results of activities, 12. agreement of the results of activities with the objective; 13. formation of reasonable needs of the person, etc. It should be noted that the above set of characteristics of rationality is rather an ideal model in the conditions of the modern civilisation. However, the reality of at least some of these characteristics allows us to define human activity as rational, among others in the field of environmental management.

References

- [1] Schnädelbach H 2017 On rationality and justification *Tomsk State University J.* **40** 297–310
- [2] Davydov O B 2017 The evidence of the good: the ethics of communitarianism *Questions of Philosophy* **4** 47–58
- [3] Subbotina N D 2018 The idea of humanism as a factor of social development *Questions of Philosophy* **8** 5–15
- [4] Leschinskaya V V 2017 Technological progress and the problem of humanisation of society in the context of the formation of ecological culture *Questions of Philosophy* **10** 199–205
- [5] Klimova S M 2017 'Leave only what does not give up.' Tolstoy about evil, good and human dignity *Questions of Philosophy* **10** 98–110
- [6] Nysanbayev A N 2017 Establishing a global ethics of mutual understanding *Questions of Philosophy* **8** 11–19
- [7] Bakhtiyarova E Z and Chernikova I V 2019 The problem of conceptualisation of humandevelopment strategies *Tomsk State University J.* **47** 5–14
- [8] Jonas H 2004 The Imperative of Responsibility in Search of an Ethics for the Technological Age (Moscow: Iris Press)
- [9] Konashev M B 2019 Ilyenkov, globalism and ecological crisis (brief notes on the Copenhagen Symp.) *Questions of Philosophy* **2** 216–9