

на оптимізацію певних еколого-біологічних та господарськоцінних властивостей культур, котрі реально здійснити, насамперед, селекційно-генетичними методами (створення сортозразків озимої сизої гірчиці із високою зимостійкістю та чорної гірчиці із підвищеною стійкістю до обсіпання насіння та холодостійкістю).

Анотація

В статті наведені результати економічного та енергетичного аналізу технологій вирощування різних видів гірчиці в незрошуваних умовах Південного Степу. За окремими технологічними блоками виокремлено найбільш витратні в економічному сенсі та енергоємні агротехнологічні заходи, окреслено пріоритетні напрями їх узгодження щодо сучасних вимог ресурсо-енергозаощадження.

Ключові слова: гірчиця сиза, біла, чорна, економічна й енергетична ефективність, технології вирощування, Південний Степ.

Аннотация

В статье приведены результаты экономического и энергетического анализа технологий выращивания различных видов горчицы в неорошаемых условиях Южной Степи. По отдельным технологическим блокам выделены наиболее затратные в экономическом смысле и энергоёмкие агротехнологические приемы, очерчены приоритетные направления их согласования относительно современных требований ресурсо-энергосбережения.

Ключевые слова: горчица сизая, белая, черная, экономическая и энергетическая эффективность, технологии выращивания, Южная Степь.

Summary

To the article the results of economic and power analysis of technologies of growing of different types of mustard are driven in the un-irrigable terms of South Steppe. On separate technological blocks the most expense in economic sense and power-hungry agrotechnological receptions are distinguished, priority directions of their concordance of relatively modern requirements of resource and power economy are outlined.

Keywords: mustard grey, white, black, economic and power efficiency, technologies of growing, South Steppe.

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SOCIAL COMPONENT OF MODERN STRATEGY ENVIRONMENTAL SAFETY

Statement of the problem. In their activities, people often do not realize that violates the objective laws and regularities of natural processes, causing dangerous changes. If earlier mechanisms of self-regulation of biosphere compensated human impact on the environment, at the present stage of world development scope of human activity has reached proportions equal to

the scale of natural phenomena. Forecasts indicate that the failure to reduce environmental risks threatens slowing of progress in human development for future generations. Environmental degradation negatively affects the physical and spiritual condition of the people. In turn, the deterioration in the quality of human capital enhances environmental hazard, particularly due to aborted in society relevant moral and ethical guidelines. It is important that these risks are properly taken into account in forming of national exit strategy from the current systemic crisis - the crisis of basic relations as in the political-legal and social-economic and social-environmental spheres.

Analysis of recent researches and publications. In dictionaries category "imperative" is interpreted as a set of the most general principles, requirements, orders to act in this or that way; one of forms of strict guidelines that are produced by the culture of a particular century as a model for general imitation, mandatory for all members of society. [1] Accordingly M. Moiseev "environmental (or coevolutionary) imperative" regards as a system of scientifically based norms and rules, regulations and restrictions that are designed to regulate human activities in accordance with the laws of biosphere and formed in it natural biochemical cycles. "Environmental imperative - is a set of constraints in active role of people, violation of which can result as catastrophic consequences for humanity" [2, p. 250]. Its main component the author considers the assessment limit for environment, which are allowed to man.

In the latest publications specialists note (see.: I. Bystryakov, Y. Kalinina, S. Kostarev, V. Kutsenko, M. Marfenin, M. Hvesyk, E. Khlobystov, L. Chuikova and so on. [3-8]), that environmental security can not be achieved only through economic and technological leverage, improving nature protection legislation, must be taken an important place by formation of new ideological and ethical foundations of society. Modern social-ecological researches are focused on mental, cultural dominants of society, and therefore on strategies of behavior and transferring of experience of correlation with environment. As bibliographical analysis shows, there is still unresolved question of how to institutionalize effective "social environmental practices" in different spheres of life, including economic, as "abandon old habits and attitudes and adopt new" [9, p. 3].

The task. Taking into account the fact that environmental safety is largely depends on values and categories of our existence, without correction of which it is impossible to change situation in nature protection sphere, the purpose of this paper is a synthesis of theoretical and methodological approaches to determining of nature of the social imperative of environmental safety, grounding of key directions of its implementation in social practice.

The main material. Ecological imperative is an integrating and versatile term, which "combines all the requirements for humans as social beings and biological beings of biosphere" [3, p. 351]. In current studies it is mostly seen as historical norms, values and social behavior guidelines aimed at achieving of harmonization and regulation of relations in the "nature - man - society" system. The content of such relationship, "depending on the time and level of goals achievement gradually transforms from economic and environmental (dominated economic goals) in ecological and economic (with a predominance of environmental objectives), and later in the social-ecological relations of nature (with a predominance of social and environmental objectives)" [4, p. 9].

Obviously, at this stage of development the environmental safety can not be ensured only by modernizing of economy. Innovative technology is accompanied by increased resource consumption and increasing of burden on the environment. As noted by A. Halchynskiy, one of the most actual problems of our time is to find tools to overcome the ideology of "consumer society" in which is lost consumer demand, there is a gap between consumption and real human needs, forming "false" virtual needs of human, determining motive of which is immeasurable desire to have [10, p. 26]. Logic of further development indicates the need for harmonization of social relations and social attitudes towards nature and its resources through the formation in social institutions of ideological guidelines as for dissemination standards of a healthy lifestyle,

rational economic and environmental behavior. Is required total ecologization of all aspects of social life: mind, knowledge, production, consumption, management, etc.

Taking into account the multidimensional nature and complexity of interactions in the system "nature - man - society" ecological imperative in its detail can be represented as a system of derived imperatives - economic, social, legal, etc., which reflects various aspects of the relationship between people and environment as in everyday life as in economic activity. It analyzes not just factors of interaction between society and nature, and above all active nature forming (often nature ruining) human activity that is part of the social consciousness. The essence of the social component of the ecological imperative is that the prospects for its implementation are largely determined by the level of understanding of each individual, society and the society in general need to ensure environmental safety at all levels: global, national, regional, local and personal. Even if science will be able to define limits of for nature using (by M. Moiseev), there is no guarantee that people in their activities will follow them, coordinate their activities and needs with opportunities that nature gives them. In fact, the environmental imperative requires new thinking, reorientation of most valuable human scales that necessarily requires a change of moral and ethical standards. Under new conditions, humanism should be ecocentric - human is all that is aimed at supporting the co-evolution of nature and society.

Thus, social imperative in the context of ensuring environmental safety should be considered as a set of basic requirements for social relations and interactions in society, the implementation of which is necessary to maintain the stability of social-ecological-economic system. In the most general opinions it can be defined as the total ecologization of consciousness and philosophy of a man and society.

Under environmental consciousness, as a social category, should be understood a form of social consciousness, which includes a set of ideas, attitudes, motivations and assessments that reflect the environmental aspect of life and practice of relations between man and nature. Environmental consciousness - is an individual and collective (social) ability to realize the indissoluble connection between man and nature, human well-being depends on the integrity of the natural environment, the ability and habit of acting without breaking connections and cycles in nature. The establishment of adequate environmental awareness is characterized by the following features: global; rethinking of basic philosophical paradigms in line with current problems; support for science, a combination of science and humanistic values; ability to rise above personal interests for the benefit not only of humanity, but also specific groups of people have the right to a healthy living environment; positive mobilization (formation of readiness for action based on the interpretation of information about the risks and dangers); individual mobilization (awareness of personal involvement).

In turn, the basic concepts that reveal the essence of the processes of environmental awareness is "ecological culture", "environmental responsibility", "ecological manners." Environmental security, as a social-economic category, is characterized by a number of features, including spatial restriction. In this context, we consider ecological culture as territorial manifestation of environmental awareness. It is a combination of environmental knowledge and understanding of ecological traditions in place of human habitation, and personal qualities, formed as a result of environmental education that reflect accepted in a particular society rules and norms of behavior on the environment. Environmental norms of behavior - is external behavioral manifestation of ecological culture, and environmental responsibility is one of the criteria features of formation of a certain level of environmental culture [8, c. 123].

A clear understanding of the factors that determine the environmental behavior of individuals and groups, embodied in the environmental culture, according to A. Drenhsen contributes to a fundamentally new ideological and cultural-activity system ("ecosophy" - ecological wisdom) based on the recognition of the absolute values of life. This recognition provides a deep ecological transformation of thinking and acting, deep harmony of man who thinks planetary, all creations of nature, realization of this harmony in everyday life. Ideology,

public opinion, culture, education, law, - all should be aimed at education and reorientation mentality.

In our view, should be pointed out following strategic directions of realization of social imperative for ensuring of environmental safety:

- providing of qualitative environmental education of the population;
- promotion of a comprehensive ideology of sustainable development, ensuring access to environmental information;
- public involvement in decision-making on environmental and natural-technogenic safety;
- creation of guidelines for a healthy lifestyle in harmony with the environment.

Environmental education is a basic social mechanism of formation of ecological culture. According to the "Agenda for XXI century" education, including formal education, public awareness and training is important to ensure awareness of environmental issues and ethics, formation of values and approaches, instilling skills and encourage behavior consistent with sustainable development.

For the first time the question of the need for coordination at the global level action plan for the development of national educational systems in the context of issues of environmental protection and environmental safety framework is set out in international instruments of environmental education (internationally along with the term "environmental education" is used identical "education in the field of environmental nature "). The aim of environmental education - to ensure that "people were aware of the issues related to the environment, the environmental problems that people had the knowledge, skills, approaches, motivation and desire to work individually and collectively to solve existing problems, as well as to prevent new environmental hazards "[11, p. 12].

Learning to form a comfortable environment and environmental risk insurance is an important behavioral component that focused on solving of a problem "here and now". It is often carried out in residential areas and industrial areas: children study most effective ways to address specific local environmental problems. At the highest level of environmental education becomes training of environmental experts for different sectors of the economy and public administration in the field of environmental protection and environmental management.

Actually the education system is one of the tools of optimization of the structure of public consumption and increasing of production efficiency, is involved in researching and creating of new technologies, able to improve the quality of the environment (through training, as well as directly producing innovations based on our higher education institutions) and reduce environmental risks. Understanding the need for such a system of advanced consideration of the role of education for sustainable development was first clearly seen in Salonikiska declaration. The application of Ministers (Kyiv, 2003) is recognized that environmental education is only one element of Education for Sustainable Development. If environmental education mostly deals with environmental activities, the learning content in ESD is broader and is based on the recognition that the favorable ecological situation will persist in low living standards, and that a healthy environment is a prerequisite for a viable economy in the long run.

In order to facilitate the transition to ESD on high-level meeting of representatives of the Ministries of Environment and Education (Vilnius, 2005) is adopted the Strategy for Education for Sustainable Development. Its purpose is to encourage Member - States to Strategy and the inclusion of SRF in the national system of formal education within all relevant disciplines, as well as informal education. Environmental education should be seen as the basis for the SRF, and meaningful aspects of the Strategy and other international instruments - as a methodological basis for the formation of a new outlook required to view the relationship between man and nature and cultural education of the population.

The main objective is to develop the scientific basis for forming of institutional and organizational conditions of SRF in Ukraine at the national and regional levels. Theoretically, there are two main approaches: the first - the transformation of environmental education which

has evolved in our country, in SRF by expanding the content and the penetration of the field has not yet been characterized (main implementing institutions are common environmental institutions and educational field); second - a new structure at the state level that would directly served as control SRF (in this case, the parallel existence of environmental education and SRF should include compulsory coordination of their actions).

Modern scientific approaches to environmental security justify the need to stimulate public participation and broad participation of every citizen in solving urgent environmental problems. This requires the formation of institutions to attract individuals of different social groups and local communities, non state organizations and businesses to identify and rooting core values of sustainable development, discussion and decision-making on the use of scarce resources, environmental and technological safetness. These institutions have a good chance of implementation in Ukraine since they are based on historical traditions of self and collective mutual aid.

The main components (mechanisms) here are: comprehensive information on the initiative of the authorities which determine the state of environmental security, content of relevant programs, projects and plans; involvement of the general public to adopt and implement appropriate solutions; maintenance of public, non-governmental organizations (figure.).

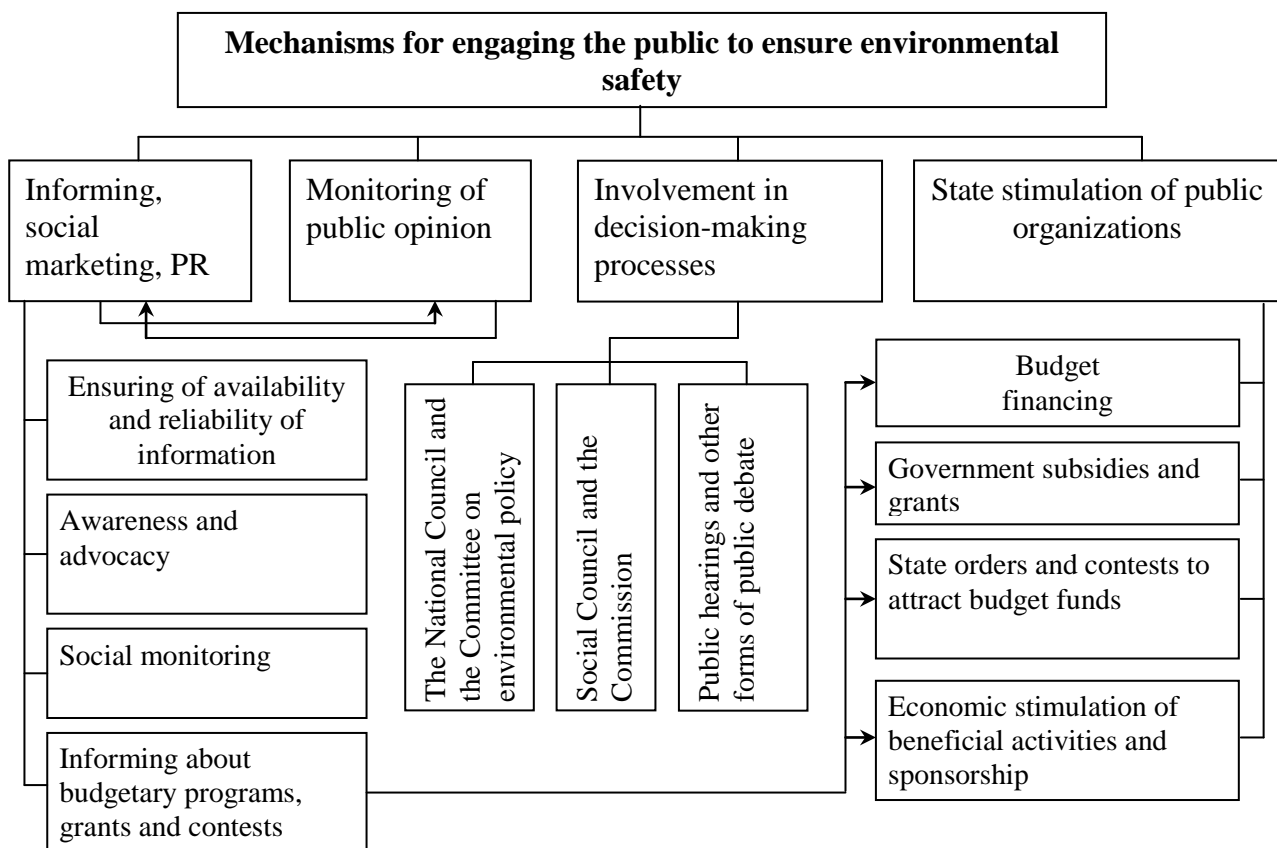


Fig. Mechanisms of public engaging to ensure environmental safety [6, c. 129]

Environmental outlook of a person depends on the amount and quality of information that he has and can use. Actual is the question of public information (on the initiative of the government, the content of environmental programs and projects) and propaganda (promotion of positive precedents) and explanation of new principles and procedures for implementation of the state environmental policy. Information policy should be based on principles of openness and transparency, and include:

- Development and implementation of an effective mechanism for establishing of regular communications with the public;

- Providing of full information about activities involving risks to environmental safety, rights and opportunities to the public;
- Conducting of explanation regarding feasibility of development and adoption of certain legal acts, administrative decisions;
- Promoting of media coverage experience of effective cooperation with the public authorities to address specific environmental problems.

Information policy is made through regular production of printed materials (official bulletins and annual reports, brochures, booklets), and use of the radio and television, electronic communications for distribution to the public information about the environmental situation and forecasts of scientific developments, threats for life related to consumer attitude towards the environment, alternative strategies for the use of available resources, opportunities to raise budget and donor funds to start projects "green" and "blue" economy, reconstruction and modernization of infrastructure, etc.

The process of social dialogue and development of common positions on issues of ecological-safety and improvement of quality of life of the population is realized through mechanisms such as public consultation, public examinations, public debates and hearings, roundtables and informal meetings, referendums, creation and coordination of advisory councils. Consulting forms make active perception to object collaboration, give the public the opportunity to express their opinions, and officials of local self-government - to listen them. There is a need to form and to strengthen the role and formation of special public control in the executive branch (community councils) in various administrative and territorial levels. Community councils are permanent collegial elected advisory bodies that operate in order to ensure the participation of citizens and their associations in public affairs, public control over the activities of executive authorities, to establish effective cooperation of public authorities, taking into account public opinion in the formation and implementation of public social-economic and environmental policy.

In world practice an important role in solving problems of ecological safety is given Non State Public Organizations (NSPOs). The advantages of such organizations are in diversity, speed and flexibility of response to society values and interests. They often offer new technologies, solutions to problems, to control the public, to attract volunteers, thereby forming and organizing a unique resource: social initiatives of citizens. These benefits in developed countries allow NSPOs to operate as an independent and flexible economic operator who is able to make decisions without direct connection with the current state budget priorities, resources involve different stakeholders (governments at various levels, businesses, local communities charities, religious organizations, and individuals).

NSPOs are able to: carry out independent monitoring of water, land, air and protected areas; organize and conduct activities for the conservation and protection of forests, preventing of losing of biological and landscape diversity, the development of ecological network; to participate in the environmentally oriented solutions seek to optimize costs and increase environmental protection from the state budget and environmental assets; mobilize the public to respond the environmental emergency or threat to their origin; carry out information and education measures to enhance the protection of the population from emergencies, disasters, natural disasters; organize and carry out communities devoted to climate changes, and other educational, lobbying, creative, protest actions for the protection and conservation of the environment.

Taking into account an important role of NSPOs, promotion of the third sector is an urgent task in the sphere of environmental protection. Financing of NSPOs through the budget is done by maintaining of their direct activities, providing the means to implement their own programs and projects (grants) and payment for work (contracts). Among other things, these funding mechanisms perform various social functions: direct allocations support the sector as a whole, grants make it possible to draw public attention to some pressing environmental

problems, and with the help of those contracts are financed services which establish the relevance of public authorities.

The next step in realization of social imperative to ensure environmental safety is development guidelines for a healthy lifestyle in harmony with the environment. According to R. Valetska, "healthy lifestyle – is an activity aimed at creating, maintaining and strengthening of people's health as a prerequisite for progressive development in all its ways" [12, p. 21]. As O. Bazaluk noted, healthy lifestyle has its perspective in order to maintain the natural level of human health and its development, which requires environmental safety [13, p. 252]. In healthy lifestyle E. Hawley and B. Franks understand forms and means of everyday human life, which improve spare capacity of the body, contribute successful implementation of social and professional functions, prevention of the most common diseases [14, p. 12].

Conclusions. Thus, a prerequisite for overcoming of negative tendencies in environmental sphere is ecologization of public consciousness, spiritual and material life aimed at achieving of optimal interaction between society and nature. Important role should be assigned to the implementation and dissemination at all stages of life of a person and in different spheres of life of so called social environmental practices which are considered as a system of three interrelated components: cognitive, motivational and value-active, which together determine the impact on the environment, thus an instrument of environmental modernization of society and environmental safety.

Summary

Analysis of scientific approaches to the interpretation of the essence of concepts imperative, imperative social and ecological safety. Formed the author's vision of social imperative of ensuring environmental security through environmentalizing consciousness and philosophy of man and society; proposed strategic directions for its implementation, namely, providing quality environmental education of the population, encompassing propaganda ideology of sustainable development, ensuring access to environmental information, public involvement in decision-making on environmental and natural-ethnogeny safety, the formation of guidelines for a healthy lifestyle in harmony with the environment.

Keywords: environmental imperative, the imperative of social, environmental safety, environmental awareness, education for sustainable development, healthy lifestyles.

Анотація

Проаналізовано наукові підходи до трактування сутності понять імператив, соціальний імператив, екологічна безпека. Сформовано авторське бачення соціального імперативу забезпечення екологічної безпеки через екологізацію свідомості та світогляду людини й суспільства; запропоновано стратегічні напрями його реалізації, а саме: забезпечення якісної екологічної освіти та виховання населення, всеохоплююча пропаганда ідеології сталого розвитку, гарантування доступу до екологічної інформації, залучення населення до прийняття рішень з питань екологічної та природно-техногенної безпеки, формування настанов на здоровий спосіб життя у гармонії з довкіллям.

Ключові слова: екологічний імператив, соціальний імператив, екологічна безпека, екологічна свідомість, освіта для сталого розвитку, здоровий спосіб життя.

Аннотация

Проанализированы научные подходы к трактовке сущности понятий императив, социальный императив, экологическая безопасность. Сформировано авторское видение социального императива обеспечения экологической безопасности через экологизацию сознания и мировоззрения человека и общества; предложены стратегические направления его реализации, а именно: обеспечение качественного экологического образования и воспитания населения, всеохватывающая пропаганда идеологии устойчивого развития, обеспечение доступа к экологической информации, привлечение населения к принятию

решений по вопросам экологической и природно-техногенной безопасности, формирование установок на здоровый образ жизни в гармонии с окружающей средой.

Ключевые слова: экологический императив, социальный императив, экологическая безопасность, экологическое сознание, образование для устойчивого развития, здоровый образ жизни.

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