UDC 338.24:504.03(477)

V. G. Marhasova, Doctor of Economics, Professor, V. O. Anishchenko, Candidate of Engineering Sciences, Associate Professor, P. Y. Kurmaiev, Doctor of Economics, Associate Professor УДК 338.24:504.03(477)

В. Г. Маргасова, д. е. н., професор, В. О. Аніщенко, к. т. н., доцент, П. Ю. Курмаєв, д. е. н., доцент

ECOLOGICAL COMPONENT OF THE SOCIETY DEVELOPMENT IN THE ECONOMIC THEORIES OF REPRODUCTION

Urgency of the research covers the necessity of taking into account economic theories regarding reproduction in order to improve the natural resource use process in Ukraine.

Target setting. Taking into account the factors that influence the implementation of natural resources use principles, achieving the goals of ecopolicy and forming the constant development of the society.

Actual scientific researches and issues analysis. There are issues of scholars both in the field of ecology and economics devoted to solving the problems of taking into account the ecological factor in economic theories of reproduction and construction of a system of rational use of nature.

Uninvestigated parts of general matters defining. The study of the ecological component in the reproduction process and the activities regarding keeping natural resource potential.

The research objective. To find out ontognosiological grounds of reflecting the ecological component in the development of social and production relations in the economic theories of reproduction and to determine the economic laws in the process regarding reproduction of natural resources potential of the country.

The statement of basic materials. Nowadays the reproduction of natural resources use potential in the country as a part of the general process of using natural resources is major at the present stage of development of social, ecological and economic relations that exist in the system of "nature – material production – society". Solving the problem of decreasing negative sides of the system mentioned above is to analyse the peculiarities of production, consumption and organizing the system of rational natural resources use in Ukraine.

Conclusions. Different economic theories prove the fact that society exists in the social, ecological and economic system created by people. These theories are fundamental for the development of the natural resources use economy, promote forming a biological sphere consciousness and awareness of life value not only for a human being but for other beings and for everything created by nature.

Keywords: economical theories of reproduction; disproportions; principles of nature management; socio-eco-economical development; civilization development.

DOI: 10.25140/2410-9576-2018-1-1(13)-25-32

ЕКОЛОГІЧНА СКЛАДОВА РОЗВИТКУ СУСПІЛЬСТВА В ЕКОНОМІЧНИХ ТЕОРІЯХ ВІДТВОРЕННЯ

Актуальність теми дослідження полягає у необхідності врахування економічних теорій відтворення для вдосконалення процесу природокористування в Україні.

Постановка проблеми. Врахування чинників, які впливають на реалізацію принципів природокористування, досягнення завдань екополітики та формування сталого розвитку суспільства.

Аналіз останніх досліджень і публікацій. Розв'язанню проблем врахування екологічного чинника в економічних теоріях відтворення та побудові системи раціонального природокористування.

Виділення недосліджених частин загальної проблеми. Вивчення екологічної складової у відтворювальному процесі й діяльності зі збереження природоресурсного потенціалу.

Постановка завдання. З'ясувати онтогносеологічні засади відображення екологічної складової розвитку суспільно-виробничих відносин в економічних теоріях відтворення та визначити дію економічних законів у процесі відтворення природоресурсного потенціалу країни.

Виклад основного матеріалу. На сьогодні відтворення природоресурсного потенціалу країни як частини загального процесу природокористування є головним на даному етапі розвитку соціо-еколого-економічних відносин, які склалися в системі «природа — матеріальне виробництво — суспільство». Вирішення проблеми зменшення негативних проявів дії зазначеної системи полягає в аналізі особливостей виробицтва, споживання та організації системи раціонального природокористування в Україні.

Висновки. Різні економічні теорії доводять, що суспільство існує в соціо-еколого-економічній системі, що створена людством. Ці теорії є фундаментальними для розвитку економіки природокористування, сприяють формуванню у людства біосферної свідомості та усвідомлення цінності життя не тільки людини, але й інших істот та всього, що створено природою.

Ключові слова: економічні теорії відтворення; диспропорції; принципи природокористування; соціо-еколого-економічний розвиток; цивілізаційний розвиток.

Urgency of the research. Achieving optimal rates and proportions in this process is the a necessary condition of the rational using natural resources but general basic principles of the rational using natural resources that are developed at present can't be called true. As to using natural resources in Ukraine it is necessary to define the reasons that prove and show the following: territorial, branch disproportions; disproportions between productions that extract and those that process (breaking laws, planning principles); discrepancy of rates and proportions between the use, protection, reproduction of

natural resources and certain objects of nature; the process of planning in using natural resources, existing system of natural resources use indicators have not been aimed of achieving the final goal as it is required by the main economic law or production means. To say more, the goals of the plan have not been provided with the conditions for their implementation (financial, material, labour resources etc.), "the remaining principle of nature conservation measures has been mostly implemented and gross indications have been pursued.

Target setting. The sphere of modern using natural resources is specific and very complicated in relations which are formed in the process of using natural conditions, resources, nature objects etc. Mostly these relations become complicated in the process of rising the society demands which meet them of the expense of nature values and by the mechanism of natural resources use in general formed for a certain period of time in a certain country. Taking into account the factors that influence the implementation of the principles of natural resources use, achieving the goals of ecopolicy and forming the constant development of the society is an important problem at the present stage of harmonization and improvement of relations between the society and nature. This can be seen at the example of economic laws of reproduction that are the basis of the social, ecological and economic development.

Actual scientific researches and issues analysis. Most western scientists-economists emphasized the need of taking into account the ecological component in the economic theories of reproduction (K. G. Lankaster [9], R. G. Lipsi [9], T. Maltus [10], K. Marx [11], A. Marshall [12], D. Medows [6], D. St. Mill [13], V. Pareto [16], A. Pigu [17], D. Ricardo [19], P.Samuelson [22], A. Smith [24] and others). Among the national scientists the works by such scientists as I. K. Bystryakov [3], L. G. Melnyk [15], V. E. Novitskiy [16], N. F. Ramers [28], P. P. Rusnak [21], V. G. Sakhayev [23], V. Ya. Shevchuk [23] and others worth mentioning. However, in modern conditions of social, ecological and economic development of the country the dynamics of increasing natural resources limitation is observed, that essentially influences the level of social and production relations that are indissolubly connected with their central object - the process of natural resources use. These problems require the further researches that influence the aim of research and prove its timeliness and actuality.

Uninvestigated parts of general matters defining. The study of the ecological component in the reproduction process and the activities regarding keeping natural resource potential as the basis of socio-ecological and economic development requires extend approach taking into account the basic economic theories of reproduction.

The research objective. To find out epistemological and ontological grounds of reflecting the ecological component in the development of social and production relations in the economic theories of reproduction and to determine the economic laws in the process regarding reproduction of natural resources potential of the country, their significance for the further improving the process of economy ecologization of the country at the present stage of the social, ecological and economic development of Ukraine.

The statement of basic materials. The present situation of using natural resources in our country is so much complicated by different factors that it is very difficult to characterize it as rational or irrational. The reproduction of natural resources use potential in the country as a part of the general process of using natural resources is major at the present stage of development of social, ecological and economic relations that exist in the system of «nature – material production – society». From the view of the existing contracts (direct and backward, combined, sinergistical etc.) this system is extremely specific and in future it will be limit different kinds of human activities. Material production together with other kinds of human activity for the sake of meeting own needs essentially influences the nature and the level of ecological safety that, in its turn, influences the level of society health and of every person that is the level of the labour resources potential in the country. Solving the problem of decreasing negative sides of the above mentioned system is to analyse the peculiarities of production, consumption and organizing the system of rational using natural resources in Ukraine [1].

Nowadays it is important to solve the following problems:

1. To show the dialectics of interaction of society and nature – it means to show it is internal contradictions solving which, the vision of the development of the system of a "human – production – na-

ture" is formed as an integral system for which hierarchic contacts with different sides of social being are characteristic: scientific (cognitive) and techno-logical; social, economic and political (including international and legal); social and cultural, ethic, humane and aesthetic. They all reflect the complex content of ecological problems of modern life.

- 2. Internal contradictions of society and nature interaction are revealed through production development which from one hand makes a person less dependent on natural forces and on the other hand it provides a closer contact with nature using new substances (materials and raw materials) and kinds of energy, intensive involving it into people's life. The process implemented at different levels of the complicated social, ecological, economic system requires economy ecologization and ecology economization.
- 3. The impossibility to keep the natural balance of the process in biological sphere deeper by its conserving is realized that is why purposeful conversion of nature on the basic of ecologically oriented, scientific and technical progress is the way which will lead to optimum interaction of a human being and nature.
- 4. Practice proves that ecological regulation ensures solving a number of social, economic, international, legal, political and cultural problems that is why it includes the interests of different social groups, fields of production, social institutes in some countries, regions, social and economic systems. Global ecological problems have to be solved in the conditions of uneven development of countries and peoples, moreover not only according to the incomes per capita but through the complex of social, economic, production, technical and cultural factors [1].
- 5. Management of natural conditions of the society life can't be only the problem of resources use management. First of all, this is making healthy life environment for people, social and natural parameters of which would provide its maximum development.

The essence of the problem is to find out how much the laws of production means are reflected in the process of nature resources use. This can be seen on the example of the most important laws and conformities with a law in the social and economic development.

The necessary conduction of the rational use of natural resources is achieving optimal rates and proportions between the output and consumption of natural resources, their use, protection and reproduction; improving the system of planning the process of natural resources use in accordance of indicators system with the plan of natural resources use, as required by the main economic law of the production means; providing the goals of the pan with the conditions for their implementation (financial, material, labour etc.), rejecting "the final principle" of carrying out measures of nature protection and "completing intermediate work" chase for gross indicators.

Disproportions existing today appeared in the twenties of the XX-th century and transformed into the long process of excessive and wasteful resources consumption, the main goal of modern economy is to reduce it.

At the present stage of the economic science development more and more scientists emphasize the need to take into account expenses in production prime cost for measures of rational use natural resources at enterprises – the main link of interaction in the system of «social production – natural environment».

At the same time the results of the analysis of technical and economic indications of the national production activity prove the increase of using financial, material raw resources, power, information and other kinds or resources for bringing raw natural substances to those quality indicators that it must correspond to in order to draw it into the transforming process of getting certain production (increasing externals are observed). So, the law of constant increase of labour efficiency is not realized as every consumer and user "takes" only "own" resource or "own" part of the resource, uses only the limited number of peculiarities and qualities of natural resources and of objects causing damages to other users, consumers and great losses of environment according to the branch approach to natural resources use. The possibility to increase labour productivity at the expense of complex using natural resources and objects is not realized, there is no or insufficient development of the principles of ecological stimulation, ecological regulation, structure imperfection, property forms, the right to process and manage the natural resources and objects.

The objective need to reproduce production conditions in this or that form is taken into account in all existing economic theories, concepts of the society development where approaches and estimation of reproduction factors are different.

Describing and estimating the reproduction process, the representations of the classical economic theory and their followers attacked great importance to the factors which defined the content and trend of the theoretical researches. At the sometime they adhered to "the reproduction skeleton" which was given in the theory of labour value by K. Marx [13]:

$$Prime cost \rightarrow Profit + Price$$
 (1)

Each of the following theories was named depending on the importance of the decisive factor (institutionalization, monetarism). It goes without saying that all these theories are to exist, to be taken into account but this should be done in time – at the time of changes in production relations.

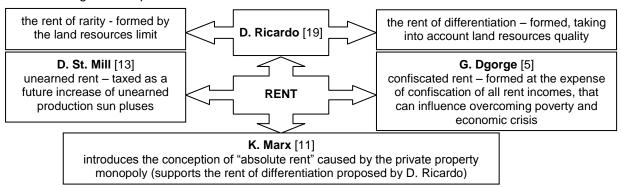
Researches proved that all scientific and theoretical schools that studied the process of reproduction in the society included the study of ecological component in the reproductive process and the activity of retaining the natural resources potential as the basis for social, ecological and economic development.

At present when people are lack of natural resources, when the materials should be produced taking into account the innovative approach, the problem of the ecological component development is to be solved urgently, especially in the reproduction that is the basic for the society life. In XVIII-XIX centuries in the work «The experience of the population law» (1798) T. Maltus [10] confirmed that natural resources limited the increase of population and economic development of the society in the whole. This conclusion proves the natural capacity of people for biological expansion, the character of using natural resources be them, the causes of contradictions between a human being and nature T. Maltus defined the only reason that prevents the increase of population, that is the limit of resources, areas and relatively slow increase of agriculture and industry productivity, that's why any rise of people's life level will be brought to nil by «people masses» which will constantly increase that is there is a lack of means for life (foodstuffs). The scientist considered the land resources that have two main peculiarities: limit and decrease of fruitfulness, the major natural resource. While analyzing the dependence of population increase dynamics and land resources potential T. Maltus come to the conclusion that the economic development of the society and the rise of its well-being level were strictly limited. However, the scientist did take into account one of the levers of the living level at the expense of the technical progress -motivation. Such purposeful activity on the basic of investments at the dynamics of interactions is not systematics either in space or in time for ant regions or countries. This idea is proved in the works by D. Medose [6] and D. Ricardo [19]. In this work «The start of political economy and taxing» [19] D. Ricardo extends T. Maltus's model and defines the constant position when there is a border of economic increase that is at the definite period of production increase there is no further rise, the population is not provided with foodstuffs.

The part of social and ecological factors in stressed in D. St. Mill's economic theory [13], he is a representative of the classical economic school. While researching the problem of economic school, while researching the problem of economic rise in the conditions of resources limit in the work «Fundamentals of the political economy», D. St. Mill, pointed out that there were borders of economic system rise buy they were distant in time. This conclusion was caused by the fact that D. St. Mill took into account the influence of the population increase limit that put off achieving the constant point (the point of constant development from the view of the present economic theory – the author) for a long period of time. The scientist also objected the classic view of the constant industry production increase and insisted on including social and ecological factors into the conception of «well – being» and «living level». Besides, D. St. Mill for the first time introduced the conception «social values» (values, the positive influence of which for each individual is not observed. In connection with this the market mechanism is not able to make consumers have and choose such values, that are whey the state interference is (likely to be needed.)

After some time the theory of the rent (Pic.1), was development in the economists researches of

the classical school, according to this theory each of the economists advanced his own conception of the rent and gave it a specific name.



Pic. 1. The «rent» definition according to the theories of classical school scholars in the filled of economics

We can't pay attention to the theory of the representative of the neoclassical economic school V. Pareto [16] who advanced the conception of the social optimum that is widely used for solving ecological and economic problems. This optimum is defined as a situation in which it's impossible to improve a person's well-being without a harm to the other person. The restriction of V. Pareto's approach is that the endless number of optimums that can't be compared corresponds to it. Any criteria to choose one of them is not also proposed.

The neoclassical school developed important idea of «market failures» that is situations under which the market is not able to provide the most optimal resources distribution. The reason of «market failures» is the market structure imperfection that leads to discrepancy of market prices as value factors to certain value.

The problem of «external effects» and other influences on forming a certain level of social values was discussed by A. Marshall [12] (he was the first who defined this problem as a non-market inter dependence appearing in the fields where external effects increase/decrease), A. Pigu [17] in the work «The economic theories of well-being» (1919) defined external effects as effects set to people who were not direct participants of the market contracts and were not reflected in the products prices.

A. Pigu thinks that equality of limit social and private expenses is the condition of achieving maximum social well-being. Limit social expenses reflect the alternative product estimation, the production of which was rejected taking into account the production of these goods and is measured as the sum of limit private expenses for goods production plus positive and negative effects of the production that are not compensated. As there are external effects optimum can't be achieved, A. Pigu proposes the mechanism of «internalizing» externals: for economic subjects which parts of limit expenses are lower that social, the tax equal to the number of produced negative externals is introduced, and those whose own limit expenses are higher than social are given the subsidy equal to the positive external. A. Pigu's theory of external effects is the basis for developing ecological and economic instruments in most countries.

A. Pigu's important ideas are also introducing delimitation between economic and general well-being are estimating well-being by the needs of future generations. Conceptive regulations of the theory of external effects suggested by A. Pigu have been reflected in the theories of other economists and are actual today, they are developed in the mechanism of management of natural resources in Ukraine.

The theories of G. Bukenen [6], K. Erow [26], F. P. Rumsay [28], P. Samualson [22], A. Sandmo [29] and others are also very important. For example, P. Samualson [22] proposed the classification of economic values according to two criteria: the possibility to exclude (access to values for a person excludes/does not exclude access for others) and rivalry in consuming (the state of consumers becomes worse/does not become worse in the result of on extra consumer). Ecological values (the

quality of natural resources, objects, areas, environment conditions etc) are the component of all values, they can be devised into some groups according to the mentioned criteria: social values, resources of common use, club goods and private goods. Most ecological values are either social (atmosphere wind) or a common use resource (rivers and lakes, sea-sides etc). The present market mechanism doesn't allow to find optimal number of social values that's way there is an effect of «a passenger without a ticket» (a person who pays the possibility to use values is less compared with the real use). In A. Sandmo's work [29] «Optimal taxation when there are externals» (1975) attention is paid to the dis ability of the market economy to estimate the situation of «the passenger without a ticket», to find out the true estimation of the social ecological value. Having used F. P. Ramsay's [28] model (the representative of the taxation system theory) which characterizes the conditions of providing maximum social well-being, A. Sandmo proposed «the second-best» theory according to which: 1) ecological taxation is necessary market lever of the mechanism of natural resources use in the whole; 2) optimal ecological taxation of the goods that cause environment pollution is equal to Piguvian tax corrected at the limit expenses of social means collection. At present researches in the field of improving the ecological and economic mechanism of natural resources use management are being done including the system of ecological taxation the basis of which is the basic conception of the theory of optimal taxation suggested by A. Sandmo [29].

However, K. Erow [26], having studied the method of creating the function of social well-being, showed in the theory «about the impossibility» that theirs no way of drawing conclusions about social advantages from individual that meet five reasonable axioms, and this, in its turn, limits the possibility of practical use of this conception.

The theory of social choice developed by G. Bukenen [4] can be used to research different ecological and economic problems, specifically, coordination of individual and social optimums for revealing the optimal level of ecological values and solving other problems with the help of different voting systems; existing «state failures» – non-efficiency of the state in providing definite services, the causer of which can be the difference between the goals of the society and bureaucracy, the influence of lobby groups etc. The alternative approach to the researches of ecological and economic problems was suggested within the neo-institutional economic theory. So, implementation of the theory of property rights for classification and exact defining that rights to ecological values and natural resources would increase the efficiency of the market mechanism in the field of natural resources use R. Cose's [7] theorem developed within this theory is an alternative to A. Pigu's [17] approach and proves that optimum can be achieved by market negotiations between the producer and to consumer of externals independent of the distribution of rights to natural resources. The mechanism suggested by R. Cose will be practically used, for example, during the negotiations between the consumer of the certain industrial object and the population of the corresponding area. The objective need of purposeful acts to compensate the funds wear, the develop aquiculture (it means ecological investments) is discussed in the works by D. Medows [6], M. Mesarovych [27], E. Pestel [27], Ya. Tynbergen [30; 31] and others.

It should be mentioned that people more and more feel the lack and limit of resources for their economic activity. For the first time in the modern science G. Forrester [25] discussed the problem of natural resources limit and its influence on the world economic development completely. He proposed two functional models (World-1 and World-2), which have five changeable quantities: population, natural resources, funds, the part of funds in agri-culture and pollution. The further development of these models took place in the model suggested by the group of specialists led by D. Medows – World-3 (its essence is shown in the work by D. Medows «The limits of increase. The report for Rome club»)[6]. Models of «world» type prove the limit of the natural potential, first of all, in material, resources and ecological aspects. In this work D. Medows and his co-authors drew very important conclusions as to the choice of the development model, these conclusions foresee the decrease of resources volume that are used in the production, reduction of loading on the environment as much as possible to the ecological balance keep in the biological sphere (the total combination of ecological systems of different hierarchy level) where there are all necessary means for life of people, as exponential pollution of the environment causes damaging and destroying some ecological systems that will lead to the de-

struction of the whole planet ecological system as an integral «living» organism. The ecological component simultaneously with other components that have global, economic, humane, resources (foodstuffs for poor countries of the world) are observed in other models of the world development which have been recently proposed in the works by V. Leontieva [8] and co-authors in the report «Future of the world economy» by Ya. Tinberg [30; 31], in the works by the members of Rome club etc.

Conclusions. So different economic theories of the representatives of certain economic schools prove the fact that society exists in the social, ecological and economic system created by people. Existing theories and those that are suggested and make it possible to choose some models of the world economic development in the conditions of increasing natural resources limit (conditions objects, areas, etc.) are: firstly, fundamental for the development of the complex science of natural resources economy, modern economic science, macroeconomy and other sciences that are at the joint of different scientific and practical knowledge; second, the promote forming people is biological sphere consciousness and awareness of life value not only for a human being but for other beings and for everything created by nature; third, all economic theories have not become actual as re-awaring their content enables the scientists of different fields of knowledge to practice the models of the world development of the society at present, that will save all people and the planet biological sphere from the ecological crisis after some time.

References

- 1. Anishchenko, V. O. Marhasova, V. H. (2007). Ekoloho-ekonomichnyi analiz v systemi upravlinnia pryrodokorystuvanniam na pidpryiemstvi [Ecological-economic analysis in the system of nature management in the enterprise]. Aktualni problemy ekonomiky Actual problems of the economy, 6, 39–47 [in Ukrainian].
- 2. Bentham, J. (1867). *Izbrannye sochineniya [Selected Works]*. (Vols. 1). Saint Petersburg [in Russian].
- 3. Bystryakov, I. K. (2004). Adaptivnoe upravlenie ekologo-orienirovannym razvitiem kak metodologicheskaya problema [Adaptive management of ecologically-oriented development as a methodological problem]. *Metody reshenie ekologicheskikh problem Methods of solving environmental problems.* (pp. 15-19). Sumy [in Russian].
- 4. Buchanan, J. M. (2004). Alternativnye izderzhki [Alternative costs]. *Ekonomicheskaya teoriya Economic theory*. Moscow: YNFRA-M [in Russian].
- 5. George, H. (1992). *Progress i bednost [Progress and Poverty]*. Moscow [in Russian].
- 6. Meadows, D. H., Meadows, D. L., Randers, J. (1994). *Za predelamy rosta [The Limits to Growth]*. Moscow lin Russianl.
- 7. Coase, R. H. (1993). Firma, rynok i pravo [The Firm, the Market, and the Law]. Moscow: DeloLTD [in Russian].
- 8. Leontev, V. (1990). Ekonomicheskie esse. Teorii issledovaniya, fakty i politika [Economic essays. Theories of research, facts and politics]. Moscow: Politizdat [in Russian].
- 9. Lipsey, R. G., & Lancaster, K. (2004). Obshchaya teoriya vtorogo luchshego [The General Theory of the Second Best]. *Vekhi ekonomicheskoy mysli The Milestones of Economic Thought* (Vols. 4). Saint Petersburg: Economics School [in Russian].
- 10. Malthus, T. R. (1993). Opyt o zakone narodonaseleniya [An Essay on the Principle of Population]. *Antologiya ekonomicheskoy klassiki Anthology of Economic Classics*. (pp. 3–133). Moscow: Ekonov [in Russian].
- 11. Marx, K. (1978). Kapital. Kritika politicheskoy ekonomii [Das Kapital. Kritik der politischen Ökonomie]. (Vols. 1). Moscow: Polltlzdat [in Russian].
- 12. Marshall, A. (1993). Printsipy ekonomicheskoy nauki [Principles of Economics]. (Vols. 1). Moscow: Progress [in

Література

- 1. Аніщенко, В. О. Еколого-економічний аналіз в системі управління природокористуванням на підприємстві / В. О. Аніщенко, В. Г. Маргасова // Актуальні проблеми економіки. 2007.– № 6. С. 39–47.
- 2. Бентам, И. Избранные сочинения / И. Бентам. СПб., 1867. Т. 1. 678 с.
- 3. Быстряков, И. К. Адаптивное управление экологоориенированным развитием как методологическая проблема / И. К. Быстряков // Методы решение экологических проблем / под ред. Л. Г. Мельника. — Суми, 2004. — С. 15-19.
- 4. Бьюкенен, Дж. М. Альтернативные издержки // Экономическая теория / Пер. с англ. М. : ИНФРА-М, 2004. 930 с.
- 5. Джордж Г. Прогресс и бедность / Джордж Г. М., 1992. 384 с.
- 6. За пределами роста / Медоуз Д. Х., Медоуз Д. А., Рэндерс Й. и др. – М., 1994. – 304 с.
- 7. Коуз, Р. Х. Фирма, рынок и право / Р. Х. Коуз. М.: ДелоЛТД, 1993. 192 с.
- 8. Леонтьев, В. Экономические эссе. Теории исследования, факты и политика / В. Леонтьев. М. : Политиздат, 1990.– 450 с.
- 9. Липси, Р. Дж., Ланкастер К. Общая теория второго лучшего / Р. Дж. Липси, К. Ланкастер // Вехи экономической мысли. СПб. : Экономическая школа, 2004. Т. 4. 568 с.
- 10. Мальтус, Т. Опыт о законе народонаселения / Т. Мальтус // Антология экономической классики. М. : Эконов, 1993. С. 3–133.
- 11. Маркс, К. Капитал. Критика политической экономии / К. Маркс; под ред. Ф. Энгельса. М. : Политиздат, 1978. Т. 1. 712 с.
- 12. Маршалл, А. Принципы экономической науки / А. Маршалл. М. : Прогресс, 1993. Т. 1 415 с.
- 13. Миль Дж. Основы политической экономии / Миль Дж. М. : Прогресс, 1980. Т. 1. 338 с.
- 14. Новицький, В. Є. Економічні ресурси цивілізаційного розвитку: навч. посібник / В. Є. Новицький. К. : НАУ, 2004. 268 с.
 - 15. Основи екології. Екологічна економіка та управ-

Russian].

- 13. Mill, J. (1980). Osnovy politicheskoy ekonomii [Principles of Political Economy]. (Vols. 1). Moscow: Progress [in Russian].
- 14. Novytskyi, V. Ye. (2004). Ekonomichni resursy tsyvilizatsiinoho rozvytku [Economic resources of civilization development]. Kyiv: NAU [in Ukrainian].
- 15. Melnyk, L. H., Shapochka, M. K. (2006). Osnovy ekolohii. Ekolohichna ekonomika ta upravlinnia pryrodokorystuvanniam [Fundamentals of ecology. Ecological Economics and Environmental Management]. Sumy [in Ukrainian].
- 16. Pareto, V. (1912). Chistaya ekonomiya [Net Economics]. Voronezh [in Russian].
- 17. Pigu, A. (1985). Ekonomicheskaya teoriya blagosostoyaniya [The Economics of Welfare]. (Vols. 1-2). Moscow: Progress [in Russian].
- 18. Reimers, N. F. (1994). Ekologiya (teoriya, zakony, pravila, printsipy i gipotezy) [Ecology (Theories, Laws, Rules, Principles and Hypotheses)]. Moscow: Rossyia molodaia [in Russian].
- 19. Ricardo, D. (1993). Nachala politicheskoy ekonomii i nalogooblozheniya [On the Principles of Political Economy and Taxation]. *Antologiya ekonomicheskoy klassiki Anthology of Economic Classics.* (pp. 397–473). Moscow [in Russian].
- 20. Rawls, J. (1990). Teoryia spravedlivosti [Theory of Justice]. *Eticheskaya mysl: Nauchno-publitsisticheskie chteniya Ethical Thought: Scientific Publicist Readings*, 229-242. Moscow [in Russian].
- 21. Rusnak, P. P (1992). Ekonomika pryrodokorystuvannia [Environmental economics]. Kyiv [in Ukrainian].
- 22. Samuelson, P. (1992). Ekonomika [Economics]. (Vols. 1-2). Moscow: Alhon [in Russian].
- 23. Sakhaiev, V. H., Shevchuk, V. Ya. (1995). *Ekonomika i orhanizatsiia navkolyshnoho seredovyshcha [Economics and the organization of the environment]*. Kyiv [in Ukrainian].
- 24. Smith, A. (1993). Issledovanie o prirode i prichinakh bogatstva narodov [An Inquiry into the Nature and Causes of the. Wealth of Nations]. *Antologiya ekonomicheskoy klassiki Anthology of Economic Classics*. (pp. 137–382). Moscow [in Russian].
- 25. Forrester, J. (1978). Mirovaya dinamika [Urban Dynamics]. Moscow: Nauka [in Russian].
- 26. Arrow, K. (1994). Vozmozhnosti i predely rynka kak mekhanizma raspredeleniya resursov [The Potentials and Limits of the Market in Resource Allocation]. *TNESIS*, 1, 2, 53–69 [in Russian].
- 27. Mesarovis, M., Pestel, E. (1974). Mankind at the turning point. *The Second Report to the Club of Rome*. Toronto [in English].
- 28. Ramsey, E. P. (1927). A contribution to the theory of taxation. *Economic Journal*, *1*, 47–61 [in English].
- 29. Sandmo, A. (1975). Optimal taxation in the presence of externalities. *Swedish Journal*, 86–98 [in English].
- 30. Tinbergen, J., Bos, H. C. (1962). Mathematical Models of Economic Growth. New York: McGraw-Hill [in English].
- 31. Tinbergen, J., Dolman, A., Ettinger, J. (1976). Reshaping the International Order. *A Report to the Club of Rome*. New York [in English].

- ління природокористуванням / за заг. ред. Л. Г. Мельника та М. К. Шапочки. Суми, 2006. 759 с.
- 16. Парето, В. Чистая економия / В. Парето. Воронеж, 1912.
- 17. Пигу, А. Экономическая теория благосостояния: В 2-х т. / А. Пигу. М. : Прогресс, 1985. Т. 1.– 511 с.
- 18. Реймерс, Н. Ф. Экология (теория, законы, правила, принципы и гипотезы) / Н. Ф. Реймерс. М. : Россия молодая, 1994. 336 с.
- 19. Рикардо, Д. Начала политической экономии и налогообложения / Д. Рикардо // Антология экономической классики. М., 1993 С. 397–473.
- 20. Роулс, Д. Теория справедливости // Этическая мысль: Научно-публицистические чтения / Д. Роулс. М., 1990. С. 229–242.
- 21. Руснак, П. П. Економіка природокористування / П. Руснак. К. : 1992. 318 с.
- 22. Самуэльсон, П. Экономика :B 2-х т./ П. Самуэльсон. М. : Алгон, 1992. Т. 1.– 413 с.
- 23. Сахаєв, В. Г., Шевчук, В. Я. Економіка і організація навколишнього середовища / В. Г. Сахаєв, В. Я. Шевчук. К., 1995. 70 с.
- 24. Смит, А. Исследование о природе и причинах богатства народов / А. Смит // Антология економической классики. М., 1993 С. 137–382.
- 25. Форрестер, Дж. Мировая динамика / Дж. Форрестер. М. : Наука, 1978. 165 с.
- 26. Эрроу, К. Возможности и пределы рынка как механизма распределения ресурсов / К. Эрроу // THESIS.—1994.—Т.1. Вып. 2. С. 53—69.
- 27. Mesarovis, M. Mankind at the turning point / M. Mesarovis, E. Pestel // The Second Report to the Club of Rome.—Toronto. 1974.
- 28. Ramsey, E. P. A contribution to the theory of taxation / E. P. Ramsey // Economic Journal. 1927. № 1. P. 47–61
- 29. Sandmo, A. Optimal taxation in the presence of externalities / A. Sandmo // Swedish Journal. 1975. P. 86–
- 30. Tinbergen, J., Bos, H. C. Mathematical Models of Economic Growth. N. Y.: McGraw-Hill. 1962.
- 31. Tinbergen ,J., Dolman, A., Ettinger, J. Reshaping the International Order. A Report to the Club of Rome. N. Y., 1976.

Received for publication 25.12.2017

Бібліографічний опис для цитування :

Marhasova, V. G. Ecological component of the society development in the economic theories of reproduction / V. G. Marhasova, V. O. Anishchenko, P. Y. Kurmaiev // Науковий вісник Полісся. – 2018. - № 1 (13). Ч. 1. – С. 25-32.

