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Legal aspects of creating geoparks in Ukraine

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Abstract. This article covers the question of creating geoparks in Ukraine, for they are still absent in this country. The creation of geoparks is one of the ways of solving a global problem on which the international community is focused - protection of the geological heritage (*Geoheritage*). It turns out that one of the reasons for such situation in Ukraine is imperfect legislation and absence of a “legal map” for creating a geological park. After analyzing all current normative acts in the country’s legislation, we found that the terms “geological park” and “geological heritage” are absent. We analyzed other countries’ legislation regarding this issue and also the acts of international organizations, including the UNESCO. The results of the analysis show that the term “geopark” can legally exist only as a status provided by UNESCO to a protected nature-reserve territory including geological objects of international value. After reviewing the main criteria of UNESCO, we found that to obtain the status of an international geopark the object of geoheritage should belong to nature-reserve fund and possess management institutions at all possible levels, have protected status, and, most important, operate within the framework of the country’s legislation (at local or national levels). We examined all relevant legislation of Ukraine and distinguished the main normative-legal acts which regulate the issues concerning creation, protection and functioning of the territory of a future international geopark. Study of the legislation provided the results which led to development of a “legal map” corresponding to the three main issues: the preconditions for creation, the creation itself and the responsible organs, protections and the organs responsible for the protection of the future geopark territory. The results show that creating a future geopark corresponds to the priority directions of development of science and the technical sphere for the period until 2020, and is also one of the strategic aims of state ecological policy of Ukraine for the period until 2020. It was found that creating or providing any status to a territory is regulated by the Land Code of Ukraine, which states that territories of a geopark correspond to the categories of the land of the nature-reserve fund and other nature protection purposes, covers the full definitions of such territories and for more detailed consideration includes references to other legislation, The Law of Ukraine on the Nature-reserve Fund of Ukraine, which is one of the main normative-legal acts of regulating the issue of creating territories of future geoparks. It was shown that among all classifications of objects of the nature-reserve fund which the legislation provides, the category national nature park best suits the creation of a geopark – its main aims and organs responsible for its functioning are defined. We found which normative-legal acts regulate practical creation of such territory and which organs are responsible for it. This article describes which legal actions should be performed for the achievement of this aim. This article describes for the first time the creation of a geopark as a scientific park managed by a university with geological specialities according to the new Law of Ukraine on Scientific Parks, which will be analyzed in more details in future articles. We analyzed the normative-legal acts concerning the protection of territories of national nature parks, defined key points of this issue and organs responsible for it. The data provided in the paper is relevant to all recent changes in the legislation in 2017. The results can be used for creation of a real geopark or used by scientists studying the geological heritage.

Keywords: geopark, geodiversity, juristic map, geological heritage, legal acts.

Юридичні аспекти створення геопарків в Україні

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Резюме. Розглядається питання створення геологічних парків в Україні, оскільки на сьогоднішній день на території країни таких не існує. Створення геопарку – один з основних способів вирішення проблеми світового масштабу, якій так багато уваги приділяє міжнародне товариство, а саме - охороні геологічної спадщини (*Geoheritage*). Виявлено, що одна з причин такої ситуації в Україні – це недосконале законодавство та відсутність «юридичної карти» створення геологічного парку. Дослідивши усі чинні нормативні акти в законодавстві країни, встановили відсутність термінів «геологічний парк» та «геологічна спадщина». Розглянуто законодавство інших країн у цьому питанні та акти міжнародних організацій, зокрема ЮНЕСКО. З отриманих результатів випливає, що термін «геопарк» юридично може існувати тільки як статус, присвоєний Міжнародною організацією ЮНЕСКО охоронюваній природно-заповідній території з геологічними об’єктами

міжнародного значення. Проаналізовано основні вимоги ЮНЕСКО та визначено, що для отримання статусу міжнародного геопарку об'єкт охоронної території вже повинен належати до природно-заповідного фонду, мати органи управління всіх можливих рівнів, мати охоронний статус, а головне, функціонувати в рамках чинного законодавства країни (місцевого та національного рівня). Проаналізовано всю законодавчу базу України та визначено основні нормативно-правові акти, які регулюють питання створення, охорони та функціонування території для майбутнього міжнародного геопарку. Отримано результати у вивченні законодавчої бази, на основі яких створено «юридичну карту», яка відповідає на три основні питання: передумови створення, створення та відповідальні органи, охорона та відповідальні за охорону органи територій для майбутніх геологічних парків. Із наведених результатів встановлено, що створення об'єкта для майбутнього геопарку відповідає пріоритетним напрямкам розвитку науки і техніки на період до 2020 року, а також є одним із стратегічних завдань державної екологічної політики України на період до 2020 року. Визначено, що створення або надання будь-якого статусу тій чи іншій території в першу чергу регламентується Земельним кодексом України, згідно з яким території геопарку відповідають категоріям земель природно-заповідного та іншого природоохоронного призначення, дається повне визначення таких територій та для детального розгляду посилання на інший законодавчий акт, а саме ЗУ Про природно-заповідний фонд України, який є одним з основних нормативно-правових актів, що регулюють питання створення територій для майбутніх геопарків. Досліджено, що найкраще з усіх об'єктів природно-заповідного фонду наведеної данної в законі класифікації для створення геопарку підходить національний природний парк, визначено його основні завдання та органи, які відповідають за його функціонування. З'ясовано, які нормативно-правові акти регулюють практичне створення такої території та які органи за це відповідають. Описано, які юридичні дії потрібно виконати для досягнення мети. Вперше досліджено створення геопарку як наукового парку під керівництвом університету з геологічними напрямками, згідно з новоствореним ЗУ Про наукові парки, яке буде більш детально розглянуте в наступних працях. Проаналізовано нормативно-правові акти стосовно проблеми охорони територій національних природних парків, встановлено основні засади цього питання та органи, які за це відповідають. Викладені результати відповідають усім останнім змінам у законодавстві на 2017 рік. Результати можуть бути використані для створення реального геопарку в Україні, та науковцями, які досліджують питання геологічної спадщини.

Ключові слова: геопарк, георізноманіття, юридична карта, геологічна спадщина, нормативно-правові акти

Introduction. Today most countries are concerned about protecting their geological heritage. This involves a variety of types of legislation at different levels: international conventions, charters, articles of associations, declarations on local law of countries and regions. A significant object of protection is geological heritage (Geoheritage). Over the last 20-30 years the world community has focused on this issue and has made substantial efforts to solve problems related to geoheritage, for many important geological monuments have disappeared and continue to vanish due to human activities.

In 1972 UNESCO adopted the Convention Concerning the Protection of the World Cultural and Natural Heritage. In 1988 the European Association for the Conservation of the Geological Heritage - ProGEO was founded. Its main aims were: creating a national network of geosites, evaluation of resources of geological heritage; inspection, inventorisation, cataloguing and creating a computer base of data on geological relics in every country; development and introduction of events related to the touristic aspects of using geosites for their popularization and for their preservation for posterity; preparation and selection of objects which should be included in the lists of European and Global Status; development and introduction of a legislative framework focused on protecting unique objects of geological heritage from damage and destruction (Bondar, 2004).

In 1991 in Digne (France) with the support of UNESCO, the First International Symposium of ProGEO was held. It adopted the historic Declaration of the Rights of the Memory of the Earth (Manyuk, 1999). In 1996 at the initiative of the In-

ternational Union of Geological Sciences (IUGS) the International Programme GEOSITES was adopted. The main aim of the project is development of the European Register of Geological Heritage. The notion "geological heritage" (geoheritage), "geoconservation" has a long history, whereas "geodiversity" unlike "biodiversity" is a relatively new term, which owes much to the publication of the book by M Gray (Gray, 2004). It is the geopark which is the centre where the problem of geodiversity can be solved fully; this is one of the principal aims of creating a geopark (Erikstad, L., 2013; Samoilova, Samoilich, Manyuk, 2015).

The idea of creating geoparks is also one of the ways of solving the problems of protecting the geoheritage or nature protection territories which include both unique or typical geological relics, and also objects of archeological, historical and cultural heritage. Therefore the geopark is a protected territory, created for protection and active use of geological heritage, and also development of geotourism or, according to another fuller definition "A geopark is a geological open-air museum which concentrates unique geological objects (natural and artificial outcrops, structural forms, the results of endogenous and exogenous processes and phenomena) attractive from scientific, educational and touristic perspective and which reveal the geological history of the planet, peculiarities of formation of landscapes of the past, formation of rocks and mineral deposits (Geological Dictionary, 2017).

The creation of geoparks began in 1990-s and has gradually covered the entire planet. The special programme of the UNESCO concerning creation and support of the network of national ge-

oparks (*Global Network of National Geoparks*) has existed since 2002 (Earth Science, (2017)). In 2004, representatives of 17 European and 8 Chinese geoparks gathered at the UNESCO headquarters in Paris to form the Global Geoparks Network for collaborative work and sharing information related to the issue of preserving geological heritage (Global Geoparks Network, 2017). Currently UNESCO provides official status to 127 geoparks in 37 countries: Australia – 3, Brazil-1, Canada-2, China-35, Croatia-1, Cyprus-1, the Czech Republic-1, Denmark-1, Finland-1, France-6, Germany-5, Germany-Poland-1, Greece-5, Romania-1, Romania-Slovakia -1, Iceland -2, Indonesia-2, Iran-1, Republic of Ireland -2, Northern Ireland -1, Italy-10, Japan-8, Korea-2, Malaysia-1, Mexico-2, Morocco-1, the Netherlands-1, Norway-2, Portugal-4, Slovenia-1, Slovenia-Austria-1, Spain-11, Turkey-1, the United Kingdom-6, Uruguay -1, Vietnam-1. (Global Geoparks Network. Members List, 2017). First Europe, and later the whole world recognized the unique opportunity of using geoparks as centers of development of geotourism, which has given them significant economic attractiveness (Thomas, Djordjije, 2012; Dowling, Newsome, 2010; Geotourism: practice and experience, 2016).

In the modern world the issues of preserving geological heritage are being seriously addressed with involvement of the latest technologies, national sites are being developed, journals are being published, virtual panoramas using modern devices are being created and many other interesting informational solutions are being developed, for example Algeria is planning to create a whole search system for geological objects and encourage internet users to play informational games (Annad, O., Bendaoud, A., Gorla S., 2017). The conception of the existence and development of geoparks includes implementation of three main aspects: preserving heritage, economic development and participation of civic society (Fauzi, Misni, 2015).

Ukraine has numerous significant geological objects, some of which are of global importance and are on the brink of disappearance, for example Podilski Tovtry (Kaplun, Chebolda, 2008), or the no less significant objects of the Roztochya Ukrainian Nature Reserve (Zinko et al., 2010), the unique complex of geosites in the valley of Inhulets and Saksahan rivers, which defines the structure of the Kryvorizkyi Iron Ore Basin (Manyuk, 2008). In 2006 at the V International symposium of ProGEO, which was held for the first time in Ukraine, V V Manuk suggested recognizing 25 territories which deserve status of National Geological Park as promising geoparks of Ukraine (Manyuk, 2006). Initiatives for creating geoparks in Ukraine have also been taken by Zinko U and Shevchuk O (Zinko,

Shevchuk, 2011), Hrytsenko V P (Grytsenko, 2006), Derevska K I (Derevska, 2013), Manuk V V (Manyuk, V., 2006, 2007,2008). However, up to the present, 2017 Ukraine still does not have a single geopark. Therefore this question remains of urgent importance. One of the reasons for such situation is Ukraine's inadequate legislative base and the absence of a "legal map" for creating geoparks. Therefore unravelling the legal aspects of the problem of creating nature-protection territories is important.

Legal definition of the notion "geopark"

The term "geopark" is absent in Ukrainian legislation and is not mentioned in normative legal acts. Such an attitude from the nation's legislature to the issues of preserving geological heritage is observed not only in Ukraine, but in almost all countries of the CIS, including Russia, where such term is absent in legislative acts. Therefore unique geological objects are included in the structure of excising categories of specially protected territories. Nevertheless, after 15 years of diligent work, the first geopark in Russia has appeared. In the Altai, according to the decision of the Government of the Altai Republic, in 2015 Russia's first and so far its only geopark "Altai" was created (The unique geological objects of Russia, 2010). Some countries such as the Czech Republic, Romania and Poland have concentrated more on the protection of geological objects at the legal level, therefore their legislation has terms like, for example "geoheritage" (Wimbledon & Smith-Meyer, 2012).

South Africa has a law on resources of national heritage (National Heritage Resource Act), which includes the term "rare geological specimens" used in the context of objects protected by the state (Cairncross, B., 2011). China, apart from geoparks recognized by UNESCO, has national geoparks, which unlike usual parks, have special status (Gansu Zhangye) (ToPedia.ru, 2017). Nonetheless, the legislation of most countries has no such term, though in fact geoparks do exist within their territories.

The development of geoparks fits into three wider objectives: preserving the heritage: geological, cultural, biological, and historical (heritage conservation); economic development of a given region and country in general (economic development); the public aspect, which includes interest, culture, and encouragement of the people's development at local and national level (community aspect). (Azman, Halim, Liu, Saidin, & Komoo, 2010). Geopark is a status provided by the international organization UNESCO (United Nations Educational, Scientific and Cultural Organization) to a protected natural territory with geological objects of international significance. According to the stat-

ute of the international programme concerning geological sciences and geoparks, such territory should meet a number of requirements (Geoparks. Join GGN/EGN, 2017).

The appendix 2 of the statute covers the main requirements for geopark status. Global UNESCO geoparks should be united geological regions, where the management of the object and landscape of international geological significance is conducted on the bases of a combined conception of protection, education and sustainable development. This territory should have precise borders, its size should correspond to the execution of the functions entrusted to it and include geological heritage of international significance, which has been independently evaluated by scientific specialists (Geoparks. Join GGN/EGN, 2017).

Global UNESCO geoparks should be districts which have organs of administration with recognized status within the framework of national legislation. Together with local organizations, a common plan for management should be developed, which would include the social and economic needs of the local population, and which would provide protection of the landscape the population lives in and preservation of its cultural peculiarities (Geoparks. Join GGN/EGN, 2017).

It is recommended that all responsible local and regional participants and authorities are represented in the management of UNESCO geoparks.

A global UNESCO geopark should follow local and national laws concerning protection of geological heritage. Before any geological relic receives international status, it should first receive legal protection at the national level (Geoparks. Join GGN/EGN, 2017).

To sum up, we should say that before any claim is made for status of an international geopark, the object of geological heritage should already be included in the nation's nature-protection fund, possess institutions management at all possible levels, possess conservation status and function within the framework of the country's current legislation.

Currently, in Ukraine the abovementioned conditions are regulated by the following normative legal acts: The Land Code of Ukraine, Commercial Code of Ukraine, The Law of Ukraine on Mineral Resources, The Law of Ukraine on Protection of the Natural Environment, The Law of Ukraine on the Ecological Network of Ukraine, The Law of Ukraine on the Nature Reserve Fund, The Law of Ukraine on State Land Registration, The Law of Ukraine on the main principles (strategy) of state ecological policy of Ukraine for the period to 2020, The Law of Ukraine on State Control of Use and Protection of Land, The Law of Ukraine of Protec-

tion of Land, The Law of Ukraine on the State Geological Service, The Order of the Government of Ukraine "On the adopting the order of providing special permissions for using mineral resources" and other specifying acts of the main laws and codes.

Preconditions for establishing "geopark" in the legislation of Ukraine. First of all, it should be defined what the significance of such geopark will be for the state. According to the Law of Ukraine on Priority Directions of Development in Science and Technology, article 3 "Priority directions in science and technology for the period to 2020" part four, one of the main directions is rational exploitation of nature, which corresponds to the aim of creating geoparks (The Law of Ukraine, 2001).

The Law of Ukraine on the Main Principles (strategy) of State Ecological Policy of Ukraine for the Period to 2020, part 3 "Strategic aims" covers the following aims: preventing all losses of biological and landscape diversity and forming an ecological network; assuring ecologically balanced exploitation of nature; heightening the level of public ecological awareness – one of the main aims of creating a national informational system of protecting the natural environment (The Law of Ukraine, 2011). Establishing geoparks fully corresponds to those purposes.

Creating or providing any status to a territory is regulated first of all by the Land Code of Ukraine. According to the articles 18, 19, categories of land of Ukraine have special legal status, geological park relates to the category "c" [«Б» – Translator's note] – land of nature reserve or other nature protection purpose (The Law of Ukraine, 1992). According to the article 20, categorizing of lands is performed according to the decisions of the institutions of state power. The change in purpose of the lands is performed according to the projects of land management concerning their allocation (The Law of Ukraine, 1992).

The Land Code of Ukraine devotes to the abovementioned land category chapter 7, "Land of nature-reserve fund and of other nature-protection purposes", which considers the lands of the nature-reserve fund to be areas of dry land and water areas with natural complexes and objects, which possess special nature-protection, ecological, scientific, esthetic, recreational and other value; according to the law they are provided with the status of territories and objects of the nature-reserve fund (The Law of Ukraine, 1992).

These lands include natural territories and objects (natural reserves, national parks, biosphere reserves, regional landscape parks, zakazniki, nature relics, protected tracts). Lands of the nature-

reserve fund can be under state, public and private ownership. The regulations governing use of the lands of the nature-reserve fund are determined in the law (The Law of Ukraine, 1992).

The land code refers to the purpose of law in the sphere of functioning of land of nature-reserve value, namely The Law of Ukraine on the Nature-Reserve Fund of Ukraine. This normative legal act is one of the main documents regulating the issues of creating geoparks. The Law of Ukraine on the Nature Reserve Fund of Ukraine provides a classification. The nature-reserve fund of Ukraine includes: natural territories and objects – nature reserves, biosphere reserves, national parks, regional landscape parks, zakazniki, nature relics, protected tracts; artificially created objects – botanical gardens, dendrological parks, zoological parks, nature relics, landmark landscape architecture; reserves in respect to their ecological and scientific, historical and cultural values can be of national and local value (The Law of Ukraine “On Land Management,”2003).

According to their origin, other peculiarities of natural complexes and objects which are considered reserves or nature relics, their purpose and necessary regime of protection, the reserves are divided into landscape, forest, botanical, general zoological, ornithological, entomological, ichthyological, hydrological, general geological, paleontological and karst-speleological reserves; nature relics are divided into complex, fore-forest, botanical, zoological, hydrological and geological. The nature relics can be located on the territories of other objects of the nature-reserve fund (The Law of Ukraine “On Land Management,”2003).

According to the status, natural reserves, biosphere reserves, national nature parks, botanical gardens, dendrological parks, zoological parks of national value, and also regional landscape parks are legal persons. According to the article 9, the territories and objects of the reserve fund are used for nature-protection and recreational purposes (The Law of Ukraine “On Land Management,”2003).

Among all objects of the nature-reserve fund (nature reserves, biosphere reserves, national nature parks, regional landscape parks, reserves, nature relics, protected tracts, botanical gardens, zoological parks and landmark landscape architecture), national nature parks are the most suitable for establishing a geopark.

According to the article 20, national nature parks are nature-protection, recreational, cultural-educational, research and development institutions of national value created for preservation, recreational and efficient use of natural complexes and objects, which possess special nature-protection,

health-improving, historical-cultural, scientific, educational and esthetic value (The Law of Ukraine “On Land Management,”2003).

The national nature parks should serve the following purposes:

- preservation of valuable natural and historical-cultural complexes and objects;
- creating conditions for organizing tourism, leisure activities and other types of recreational activity in natural conditions following the regime of protection of nature reserve complexes and objects;
- conducting scientific studies of natural complexes and their changes in the conditions of recreational usage, development of scientific recommendations concerning issues of protecting the natural environment and efficient usage of nature resources;
- conducting ecological educational work (The Law of Ukraine “On Land Management,”2003).

The management of nature reserves, biosphere reserves, national nature parks, botanical gardens, dendrological and zoological parks of national value, and also regional landscape parks is performed by their special administrations. The heads of special administrations are people who have ecological, biological and geological education and who are appointed after agreement with central organ of the executive power in the sphere of natural environmental protection (The Law of Ukraine “On Land Management,”2003).

Considering the abovementioned, a conclusion can be drawn that the legal base for creating geoparks is nature-reserve territories, and that a national nature park best corresponds to the ideas of a geological park and is most suitable for that purpose.

The normative base for creating a territory of “geopark” and responsible organs. The normative acts regulating practical establishment and functioning of nature-reserve territories are: The Code of Ukraine on Mineral Resources, The Law of Ukraine on the Nature Reserve Fund, The Order of the Government of Ukraine “On the adopting the rules for providing special permissions for using mineral resources”.

Obtaining the status of a national nature park requires first of all submitting an application about the organization and designation of territories or object of the nature-reserve fund. Preparing and submitting an application for creating or claiming territories or objects of the nature-reserve fund can be performed by the institutions of a central organ of the executive power in the sphere of natural environmental protection, scientific institutions, public nature-protection organizations or other interest-

ed enterprises, institutions, organizations and citizens. Applications are submitted to the state institutions responsible for conducting their preliminary consideration (The Law of Ukraine "On Land Management,"2003).

Application should include proving the necessity of creating or claiming a territory or object of nature-protection fund of a particular category, characteristics of nature-protection, the scientific, esthetic or other value of the natural complexes or objects which are suggested for protection, data on the location, extent, character of usage, owners and users of the natural resources, and also the corresponding cartographic documentation. The application should be supported with documents which prove and supplement the arguments for creating or claiming territories or objects of the nature-reserve fund (The Law of Ukraine "On Land Management,"2003).

Further consideration of an application for creating or claiming territories or objects of the nature-reserve fund is performed according to the following regulations: the application on the necessity of creating or claiming territories or objects of the nature-reserve fund is initially considered within one month: in respect to territories or objects of national value – by the central organ of the executive power in the sphere of natural environmental protection; in respect to territories and objects of local value – by local organs of the same institution of the executive power (The Law of Ukraine "On Land Management,"2003).

After the application has been approved by the central organ of the executive power in the sphere of natural environmental protection and its local institutions, an agreement is made with the owners and primary users of natural resources within the territories recommended for protection.

According to the results of agreement to these applications, the central organ of the executive power in the sphere of natural environmental protection arranges for the development of projects for creating these nature reserves, biosphere reserves, national nature parks, reserves, nature relics, landmark landscape architecture of national value to be carried out by planning organizations and scientific institutions (The Law of Ukraine "On Land Management,"2003).

The development of projects of creating regional landscape parks, protected tracts, and also reserves, nature relics and landmark landscape architecture of local value is organised by local institutions of the central organ of executive power in the sphere of natural environment protection. The projects for creating territories or objects of the nature-reserve fund are given to the central organ of executive power in the sphere of natural environ-

ment protection by its local institutions. According to the article 53 of The Law of Ukraine on the Nature Reserve Fund of Ukraine, the decisions concerning nature reserves, national nature parks, and also concerning other territories or objects of the nature-reserve fund of national value are made by President of Ukraine (The Law of Ukraine "On Land Management,"2003).

After receiving such status, according to The Law of Ukraine on Land Management, changes should be made in the documentation of land management of the considered territory (The Law of Ukraine "On Land Management,"2003). Also according to The law of Ukraine on State Land Registration, changes should be made in the land register of the territory chosen for a geopark (The Law of Ukraine "On the State Land Cadastre," 2012).

Considering that most objects of such a park will be of geological character, the legal functioning should be carried out according to The Code of Ukraine on Mineral Resources, which states that: users of the resources may be enterprises, institutions, organizations, citizens of Ukraine, and also foreigners or persons with no citizenship, foreign legal persons. According to article 14, the mineral resources for a geopark should be available for use with the purpose of creating geological territories of scientific, cultural, sanitary-health improvement value (scientific polygons, geological reserves, zakazniki, nature relics, medical, health-improving institutions, etc) (The Code of Ukraine, 1994). Such usage requires obtaining permission within the framework of The order of the Government of Ukraine "On the adopting the rules for providing special permissions for using mineral resources". Point 5 of this order states that the permissions are given for one type of usage of the resources, i.e. for creating geological territories or objects of significant scientific, cultural, sanitary-health improvement value (The Code of Ukraine, 1994).

Point 7 determines the time period of the permission. Permission for creating geological territories and objects of significant scientific, cultural, sanitary-health improvement value (scientific polygons, geological reserves, zakazniki, nature relics, medical, health-improvement institutions, etc) with the purpose of geological research and conservation is provided for an unlimited period of time. Point 8 states that usage of such territories for such purpose is granted without auction (The Code of Ukraine, 1994).

According to the Appendix 1 of The order of the Government of Ukraine "On the adopting the rules for providing special permissions for using mineral resources", the list of documents which are

provided with an application for a special permission for use of mineral resources with no auction за видом користування надр, in particular - creating geological territories and objects of significant scientific, cultural, sanitary-health improvement value (scientific polygons, geological reserves, zakazniki, nature relics, medical, health-improving institutions, etc) is as follows: documents of an entrepreneur as a natural person with description of the object, plan for the development of the geological territory, programme of organisation of the territory and protection of natural environment, conclusion of the Institute of Geological Sciences of the National Academy of Sciences on the possibility of using the object for scientific purposes, catalogue of geographical coordinates of corner points of mineral resources area (deviation – less than 1 second) with provision of its area, sketch map, situational plan with boundaries of mineral resources area and geographical coordinates of their corner points (The Code of Ukraine, 1994).

There is also another way of creating such territory, which requires an accurate study within the framework of The Law of Ukraine on Scientific Parks. This normative-legal act was developed relatively recently and has an insignificant number of active mechanisms. A scientific park is a legal person, which is established at the initiative of an institution of higher education and/or scientific institution through uniting of the funds of the founders for the organization, coordinating, control of the development process and fulfillment of the projects of the scientific park (The Law of Ukraine, 2009).

Priority directions in the work of a scientific park are economically and socially conditioned scientific, scientific-technical and innovational directions, which correspond to the aim of creating a scientific park, the sphere and/or speciality of an institution of higher education and/or scientific institutions (which are the basic elements of a scientific park), consider the needs of the region (territory) the park is created in, and correlate with the work directions defined in the Ukrainian legislation (The Law of Ukraine, 2009). Therefore creating a scientific park managed by a university with geological specialties is possible which will include important geological objects with the development of the 'geopark' project. The current legislation allows this issue to be seriously considered.

Legislation for protecting the territory of a “geopark” and corresponding organs. The protection of territory of the nature-protection fund is carried out according to the conditions of the following normative-legal acts: The Land Code of Ukraine, The Law of Ukraine on the Protection of Land, The Law of Ukraine on State Control of Use and Protection of Land, The Law of Ukraine on the

Nature Reserve Fund of Ukraine, The Law of Ukraine on the Protection of the Natural Environment.

According to article 5 of The Land Code of Ukraine, one of the main principles of land legislation is ensuring rational usage and protection of land. Protected zones are created around especially valuable natural objects, objects of cultural heritage for preserving and protecting them from unfavourable anthropogenic impacts (The Law of Ukraine “On Land Management,” 2003),

Article 5 of The Law of Ukraine on Protection of Land provides an inclusive list of the organs, which regulate the protection of land: The Verkhovna Rada of Ukraine, the Supreme Council of the Autonomous Republic of Crimea, the Government of Ukraine, the Council of Ministers of the Autonomous Republic of Crimea, institutions of local government, local city administrations, and also specially authorized central institutions of the executive power within the powers provided by the legislation (The Law of Ukraine “On Land Protection,” 2003).

Specially authorized central organs of executive power in the sphere of land protection are:

- central organ of executive power, which is responsible for formation of state policy in the sphere of land relations;

- central organ of executive power, which implements the state policy in the sphere of land relations;

- central organ of executive power, which implements state policy in the sphere of control of the agrarian-industrial complex;

- central organ of executive power, which is responsible for formation of state policy in the sphere of protection of the natural environment ;

- central organ of executive power, which implements the state policy in the sphere of protection of natural environment ;

- central organ of executive power, which implements the state policy in the sphere of controlling the sphere of protection of the natural environment (The Law of Ukraine “On Land Protection,” 2003).

According to article 50 of the same law, protection of lands for health improvement, recreational, historical-cultural, nature-reserve and of other nature protection purposes is carried out through including these lands in the ecological network, limitation of their withdrawal (buyout) for other purposes and limitation of the anthropogenic impact on such land. The rules for usage of the land for health improvement, recreational, historical-cultural, nature-reserve and of other nature protection purposes and creating an ecological network is

determined by the law (The Law of Ukraine “On Land Protection,” 2003).

Articles 60 and 61 of The Law of Ukraine on Protection of the Natural Environment states that: Natural territories and objects which require special protection constitute a united territorial system and include territories and objects of the nature reserve fund, resort and medical-health improvement, recreational, water protection, field protection and other types of territories and objects determined by the legislation of Ukraine. The areas of dry land and water, natural complexes and objects of special ecological, scientific, esthetic and economic value intended for protecting natural diversity, the gene pool of animal and plant species, maintaining general ecological balance and background monitoring of the natural environment, are fully or partially removed from economic exploitation and are designated territory or objects of the nature-reserve fund of Ukraine. The rules for organizing, usage and protection of the territories and objects of the nature reserve fund, their additional categories are laid out in the Ukrainian legislation (The Law of Ukraine “About Protection of the Environment,” 1991).

State control of the usage and protection of land is conducted by state inspectors with authority to issue documents on administrative violations, and provide material and evidence to the institutions which solve land disputes (Order, Instruction, Typical Form, 2009).

According to the Article 158 of The Land Code of Ukraine, land disputes are solved by the courts, institutions of local self-government and the central organ of executive power, which implements state policy in the sphere of land relations (The Law of Ukraine “On Land Management”, 2003).

Concerning protection of the land of national nature parks, Article 21 of The Law of Ukraine on the Nature Reserve Fund of Ukraine includes substantial structure of the territory and requirements to the protection of nature complexes and objects of such parks. Considering the nature, health-improvement, scientific, recreational, historical-cultural and other values of nature complexes and objects, their peculiarities, differential regime of their protection is provided; recreation and usage is defined according to the functional zoning: protected zone, zone of regulated recreation, zone of stationary recreation, economic zone (The Law of Ukraine, 1992).

Creation and usage of national parks is made according to the functional zoning: the reserve zone, zone of regulated recreation, zone of stationary recreation, economic zone. (Violation of the legislation of Ukraine on the nature-reserve

incurs disciplinary, administrative, civil or criminal responsibility (The Law of Ukraine, 1992).

Conclusion. The problem of the necessity to preserve the natural environment, and its geological component in particular, is old, and only after foundation of the European Association for the Conservation of the Geological Heritage – ProGEO has the attitude to the problem changed not only in Europe but in the rest of the world as well. Most European countries, including Ukraine, have joined the collective task in inventourisation, cataloguing and creating a computer base of data on geological natural relics, and creating national registers of geological heritage. One of the priority directions to which this work was orientated was further analysis and selection of the best geosites for the European Register of Natural Geological Relics in accordance with the project GEOSITES, supported by the International Union of Geological Sciences and UNESCO. One of the most important ways of implementing this project was creating the first geoparks in Europe and in the rest of the world as areas of protection of geosites and to give a significant impetus to the development of geotourism. The issue of creating geoparks is relevant in Ukraine and has been discussed in the works of Ukrainian representatives of ProGEO (Grytsenko, 2004; Manyuk, 2006, 2007, 2008; Zin'ko, 2010). Nonetheless, a number of objective and subjective reasons have combined to leave this problem unsolved. The most significant obstacle for creating at least a first geopark is the absence of the necessary legislative and normative-legislative framework, and the non-correspondence of the current legislation in Ukraine to the international requirements, which have made it possible in a short time to create 70 geoparks in Europe and 120 objects of the global network around the world (Global Network of Geoparks). These issues were thus the focus of this article.

References

- Annad, O., Bendaoud, A., Gorla S., (2017). Web information monitoring and crowdsourcing for promoting and enhancing the Algerian geoheritage Arabian Journal of Geosciences Topical Collection on Current Advances in Geology of North Africa (13), 10:276, doi: 10.1007/s12517-017-3061-6.
- Azman, N., Halim, S. A., Liu, O. P., Saidin, S., & Komoo, I. (2010). Public education in heritage conservation for Geopark community. *Procedia Social and Behavioral Sciences*, 7, 504-511. doi: <http://dx.doi.org/10.1016/j.sbspro.2010.10.068>.
- Bondar, Y.O. 2014. Kompleksna ocinka geologicznyh pam'jatok pryrody na prykladi ob'ektiv Kryvorizhzhja: avtoref. dys... kand. geol. nauk: 04.00.19. [Complex estimation of geological

- nature monuments on the example of objects of Kryvorizhzhya: author's abstract. Dis ... Cand. geol. Sciences: 04.00.19]. Kyiv, 18 p. (In Ukrainian).
- Cairncross, B., 2011. The National Heritage Resource Act (1999): Can legislation protect South Africa's rare geoheritage resources. *Resources Policy* 36, 204–213, doi:10.1016/j.resourpol.2011.04.002.
- Derevska K. I., Kozhenevskiy S.R., Pylypchuk O.M., Rudenko K.V., Shevchuk O.M., 2013. Zhytomyr'ske Polissya – «Legendarna kraïna» - unikal'nyj ob'jekt dlja stvorennja v Ukraïni per-shogo geologichnogo parku. [Zhytomyr Polissya - "Legendary Country" - a unique object for creation in Ukraine of the first geological park]. *Modern Problems of Geology: A collection of scientific works on the 155th anniversary of the birth of Academician Pavel Apollonovich Tutkovskii*. Kyiv: Fiton, 343 - 345 (in Ukrainian).
- Dowling R., Newsome D., 2010. *Global Geotourism Perspectives*. Goodfellow Publish, Limited United Kingdom, 3-4.
- Earth Science. UNESCO Global Geoparks (2017). Retrieved from <http://www.unesco.org/new/en/natural-sciences/environment/earth-sciences/unesco-global-geoparks> (accessed 07.10.2017)
- Erikstad, L., 2013. Geoheritage and geodiversity management – the questions for tomorrow *Proceedings of the Geologists' Association*, 124, 713–719.
- Fauzi, N. S. M., Misni, A., 2016. Geoheritage Conservation: Indicators affecting the condition and sustainability of Geopark – a conceptual review. *Procedia - Social and Behavioral Sciences*, 222, 676 – 684.
- Geologichnyj slovnyk (2017). Geopark [Geological Dictionary 2017. Geopark]. Retrieved from <http://geodictionary.com.ua/геопарк> (accessed 07.10.2017) (in Ukrainian).
- Geoparks. *Join GGN/EGN* (2017). Retrieved from http://www.europeangeoparks.org/?page_id=160 (accessed 11.10.2017).
- Global Geoparks Network. Members list (2017). Retrieved from <http://www.globalgeopark.org/aboutGGN/list/index.htm>
- Global Geoparks Network. What is a UNESCO Global Geopark? (2017). Retrieved from <http://www.globalgeopark.org/aboutGGN/6398.htm> (accessed 07.10.2017).
- Gray, M., 2004. *Geodiversity – Valuing and Conserving Abiotic Nature*. John Wiley & Sons, Ltd, Chichester, England, 508.
- Grytsenko, V.P., 2004. Geoparky novyj naprjamok zapovidnoi' spravy v Ukraïni. [Geoparks is a new direction of nature conservation in Ukraine.] *Diversity of nature in Khmelnytsky Region*. Collection of articles on materials of the All-Ukrainian scientific-practical conference "Landscape and biological diversity of Khmelnytsky: research, conservation and reproduction"; Kamyanets-Podil'skyi, December 17-18, 2003, Abetka NOVA.
- Kaplun, I.H., Chebolda I.Y. 2008. Geopark jak model' zberezhennja ta optimal'nogo pryrodokorystuvannja podil's'kyh tovtr [Geopark as a model of conservation and management of natural resources Podil'ski Tovtry]. *Materials of international scientific-practical conference "Protection and management of objects of inanimate nature in protected areas"*. Hrymailiv, 121-126 (in Ukrainian).
- Manyuk V.V., 2008. Istorychni peredumovy stvorennja nacional'nogo geologichnogo parku «Orlyne gnizdo». [Historical prerequisites for the creation of the national geological park "Eagle Nest"]. *Protection and management of objects of inanimate nature in protected areas: Mater. International scientific and practical conference. Grimailiv-Ternopil, Dzhura*, 175-181.
- Manyuk, V., 2007. The problem of creation of Network National Geoparks in Ukraine. *Dnipropetrovsk, Bulletin DNU*, 63-67, doi: <http://dx.doi.org/10.15421/110714>
- Manyuk, V., 2008. The problem of creation of a Network National Geoparks in Ukraine. *Proceeding 33th International Geological Congress, Norway, Oslo, 6-14 August*.
- Manyuk, V.V., 1999. Zberehty skarby heolohichnoyi spadshchyny Dnipropetrovshchyny. [Save the treasures of the geological heritage of Dnipropetrovsk.] "Sacred Matters", 3, Dnipropetrovsk, 19-25 (in Ukrainian).
- Manyuk, V.V., 2006. Potential objects for creation of a Network National Geoparks in Ukraine. *PROGEO Symposium "Safeguarding our Geological Heritage"*, Kyiv – Kamianets-Podil'sky, 30-32.
- Materialy II mizhnarodnoi' Geoturizm: praktyka i dosvid naukovo-praktychnoi' konferencii' (5-7 travnja 2016, L'viv). (2016). [Materials of the II International Geo-tourism: practice and experience of the scientific-practical conference (May 5-7, 2016, Lviv)]. Lviv: "Maps and Atlases", 9 - 11.
- Order, Instruction, Typical Form, Protocol, Message, Resolution, Decision, Sample, Causa on April 28, 2009, 205. Retrieved from <http://zakon5.rada.gov.ua/laws/show/z0460-09>
- Samoilova, Kh. M., Samoilich, D. O., Manyuk, V.V. 2015. Geodiversity: new category in the development of the Nature reserve Lands of Ukraine. "Bulletin of the University of Dnipropetrovsk. Geology, geography" Dnipropetrovsk," V .23 (1), Issue.17, 104 – 107, doi: <http://dx.doi.org/10.15421/111514>
- The Code of Ukraine about Bowels of the Earth, 1994. NVR, 36, 340. Retrieved from <http://zakon5.rada.gov.ua/laws/main/132/94-bp>
- The Law of Ukraine "About protection of Environment," 1991. NVR, 41, 546 Retrieved from <http://zakon5.rada.gov.ua/laws/main/1264-12>

- The Law of Ukraine “On Land Management”, 2003. NVR,36, 282. Retrieved from <http://zakon5.rada.gov.ua/laws/main/858-15>
- The Law of Ukraine “On Land Protection,” 2003. NVR, 2003, 39, 349, Retrieved from <http://zakon5.rada.gov.ua/laws/main/962-15>
- The Law of Ukraine “On Scientific Parks,” 2009. NVR, 2009, 51, 757. Retrieved from <http://zakon5.rada.gov.ua/laws/main/1563-17>
- The Law of Ukraine “On the State Land Cadastre.” 2012. NVR, 8, 61. Retrieved from <http://zakon5.rada.gov.ua/laws/show/3613-17>
- The Law of Ukraine, 1992. “On Nature Reserve Fund of Ukraine,”NVR, 34, 502. Retrieved from <http://zakon5.rada.gov.ua/laws/show/2456-12>
- The Law of Ukraine, 2001. “On Priority Branches of Science and Technology Development.” The News of Verchovna Rada of Ukraine (NVR), 48, 1-253. Retrieved from <http://zakon5.rada.gov.ua/laws/show/2623-14> .
- The Law of Ukraine, 2011. “About basement (strategy) of state environmental politic of Ukraine on period up to 2020.” NVR,26, 218 Retrieved from <http://zakon5.rada.gov.ua/laws/show/2818-17/page>
- Thomas A. H., Djordjije A., 2012. Defining the Nature and Purpose of Modern Geotourism with Particular Reference to the United Kingdom and South-East Europe, *Geoheritage*, 4:25–43, doi: 10.1007/s12371-011-0050-0.
- ToPedia.ru, (2017). Nacional'nyj geopark Chzhan'e Dan'sja. [National Zhangyang Danshan Geopark]. Retrieved from https://topedia.ru/chjanye_dansya (accessed 11.10.2017).
- Unikal'nye geologicheskie objekty Rossii. Geoparki Rossii (2017). [Unique geological objects of Russia. Geoparks of Russia]. Retrieved from <http://www.geomem.ru/geoparks.php> (accessed 05.10.2017).
- Wimbledon, W.A.P. & Smith-Meyer, S.(eds). 2012. *Geoheritage in Europe and its Conservation*. Oslo: ProGEO, 254-274.
- Zin'ko, Ju.V., Boguc'kyj, A.B., Brusak, V.P., Gnatjuk, R.M., Shevchuk, O.M., Krompjeć, M., Burachyns'kyj, Ja., 2010. Mizhnarodnyj geopark «Kam'janyj lis Roztochchja»: koncepcija ta programa formuvannja. [International geopark "Roztochya Stone Forest ": concept and program of formation]. *Scientific Bulletin of NLTU of Ukraine*, issue no. 20.16, 33-45.
- Zin'ko, Ju.V., Shevchuk O.M., 2011. Proektovani geoparky Zahidnoi' Ukrai'ny. Fizychna geografija ta geomorfologija. [Designed geoparks in Western Ukraine. Physical geography and geomorphology. Interdepartmental scientific collection]. Kyiv: "Horizons", issue 3 (64), 41-56.