This study does not, for obvious reasons, aim to present the complete results of the research project carried out. It only briefly provides the scope and outline of the activities conducted along with the conclusions arrived at by the persons managing and implementing the National Science Centre (NCN) grant project.

The goal of the research carried out as a part of the project was, in broad terms, to analyze the impact of the sustainable development principle on legal regulation concerning the management of geological resources of the environment. In other words, the overall subject of these studies was to answer the question: Do the provisions concerning the management of geological resources include — and if they do, to what extent — within their detailed legal solutions the principle of sustainable development? In the legal sciences, the aforementioned problem has not yet been addressed. The prima focus was on how to understand the concept of sustainable development principle, and the main aspects of exploring those resources were analyzed, without ever taking into account the conditions resulting from this principle.1

* The article is the result of research funded by the National Science Centre as a part of the research marked with a symbol DEC-2012/05/B/HS5/00632.

1 Cf. in this context in particular: A. Lipiński: *Użytkowanie górnicze*. Kraków 1996; A. Agopszowicz, G. Dobrowolski, A. Lipiński, R. Mikosz, H. Walczak-Zaremba: *Prawnoekologiczne uwarunkowania geologii i górnictwa z uwzględnieniem obszarów wymagających szczególnych zabiegów ochronnych*. Kraków 2000; A. Lipiński: *Wprowadzenie do prawa geologicznego i górniczego*. Bytom 2003; A. Lipiński, R. Mikosz: *Ustawa prawo geologiczne i górnicze. Komentarz*. Warszawa 2003; R. Mikosz: *Odpowiedzialność za szkody wyrządzone ruchem zakładu górniczego*. Warszawa 2010. The enumerated publications relate to legal regulation which in principle has already lost its binding force.
All issues discussed in the research project were divided into parts the analysis of which allowed for subsequent synthesis. Obviously, detailed considerations were made about the essence of sustainable development. Article 5 of the Constitution of the Republic of Poland provides that the Republic of Poland safeguards the independence and inviolability of its territory, guarantees freedoms and human and citizen rights and citizens’ safety, safeguards the national heritage and ensures environmental protection, being guided by the principle of sustainable development. The gravitas of this regulation cannot be overstated. The literature underscores that the quoted provision defines the functions of the state, that is, the basic directions and objectives of its operation, stressing simultaneously that it has been included as a regulation of programme character, requiring all public authorities to participate in it, using all powers possessed by it, in order to carry out the activities indicated in the constitutional provisions.

The very concept of sustainable development has been defined in the Act dated April 27, 2001 — Environmental Protection Law. According to Article 3, point 3 thereof, such development shall be understood as a social and economic development in which the process of integration of political, economic and social activities takes place, with preservation of the natural balance and continuity of basic natural processes, in order to guarantee the ability to satisfy the basic needs of individual communities or citizens, both of contemporary generations as well as of future generations.

Unfortunately, the above definition raises considerable interpretative doubts. However, it should be emphasized that it was introduced only for the purposes of the Act dated April 27, 2001. Therefore, for further considerations it was necessary to assume that “sustainable development” concerns a process of transformation aimed at improving earlier states; this process, however, has to take into account the need for “balance”. This is to be, in the light of Article 5 of the Constitution of the Republic of Poland (as well as many other provisions), the organizing rule, and solutions resulting from it should be considered as the most important interpretative criteria — in this case — for the entire legal system. Those findings enabled us to undertake the fundamental

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2 The Constitution of the Republic of Poland of April 2, 1997 (Journal of Laws No. 78, item 483, as amended).
3 Cf. among others: W. Skrzydło in: Konstytucja Rzeczypospolitej Polskiej. Komentarz. LEX 2013, a commentary to Article 5; P. Sarnecki in: L. Garlicki, K. Działocha, P. Sarnecki, W. Sokolewicz: Konstytucja Rzeczypospolitej Polskiej. Komentarz. Warszawa 2007, pp. 5—6.
4 See P. Sarnecki, p. 2. See also G. Kowalski: Zrównoważony rozwój jako naczelna zasada ustrojowa Rzeczypospolitej Polskiej. “Prawo i Środowisko” 2010, nr 1(61), pp. 65 ff.
5 Unified text: Journal of Laws of 2018, item 779 with amendments — hereinafter “Environmental Protection Law.”
6 More on this topic: G. Dobrowolski, A. Lipiński, R. Mikosz, G. Radecki: Gospodarowanie geologicznymi zasobami środowiska w świetle zasady zrównoważonego rozwoju. Zagadnienia prawne. Katowice 2018, pp. 3—9.
part of the research, namely “the legal basis of management of geological resources,” which for the purpose of the conducted analyses was identified with the prerequisites of undertaking and conducting activities within the scope of using the resources of the Earth’s crust (geology and mining). The basis for consideration were the provisions of the Act dated June 9, 2011. Geological and Mining Law,7 and other acts, including the mentioned Act dated April 27, 2001, the Act dated March 27, 2003 on Spatial Planning and Development,8 or also the Act dated October 3, 2008 on Sharing Information on the Environment and Its Protection, Public Participation in Environmental Protection and Environmental Impact Assessments.9

It must be, however, mentioned that the concept of management, even restricted to environmental resources, is of ambiguous character, but in general it is broadly understood as a collective category which includes, in particular, regulation, that is, establishing legal norms aimed at protecting individual elements of the environment and the environment as a whole; using and sharing the environment between units and organizations that benefit from it; and also controlling (monitoring) the state of the environment elements and the activities of the abovementioned units and organizations.10

In the further part of the research, a division of assumptions was made for undertaking and conducting, and finally, the conclusion of activities in the field of using the resources of the Earth’s crust.

The first group of premises refers to undertaking geological and mining activities. A significant role here is played by those premises that relate to spatial planning and development. This applies in particular to the compliance of the planned project with the planning acts, the local spatial development plan and the study of the conditions for the spatial development of the commune.12

The subsequently analysed group of issues relates to the impact of geological and mining projects, which are conducted on the basis of the provisions of the

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7 Unified text: *Journal of Laws* of 2017 item 2126 with amendments — hereinafter “Geological and Mining Law.”

8 Unified text: *Journal of Laws* of 2018 item 1945.

9 Unified text: *Journal of Laws* of 2018 item 2081.

10 The number of elaborations regarding this matter is large and still growing. For the latest publications, see in particular: A. Marciniak-Kluska: *Zarządzanie środowiskiem w aspekcie zrównoważonego rozwoju gospodarczego. “Zeszyty Naukowe Uniwersytetu Przyrodniczo-Humanistycznego w Siedlcach” 2013, series: Administracja i Zarządzanie, nr 96, pp. 129, and T. Bojar-Fijalkowski: *Nauka o zarządzaniu w gospodarczym prawie ochrony środowiska — analiza wybranych pojęć.* In: *Zasada zrównoważonego rozwoju w wymiarze gospodarczym i ekonomicznym.* Eds. B. Rakoczy, K. Karpus, M. Szalewska, M. Walas. Toruń 2015, pp. 199 ff. including the literature referred therein.

11 Cf. T. Bojar-Fijalkowski: *Nauka o zarządzaniu….,* p. 203.

12 G. Dobrowolski, A. Lipiński, R. Mikosz, G. Radecki: *Gospodarowanie geologicznym….,* pp. 64—120.
Act dated October 3, 2008, on the environment. Referring to this act and the provisions of the Regulation of the Council of Ministers dated November 9, 2010 on projects likely to significantly affect the environment within the analysed scope, the EIA procedure may concern such projects as:

- exploration and identification of mineral deposits and underground carbon dioxide storage complexes,
- other geological operations including geological works,
- extraction of minerals from deposits (including hydrocarbons),
- underground non-reservoir storage of substances,
- underground storage of waste,
- underground storage of carbon dioxide in order to conduct a demonstrative project of carbon dioxide capture and storage.

Based on Article 2 of the Act of Geological and Mining Law, as such projects can in fact also be recognized:

- construction, extension, and maintenance of drainage systems of the abandoned mining plants,
- works carried out as a part of excavations of the abandoned underground mining plants for purposes other than those specified in the Act, in particular tourist, curative, and recreational purposes,
- underground works conducted for scientific, research, experimental, and training purposes for the needs of geology and mining,
- tunnelling using mining techniques,
- liquidation of facilities, equipment, and installations referred to above.

In the course of further research, a detailed analysis was conducted that pertained to the restrictive legal measures regarding geological and mining activities. The basic one here is concession. The scope of the obligation to obtain it has been specified in Article 21, paragraph 1 of the Geological and Mining Law. The said scope includes: exploration and appraisal of mineral deposits, referred to in Article 10, paragraph 1 of the Geological and Mining Law with the exclusion of hydrocarbon deposits (point 1), exploration or appraisal of the underground carbon dioxide storage complex (point 1a), extraction of minerals from deposits (point 2), exploration and appraisal of hydrocarbon deposits, and extraction of hydrocarbons from deposits (point 2a), underground non-reservoir storage of substances (point 3), underground storage of waste (point 4), underground storage of carbon dioxide (point 5). In Chapter 3, Division III of the Geological and Mining Law it was provided for the concessions for extracting hydrocarbons from deposits and concessions for exploration and appraisal of hydrocarbon deposits and for extracting hydrocarbons from deposits. The latter

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13 *Journal of Laws of 2016, item 71.*

14 More on this topic: G. Dobrowolski, A. Lipiński, R. Mikosz, G. Radecki: *Zrównoważony rozwój jako czynnik determinujący prawne podstawy zarządzania geologicznymi zasobami środowiska.* Katowice 2016, pp. 85—120.
one is of a joint nature in such a sense that it includes two phases of activity, that is, the phase of exploration and appraisal and the mining phase (Article 49v, point 2 of the Geological and Mining Law), the commencement of which requires obtaining an investment decision issued by a concession authority (Article 49z, paragraph 1 and 2 of the Geological and Mining Law). It should also be noted here that the activity mentioned in Article 21, paragraph 1 of the Geological and Mining Law may be performed only as a licensed business activity, unless the Act provides for a clear exception in this respect.15

In relation to some types of activities, another model of state supervision was adopted, in the form of decision approving a design of geological works (quasi-concession). It finds application in the case of those planned geological works which impact the environment to a smaller extent (at least potentially). This will primarily concern the exploration and appraisal of mineral deposits in cases other than those provided for in Article 21, paragraph 1, point 1 of the Geological and Mining Law.16

A significant part of the research has been devoted to the legal conditions of conducting geological and mining activities, referring the regulations applicable in this respect to the principle of sustainable development. A detailed analysis of the legal basis for the functioning of the mining plant and its operation has been conducted. Also the problems situated slightly beyond the mainstream of research have been addressed, which nonetheless proved extremely important in the context of the main analysed issued. They concern public levies related to running a business activity involving the use of geological resources of the environment.17

Ensuring that geological and mining activities are carried out in accordance with the requirements of environmental protection (including those resulting from sustainable development principle) requires the application of appropriate legal instruments related to the liability of entities that fail to comply with the abovementioned obligations. Hence, the research has been carried out on such solutions applicable in Polish law. This concerned civil, criminal, and administrative liability.18

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15 A. Lipiński: Nowe prawo geologiczne i górnicze (ustawa z dnia 9 czerwca 2011 r.), “Przegląd Ustawodawstwa Gospodarczego” 2011, nr 9, p. 5 and H. Schwarz: Prawo geologiczne i górnicze. Komentarz. Tom I. Wrocław 2013, p. 188. Cf. G. Radecki: Opłata podwyższona za naruszenie warunków wydobywania piasków i żwirów na własne potrzeby. In: Prawne aspekty gospodarowania zasobami środowiska. Korzystanie z zasobów środowiska. Eds. K. Karpus, B. Rakoczy, M. Szalewska. Toruń 2014, pp. 305—306.

16 More on this topic: G. Dobrowolski, A. Lipiński, R. Mikosz, G. Radecki: Gospodarowanie geologicznymi..., pp. 177—234.

17 More on this topic: ibidem, pp. 237—370.

18 More on this topic: ibidem, pp. 355—382.
At the end of the analytical part of the research, the deliberations concerning the liquidation of geological and mining activities were carried out, with particular emphasis on the principle of sustainable development.\(^\text{19}\)

The findings made during the research allow to arrive at several conclusions.\(^\text{20}\) The first of them is not optimistic. The enforceable regulations regarding the management of geological resources in Poland do not contain direct references to the sustainable development principle. In particular, it may not be recognized that the latter is to be a premise for the management of the interior of the Earth.

The analysis of the scope of Geological and Mining Law, being the basic legal act regulating the management of geological resources, has showed that it was not sufficiently developed. This mainly concerns the regulation regarding the legal situation of mineral deposits (of the interior of the Earth’s crust).

A significant part in the implementation of the principle of sustainable development plays the institution of environmental impact assessments, which is related to both: projects and the documents of planning and programme nature. It also improves the management of environmental resources. This also applies to the interior of the Earth in its full scope. The assessment carried out properly provides the body competent to issue a permit for the implementation of the project with appropriate knowledge that, in turn, allows to balance the protected goods that may be affected as a result of the project. As mentioned earlier, the implementation of the principle of sustainable development requires balancing three categories of goods. The first of these is economics. Economic development contributes to the growth of national income and the wealth of the society. The second one is the good of society. It depends not only on the availability of food, other goods and services, but also on the opportunity to live in a clean environment. There is no doubt about the fact that “human beings are the focus of attention in the process of continuous and sustainable development. They have the right to a healthy and creative life in harmony with nature.” The considered procedure is a tool for balancing the above categories of goods and allowing the most accurate resolution to be generated. After all, as part of the environmental impact assessment, the whole set of factors is analysed and assessed, in particular the direct and indirect impact of a given project on the environment, health and living conditions of people, material assets, monuments, landscape, including the cultural landscape, and the interaction between these elements, as well as the possibilities and ways to prevent and reduce the negative impact of the project on the environment.

\(^{19}\) More on this topic: ibidem, pp. 435—450.

\(^{20}\) The conclusions presented below constitute a modification of the conclusions contained in G. Dobrowolski, A. Lipiński, R. Mikosz, G. Radecki: Gospodarowanie geologicznymi..., pp. 177—234.
The trouble of balancing the need to protect individual goods in connection with the implementation of the sustainable development principle may result in difficult challenges and a lot of problems. First of all, it is necessary to design sensible proportions between the needs of economic and social development and environmental protection. Undoubtedly, there may be no significant differentiation of the role of these goods. It is therefore necessary to fully accept the view expressed in the judgment of the Constitutional Tribunal dated June 6, 2006 (reference number K 23/05)\(^{21}\) that “under the principles of sustainable development there is [included] not only the nature protection or shaping of spatial order, but also due care for social and civilization development, connected with the necessity of building appropriate infrastructure, necessary for — with taking into account the civilization needs — the life of people and individual communities. The idea of sustainable development therefore has to take into account the different constitutional values and their appropriate balancing.”

The most important instruments for managing geological resources are decisions which restrict undertaking of activities in the field related to exploration, appraisal, and extraction of minerals. For this purpose, it is usually required to obtain either a concession or a decision approving a design of geological works. Therefore, a special role is played by the premises by which the geological administration body should be guided when making decisions that will enable the undertaking of the activities in question. Theoretically, one of them is the principle of sustainable development. However, when analysing the decisions of administrative bodies in this area, it is difficult to see its application.

This does not mean, however, that the rules of sustainable development were not reflected in the applicable law. When issuing individual decisions, it is necessary to take into account environmental protection requirements. A large part of the types of use of the interior of the Earth’s crust is included in projects that can significantly (always or potentially) affect the environment. This means that an element of the application for issuance of a concession is the final decision on environmental conditions. The concession authority is bound by the content of the latter. Assuming that the environmental conditions have been determined correctly, the concession should also take sufficiently into account the environmental protection requirements. Unfortunately, the practice indicates that the “tenors” of decisions on environmental conditions often raise very serious doubts, and their substantive value is negligible.

The abovementioned restriction instruments may also specify requirements for the performance of activities covered by the concession, in particular in the field of general safety and environmental protection. Such a requirement is considered accurate and corresponding to the essence of the principle of sustainable development.

\(^{21}\) OTK-A 2006/6/62.
development. It should be noted, however, that the introduction of such elements of the tenors of the concession decision remains optional.

Violation of environmental protection requirements may finally constitute a premise for the withdrawal of the concession. The issue of rational deposit management looks slightly different. This applies in particular to the extraction of minerals from deposits, with taking into account the efficiency of their use, which order results directly from Article 126, subparagraph 1 of the Environmental Protection Law.

Finally, it must be also noted that various types of use of the interior of the Earth are subject to rationing. The content of the sustainable development principle will be different each time. Undoubtedly, one of the instruments enabling the implementation of the above principle is the geological appraisal. Its results allow not only to plan ways to use the rock mass, but also to protect its resources, first of all in a way that will enable to meet the needs of “future generations.” This is particularly difficult when extracting minerals from deposits. Here, the destruction of non-renewable resources of the environment takes place, the main reason for undertaking such activity is an economic one.

Legal instruments shaping the activities in the field of using geological resources, generally speaking, correspond to the directive of sustainable development, taking into account all the values that are important for its implementation. The local spatial development plan for the mining area play a special role in this respect. It is an act of local law that allows enforcement of the said principle, integrating all activities undertaken within the boundaries of the mining area.

The implementation of the principle of sustainable development is also not supported by exceptions to the obligation to draw up a mining plant operation plan. Unquestionably, they fulfil the expectations of entrepreneurs. Nevertheless, the content of this plan, like the other regulation concerning the mining plant operation, covers all aspects of sustainable development, is less important in the scope under consideration. The detailed and technical nature of the solutions provided for them also indicates that they primarily serve for the protection of persons who perform the activities included in the mining plant operation and for the effective conduct of the entrepreneur’s activity by means of a set of measures defined as a mining plant, leaving in the background the issues related to, among others, the needs of the environment.

An effective method of ensuring the implementation of the principle of sustainable development may be the use of economic instruments. Unfortunately, they are not effective enough. The values important from the point of view of the aforementioned principle have not been duly taken into account as a factor shaping the rates of fees, and thus stimulating the attitudes corresponding to the directives that result from it. There are also no relief mechanisms that, on the one hand, would correspond to the specificity of the aforementioned activity, and on the other hand, would bind the granted relief with the limitation
of its negative consequences, especially for the environment. Not entirely, the fees also fulfil their redistributive function, because only a part of them must be allocated for the purposes of satisfying the principle of sustainable development, however, they were indicated in a too casuistic way for no clear reason. At the same time, they constitute a significant burden for entities carrying out activities regulated by the Geological and Mining Law, also due to the excessive complexity and ambiguity of regulations dealing with such a construction of several public levies and financial sanctions, among others the subjective and objective scope of responsibility as well as the procedural rules relating to them. This state of affairs is also undoubtedly contrary to the principle of sustainable development.

The regulation regarding liability for damages to a minimum extent implements the principle of sustainable development. This is quite obvious in the light of the function it has to fulfil. It is the removal of property damage, which is a consequence of conducting activities regulated by the Geological and Mining Law (preventing these losses).

This does not mean, however, that within the regulation under consideration there are no elements binding it with the principle of sustainable development. In this case, the solution adopted in relation to the repair of damage to agricultural or forest land degraded or devastated as a result of mining plant operations may be of crucial importance. It results from the absolute obligation to repair the damage by restoring the previous state, which in the context in question means the remediation of this land. The role of this regulation, however, is significantly reduced by its normative shape, which does not make it easier to apply the derivative rules. This application is even more complicated at the stage of preventing damage, although the provisions of the act on the protection of agricultural and forest land clearly allow this, constituting a “pre-emptive reclamation.” However, it should be realized that in many cases, achieving a full protective effect will be excluded (e.g., in the case of open-cast mining). On the other hand, total protection is not a state that is required by the principle of sustainable development.

The implementation of the principle of sustainable development may also be served by a claim to prevent damage, also referred to situations that do not concern agricultural and forest land. A good exemplification of it may be collaterals (as part of satisfying a preventive claim) implemented in the course of the investment process. Their another function is, at least in certain cases, to prevent (or reduce) the negative impact of the future investment on the environment (e.g., proper security against the impact of mining plant operations on the constructed landfill site).

Relationships with the principle of sustainable development can also be seen in the framework of procedural regulations. This observation concerns amicable proceedings. There is no doubt, however, that its basic function is to give the
parties of the dispute the possibility to avoid court proceedings, but the amicable settlement can also be an effective instrument aimed to repair damage by natural restitution, which may favour the protection of environmental elements, or in any case it is more friendly than monetary compensation. This effect may in particular be achieved when the State Treasury is the entity responsible for the damage (Article 146, subparagraph 4 of the Geological and Mining Law). At that time, the mining supervision authority representing the obliged entity should, like all state authorities, act in accordance with the directive resulting from Article 5 of the Constitution of the Republic of Poland.

Finally, it is worth mentioning one category of legal instruments that may contribute to the implementation of sustainable development, but unfortunately the legislator uses them modestly. It concerns planning the management of geological resources of the environment, first and foremost through a coherent state strategy in the field of raw materials management. It must also be related to other policies, including the energy policy of the state. It does not seem possible, however, to achieve the intended goals without making legislative changes.

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Grzegorz Dobrowolski

Rola koncepcji zrównoważonego rozwoju
w prawnych regulacjach dotyczących geologii i górnictwa

Streszczenie

Niniejsze opracowanie stanowi podsumowanie wyników badań prowadzonych w trakcie realizacji projektu badawczego „Zrównoważony rozwój jako czynnik determinujący prawne podstawy zarządzania geologicznymi zasobami środowiska”, którego podstawą była umowa nr DEC-2012/05/B/HS5/00632 zawarta z Narodowym Centrum Nauki z siedzibą w Krakowie. Pełne rezultaty badań zostały zawarte w dwóch monografiach. Pierwsza to Zrównoważony rozwój jako czynnik determinujący prawne podstawy zarządzania geologicznymi zasobami środowiska, Katowice 2016. Druga to Gospodarowanie geologicznymi zasobami środowiska w świetle zasady zrównoważonego rozwoju. Zagadnienia prawne, Wydawnictwo Uniwersytetu Śląskiego, Katowice 2018. Obydwa tomy pod redakcją Grzegorza Dobrowolskiego.

Słowa kluczowe: geologia, górnictwo, zrównoważony rozwój

Гжегож Добровольский

Роль концепции сбалансированного развития в правовом регулировании в области геологии и горного дела

Резюме

В настоящей статье подводятся итоги исследований, которые проводились в процессе реализации исследовательского проекта «Сбалансированное развитие как фактор, обусловливающий правовые основы управления геологическими ресурсами» на основании договора № DEC-2012/05/B/HS5/00632, заключенного с Национальным центром науки в Кракове. Полные результаты исследований представлены в двух монографиях: первая — «Сбалансированное развитие как фактор, обусловливающий правовые основы управления геологическими ресурсами», ред. Г. Добровольский, Катовице, 2016 г., вторая — «Управление геологическими ресурсами в аспекте концепции сбалансированного развития. Правовые аспекты», издательство Силезского университета, Катовице, 2018, под ред. Г. Добровольского.

Ключевые слова: геология, горное дело, сбалансированное развитие
Grzegorz Dobrowolski

**Ruolo di principio dello sviluppo sostenibile in regolamento legale di geologia e mineraria**

**Somario**

Questo studio è un riassunto dei risultati dell’analisi condotta durante il progetto della ricerca “Lo sviluppo sostenibile come fattore che determina le basi legali per la gestione delle risorse ambientali geologiche”, il quale era basato sul contratto No DEC-2012/05/B/HS5/00632 concluso con Centro Scientifico Nazionale a Cracovia. I risultati completi della ricerca sono stati inclusi in due monografie. La prima è “lo Sviluppo sostenibile come fattore che determina la base legale per la gestione delle risorse ambientali geologiche” (a cura di G. Dobrowolski), Katowice 2016. La seconda è “La Gestione delle risorse ambientali geologiche alla luce del principio dello sviluppo sostenibile. Le questioni legali” (a cura di G. Dobrowolski), Pubblicato dell’Università della Slesia, Katowice 2018.

Parole chiave: geologia, mineraria, sviluppo sostenibile