



State Aid as an Instrument of Climate Change: Case Study of Slovak Republic and The Republic of China

Peter Novacek¹
Yuanxin Li² 

Keywords:

Green economy;
Green subsidy;
Industrial production;
Policy regulation



Creative Commons Non Commercial CC BY-NC: This article is distributed under the terms of the Creative Commons Attribution-Non-Commercial 4.0 License (<https://creativecommons.org/licenses/by-nc/4.0/>) which permits non-commercial use, reproduction and distribution of the work without further permission.

Abstract: *The Europe Green Agreement is a new growth strategy for the EU economy – the sustainable and healthier one for people and the planet leading to the green economy. State aid rules are being modernized and aligned with current trends of international dimensions. The scientific study objective is to examine the progress of the Green state aid process in Slovakia, to analyse the approach of Slovakia in connection with the commitments made complying with the green strategy, and to assess specific activities in the state aid implementation process stressing environmental protection through waste management encouragement. The case study methodology is applied in the case of bentonite use, mined in Slovakia, which is analysed in the scientific paper as part of an eco-industrial application. Moreover, the aim is also to address the People's Republic of China's environmental policy perspective.*

1. INTRODUCTION

The Great Reset offers humanity the chance to build a forward economy, society and infrastructure on a sound bio-sphere foundation. Climate changes have been evoking a threatening concern. The Europe 2020 strategy has been focused on creating the conditions for smart, sustainable and inclusive growth via the European Green Agreement implementation. The structure of the industry in the Member States of the European Union (further EU) has been also changing owing to implementing measures at the level of the EU, which are aiming at developing a green economy. One of the strategic objectives is also to combat climate change and limit the consequences of the resources used for the environment. State aid is also a tool for achieving these goals. Universal rules for the provision of state aid are regulated in the primary legislation of the EU and in many secondary acts, which are binding on all Member States of the EU. Article 107 (1) of the Treaty on the Functioning of the European Union (TFEU) lays down the principle that State aid is prohibited (Paskrtova et al., 2018), (Novackova and Saxunova, 2019); in certain cases, however, state aid may be compatible with the internal market under Articles 107 (2) and (3) TFEU. State aid for environmental protection objectives will be considered compatible with the internal market within the meaning of Article 107 (3) (c) TFEU. The general objective of environmental aid is to increase the level of environmental protection compared to the level that would be achieved in the absence of aid. The scientific study analyses the system of providing state aid in Slovakia in the field of environment protection and points out the importance of the provided state aid in achieving a higher level of environmental protection.

2. RESEARCH OBJECTIVE AND METHODOLOGY

The research object of this scientific paper is state aid which is considered as an appropriate instrument for meeting the European Union's climate change objectives. The scientific study objective is to examine the progress of the Green state aid process in Slovakia, to analyse the

¹ Faculty of Management, Comenius University, Odbojarov 10, 82005 Bratislava, Slovakia

² Faculty of Management, Comenius University, Odbojarov 10, 82005 Bratislava, Slovakia

approach of Slovakia in connection with the commitments made complying with the green strategy and to assess specific activities in the state aid implementation process stressing environmental protection through waste management encouragement. Moreover, the aim is also to address the People's Republic of China's environmental policy perspective. The methodology of the case study is applied in the case of the use of bentonite, mined in Slovakia, which is analysed in the scientific paper as part of an eco-industrial application. Using a comparative method, we make a comparison of the amounts of state aid provided for environmental protection and we explore the specific purposes of the aid. Analysing legal norms linked to state aid we have deduced and clarified the legal framework for the provision of state aid concerning the obligations implied from the membership of the Slovak Republic in the European Union. At the same time, we evaluated a set of criteria that were crucial in the provision of state aid. We analysed the implementation of economic activities of companies specialising in the extraction and processing of bentonite as an ecological raw material having a wide range of uses in industrial production and saving the environment.

By secondary analysis of the providing the data, we compare and evaluate the approaches of the China and Slovak Republic in the field of green economy and point out the responsibility of the states to fulfil the obligations arising from membership in the European Union for Slovakia and China, as well as China, supported Paris Agreement on Climate Action. Results of e.g. reduction of nitrogen oxide emissions, reduction of emissions and PM10 concentrations on reducing emissions related to energy and heat production using solid fuels will be assessed and analysed.

The future investment must also deal with planning to retire the assets once certain production will cease and a requirement to have the plant site renewed and placed back into conditions before the plant had been built; this commitment must also appear in the company's accounting and potential users of accounting information have to be able to find this information in the company's reporting.

3. UNIVERSAL SUBJECT OF ENVIRONMENTAL PROTECTION

New economic theories, knowledge of practice and people's thinking immediately raise the question of the natural development of the green economy. The process of greening industrial production is unstoppable and will move faster and faster in the light of innovations. The priority of the European Union, but also all Member States, is to increase the demands on environmental protection and introduce measures for a low-carbon economy. Environmental protection is linked to all sectors of the economy. Regarding this context, we must not forget that the environment is all around us, it is natural symbiosis, we are connected to it in a mutual relationship. The basic human environment is nature - the natural environment. It consists of air (biosphere), water (oceans), soil (the earth's crust with mineral wealth), flora and fauna. These components act simultaneously and in relation to each other. There are currently several definitions of environmental protection.

Several authors perceive environmental protection in a broader context. Environmental protection means any action designed to remedy or prevent damage to physical surroundings or natural resources by a beneficiary's own activities to reduce the risk of such damage or to lead to more efficient use of natural resources, including energy-saving measures and the use of renewable sources of energy. In the interests of the correct processing of statistical data, the United Nations has introduced a uniform definition of environmental protection.

According to the UN “environmental protection refers to any activity to maintain or restore the quality of environmental media through preventing the emission of pollutants or reducing the presence of polluting substances in environmental media”. It may consist of:

- (a) changes in characteristics of goods and services.
- (b) changes in consumption patterns.
- (c) changes in production techniques.
- (d) treatment or disposal of residuals in separate environmental protection facilities.
- (e) recycling, and
- (f) prevention of degradation of the landscape and ecosystems.“

Franjic (2018) believes that: “Environmental protection is one of the basic prerequisites for the overall development of any country in the world. If economic growth and development are to be established, and no country in the world does not want to do so, biodiversity must be contributed.” The “natural environment” is defined in the light of corporate social responsibility (CSR) as the natural physical surroundings in which human life takes place. Some would call it nature, our living planet, life on Earth or the geophysical world, but here it is important to distinguish between the two words of the term “natural” and “environment.”

Slovak law Act No. 17/1992 S.B. on environmental S.B., as amended in §9, clarifies the term “Environmental protection“ as activities performed to prevent pollution or damage to the environment, or that reduce or eliminate pollution and environmental damage. It includes the protection of individual components of the environment, organisms or specific ecosystems and their interrelationships, as well as the protection of the environment as a whole. The content of this regulation is pollution prevention and protection from environmental damage, while the environment is perceived as everything that provides natural conditions for the existence of organisms, including human beings, and it is the threshold and prerequisite of their further development. Its major components are air, water, rocks, soil, organisms, ecosystems and energy (§ 2 Act No. 17/1992). Chinese researchers also believe that the green economy shall be the point of the state strategy and state programme of the current development; Cheng (2010) reported on the China Process Systems Engineering Annual Conference (PSE2010), and addressed that China should mainly focus its environmental policy on „lowering pollution emission and energy consumption“. The connotation of the green economy is very broad, including low-carbon economy, circular economy, ecological economy and many other aspects. Sun (2010) proves that green economy is a broad concept, which includes circular economy, low-carbon economy and ecological economy. Gonzales (2020) points also out on blue economy and stresses preservation and protection of the oceans is crucial in climate changes. Among them, the circular economy mainly solves environmental pollution problems. Low-carbon economy is mainly aimed at energy structure and greenhouse gas emission reduction. Ecological economy mainly refers to the restoration, utilization and development of ecosystems (such as grasslands, forests, oceans, wetlands, etc., and such as the development of ecological agriculture, etc.).

Reducing the discharge of specific pollutants is often the direct goal of environmental policy. In recent years, scholars have mostly adopted econometric methods to evaluate the emission reduction effects of some representative environmental policies. The emission reduction effect of the “pollutant discharge fee” policy has always been the focus of the research. Wang and Wheeler’s research (2005) found that the pollution fee policy significantly reduced the concentration of sulphur dioxide in the air, the chemical oxygen demand (COD) and the total suspended solids (TSS) content in the water, and pointed out that the policy mainly reduced the pollutant emissions in the production process.

Considering that China’s environmental policy is embedded in China’s political and economic system, some scholars are concerned about the emission reduction effects brought about by the promotion of officials and the reform of the environmental protection system. Research by He, et al. (2018) found that enterprises located upstream of water quality monitoring stations discharge less COD and wastewater, and further pointed out that water quality monitoring stations have a stronger supervisory effect on upstream companies during the governance period of leaders with potential for promotion.

These definitions and views have common systemic features of compliance and are maintaining the quality of the environment, protecting human health and ensuring the prudent use of natural resources in order to promote sustainable development.

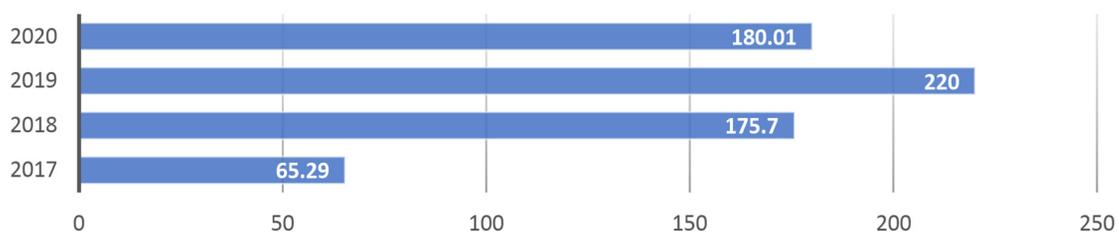
4. CONDITIONS FOR GRANTING STATE AID

The EU plays a key role in international environmental negotiations. Significant progress has recently been made in the field of environmental policy, such as energy policy or the transition to a competitive low-carbon economy in 2050. Priorities for environmental protection to preserve the quality of the environment and the efficient use of natural resources include a mechanism for the provision of State aid for environmental protection with a transnational dimension. In Slovakia, state aid is provided under Act No 358/2015 Coll. regulating certain relations on the field on State aid and the minimis aid, and amending certain laws following the primary and secondary legislation of the European Union. The following objectives are taken into account when providing state aid in the field of environmental protection: a) stimulating effect, b) common EU objectives, c) obligations of the Slovak Republic towards the European Union, d) protection, conservation and enhancement of the EU’s natural capital, e) a turn of the EU into a resource-efficient, green, and competitive low-carbon economy, and f) safeguarding of the EU citizens from environment-related pressures and risks to health and wellbeing.

Table 1. Overview of granted state aid for environmental protection 2017-2020

	2017	2018	2019	2020
The total amount of aid [in Eur]	65.29mil	175.70 mil	220.00 mil	180.01 mil
Increase/decrease in percentage		169%	237%	175.7%
Resources of the SR	82.24%	67.62%	71.24%	79.83%
Resources of the EÚ	17.76%	32.38%	28.76%	20.17%
Number of recipients	267	289	2307	2531

Resources: Processed by authors based on (Antimonopoly Office SR’s reports (2018-2021))



Graph 1. State aid provided by SR and EU to the Slovak companies in 2017-2020 (in mil. EUR)

Source: Elaborated by authors based on (Antimonopoly Office SR’s reports 2017-2021)

A variety of the program schemes are also a tool for providing state aid. Assistance in this area is provided mainly by the Ministry of the Environment of the Slovak Republic. State aid that

prefers environmental objectives generally works against the ‘polluter pays’ principle because recipients of such aid can depend on it as a means to avoid internalizing the costs of pollution caused by them (Facenna, 2004). The Antimonopoly Office of the Slovak Republic regularly publishes a regular Report on granted state aid.

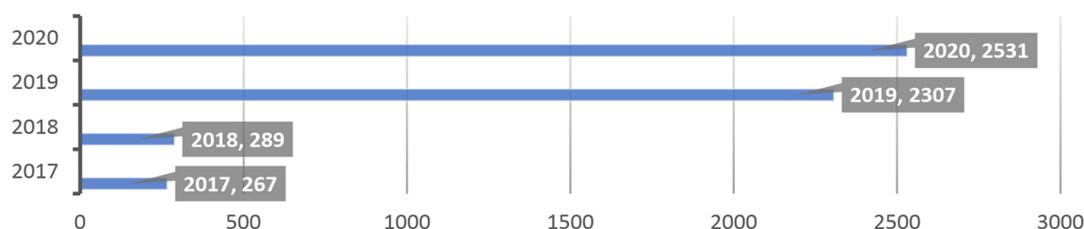
Using secondary data, we found that financial subsidies for environmental protection are increasing. In the following table 2, the purposes of the provided state and the amount of provided state aid in Eur is shown.

Table 2. *The purpose granted of State aid in years 2017 -2020 / number of recipients*

The purpose Number of recipients	2017	2018	2019	2020
Tax relief - biofuels [in Eur]	9.22 mil. 6 recipients	81.62 mil 21 recipients	87.72 mil 26 recipients	84.54 mil 23 recipients
Tax relief – electricity, gas	43.73 mil 253 recipients	44.61 mil 241 recipients	41.03 mil 221 recipients	32.18 mil 151 recipients
Tax relief on environmental taxes	-	-	-	25.72 mil 2225 recipients
Community waste handling	1.47 mil 11 recipients	1.20 mil 7 recipients	8.01 mil 2 recipients	4.03 mil 4 recipients
Reduction of air pollution	2.32 mil 3 recipients	27.19 mil 4 recipients	33.94 mil 1 recipient	16.24 mil 3 recipients
Risk of the Carbon leakage	-	10.7 mil 7 recipients	6.00 mil 8 recipients	4.00 mil 10 recipients
Construction, reconstruction, modernisation of the warmth distribution, for transport	-	11.18 mil 9 recipients	20.27 mil 18 recipients	12.27 mil 12 recipients
Support of the utilisation of renewable energy -resources, energy efficiency and effectiveness in the companies	-	-	-	0.19 mil 2 recipients
For the forestry- environmental and climate -services for forest preservation, first forestation	-	-	-	0.84 mil 101 recipients

Resources: Processed by authors based on (Antimonopoly Office SR’s reports (2018-2021))

As we can see, the largest amounts of state aid are provided for the tax advantage on biofuels. Enviro-taxes is also a new institute in the field of environmental policy. In 2019, 2019 entities were provided with assistance in the form of enviro-taxes in the amount of Eur 23.03 million. The competitive advantage of a recipient of State aid is, for example, cost compensation to avoid the significant risk of carbon leakage associated with passing on the costs of greenhouse gas emission allowances to electricity prices borne by the recipient if its third-country competitors do not have to include similar CO2 costs in their electricity prices, and the aid recipient cannot pass on these costs to product prices without losing significant market share.



Graph 2. Recipients of the State aid provided by SR and EU

Resources: Processed by authors based on (Antimonopoly Office SR’s reports (2018-2021))

Table 3 shows the volumes of state aid provided by regions of Slovakia for environmental protection in the years 2017-2020.

Data prove that the largest volumes of state aid went to Prešov and Košice regions. These regions are quite often referred to as regions where there is a high unemployment rate and the economy is experiencing low GDP growth. Therefore, these areas are also identified as suitable recipients of state aid.

Table 3. Granted State aid for environmental protection 2017 -2020 in mil. Eur

County [in EUR]	2017	2018	2019	2020
Bratislava county	0	1,48 mil	1,06 mil	0
Banska Bystrica	0,25 mil	4,29 mil	3,49 mil	2,98 mil
Košice	2,34 mil	31,35 mil	47,32 mil	16,58 mil
Nitra	0,03 mil	3,43 mil	2,13 mil	0,15 mil
Prešov	0,01 mil	4,73 mil	10,02 mil	6,15 mil
Trenčín	0,20 mil	1,90 mil	1,94 mil	1,45 mil
Trnava	0,26 mil	6,00 mil	3,70 mil	2,93 mil
Žilina	0,72 mil	3,31 mil	9,65 mil	16,58 mil

Resources: Processed by authors based on (Antimonopoly Office SR's reports (2018-2021)

In the 2011 China Sustainable Development Strategy Report issued by the Chinese Academy of Sciences, it is suggested that China should achieve a green economy transformation from three levels: one is to solve the problems of resource conservation, pollution control, ecological protection and other green fields; the other is to develop new energy, energy-saving and environmental protection technology, energy-saving and environmental protection transformation and other green industries and green economy; the third is to deepen the concept of green development in the whole process of industrialization and urbanization. The report recommends that the country clarify the relationship between environment and development from a legislative perspective, and form a long-term mechanism to promote the transformation of the green economy (China Sustainable Development Strategy Report, 2011).

However, compared to the State aid, under the EU supervision framework, China does not have currently applied a similar series of that kind. Generally, the concept of European State aid is very broad, not only it includes subsidies, but also tax concessions, capital injections, and debt relief that other forms of public institutions selectively provide. All these forms of assistance, except for exemptions or limited scope of assistance, are regarded as incompatible with the EU's internal market (Philipsen, 2018).

For China, subsidies provided at the provincial or local level may also cause damage to competition between enterprises in different regions, or other problems. As in other countries, these subsidies may be tax reductions or exemptions, policy incentives (such as providing permits), or other forms of incentives. Local officials may provide favourable conditions for local enterprises to promote employment or increase GDP, especially when doing so is beneficial to their political career; even listed companies will rely on government subsidies to survive. The conflict between efficiency and market integration objectives in competition law is a characteristic of EU competition law and does not exist in China in the same form. However, the EU's experience in state aid can bring valuable enlightenment to Chinese legislators and anti-monopoly law enforcement agencies, especially the anti-monopoly law.

Economic indicators show that state aid is provided in large quantities in Slovakia. State aid will have some roles to play in assuring a continued transition towards real sustainability, so that the goals set out in the European Green Deal can be met. An example is the provision of state aid to Volkswagen in the total nominal value of EUR 5,035,000 in the form of an income tax credit. The aim of investment aid in the conditions of the Slovak Republic is to support economic development, competitiveness and job creation (Bajzikova et al., 2017), (Dudic et.al. 2018). The beneficiary's investment plan aims to expand the capacity of the existing plant for the production of differentials to support the production of new models of electric vehicles (Antimonopoly Office, 2018-2021). The recipients of state aid are enterprises engaged in economic activity and also participating in the creation of GDP, while they are also among the major employers in the regions. Specific environmental impacts are a measurable indicator of the effectiveness of state aid. The following table compares specific environmental impacts.

Table 4. Effectiveness and efficiency of provided state aid in the years 2017 -2018

	2017	2018	2019
Reducing emission productions	143 tons of PM10 less per year, 59 tons of PM2,5 per year less 33 tons less of NO per year	0.863 tons of PM 2,5 less per year 1,407,745 kg of PM 10/ less per year Reduction by 238 kg of SO ₂ less per year Decrease by 0.032 tons of NO _x per year	1, 407,745 kg of PM10 less per year 10,351,915kg of PM10 less per year 351,915 kg of PM2.5 less per year 238 kg of SO2 less per year 32,890 kg of NOx less per year
Waste Management	Community waste Sorting – 713.5 tons /year, Waste Utilising more than 3 ,772 tons/year	Community waste Sorting – 14,515 tons /year Increase of Waste Utilising and enhancement – about 38,066 tons/year more	Community waste Sorting – 11,608 tons /year, Increase of Waste Utilising and enhancement – about 14,395 tons/year more
Construction, reconstruction and modernization of heat distribution		CO ₂ Emission reduction in the amount of CO ₂ emission – about 16,194 tons more	

Resources: Antimonopoly Office SR, 2018-2021.

In order to make it clear, in Table 4 we presented the state of the effectiveness of the provided state aid, which is reflected in the fulfilment of the recommendations of the European Commission and in terms of The European Green Deal (COM (2019) 640 final, 11.12.2019).

The assessment of the benefit of the State aid granted can be seen in the reduction of nitrogen oxide (NOx) emissions, in the reduction of emissions and concentrations of PM10 and in the reduction of emissions related to the production of energy and heat using solid fuels. Reducing emissions of air pollutants to achieve full compliance with air quality limit values and reduce the adverse effects of air pollution on health, the environment and the economy is also linked to the objectives set out in the Europe 2020 Strategy (Priority No. 3). Although there are positive effects, State aid in the field of environmental protection, evaluations at European Union level is not favourable.

According to the Report on Slovakia for 2019, which is regularly prepared by the European Commission, the achieved results are not at the required level. The recycling rate of municipal waste (including composting) remains low at 23%, which is about half of the EU average (45%) and well below Slovakia's 50% target by 2020 (European Commission, 2018b). The new legis-

lative framework, introduced in 2016, has not yet brought about a clear increase in recycling. Given that the combustion of solid fuels in residential areas (PM 10) is also one of the reasons for air pollution, a suitable solution is to improve cost-effectiveness and extend producer responsibility. The biggest air pollutants are steel-producing operators, although they are among the largest employers in the regions. Polluters in industrial production are also recipients of state aid, but the public resources provided are probably insufficient, and therefore appear to be the most appropriate solutions for investing in research and introducing new innovations to reduce and improve air pollution.

Another solution is to increase taxes on landfills in order to phase out the landfilling of recyclable or recoverable waste and to introduce the principle of “pay for what you throw away”. This means that climate transformation requires green investment and, in particular, the orientation of industrial production towards eco-production. In this context, we consider it essential that harmful subsidies from the public and taxpayers’ resources will be prohibited.

Since the 1960s, global environmental problems such as environmental pollution, nuclear radiation, resource depletion, and climate change have erupted in various modern countries, causing people’s panic, social conflicts and environmental movements one after another. How to improve the national environmental policy capacity, so as to rationally coordinate the relationship between economic development and environmental protection, and effectively implement the green development path, has gradually become an important dimension of contemporary national governance capacity modernization and capacity building.

Since the Paris Agreement was reached at the Paris Conference on Global Climate Change in December 2015, the European Union, the United States and other countries have actively promoted environmental policy innovation, urging their countries to vigorously develop green economy, green technology, and green new policies, and become representative countries and regions of ecological modernization and green development. The standards of green development countries put forward higher requirements for the decision-making ability and innovation ability of national environmental policies: It is necessary to be able to make timely, accurate and reasonable nature judgments, policy tool choices, and policy innovation results in response to the country’s complex and diverse environmental and ecological problems. Pre-judgment must also have a firm and powerful determination to solve environmental problems, grasp the direction of environmental innovation, and overcome resistance to environmental innovation. Green developing countries have taken many measures to promote environmental policy innovation in consideration of their national conditions, policy foundations, and social resources. Some promising projects will go public to obtain the capital via IPO (Hwang, Kim, 2018) and in present times the companies must be planning all scenarios that will guarantee them being prepared from financial hardship times to booming economy, to gain from investing in any project; but, environmental aspects should not be neglected, and, in addition, also the people in the society should be protected before the negative impact of the pollution on their health, as emphasized by researchers, Lausan (2013), Novackova and Saxunova (2014) and Wefersova et.al. (2020).

Based on the results of the second national pollution source survey, the Ministry of Ecology and Environment of China organize to update the preliminary statistics of pollution sources from 2016 to 2019, based on the “Statistical Report System of Ecological Environment”. The main relevant national ecological environment statistics are shown in Table 5.

Table 5. The main indicators of national environmental statistics and pollution control investment in China from 2016 to 2019

Indicator /Unit	2016	2017	2018	2019
Wastewater pollutant discharge				
Chemical oxygen demand [Ten thousand tons]	658.1	608.9	584.2	567.1
Ammonia [Ten thousand tons]	56.8	50.9	49.4	46.3
Total nitrogen [Ten thousand tons]	123.6	120.3	120.2	117.6
Total phosphorus [Ten thousand tons]	9.0	7.0	6.4	5.9
Wastewater heavy metals [Tons]	167.8	182.6	128.8	120.7
<i>Industrial wastewater treatment project in Eur [One hundred million Euro]</i>	<i>13.8</i>	<i>9.75</i>	<i>8.17</i>	<i>8.92</i>
Exhaust pollutant emissions				
Sulphur dioxide [Ten thousand tons]	854.9	610.8	516.1	457.3
Nitrogen oxides [Ten thousand tons]	1503.3	1348.4	1288.4	1233.9
Particulates [Ten thousand tons]	1608.0	1284.9	1132.3	1088.5
<i>Industrial Waste Gas Treatment Project [One hundred million Euro]</i>	<i>71.64</i>	<i>56.94</i>	<i>50.15</i>	<i>46.91</i>
Industrial solid waste generation and utilization				
General industrial solid waste generation [One hundred million tons]	37.1	38.7	40.8	44.1
Comprehensive utilization of general industrial solid waste [One hundred million tons]	21.1	20.6	21.7	23.2
General industrial solid waste disposal volume [One hundred million tons]	8.5	9.4	10.3	11.0
Amount of industrial hazardous waste generated [Ten thousand tons]	5219.5	6581.3	7470.0	8126.0
Comprehensive utilization and disposal of industrial hazardous waste [Ten thousand tons]	4317.2	5972.7	6788.5	7539.3
<i>Industrial solid waste treatment project [One hundred million Euro]</i>	<i>4.96</i>	<i>1.62</i>	<i>2.35</i>	<i>2.18</i>

Source: Ecological Environment Statistics Annual Report, 2016-2019.

From Table 5, we can easily conclude that the discharge of main indicators of wastewater pollutant and exhaust pollutant emissions are decreasing in general from the period of 2016 to 2019. Instead, industrial solid waste generation and utilization have been increasing, as the amount of general industrial solid waste is increasing year by year, from 3.71 billion tons in 2016, up to 4.41 billion tons in 2019, which is an increase of 18.7%. On the other hand, investment in industrial pollution control in China remained high. Key environmental statistics survey unit Reported data shows that since 2013 and 2015, the “Air Pollution Prevention“ and the “Water Pollution Prevention and Control Action Plan” industrial pollution control increased investment, entering the peak period of governance investment. Environmental high-quality initiatives may contribute to the competitive advantage of the businesses (Beno & Saxunova, 2017), together with digital innovation introduced almost everywhere; the process of high-quality solutions for environmental tasks will be supported and promoted by the many crowdfunding projects, resources may be obtained by the help of blockchain fintech corporation etc. Digitalisation is an open system inviting for new research focusing on the planet, and people protection (Beno et al., 2018) as it is essential to lower the energy consumption of cryptocurrency mining in order to protect the natural resources of the Planet (Petratos et al, 2020). It is a trend nowadays to issue green bonds, green innovative impact bonds financing, where recently a China is a leader to support climate, environmental, social programmes via green financing innovative instruments. (Antosova et al, 2019), (Saxunova, 2015).

70% of the planet is the ocean and 90% of international trade is represented by maritime transport, according to data provided by the United Nations; the effects of climate change and human action are seriously destroying the biodiversity of the oceans, which absorb around 30% of the carbon dioxide produced by people.

5. FUTURE RESEARCH DIRECTIONS

Ecological problems are beginning to be a real threat for mankind and it is necessary to explore good eco-policies of the countries and learn from them and follow and augment them. Cooperation is desirable. The most important is to follow and try to accomplish the tasks set in the Green Deal of the EU. This is room for future research activities in the area of emerging trends in these environmentalist policies and their effectiveness, in addition, the focus on the legal environmental framework of both countries from the investors' perspective will be crucial.

6. CONCLUSION

The Slovak Republic, as one of the EU Member States, is bound by the obligations arising from the primary and secondary legislation of the EU. The content of these commitments is to achieve a higher level of quality environmental protection. Environmental pollution can also have a significant negative economic impact, including expenditures on citizens' health care, incapacity for work, reduced agricultural yields, damage to forests and ecosystems, higher maintenance costs for structures and buildings. The reference scenario for implementing the necessary measures has a transnational dimension. This era of the Covid-19 virus may have an impact on environmental decisions; fear of entrepreneurs how the business will develop will mark willingness to invest into environmental projects when other important economic tasks are priorities (Ghosh et. al, 2017; Le Roux, Saxunova & Oster, 2019).

ACKNOWLEDGEMENT

ERASMUS + ERASMUS MUNDUS and Jean Monet Activities: The paper is written and published "With the support of ERASMUS + Programme of the European Union": "Business in the European Economic Area - the Present and Future of EU Integration" (600433-EPP-1-2018-1-SK-EPPJMO-MODULE).

REFERENCES

- Antošová, G. et al. (2019). Globální prostředí a inovativní finanční mechanismy pro naplnění rozvojových udržitelných cílů. Global environment and innovative financing mechanisms for SDGs accomplishment. In: *Auspicia*. 16, (2) pp. 7-26. Accessed from: https://vsers.cz/wp-content/uploads/2020/01/Auspicia_2_2019.pdf
- Bajzikova L. et al. (2017). Globalization in the case of automobile industry in Slovakia. In: Vision 2020: sustainable economic development, innovation management, and global growth. [Norristown]: IBIMA, 2017. – pp. 4879-4893. [IBIMA Conference. 30th, Madrid, 8.-9.11.2017]
- Beno M, Saxunova D. (2017). *Revealed comparative advantage: a case study for Austria versus the Czech Republic and Slovakia*. In: Enterprise and Competitive Environment. Brno: Mendel University, 2017;106-114. [Internet]. BBC News. BBC; 2021 [cited 2021Aug 2]. Available from: https://ece.pefka.mendelu.cz/sites/default/files/imce/ECE2017_fin.pdf

- Beno M, Saxunova D. (2018). The digitization of Society – case of Specific chosen State alliance of four Central European states. *Advances in Intelligent Systems and Computing*. 2018:1–11.
- Dudić, B. et al. (2018). Support for the development of investment relations in Serbia. In: Vision 2020: sustainable economic development and application of innovation management from regional expansion to global growth. Norristown: International business information management association, 2018. pp. 6389-6398. IBIMA Conference 2018. 32, Seville, 15.11.2018 - 16.11.2018]
- Hwang, K. J., & Kim, N. Y. (2018). Impact of underwriter reputation on the accounting conservatism of the IPO firm: South Korean cases. *International Journal of Economic Policy in Emerging Economies*, 11(3), 238. DOI: 10.1504/ijepee.2018.10015019
- Cheng S. (2010). Sustainable Development and Green Economy. *Speech at the Annual Conference of China Process Systems Engineering Annual Meeting Speech*
- Chinese Academy of Sciences. *China Sustainable Development Strategy Report* (2011). https://epaper.gmw.cn/zhdbs/html/2011-03/23/nw.D110000zhdsb_20110323_5-20.htm
- Facenna, G. (2004). State Aid and Environmental Protection. The Law of State Aid in the European Union. Oxford University Press Print, ISBN-13: 9780199265329
- Franjic, S. (2018) Importance of Environment Protection on the Global Level, *Scientific Journal of Research & Reviews – SJRR*. Volume 1 - Issue 2, 2018 DOI: 10.33552/SJRR.2018.01.000506
- Ghosh, B., Le Roux, C., & Ianole, R. (2017). Fear estimation-evidence from BRICS and UK. *International Journal of Applied Business and Economic Research*, 15(4), 195-207.
- Gonzales J. (2020). *Blue bonds and the blue economy*. Online: [2020-11-20] Accessed from: <https://www.bbva.ch/en/news/what-are-blue-bonds/>
- Ministry of ecology and environment of the People's Republic of China. *Ecological Environment Statistics Annual Report from 2016-2019*. [online]. Available in: <http://www.mee.gov.cn/hjzl/sthjzk/sthjtnb/202012/P020201214580320276493.pdf>
- HE, Guojun, Shaoda WANG a Bing ZHANG. Environmental Regulation and Firm Productivity in China: Estimates from a Regression Discontinuity Design. 74.
- Lausen L.M. (2013) Natural Environment. In: Idowu S.O., Capaldi N., Zu L., Gupta A.D. (Eds) *Encyclopaedia of Corporate Social Responsibility*. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-28036-8_368.
- Le Roux, et al. (2019). Brexit and its impact on the financial sector. In: Vision 2025: education excellence and management of innovations through sustainable economic competitive advantage. Madrid: International business information management association, pp. 8658-8668 [print].
- Matušová, Silvia. 2014. Udržateľnosť hodnôt a hodnoty udržateľnosti. Ivanička, Koloman et al. *Trvalá udržateľnosť v rozvoji Slovenska*. Bratislava: Wolters Kluwer, p. 256. ISBN 978-80-8168-036-6.
- Nováčková, D., Saxunová, D. (2014). Bankruptcy and restructuralization as insolvency problem solving for large, small and medium enterprises. *Proceeding of International conference: Region v rozvoji spoločnosti 2014*. ISBN 978-80-7509-139-0. Mendel University, 23.10. 2014. Brno, Czech Republic. p. 772-783.
- Nováčková, D., Paškrťová, L., Saxunová, D. (2018). Investment aid as a catholicon for regional development in Slovakia? *International journal of economic policy in emerging economies* 11 (3) (2018), pp. 209-227 Accessed from: <http://www.inderscience.com/info/inarticle.php?artid=93949>
- Nováčková, D., Saxunová, D. (2020). Granting investment aid to business service centers in Slovakia. In: *proceedings of the international conference. Vplyv Industry 4.0 na tvorbu pracovných miest 2019*. Trenčín, pp. 290-301 [online 2021-09-11]. Accessed from. www.fsev.tnuni.sk/konferencia2019/Zbornik.pdf

- Petratos PN, Ljepava N, Salman A. (2020). Blockchain technology, sustainability and business: A literature review and the case of Dubai and UAE. *Sustainable Development and Social Responsibility*—Volume 1. 2020:87–93. DOI: 10.1007/ 978-3-030-32922-8_7
- Philipsen, N. & Ma J. (2018). Subsidies as a Means to Deal with Market Failure: The Enlightenment of EU State Aid Policy to China [online]. [accessed 2021-05-21]. Available in: <https://repub.eur.nl/pub/124997/>
- Saxunová, D. (2015). Innovative trends of financing in global environment - experience of Slovakia and its inspiration for Namibia. In: ABEM Conference Proceedings 2015. Winnipeg: 2015. pp. 48-64. Windhoek, 4.-6.8.2015.
- Sun H. 2010. What is called green economy. China Environment News, 2010.
- Wang, Hua a Wheeler, D., (2005). Financial incentives and endogenous enforcement in China's pollution levy system. *Journal of Environmental Economics and Management* [online]. 49(1), 174–196 [vid. 2021-05-23]. Available at: <https://ideas.repec.org/a/eee/jeeman/v49y-2005i1p174-196.html>
- Wefersová, J. et al. (2020). Right to fair trial from the perspectives of Slovak legal acts and the European law viz. directive (EU) 2016/343 In: Enhancing the right to be present. Maribor: Institute for Local Self-Government Maribor, 2020. pp. 59-66.
- Antimonopoly Office SR (2021. 2020. 2019. 2018). Report on granted state aid 2020. 2019.2018. 2017. [cit.5.6.2021]. Available > <https://www.antimon.gov.sk/statna-pomoc/>.
- Antimonopoly Office SR (2018). Report on granted state 2017. [cit.5.6.2021 Available ><https://www.slov-lex.sk/legislativne-procesy/-/SK/LP/2018/251>
- Antimonopoly Office SR (2019). Report on granted state 2018[cit.5.6.2021]. Available > <https://www.slov-lex.sk/legislativne-procesy/SK/LP/2019/335/pripomienky/zobraz>
- Antimonopoly Office SR (2020). Report on granted state 2019[cit.5.6.2021]. Available > <https://www.slov-lex.sk/legislativne-procesy/-/SK/LP/2020/130/pripomienky/COO-2145-1000-3-3867281>
- Antimonopoly Office SR (2021). Report on granted state 2010 [cit.5.6.2021]. Available > <https://www.slov-lex.sk/legislativne-procesy/-/SK/dokumenty/LP-2021-210>
- European Commission (2019). Správa o Slovensku 2019. Brussels 2019. 27.2.2019 1024. [cit.5.6.2021]. Available at: https://ec.europa.eu/info/sites/default/files/file_import/2019-european-semester-country-report-slovakia_sk.pdf
- European Commission Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions — The European Green Deal (COM(2019) 640 final, 11.12.2019).
- European Commission Communication from the Commission — Guidelines on State aid for environmental protection and energy 2014-2020 OJ C 200, 28.6.2014, p. 1–55.
- EUROPEAN UNION (2012) Consolidated version of the Treaty on the Functioning of the European Union, OJ 326, 26/10/2012 P. 0001 - 0390
- Government of the SR (2020). Návrh na poskytnutie investičnej pomoci pre spoločnosť VOLKSWAGEN SLOVAKIA, a.s., IČO: 35 757 442, na realizáciu investičného zámeru v lokalite Martin, okres Martin [online 2020] [cit.4.5.2021]. Available at: <https://www.slov-lex.sk/legislativne-procesy/-/SK/dokumenty/LP-2020-43 2020>
- UN (1997). Glossary of Environment Statistics, Studies in Methods, Series F, No. 67, United Nations, New York, 1997.