



Pro-Social Activities within the CSR by the Jastrzębska Spółka Węglowa SA – a Case Study

Katarzyna TOBÓR-OSADNIK¹⁾, Małgorzata WYGANOWSKA²⁾,
Agnieszka BREJDAK³⁾, Barbara KOWAL⁴⁾

¹⁾ Ph.D., DSc, Eng.; Silesian University of Technology, Gliwice, Poland; email: katarzyna.tobor-osadnik@polsl.pl

²⁾ Ph.D., DSc, Eng.; Silesian University of Technology, Gliwice, Poland; email: malgorzata.wyganowska@polsl.pl

³⁾ MSc.; JSW Innowacje S.A., Katowice, Poland; email: abrejdak@jswinnowacje.pl

⁴⁾ Ph.D., DSc, Eng.; AGH University of Science and Technology, Cracow, Poland; email: bkowal@agh.edu.pl

<http://doi.org/10.29227/IM-2020-02-41>

Submission date: 30-10-2020 | Review date: 23-12-2020

Abstract

Nowadays, companies are facing a number of challenges. In the current era of changes in the structure of energy mixes and "moving away from coal", mining companies are looking for various forms of improving their image in the environment. At the same time, the need to develop the so-called Corporate Social Responsibility (CSR) activities prompt the search for various forms of cooperation with the society. The following article presents activities within the CSR area undertaken by the Jastrzębska Spółka Węglowa SA, which was positively assessed by both the business world and society. As an example, a beekeeping educational center has been created to serve both residents and mining families.

Keywords: coal mining, CSR, bee

Introduction

The economy plays an increasingly important role in the modern world. It determines life aspirations and models among societies. Also, it has become a creator of values and trends, as well as the needs of consumers, repeatedly leading the society into the trap of both materialism and consumerism. The dominant view is that the economy is to blame for many problems of the modern world (poverty, consumption of natural resources, pathologies, or environmental degradation). The society began to demand that companies should become responsible for their negative impact on the environment, which is where the idea of Corporate Social Responsibility (CSR) came from. As a result of globalization processes, the approach and understanding of the CSR has changed as rapidly as the business and its environment. The CSR has been dynamically evolving for decades. The modern understanding of the idea in question assumes that it is not a temporary fashion, but a tool to achieve a competitive advantage on the market. It is both a strategy and philosophy of managing a modern organization.

Corporate Social Responsibility (CSR) – main assumptions

A concept that is increasingly implemented in the management of companies is corporate social responsibility. Generally it consists in combining activities aimed at building a competitive advantage of enterprises. The main reason for changing the approach to CSR is the change in the understanding of added value. Currently, the added value does not have a purely financial dimension, it is treated as an element realized through both material and non-material factors. Therefore, undertaking initiatives beneficial to the company's environment and the environment definitely positively influences building and consolidating their image [1].

The concept of the CSR is now the basis for the proper management of an organization. The high degree of complex-

ity and variability of the environment in which companies operate is the key factor that managers must face. The management style is changing due to the society's expectations related to business. Professional management requires managers to properly recognize changes in the environment and react to them. Today, organizations face an increasing number of challenges, incorporating them into their business practice. They include in particular (Fig. 1) [2, 3]:

- environmental challenges - climate change, resource dwindling;
- social challenges - marginalization of specific social groups, violation of human rights;
- economic challenges.

All of them make the CSR a permanent part of the strategies of companies and influences their development, innovation and competitive advantage.

Currently, the CSR, when properly used, allows organizations to positively stand out from the competition and shows that a given company has a conscious impact on its environment. Without the broadly understood CSR, an organization would be solely focused on profit maximization and assessed only on the basis of financial data. The concept of the CSR is now becoming the basis of proper company management and the way to its further development.

It is important to include the expectations of various interest groups in the process of creating values and to take into account rapid changes observed in the business environment. The CSR is a long-term, well-thought-out and well-developed strategy based on the consistent building of good relations both with the company's employees and its environment. Such a strategy can bring tangible profits to all interest groups involved in the process.

Activities carried out as part of the CSR are undertaken voluntarily by organizations and addressed to specific recip-

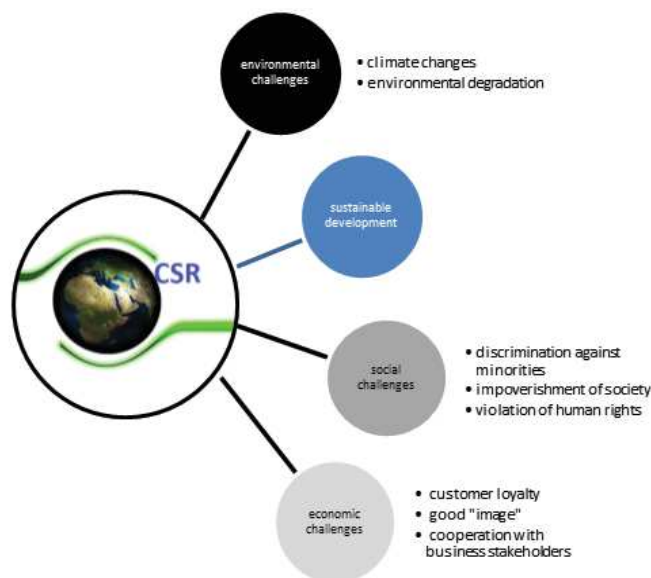


Fig. 1. Challenges faced by organizations in the modern business world [based on 2]

Rys. 1. Wyzwania stojące przed organizacjami we współczesnym świecie biznesu [na podstawie 2]

ients. Each organization works with specific groups of stakeholders. The article will present the CSR activities undertaken by a coal mining company to raise the social awareness of its employees, their families and the entire environment in terms of environmental threats and degradation of the bee population. Such activities, seemingly inconsistent with the profile of the industry, allow large employers to engage in promoting significant ideas and influence specific behaviors of people. Such programs are more and more often included in the CSR activities of large corporations.

Bees – problem of the modern world

Almost 90% of flowering plants worldwide require a greater or lesser proportion of pollinators to produce seeds. In Europe, relatively many wind-pollinated species can be distinguished. However, several plant species growing in the temperate zone are animal-pollinated [4]. In addition to flowering plants, there are also crops, trees and shrubs. The "work" of pollinators has its economic dimension. It is estimated that the share of animals pollinating flowers to the global economy is between € 153 and € 265 billion per year (depending on the research method) [5]. Poland has been reported to show the annual share of pollinators in the agricultural production value of at least 3-4 billions PLN [6].

The most important of all pollinators are, obviously, bees. They are naturally best adapted to the pollination of flowering plants. They often come into very close relationships with insect-pollinating plants. This is due to the joint evolution of bees and plants for at least 100 million years, which provides them with mutual benefits. Bees, during their various stages of development, feed on nectar and pollen of plants. On the other hand, due to bees, plants can have a "faithful" pollinator [7].

The progressive degradation of the natural environment leads to the thinning or even extinction of many plant and animal species. Unfortunately, bees are also in this group, as they are becoming less and less resistant to harmful and aggressive pesticides, viruses and environmental pollution. Scientists have not been able to pinpoint a clear cause

of this phenomenon (called CCD – Colony Collapsed Disorder) [8].

The progressive warming of the climate may turn out to be a significant threat to the protection of pollinating insects [9]. Mild winters cause a shift in plant vegetation periods in relation to the insect development cycle. Numerous periods of droughts caused by low rainfall (e.g. rainfall 56–91% lower than the long-term average) significantly limit pollen production [10]. The intensification of agriculture and changes in the spatial structure of villages and cities are also perceived as one of the factors responsible for bee extinction. The liquidation of wastelands, flowering meadows, and intensive mowing of home gardens mean that these insects lack food (pollen and nectar) [11].

Massive bee extinctions were first observed in the United States in the 1960s [12]. Despite preventive measures taken, this process has continued and even intensified. Between 2006–2007 in North America, 1/3 of the population of all bees died out. Since 2008, the process of mass extinction of these insects has reached Europe. There have already been winters, after which the population of Polish bees decreased by 30% [13]. After all, bees are the basic insects that pollinate plants and, consequently, determine the production of 1/3 of the world's food. Therefore, it is essential for the safety of people and the bee ecosystem to protect and care for them as well as eliminate threats. Moreover, it is necessary to develop the bee population also in non-obvious locations. There are too few shelters and space for building nests or laying eggs by either solitary bees or bumblebees. Thus, an interesting idea is to deliberately locate bee colonies in a highly urbanized area, namely, the city centers [14]. According to some breeders, city honey can be even healthier, because the bees' greatest enemy are plant protection products, quite commonly used in the countryside.

As part of the CSR, more and more companies are implementing activities for the benefit of the natural environment to support the process of bee population growth by establishing apiaries in their factories or office buildings. An example of this type of activity is the initiative of the president of ERGO Hestia. On the roof of the company's headquarters, on

Tab. 1. The structure of apiaries by voivodships in Poland in 2019 [17]

Tab. 1. Struktura pasiek według województw w Polsce w 2019 roku [17]

voivodship	Number of bee colonies								Total number of beekeepers
	Up to 5	from 6 to 10	from 11 to 20	from 21 to 50	from 51 to 80	from 81 to 150	from 151 to 300	over 301	
Małopolskie	2255	2816	2142	1505	279	74	18	5	9094
Lubelskie	706	1681	2214	2101	576	130	31	7	7446
Podkarpackie	944	1947	2239	1734	453	90	27	2	7436
Śląskie	2676	2291	1512	802	114	24	5	1	7425
Mazowieckie	1184	1871	1888	1440	279	70	18	0	6750
Dolnośląskie	772	1338	1570	1494	351	97	13	1	5636
Wielkopolskie	1059	1354	1379	1223	359	89	26	5	5494
Łódzkie	881	1272	1272	814	131	21	5	1	4397
Warmińsko – mazurskie	282	645	936	1449	617	186	45	16	4176
Kujawsko – pomorskie	557	797	937	896	201	52	11	1	3452
Zachodniopomorskie	365	649	850	1042	314	85	13	1	3319
Świętokrzyskie	445	869	889	739	223	59	6	1	3231
Opolskie	599	720	673	460	136	30	6	2	2626
Pomorskie	431	590	683	656	163	33	17	5	2578
Lubuskie	309	505	620	608	173	33	4	4	2256
Podlaskie	247	478	566	562	102	24	5	0	1984

the border between Sopot and Gdańsk, almost 60,000 Krainka bees have been permanently located. They are non-aggressive towards people and, therefore, very willingly used in the urban environment. The company also supports the local ecosystem by planting honey plants. More than 20 species of such plants have been planted in the Hestia Park, which from early spring to late autumn are a source of food for bees. In 2016, the company was able to reward its customers with honey from its own apiary for the first time. As many as 60,000 bees live on the roof of the office building. Ultimately, there will be 600,000 of them. Another interesting example is the "Wild Bees Mine" program, which the Limestone Mine Góraździe, in cooperation with the Nature and Man Association, is implementing in their plant. It is devoted to the protection of wild bees and pollinating insects, and one of its elements is the construction of "hotels for bees" in the mine. In Paris, London or Berlin, there are 4-5 thousand hives. It is estimated that Warsaw has several hundred of them for the time being, but their number is growing every year. Interestingly, "urban beekeeping arose as a response to the fact that the environment in the countryside is now more polluted with chemicals and sprays than 100 years ago. It turned out that bees are doing quite well in the city and this trend has been developing since the 1980s. It has been observed that city bees bring even more honey, are healthier and do not get sick, because they are not poisoned by spraying - says Kamil Baj from Newseria Biznes, beekeeper, founder of beekeeping" [15].

Companies involved in this type of projects began to notice and understand that the full success of a modern organization goes far beyond satisfactory financial results, and that the largest companies have adequate potential to solve both economic and social problems. According to the research of the French-Polish Chamber of Commerce, over 80 percent of respondents were reported to consider it an important element of companies' strategies and economic life [16]. Conducting appropriate courses and creating educational centers can significantly affect the amount of honey production and the bee population.

As shown in Table 1, the number of small and medium-sized apiaries in the Śląskie Voivodeship is significant when compared to the rest of the country. Therefore, building

educational centers to promote such activities aims to develop such a structure and increase the bee population in the region. At the same time, when looking at the number of bee colonies in the Śląskie Voivodeship in 2019 per 1 square km (Fig. 2) versus the whole country, it can be seen that the popularity of beekeeping in this area is greater than in other regions. As part of promoting the idea of beekeeping in this region, small apiaries dominate in the Śląskie Voivodeship (Fig. 3), often of an amateur nature (Fig. 4) [17].

Therefore, the article presents the implementation of the project "Save the Bees - They Can Live among Us" in the Jastrzębska Spółka Węglowa SA Company (JSW Capital Group) as an example of the CSR activities. Such activities not only take up an important ecological subject, but are also accepted and positively received by the society.

JSW SA – case study

Corporations feel responsible for the natural environment and invest in city apiaries. Following the ecological trend from the countries of Western Europe, the largest producer of coking coal in the EU – the JSW Capital Group, also gives priority to initiatives related to nature protection and its resources. Hence the concept of implementing the project "Save the Bees - They Can Live among Us", related to the establishment of an apiary as a component of the development of the revitalization, reclamation and rational management of the JSW Capital Group's mining areas. It should be emphasized that this initiative is of a pilot nature due to its unique location - in the area adjacent to the active mine Borynia-Zofiówka, Borynia Section in Jastrzębie Zdrój. By implementing the concept of ecological development of industrial areas, the JSW SA decided to introduce a program for the protection of beneficial insects and the production of honey from the Jastrzębie apiary corresponding to the educational program "Bees" developed by the JSW SA CSR team. As part of these activities, after the completion of the investment part and the opening of the apiary with an educational path for the youngest in August 2019, local schools in October 2019 participated in the City Game, called here and hands, in Jastrzębie-Zdrój. Students looked for illustrated boards with tasks under the teacher's supervision. The entire route was about 3 kilometers long, and the checkpoints were

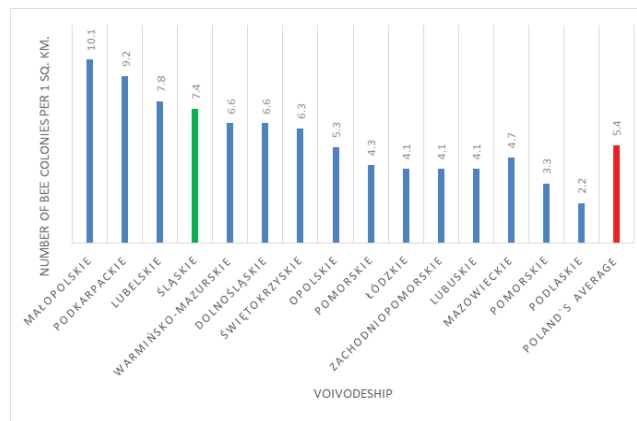


Fig. 2. Number of bee colonies per 1 sq km by voivodeships in Poland in 2019 [17]

Rys. 2. Liczba rodzin pszczelich na 1 km² w województwach w Polsce w 2019 roku [17]. 1. Struktura pasiek według województw w Polsce w 2019 roku [17]

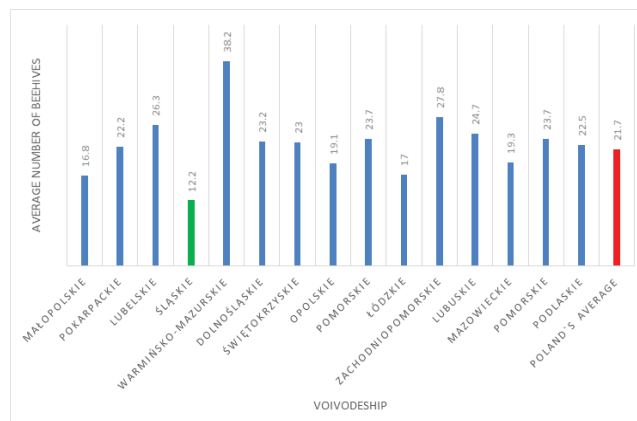


Fig. 3. The average number of beehives by voivodeships in Poland in 2019 [17]

Rys. 3. Średnia liczba uli według województw w Polsce w 2019 roku [17]

hidden in interesting corners of the city. This allowed young people to learn not only about bees but also about the history and geography of the nearest area. It is worth adding that as part of this activity, children and young people could write an article on the protection of bees and take part in a thematic competition announced by National Geographic Kids.

In accordance with the adopted assumption, the Apiary "Save the Bees" has become a local education center, and the accompanying activities support this process. During lectures in the apiary, young people have the opportunity to learn about the construction of a hive, the use of bee products, hive habits, and the hierarchy of a bee colony. In the Jastrzębie apiary, students will find an exhibition of posters from the book "Bees" by Wojciech Grajkowski, illustrated by Piotr Socha and published by the Dwie Siostry Publishing House, which has been awarded many times both in Poland and abroad. As many as 200 children visited the apiary over the course of two months, i.e. September and October. The JSW Group plans to develop this pilot project for other plants of the Capital Group, aimed at increasing the number of bees and fighting the problem of their increased mortality. It is worth noting that millions of hard-working honeybees in cities provide not only delicious honey to citizens but also a thriving park environment and greenery. This initiative was one of the projects that were noticed by the Experts of the Responsible Business

Forum in the 18th edition of the Report "Responsible Business in Poland. Good Practice". According to experts from the European Environment Agency (EEA), Poland has nearly 1/10 of all hives in the European Union. In this respect, only Spain and Romania are ahead of it. It is worth noting that "one of the great things about city bees is that they are not exposed to pesticides. They can go out to parks where it is clean, pollinate the flowers and produce honey that is not only good for humans, but keeps bee colonies"[18]. Moreover, honeybees are the most valuable pollinators of crops in the world. However, in recent years, a decline in the number of honeybees has been observed globally. The way they live means they fly out and collect pollen from plants and pollinate them. In today's world, it also means restoring pesticides that kill them or make them sick. According to the EEA, city bees are not exposed to pesticides, and thus apiaries set up by corporations help entire bee populations to pollinate our world and produce some of the purest honeys in urban spaces. In addition, EUR 265 billion is the global economic benefit of pollination (amount based on pollination-dependent crop values, estimated by the Greenpeace).

Conclusion

The operation of large corporations in the CSR area should not only focus on wide-ranging pro-social or pro-eco-

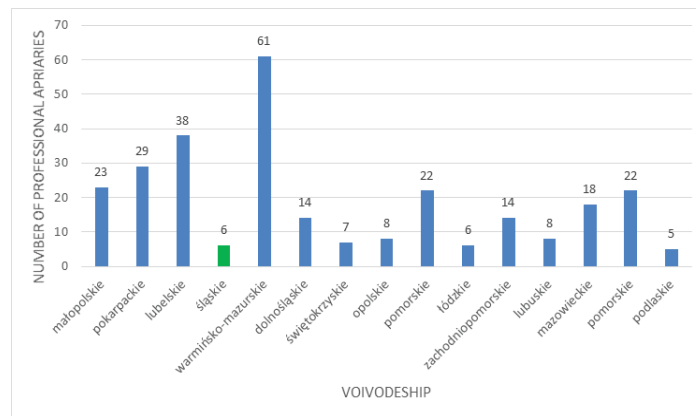


Fig. 4. Number of professional apiaries by voivodeships in Poland in 2019 [17]

Rys. 4. Liczba pasiek zawodowych według województw w Polsce w 2019 r. [17]

logical activities. The described example of the apiary and educational center shows how to build future generations and their pro-ecological behavior. Such activities are the real contribution of corporations to shaping the natural environment. Obviously, such a small apiary will not meet the needs of pollinating insects. However, the main goal of this activity is not only to promote the idea of beekeeping but also to change behavior and attitudes among both children and adolescents. The involvement of children and, consequently, their parents

in pro-ecological activities is the main goal of the created educational center. Support in setting up small apiaries and arranging educational lessons for schools also build a different, better perception of an company, so far assessed through the prism of the coal. Activities aimed directly at the social environment may exclusively contribute to the improvement of the media image built around hard coal mining plants in Poland.

Literatura – References

1. Buglewicz, K. Społeczna odpowiedzialność biznesu. Nowa wartość konkurencyjna, PWE, 2017, Warszawa.
2. Roszkowska, P. Rewolucja w raportowaniu biznesowym. Interesariusze, konkurencyjność, społeczna odpowiedzialność (A Revolution in Business Reporting. Stakeholders, Competitiveness, Social Responsibility), Difin, Warsaw 2011.
3. Howaniec, H. Wpływ społecznej odpowiedzialności biznesu na lojalność konsumentów wobec marki, Nierówności Społeczne a Wzrost Gospodarczy, 2016, 45, 1, 32-40.
4. Ollerton J., Winfree R., Tarrant S. How many flowering plants are pollinated by animals? "Oikos" 120, 2011.
5. Gallai, N., Salles, J.-M., Settele, J. & Vaissière, B. E. (2009). Economic valuation of the vulnerability of world agriculture confronted with pollinator decline. Ecological Economics, 2009, vol. 68, issue 3, 810-821.
6. Jobda, M.; Rzepkowski, R. Nie tylko miód. Wartość ekonomiczna zapyłania upraw rolniczych w Polsce w roku 2015, Fundacja Greenpeace Polska, 2016.
7. <http://www.efsa.europa.eu/en/topics/topic/bee-health>, 25/09.2020
8. Watson, K.; Stallins, J.A. Honey Bees and Colony Collapse Disorder: A Pluralistic Reframing: Honey Bees and Colony Collapse Disorder, Geography Compass, 2016, 10(5), 222-236
9. Szentgyörgyi, H. Wpływ zmiany klimatu na pszczoły, Wieś i doradztwo, 2018, 1, 13-16.
10. Denisow, B.; Wrzesień, M. The Importance of Field-Margin Location for Maintenance of Food Niches for Pollinators, Journal of Apicultural Science, 2015, 59, 27-37
11. Zych, M.; Denisow, B.; Gajda, A.; Kiljanek, T.; Kramarz, P.; Szentgyörgyi, H. Narodowa Strategia Ochrony Owadów Zapyłających, Fundacja Greenpeace, Warszawa 2018.
12. <http://www.pomagamypszczolom.pl/program/wszystko-o-pszczolach/,03/10/2020>.
13. <https://www.earthday.org/fact-sheet-bees/>, 08/09/2020.
14. <https://www.goethe.de/ins/pl/pl/kul/mag/20377487.html>, 13/09/2020.
15. <https://biznes.newseria.pl/news/przybywa-pszczol-w,p661628458>, 02/10/2020.
16. „CSR w praktyce – barometr Francusko-Polskiej Izby Gospodarczej” (“CSR in Practice - a Barometer of the French-Polish Chamber of Commerce”), „Rendez-vous biznesu” (“Business Rendez-vous”), French-Polish Chamber of Commerce, 2018, July.
17. Semkiw P., Sektor pszczelarski w Polsce w 2019 roku, Raport Instytutu Ogrodnictwa, Zakładu Pszczelnictwa w Puławach, 2019.
18. City Bees: <https://www.eea.europa.eu/atlas/eea/city-bees/story/article>, 06/09/2020.

Działania prospołeczne w ramach CSR Jastrzębskiej Spółki Węglowej – Case Study

Współczesne przedsiębiorstwa stoją obecnie przed szeregiem wyzwań. W obecnej dobie zmian w strukturze mixów energetycznych oraz "odchodzenia od węgla" przedsiębiorstwa górnicze poszukują różnych form poprawy swojego wizerunku w otoczeniu. Równocześnie potrzeba rozwoju działań CSR (społecznej odpowiedzialności biznesu) wpływa na poszukiwanie różnych aktywności współpracy z otoczeniem społecznym. W artykule opisane zostało działanie z obszaru CSR Jastrzębskiej Spółki Węglowej, które uzyskało bardzo pozytywną ocenę, zarówno ze strony świata biznesu, jak i ze strony społecznej. Stworzono pszczelarskie centrum edukacyjne służące mieszkańcom i rodzinom górniczym.

Słowa kluczowe: górnictwo węgla kamiennego, CSR, pszczoła