

GEOTOURISTIC PRODUCT – SALINE SOLUTIONS OF DĘBIEŃSKO

GEOTURISTICKÝ PRODUKT - SOLNÉ ROZTOKY Z DEBIENSKA

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Abstract

New business lines, as well as a new approach to local natural resources, are development opportunities for post-mining regions.

The authors characterize brine produced by Dębieńsko Desalting Plant in Czerwionka Leszczyny (Silesia District) in Poland as a commodity.

Compared to neighbouring districts in the region, Czerwionka Leszczyny is rich in numerous examples of animated and inanimate nature as well as a few historical monuments. Nevertheless it is not a popular tourist destination for native or foreign tourists.

Therefore, it is vital to seek a commodity which would be the region's competitive advantage and boost tourist infrastructure.

According to the authors, medically beneficial brine which is a Dębieńsko Desalting Plant by-product, could become that commodity.

Abstrakt

Rozvojovými příležitostmi pro post-těžební oblasti by mohly být nové směry podnikání, a rovněž nový přístup k místním přírodním zdrojům.

Článek se zabývá charakteristikou solanky vyráběné v podniku odsolení důlních vod „Dębieńsko“ v Czerwionka-Leszczynyna ve Slezsku v Polsku jako tržního výrobku.

V porovnání se sousedními okresy v kraji je obec Czerwionka Leszczyny bohatá četnými příklady živé a neživé přírody a má také několik historických památek. Přesto není populární turistickou destinací pro místní ani zahraniční turisty.

Je tedy nezbytné vyhledat zboží, které by regionu přineslo konkurenční výhody a podpořilo turistickou infrastrukturu.

Podle autorů se může tímto výrobkem stát zdravotně prospěšná solanka, která je vedlejším produktem podniku odsolení důlních vod Debiensko.

Key words: product, geotourism, saline.

1 INTRODUCTION

Currently, many of mining and post-mining communities are looking for new possibilities of development, struggling with the unemployment problem, undeveloped post-industrial property, and the problem of migration of young and creative people. They have to look for different ways of economic activation and new visions for those areas. Communities are looking for different ways of diversifications of activating actions. Some of them use post-industrial property and create the interesting offer of post-industrial tourism. Those towns are, among others, Zabrze, Ruda Śląska, Katowice. In those towns tourism objects were created based on old worker estates, historical mine workings, remains of old industrial plants. Local governments and local authorities of those communities estimated their developmental capabilities and saw their development opportunities in the tourism potential of the region.

In order to determine the size of tourism potential it is essential to define and evaluate a set of touristic values of the offered potential product. It can be generally described as everything what tourists are interested in

and contributes to the selection of a way and place to spend free time connected with tourism. Those values can be split according to several criteria [1]:

- With regard to origin (values of natural environment, values of anthropogenic environment);
- With regard to the way of usage (holiday, landscape, special);
- With regard to the character of the value (value of place, value of activities).

The important element of a potential increase is the way of touristic arrangement (accommodation, catering possibilities, etc.), communication availability, attractiveness for investors, communal systems. While evaluating whether the product has a high level of tourist potential, we also consider economical, political, cultural, social, psychological, technological and ecological conditions.

Therefore, proper characterizing and measuring the tourism potential help to characterize and define the touristic product which can be offered in the defined area. The touristic product can be defined as anything which can be offered to the buyer for consumption, usage or further processing.[4] L. Mazurkiewicz defines such a touristic product as any combination of area services and touristic services.[3] According to A. Nowakowska „by concept of touristic product we can understand package of material and non-material elements which enable accomplishment of touristic trip target which is available on market”.[5] A wide definition is proposed by A. Lewandowska who defines touristic product as:

- „everything that tourist buys in connection with touristic trip:
- Set of values and services bought by tourists, touristic values which they are using, and which for them are subject of special interest;
- Single service or package of services related to each other, coherent and complementary which meets the needs of tourists.” [2]

2 DĘBIŃSKIE SALINES – LOST CHANCES OR BIG POSSIBILITIES?

In Upper Silesia relict waters of upper carbon are found and can be used for the production of healing salts, as it is for example in Dębowiec near Skoczów. It is a great example of a product which is on one hand commercial and on the other hand geo-touristic, because it is being used in a saline fountain which attracts tourists and region inhabitants.

Saline which emerged as a by-product of desalination of tailwater in Dębińsk has similar properties and chemical composition. The analysis of Dębieńska saline realized in the National Institute of Hygiene (Państwowy Zakład Higieny) in Poznań in 1985 [6] indicates its high healing properties, and the comparison of chemical composition of this saline with that commonly used in health resorts, for example in Ciechocinek or in Inowrocław, shows that the effect of interaction will be if not the same than very similar. Currently discussions are realized with Inowrocław, which is interested in buying saline for healing needs.

According to conducted researches [6] it is possible to define indications for applying baths in diluted Dębieńska saline:

- Allergic diseases,
- Rheumatism diseases: among others rheumatoid arthritis, ankylosing spondylitis commonly referred to as arthritis of the spine, postoperative states, gouty arthropathy ,
- arterial hypertension of stages I-II and II,
- diseases of lower limb arteries with chronic ischemia,
- orthopedic disorders, injuries and states after operations of locomotive organs,
- nervous system diseases, among others: chronic inflammation of peripheral nerve, neuralgia, discopathy, hemiparesis, multiple sclerosis, neurosis.

It is recommended to take 10-20 minutes treatment baths, complete or partial, in diluted saline depending on age or the state of disease progression.

In 1985 the Ministry of Health and Social Care authorized the Hard Coal Mine „Dębieńsko” in Leszczyny for producing the medicine called „Dębieńska Saline Multi-ingredient for Baths”[7,8], whose composition is as follows:

- solid substances dissolved in 1 kg 250 to 300 g, in 1 dm³ 300 to 360 g,
- sodium ion 5,0% min.,
- magnesium ion 1,9-2,5%
- potassium ion 0,8-1,4%,
- chloride ion 16,0% min.,
- bromide ion 0,10,% min.,
- iodide ion 0,018% min.,

The registration certificate for the above mentioned medicine has been issued in April 1985 by the Ministry of Health and Social Care.

On the basis of that saline in Leszczyny, close to the mine workings „Dębieńsko” and Desalination Plant, in the middle of 80th a balneological clinic was established, where a wide offer of water healing procedures intended for mine working employees and for interested persons from outside was successfully practiced. Unfortunately, the liquidation at the end of 1999 of the Hard Coal Mine „Dębieńsko” decided about future of this clinic. Despite of the fact that demand for that kind of healing procedures was and still is very high, economical causes decided about its final liquidation in 2003 and creating in the same building a balneological clinic and therapeutic workshops for handicapped children. Lack of support from the National Fund of Health (NFZ) or local authorities decided about future of this institution.

Currently Dębieńskie Salines are a waste only during the salt production in the Desalination Plant Dębieńsko. What makes Dębieńskie saline special is a very high level of saturation with iodine, about 120 to 140 mg/l. For comparison the Baltic (the sea with high salinity) one has only about 6 mg/l of that. Healing values of Dębieńskie Saline and its easy availability are the important useful value of this product for promoting the new product not only as healing one but also as touristic one.

3 POTENTIAL PARTIES CREATING GEOTOURISTIC PRODUCT – DĘBIŃSKIE SALINE

Besides the touristic potential which creates touristic product important elements there are institution parties who put strain on the character of the product and for outside parties. (Fig. 1.)

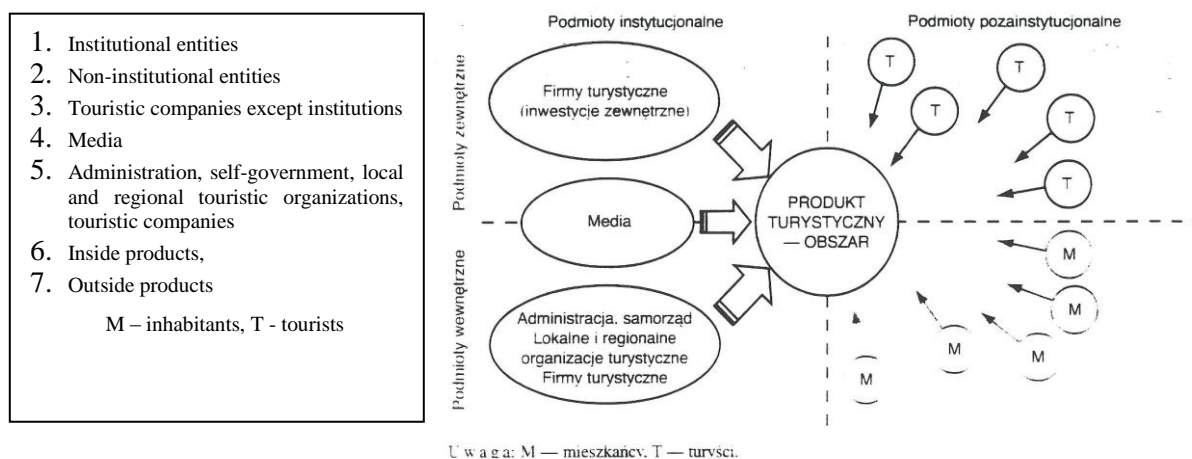


Fig. 1 Entities generating touristic product [1]

The institutional parties are:

- Economic entities that operate in the tourism sphere outside the region;
- Different types of information media;
- Local and regional administrations;
- Local authorities;
- Touristic organizations;
- Economic touristic entities from the region.

The non-institutional parties involve:

- Tourists
- Inhabitants.

The necessary condition for effective creating the touristic product is efficient communication between institutional and non-institutional entities. Two-way flow of information between administration authorities and outside environment is required, as well as creating a positive image of the proposed product through media. This task belongs on one hand to local authorities and administration and on the other hand to the manufacturer of saline – the Desalination Plant „Dębieńsko”. This is a post-mining company, which is looking for diverse ways of development. However, without support from the local authorities it will be very difficult. A dialogue founded on good communication and close cooperation which is profitable for both sides is essential. Thanks to a wider scope of receivers getting interested in this topic, especially companies operating in touristic trade, it is possible to activate campaigns of the new product and potential demand from receivers. At the beginning these can be customers from the region and after some time also those from outside of Silesia.

4 GEOTURISTIC PRODUCT – PROPOSALS OF DEVELOPMENT

A good example of co-creation by the authorities of the Commune Czerwionka-Leszczyny and the Desalination Plant Dębieńsko could be for the beginning a recreational – holiday place with a natural inhaler place in the form of a “mushroom” fountain which is very popular in Poland and worldwide. Being in surroundings of such object brings not only relaxation effects but most of all healing effects. Such installations are placed among others in Ciechocinek, Inowrocław, Konstancin Zdrój, Dąbki in many water parks, but also in Germany, the Czech Republic, Hungary. (Fig.2.)

Saline falling down from the base of the object is evaporating and thus creates a special micro-climate and additionally it is breaking in a mechanical way by the mushroom and creates this way aerosol. Minerals and micro elements contained in saline are being absorbed by the mucous membrane of respiratory tract and skin, thus completing lack of those elements in the human body. The healing action of saline has a good influence on the nervous system, system of endocrine glands and general immune system.

A perfect example and reference standard is the geotouristic product which is an inhaler place in Dębowiec in Silesia. Thanks to the deposits of saline water detected there in XX century, inhabitants don't need to go to the Baltic anymore. Saline from Dębowiec according to Viennese Chemisch-Mikroskopischen Laboratorium is medium salty, but contains very high degree concentration of iodine, over 110 mg per liter. Furthermore, it contains big quantity of bromine and is free from sulphates. That saline have got healing and cosmetic properties. Among others it is helpful in thyroid and respiratory tract treatments thanks to iodine, calcium and magnesium which have disinfection and anti-inflammatory effects. They have a beneficial effect on the skin, nerve endings, and eliminate swelling and apparent cellulitis.



Fig. 2 Saline graduation tower and fountain in Konstancin Zdrój [9]

In Dębowiec after detecting saline sources salt works were built, operating with some breaks until now. Formerly whole families prepared their deck-chairs in front of salt works and were taking inhalations of air saturated with iodine. The municipal authorities together with the mine working owner Kazimierz Leszczyna intended to change Dębowiec in a holiday health resort, where visitors would come. By all accounts they got down to business and in the centre of Dębowiec, in particular in the park, they founded a fountain in the shape of a mushroom from which saline springs. (Fig.3)



Fig.3 Saline fountain in Dębowiec [10]

People who want to inhale are sitting around on the benches. Cost of the fountain was low and saline is delivered for free from the salt works. *The authorities believe that saline will attract plenty of tourists mostly from Silesia.* Local authorities are thinking in a strategic way and are responsible for the future of the area and for the people, which makes their actions helpful in economic development and enrichment of the people. [13]

Saline from Dębowiec is also prepared (fig.4) and distributed to many special clients such as:

- Beauty parlours;
- Wellness and spa centres;
- Solariums;
- Fitness clubs;
- Biological and sport regeneration;
- Senatoriums;
- Holiday resorts;
- Hotels;
- Salt caves;
- Natural medicine;
- Individual clients.

Saline from Dębieńsko, rich in calcium and magnesium ions, has a similar content as saline from Dębowiec . It is worth to think about the possibility of entering the market with similar products. Especially now in the era when “health and beauty” care products are in vogue.



Fig.4 Products „Sól Zabłocka” [11]

5 SUMMARY AND FINAL CONCLUSIONS

The authorities of the town of Czerwionka-Leszczyny are looking for opportunities for development and gaining funds for inhabitants needs. It looks like that one of the solutions and possibilities for making this commune special compared to the whole region is utilizing natural resources – saline from Dębieńsko. Of course, it is important to create an action plan which will contain not only placing a small fountain, but also to think about recultivation of areas near to sedimentation tanks of saline and be able to create in this region a place for relaxation and recreation. In the plan of the town and commune development we can read – until 2010 it is planned to open a centre for balneological health services. The cost of balneological treatment is very high and the level of its refund from the National Fund of Health (NFZ) is very low. At the current stage of public health service development creating only a balneological centre in Czerwionka-Leszczyny is highly risky. Especially since this kind of place would need to be self-funding. Diversification of services, including placing a fountain, creating recreation areas, touristic bases, developing cooperation of municipal authorities with authorities of Kamień (accommodation base) will help to fully utilize opportunities for developing those areas and inhabitants.

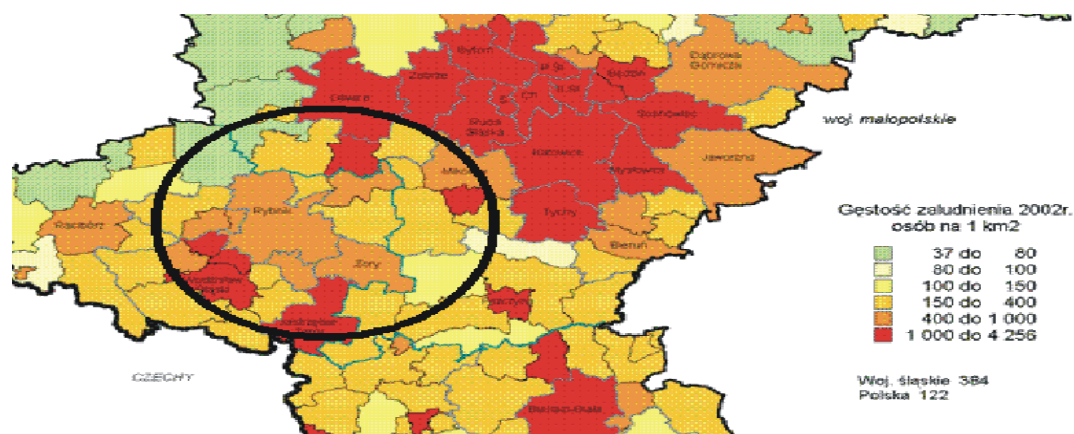


Fig.5 Map of Silesian Region`s part with Czerwionka-Leszczyny [12]

Saline can be also used in saline bed-pans located by the recreation centres, as it is for example in Aqua Park in Tarnowskie Góry. Health life style, searching for places for recreation forces local authorities to create indoor swimming pools fully equipped. Using in them saline from Dębieńsko will enable, after elaborating a brochure, to promote healing values supported by medical and cosmetology authorities. For popularization of

those values various electronic and printed media can be used. One of the target groups, to which those recreation services will be directed to are families with children from surroundings of Rybnik, Gliwice, Katowice, Mikołów (fig.5.).

Almost in every town as Saline Caves „spring up like mushrooms”. Despite relatively high fees for entering they have big market for their services. Iodine concentration in such Caves is incomparably lower than that of Dębieńska Saline. That’s why the need for such service would probably be huge. Of course, assuring proper gastronomic and rest infrastructure would enrich the offer and encourage visiting this place. Therefore it is necessary to activate the development of the Small Sector of Enterprises (Mały Sektor Pprzedsiębiorstw) in the Commune. That kind of companies determines fast development of the region.

An interesting form of gaining funds for investments into the recultivation of the area and creating recreation areas can be funds from EU. More interesting ones are now RPO and ETC projects.

The Regional Operational Program for Silesian District contains many actions priorities. They have been defined based on approved RPO targets. They involve, among others:

- Increase in touristic competitiveness of the region;
- Protection and improvement of environment;
- Sustainable development of towns;
- Improving health state of region inhabitants.

They fit perfectly to the proposed solutions and investments in Czerwionka-Leszczyny.

Another project is ETC (European Territorial Cooperation Poland 2007-2013) whose target is activating border areas. This commune is part of Rybnicki district and is ranked to NUTS III (*Nomenclature of Territorial Units for Statistics*). The area of the commune is covered by the program. In the area of the Rybnicki district similar investments have been realized in the framework of INTERREG III. So it may be useful to search for a partner from the Czech Republic to realize a common project. The assumed targets for this program contain among others:

- Improving conditions for developing initiative and tourism;
- Supporting cooperation of local communities.

Assumptions of the program fit to needs of the town and commune Czerwionka-Leszczyny, in the scope of the recultivation of the post-industrial area, creating touristic attraction with a special character. Furthermore, the authors of the paper believe that currently it is a perfect moment in the market of cosmetic services and para-pharmaceuticals for exploiting healing values of Dębieńska saline.

The presented geotouristical product – Dębieńskie Saline, according to the authors has a big potential, but the Desalination Plant in Czerwionka-Leszczyny is not able to take this chance without support of local authorities. The common project would bring profits for both sides: new jobs, touristic attraction, potential development of small and middle initiative, other developing image of the town and commune. *We often see and look for opportunities for development far away from our closest surroundings, and this is where it is easiest for us to find partners and a chance for good business.*

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RESUMÉ

Podle použitých kritérií, území této obce ve srovnání s obcemi v okolí má hojně zajímavé turistické objekty živé a neživé přírody a také několik historických památek, jejichž význam je menší.

Avšak není to území povzbuzující tuzemské a zahraniční turisty k návštěvám. Je tedy nutné hledat turistický výrobek, který bude odlišovat obec Czerwionka-Leszczyny od obcí sousedních a který bude aktivizovat zlepšení turistické základny (hostinecké, dopravní, informační a jiné služby). Podle autorek se tímto výrobkem mohou stát dosud nepoužívané solanky, jejichž působení má pozitivní vliv na zdraví a které jsou vedlejším výrobkem v podniku odsolení důlních vod „Dębieńsko“.