

Changes in former industrial areas

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Abstract: Industry and mining are major economic sectors. Decline and shutdown of these sectors caused a lots of negative impacts. Due to the formation of „rust belts”, they could not get out of their negative situation. I examined a few settlements, which are located in Central Europe and at Northern Hungary. My diverse surveys are based on calculations, secondary data, overview of professional studies, results of previous researches. The differences of their development-trends were well discernible.

Keywords: industry, mining, post-socialist places, economic development

1. Introduction

As a student of regional sciences, it was important for me to evaluate and analyze an area not only from one point of view, but also to examine a complex issue from another points. I considered of importance, so I chose the examination of the change in former industrial areas. The subject is personalized. I had previously worked with a specific mining village, so I chose it as my doctoral research. This study is only a little part of my research. In my perspective aims there are the examination of more towns and industrial areas (zones). The primary research locations are Eastern-and Central Europe. I plan comparing roads and directions of development, overview of the international examples and modelsystems. I would like to setting up a model system in the domestic context

2. Actuality and significance of the topic

Today it has a lot actuality and significance. Industry and mining such as work systems had a prominent role for a whole time in the life of the countries and continents. These countries were revived by technology development.

Industry and mining had a bigger role in Central- and Eastern Europe before 1989. After the change of the regime, the economy of the former industrial settlements, mostly declined.

Mining and industry as an activity has long defined the image of some regions. With the development of technology and technology, I. and II. industrial revolutions have significantly advanced this sector.

Later, however, this progress has led to significant environmental and economic problems due to the shortage of mineral resources, the increasingly difficult exploitation, increased production costs, unmanageable extraction methods, excessive mining, world market prices and world trade (Wenzel 1880, Goodland 2012).

Due to the changes that began in the 1980s, the exploration of inventories and the rise in the world market price of crude oil, problems in the 1990s that led to the rapid demolition of mining have also appeared in Hungary. More and more mines and factories have been closed so many people became job seekers. Privatization of the sector, with only one or two exceptions, can not be considered as successful. Along with the economic problems, the social problems associated with it have also been compounded. In the most cases they were not able to recover from the bad situation in this twenty-thirty years and huge debts were also accumulated. Nowadays these are backward areas. Their catching-up must be helped. (Siskáné Szilasi et al. 2013).

In rural development such areas are called peripheral, semi-peripheral zones. National supports are important. These zones must be helped both economically and socially.

The opening and closing of the mine can result in enormous changes in the employment conditions of a region, leading to a significant employment migration. These changes can occur very quickly, which places enormous burdens on the local service sector and infrastructure. Accelerated migration processes change the living environment, shake the cohesive power of local society and make the community vulnerable (Haney-Shkaratan 2003).

3. Material and methods

In my study I examined five Hungarian settlements and one other town in Slovakia.

Hungarian settlements: Ózd, Kazincbarcika, Sajószentpéter, Bátorterenyé, Lőrinci.

Town in Slovakia: Dubnica

They have common traditional socialist and industry past. I analyzed different directions. I examined their general position based on literature and indicators.

3.1. Display of the settlements

The five Hungarian settlements are at Northern Hungary.

Ózd

Ózd is located in Borsod-Abaúj-Zemplén county, Ózd district. It is cca. 60 km far from the centre of the region, Miskolc. The population of the settlement was 33 141 people in 2015, based on the data of Hungarian Central Statistical Office (HCSO). The town has several centuries of mining and metallurgical past.

After 1945, as an industrial town revived. The most people worked here from the neighbourhood. After the change of the regime (1989), it got into a difficult position with complex social and economical problems. It is the biggest town among the examined settlements.

Kazincbarcika

The town can be found in Borsod-Abaúj Zemplén county, Kazincbarcika district. It lies near to Miskolc, cca. 25 km. The population of the settlement was 27 078 people in 2015, based on the data of HCSO. It has been developed in the socialist decades. After 1989 there was a strong decline and then gradual stabilization. There was a big chemical factory, Borsodi Vegyi Kombinát. After the change of the regime, it had successful privatization and transformation. Now it is working as BorsodChem Ltd.

Sajószentpéter

The third town, among the examined settlements, can be found in Borsod-Abaúj-Zemplén county. Sajószentpéter is part of two different administrative area. It belongs to the Kazincbarcika district and Miskolc small region. It causes a lot of problems (more information on the Results chapter). It lies very close to Miskolc, 16 km far. The population of the settlement was 11 491 person in 2015, based on the data of HCSO. Its mining and industrial past is several centuries old, the main sectors were the coal mining and glass production.

Bátonyterenye

Bátonyterenye is in Nógrád county and centre of the Bátonyterenye district. It came to be fusion of different settlement parts (Nagybátony, Maconka, Kisterenye and Szúpatak). The population of the town was 12 221 person in 2015, based on the data of HCSO. The settlement has typical folk („palóc), industrial and mining traditions. When the extractive industry has been declined, tourism developed. It caused progressive economic relations.

Lőrinci

Lőrinci lies in Heves county and Heves district. It is very near to centre of the district, Hatvan, cca. 10 km far. Among the examined settlements, it is the smallest town. The population of Lőrinci was 5 446 person in 2015, based on the data of HCSO. It owns rich economic image in its history. There is a decisive factory, the Mátravidéki Power Station.

4. Results

4.1. Results in connection of Ózd

Ózd is in many viewpoints out of the scheme. The settlement has negative social and economic indicators. It has been not able to stabilize its position in the past decades.



Figure 1.

Number of the registered unemployed people in Ózd (person)

(Source: Based on the data of the Central Statistical Office, own editing.)

By closing down plants, a lot of people have lost their jobs. Over the last decades, this has become the most serious problem in the settlement. The figure shows the number of registered unemployed people in Ózd between 2000 and 2015. Between 2000 and 2008, their numbers have risen steadily. The highest was in the time of the global economic crisis.

The public work program has slightly improved the unemployment indices of the settlement. But it is not value-creating, so those who work in it do not work in an area corresponding to their occupation.

This option does not contribute to increasing national income. It is also worth mentioning that this will bring more positive values to shorter periods. Its impact is not long-lasting and unfortunately does not help people get back to the real world of work.

4.2. Position of Kazincbarcika

Kazincbarcika has been developed in the last decades. The closure of the plants caused a lot of problems in the life of the settlement and its surroundings. Nitrogen fertilizers and PVC and related products were produced at the plant. It is a unique phenomenon among the settlements that successful privatization and transformation took place in the plant. Later, with the help of foreign direct investment capital, it was partly a change of profile. Since 2011, Wanhua Industrial Group, a member of the world's fastest growing polyurethane feedstock manufacturing and sales group. New factory parts have been developed and launched. Further developments are planned in the near future. Thanks to the positive effects, they were able to hire more and more people to work.



Figure 2.

BorsodChem Ltd.

(Source: <http://www.borsodchem-group.com/>)

In 2007, Barcikai Ipari Park opened its doors. Over the past 10 years, more and more businesses have settled in this area. Industrial and economic developments will also enable companies to engage in by-products and related businesses.

4.3. Position of Sajószentpéter

Sajószentpéter is a stagnating settlement. It has negative social and economic indicators. The unemployment rate is high.

Hungary joined the European Union on 1 May 2004 together with other European countries. There have also been changes in the country before and during the process of accession. As a result, regions and small regions were formed. The small regions had a complex functions, including administrative, tender, development and cooperation tasks. System of the districts was established in 2013, which have an administrative functions. They have taken over a lot of tasks from local governments and other institutions. In today's analyzes, in most cases, the interpretation of the district level is primary.

If the formation of the district level did not have any territorial change, it has resulted in simpler processes. But in some cases, the opposite can be observed. It belongs to the Kazincbarcika district and Miskolc small region. The two different administrative records cause problems in many areas. There are problems with cooperation and administration. Despite being close to Miskolc and Kazincbarcika, the town can not take advantage of these economic benefits to strengthen its position.

4.4. Results in connection of Bátorlyterenye

Bátorlyterenye has a special position. Change of the view of the settlement brought gradual development. The number of the guests and guest nights are increasing. By changing market conditions private accommodations have been strengthened. It is in connection of tradition and culture.

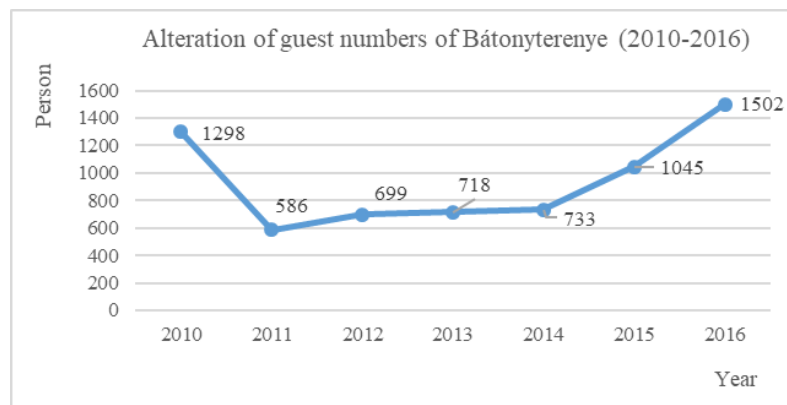


Figure 3.

Alteration of guest numbers of Bátorlyterenye (2010-2016)

(Source: Based on the data of the Central Statistical Office, own editing.)

As a former mining settlement, it has completely disappeared. The city seeks to fulfill its everyday tasks with more or less success. In the case of the settlement, they reverted to the original traditions. Those sectors were developed that similar investments are not required in the same way as in an industrial establishment. They try to exploit the resources and attractions of the neighborhood.

4.5. Position of Lőrinci

Lőrinci had early developed transport opportunities and economic image. The life of the settlement was characterized by diverse economic sectors. This also determines the development direction of the settlement today. Steam mill, cement factory, brick factory in the city.

As I mentioned in the display of the settlement, the main industrial part of the town is the Mátravidéki Power Station. Earlier it was coal-fired. In 1995 it has been joined to the Hungarian Electrical Works. It became thank to the technological change a gas turbine power plant.

The older, coal-fired working needed cooling water. A lake belongs to the power station, which is now useful for fishing and entertainment activities. Tourism developed after that.



Figure 4.
The Mátravidéki Power Station
(Source: www.geocaching.hu)

Lőrinc's stability is also due to the proximity of Hatvan. In the centre of the district there are an advanced transport, industrial, commercial and service sector.

4.6. Hungarian domestic income per capita (HUF/person)

Over the past two decades it has grown in the country and in the settlements. The conditions of incomes have been better, but their real value was stagnating. Prices

have been grown to. The national average grew from 787 579 HUF / person to 983 732 HUF / person.

Table 1
Hungarian domestic income percapita (HUF/person)
(Source: Based on the data of Országos Területfejlesztési és Területrendezési Információs Rendszer, own editing.)

	2010	2011	2012	2013	2014	2015
Ózd	501 783	477 034	511 701	544 262	601 295	657 084
Kazincbarcika	808 678	796 754	811 158	861 376	939 092	1 005 343
Sajószentpéter	560 465	551 075	581 269	615 664	686 211	746 051
Bátonyterenye	608 131	581 546	630 974	666 919	738 956	791 580
Lőrinci	766 243	759 430	785 369	823 409	912 380	986 024

Regarding the level of districts, these values were scattered and dropped overall (negative social and economic effects). When analyzing data, account should be taken of the deterioration of the value of money, inflation.

Settlements have much less tax revenue. At the population level, the reduction in real income and the reduction of purchasing power parity (PPP) are observed.

Changes in Hungarian domestic income data reflect urban development trends. Kazincbarcika is in the first place and the second is Lőrinci. The worst situation is in Ózd.

5. Dubnica (Máriatölgyes, Slovakia)

Dubnica is located in Slovakia, in Ilava district, Trenčín region. The population of the town is approximately 25 000 people. After the World War II had a prominent role during the time of Czechoslovakia. It had outstanding production for military and army.

The socialist countries had a lot of problems in the eighties. In 1989 the factory was closed and not soon later Czechoslovakia was divided into two parts (Czech Republic and Slovakia). After some unsafe years, it has been beginning a gradual developing process.

View of the town transformed completely. There were only for a short time negative effects. It became another important point of the district.

Dubnica has several district offices and branches of commercial banks. Compared to other areas, it found new directions of life. Commercial, economic and service

strongly have been developed. The Industrial Park is available for companies and factories from the December of 2016.



Figure 5.

Green and modern part of Dubnica

(Source: www.treking.cz)

Conclusions

Examination of former industrial areas remains timely. There are plenty of tasks to solve. Although only a few cities have been included in the test topic, different life paths are well-observed. Although they have a similar past, they have to meet completely different challenges. They can not be treated uniformly, unlike previous practice.

Ózd currently does not have the right strategy, the severity of the problem is due to its size. Sajószentpéter has similar problems, but to a lesser extent. Kazincbarcika has made significant advances, exemplary settlement. Bátonyterenye builds on its existing opportunities. In Lőrinci can be found a very useful solution: the old investment has gained new meaning. Dubnica shows a successful transformation, Kazincbarcika is similar.

The examples can be interpreted as a scale, from the worst-placed settlement to the most successful. It can be said that very few settlements with positive examples (such as Kazincbarcika), both at micro and macro level, are experiencing further stagnation and decline. Helping partner and local co-operation can strengthen the position of towns. Positive examples can provide a good basis for other settlements in difficult situation.

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