

„BABEȘ-BOLYAI” UNIVERSITY
FACULTY OF SOCIOLOGY AND SOCIAL ASSISTANCE

PhD THESIS

RESILICENCE OF FORMER MINING COMMUNITIES

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Keywords: resilience, mining communities, mine closure programs, industrial heritage, mining resources in Romania

The purpose of this study was to analyze the resilience of former mining communities from Romania and to identify the factors that influenced their trajectory after the restructuring of the mining sector. Several topics were analyzed in the paper in order to shape the framework in which this type of communities operate, namely: their particular characteristics, strategies that can be adopted for their redevelopment, factors that influence their resilience, factors that caused the closure of mining in Romania and program that have been implemented to support communities overcome the crisis of job loss. I also tried to collect as many case studies of former mining communities that have managed to become successful after mine closure, and based on their experience to identify the factors that influences their degree of resilience.

I chose to use the term resilience because it describes better the stages through which former mining communities pass through. The term resilience is used with the meanings of stability, recovery and transformation. But transformation is not only the transition from a lower to an upper state, but the transition to a new state that is more suitable for the new environment. Resilient functioning is not necessary superior to the functioning before the disturbance, but it is simply different.

The paper was divided in eight chapters in which I analyzed a wide range of theoretical issues regarding mining communities, programs implemented to restructure the mining sector and for combating social effects. In chapter 1 the characteristics of mining communities were presented and it was explained how they differ from other types of communities, and the specific problems they face. I felt it was important to explain the characteristics of these communities because they must be taken into account when planning strategies for their redevelopment. I also decided to include in this chapter a section in which I analyzed how mining organizations interact with other systems in the communities where they are located.

In chapter 2, the concept of community resilience is defined and the meanings that this term contains are explained. Another important aspect explained in this chapter is about how the disturbance caused by mine closure affects the community. The concept of resilience is analyzed at the level of individuals from the perspective of those characteristics that help users of resources to cope with and adapt to changes that occur in relationship with the resource that depend on.

Chapter 3 looks at those strategies used by individuals and communities to exit the crisis caused by mine closure. Strategies used at the community level are classified according to several criteria, such as: when they were adopted, the degree of state intervention, economic base that is used to launch the strategy, the degree of disturbance of community, and the field of intervention. In this chapter the concept of institutional density is presented, meaning the combination of institutions needed to increase the chances that individuals and communities overcome a period of disturbance. In the final part of this chapter, I analyzed the factors that have been identified in the literature as influencing the redevelopment of former mining communities.

In chapter 4 I analyze how the assets of former mining operations can be capitalized for the redevelopment of a mining community. In this chapter I present several case studies in which former mining communities or broader areas have been preserved because of important cultural value they hold and how then they were transformed in important tourist attractions. Two mechanisms were analyzed for the enhancement of industrial heritage: the inclusion of a site on the UNESCO World Heritage List and to confer the status of European Capital of Culture. The second part of this chapter consists of a review of projects that exist in Romania for capitalizing the industrial heritage in those counties that were hardest hit by the closure of mining. A significant part of the analysis focuses on the factors that favored the transformation of salt mines in major tourist attractions and the benefits they have on the communities where they are located.

Chapter 5 consists in an analysis of the mineral resources of Romania from several perspectives. The first part of the chapter provides a historical perspective on the extraction of minerals in Romania in an attempt to illustrate the wealth of resources that our country has and that mining has helped ethnic diversification of population from the territories of Romanian Countries. Another contribution that this sector had was to multiply the existing jobs in mining by the emergence of other trades engaged in processing of ores and to create schools for the training of workforce. Then I present the industrialization policy during communism, how it led to more intensive exploitation of mineral resources of the country, the context in which the decision was made to restructure the mining sector and the impact that it had on the communities.

Chapter 6 presents and analyzes the programs adopted to solve the problems created by the restructuring of mining sector in Romania. The programs that are analyzed are those implemented through the projects of mine closure and social mitigation based on the loans from the World Bank, and other programs such as conferring the status of disadvantaged area,

providing redundancy payments, incentives for labor migration or temporary public works programs.

Chapter 7 consists of a case study on the factors that influence the degree of resilience of the former mining communities Cavnic and Borșa, Maramureș County. The specific objectives of the research were to analyze the trajectory of mining communities after mine closure, to assess the current status of communities compared to the state before mine closure, and to identify the factors that influenced the resilience of communities. The research was predominantly qualitative, and the methods used for collecting data were interviews and document analysis. There were 47 semi-structured interviews conducted with people having knowledge of the analyzed problem. 45 interviews were conducted in the two locations: 30 interviews in Borșa and 15 in Cavnic. The other two interviews were conducted with people working in two mining companies from Romania (Minvest Deva and CNH Petroșani). I tried to gather a variety of opinions about how the two communities reacted to mine closure, and therefore I conducted interviews with people who worked in various fields, such as public institutions, private companies or their family business, young people, retirees and active professionals. The two cities were selected based on several criteria according to which between them there were some similarities and differences: the size of the community, distance to other job markets, dependence on mining, mined ore type, place of origin of labor force, status as administrative-territorial unit, access to funding sources and topography. For each of the two localities, the degree of resilience was analyzed, as well as the factors influencing it.

Chapter 8 concludes the whole research results achieved in this work and makes recommendations on the organization of mining communities when deciding to open a new mine. The research results show different degrees of resilience in the case of the communities analyzed. City of Borșa managed to overcome the malfunction caused by mine closure in particular because of the migration of population to work abroad. I chose to describe the condition that city of Borșa turned in as a city connected to the economy of Italy. I believe that this is a temporary stage in the city development and I estimate that this stage will change in future. There are already changes in the behavior of inhabitants working abroad who tend to turn home more rarely as they began to settle down in the cities where they work. Perhaps this will be more pronounced in the case of children of migrants who grew up abroad and who have fewer ties with city of Borșa. The area in which the city is likely to develop sustainable over time is tourism. Borșa resort is classified as a

resort of local interest and in recent years accommodation base of the city was greatly expanded. If roads will be repaired and the projects started in the field of tourism will be completed, city of Borşa will turn into a major tourist attraction. Tourism is the field in which city of Căvnic is also seeking a competitive advantage. Although the town has not had experience in this field and had to develop the entire tourism infrastructure, Căvnic benefited from several advantages among which the most important is the existence of a strong leader with vision who dedicated his efforts to transform Căvnic into a tourism destination. Other advantages of the area are the cold climate with lot of snow during winter and topography that allowed arranging several ski slopes.

Analysis of the factors influencing the degree of resilience of the two communities showed a combination of factors specific to each community. In the case of Borşa migration of population to work abroad and the money that these people send home regularly are the most important factors that conferred resilience to the community. Instead, the city of Căvnic had the advantage of a powerful and visionary local leader who promoted the development of tourism. Poor condition of roads is another factor affecting the development of both cities, especially the development of tourism activities. The large dependence on mining influenced the trajectory taken by both communities as they entered into a state of exhaustion characterized by few employment opportunities for local population. Both localities are facing difficulties to diversify local economy and population is leaving the communities due to the lack of jobs, especially young population that does not see a future in staying in the community. Distance of two localities to alternative labor markets played an important role in the paths taken by them. Borşa city being located in a more remote part of the county and at distance from other large urban areas was more disadvantaged. Residents of the city did not have access to alternative job markets and therefore in Borşa migration of population abroad manifested more strongly. City of Căvnic which is located near Baia Mare municipality was not very attractive for investments in production activities (therefore creating jobs in community), but this proximity offered to some of the city's residents access to additional jobs. In both places the landscape influenced in the same way the degree of resilience of the two communities. On one side, the relief discouraged investors because none of the two towns had large enough plots for greenfield investments, and the relief did not allow widespread farming. Instead, the landscape created the opportunity for the two towns to develop tourism sector.

The research results are consistent with the results of other researches identified in the literature. The results of this research cannot be generalized to all mining communities in Romania as there are only two cases analyzed, and therefore in future this research should be continued with additional case studies on other former mining communities that should be chosen based on the variation of their characteristics. It is important to understand how the degree of resilience varies with the dependence on mining and I recommend selecting localities having a lower degree of dependence on mining, such as communities where textile factories were placed during communism to employ female workforce. Also, I recommend conducting case studies in localities having the status as territorial administrative units of a commune and that have access to other financial opportunities from European funds. Other factors that should be taken into consideration for choosing the case studies should be the type of ore and the extraction method used.

In the conclusion part of this paper I made several policy recommendations that should be taken into account by mining dependent communities or when discussing the option of starting a new mining operation. These recommendations are addressed to both local administration and the Government to understand how a decision to exploit a mineral resource (which is made at Government level and is a political decision) can be adapted in a responsible way to the life cycle of a community so that the long-term impact on the community is minimized. The mirage of large number of jobs to be created should not affect the future of the community that extends beyond the lifespan of a resource.

Preparing the community for the time the mining operations will be closed should begin when planning opening a new mine. The issues that need to be planned at this stage are: a) the geographic area the workforce will come from and how they will be accommodated in the community, b) preventing excessive dependence on a single economic activity and adopting measures for diversifying the local economic base, c) creation of a fund available to local administration to solve the problems arising from the closure of mining and environmental remediation, and d) establish the conditions for the case of closure regarding the time interval for announcing in advance the closure, compensation for dismissal, costs for stimulating population to migrate to other communities and other costs to be paid to miners. Depending on the lifetime it is estimated that the mine will have, the recruitment policies of labor force should be tailored, as well as housing patterns for miners. For example, if it is estimated a short-lived operation, there

should not be investments in construction of permanent housing, but should be encouraged commuting and employment of persons having an age that will allow them to retire when the mine closes. By adopting such measures it can be prevented the development of mono-industrial communities that have a low degree of resilience and it can be minimized the impact of mine closure on communities.

Adopting measures during the profitable stage of mining operation may have beneficial effects on the community and the community can be better prepared for the mine closure. A decision that usually is made at this stage and which influences the degree of resilience of mining communities regards the sale of housing spaces to the miners. If a decision is made to sell the houses to the miners, these people will tend to remain in the community which will enhance the social problems that the community will face after the mine is closed. On the other hand, during this period the City Hall and other organizations should support projects for the development of social capital in the community by encouraging people to get involved in community intervention projects. By supporting such projects the mutual help of population and social infrastructure can be developed that can be mobilized later for actions in response to crisis of mining sector restructuring. During this stage, the time of closure should be planned by determining how people will be alerted so they be prepared for such a situation. Therefore, channels of communication with miners should be developed so as not to create opposition among them and to block any constructive way to prepare for the closing time. Alternative programs to absorb the workforce that will be dismissed should be planned or it should be created the infrastructure that will encourage the entrepreneurship among the population. If these measures are not planned and prepared before closing time and they will be planned subsequently, they will fail to give the required mining communities the degree of resilience needed to overcome the crisis.

However, most of the measures are adopted after the mine is closed. Programs that are adopted during this stage usually have a standard structure and comprise retraining courses, counseling for job search, financial incentives for job creation, investment in public works programs and support for the migration of population to other cities. If the community was not prepared for this time, the chances for success of these programs are relatively low (which could be observed in the case of programs implemented in Romania). The greater the time elapses between closing time and the implementation of such programs, there are fewer changes for these programs to have an impact in the community. This problem was observed in Romania where

mining dependent communities were not prepared for the closure of mining sector, and the standard scheme of programs that was implemented failed to curb the decline communities had entered.

The communities should understand the importance of adapting the management of mining to the needs of community for sustainable development, and local administration should adopt the measures that will confer the communities the degree of resilience required to pass over the mine closure stage.

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