PARTICIPATORY RESEARCH APPLIED IN GEOGRAPHY.
THE RESULTS OF TWO FOCUS GROUP DISCUSSIONS IN THE JIU VALLEY

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Key words: participatory research, focus group, vulnerability local context

Abstract. The participatory approach has become an important tool to increase the applicability of the research studies and to improve the communication between scientist, local people and decision-makers. In the research project Human vulnerability to environmental change in the mining communities of Romanian Carpathians. Case study: the Jiu Valley the participatory approach was used as a tool to learn together with local people and to discover together the desirable development pathways for their communities. Through interviews and focus group discussions there were collected data about people’s perception on vulnerability causes, the main environmental and socio-economic threats on their livelihoods, the features of social capital and development options. The primary data obtained from the focus-group discussions provided a more complete image of the local vulnerability context and helped us to validate or reconsider our research hypotheses. This proves the applicability of participatory research, less used in the geographical studies.

The participatory approach has become an important tool to increase the applicability of the research studies and to improve the communication between scientist, local people and decision-makers. Participatory approaches emerged from the ineffective top-down decision-making, which characterized environmental management and development planning in the 1970s and the early 1980s. In the mid-late 1980s, rethinking environmental management and development planning resulted in an increase in public involvement (Roncerel et al., 2003). Participatory approaches are now applied extensively across sectors, from health care to natural resource management, hazard/risk studies and vulnerability assessment.

The main principle of the participatory research is that the key stakeholders of a policy or intervention are closely involved in the process of identifying problems and priorities and have considerable control over the related activities of analysis, planning and the implementation of solutions (DFID, 2001).

Stakeholders are people who are affected in some way or another by an activity; the term relates to any actor or group of actors who have a clear stake in a problem and who may play an active and contributing role in solving the problem (Roncerel et al., 2003). The stakeholders are representing the interests of various sectors: the local communities, the policy makers, the private sector (businesses, small and medium-sized enterprises); the non-government organizations; the civil society organizations etc.

In the research project Human vulnerability to environmental change in the mining communities of Romanian Carpathians. Case study: the Jiu Valley the participatory approach was used as a tool to learn together with local people and to discover together the desirable development pathways for their communities.

In this project vulnerability is seen as the degree to which an exposure unit is susceptible to harm due to exposure to a perturbation or stress, and the ability (or the lack thereof) of the exposure unit to cope, recover or fundamentally adapt (become a new system or become extinct) (Kasperson et al., 2002). Vulnerability is determined by multiple factors (ecological, economic, cultural and political), that interact in complex ways, and

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this complexity takes different shapes in different locations. Thus, most scientists agree that is essential for user to define vulnerability in their own context (Downing et al., 2003).

In order to better capture the local context and to provide a final report usable by local people and decision makers, the stakeholders are involved in each step of the research activity.

Through interviews and focus group discussions there were collected data about people’s perception on vulnerability causes, the main environmental and socio-economic threats on their livelihoods, the features of social capital and development options. To validate the research questions and to confirm or improve our research hypotheses, two focus group discussions were organized in Petrosani, in August 2004.

**Focus group** research involves organized discussions with a selected group of individuals to gain information about their views and experiences of a topic (Gibbs, 1997). Focus group interviewing is particularly suited for obtaining several perspectives about the same topic. Focus groups are a form of group interviewing but it is important to distinguish between the two. Group interviewing involves interviewing a number of people at the same time, the emphasis being on questions and responses between the researcher and participants. Focus groups rely on interaction within the group, based on topics that are supplied by researcher.

The size of the focus group varies between six and twelve people and it depends on the purpose of the study. The participants are not a representative sample of the population; the composition of a focus group is usually based on the homogeneity or similarity of the group members. Bringing together people with common interests or experiences makes it easier for them to carry on a productive discussion (ASA, 1997). Participation in a focus group is voluntary and confidential.

A focus group session should last about 1-1/2 hour with 2 hours being the maximum time. A group facilitator keeps the discussion on track by asking a series of open-ended questions meant to stimulate the discussion.

Among the advantages of focus groups are the following:
- a wide range of information can be gathered in a short period of time;
- the facilitator can explore related but unanticipated topics as they arise from the group interaction;
- focus group do not require complex sampling techniques.

There is also a set of accompanying disadvantages:
- focus group requires a highly skilled moderator;
- the quality of data is influenced by the communication skills and motivation of the moderator;
- groups are often difficult to assemble;
- individual responses are not independent of one another;
- the sample is not representative of a target population, so the results cannot be generalized or treated statistically.

Several sociological researches have focused on the Jiu Valley, especially on the social impact of the economic restructuring, the quality of the social capital and the access to educational, informational and financial resources (Larionescu et al., 1999; Krausz, 2000; Crăciun et al., 2002; DEEP, 2002; AVJ, 2003).

The aim of the present study is to emphasize the geographical dimension of human vulnerability to environmental change and the social research methods are used as tools to obtain qualitative data and to incorporate the experience and insights of local people in hypothesis and analysis.
The participants were selected in order to obtain opinions – as diverse as possible – on the local problems. At the first focus group (FG1) we brought together six representatives of the local people, of the non-government organizations, and of one firm focused on juridical consultancy for the civil society. Their ages were between 17 and 60 years and four of them had college education.

The nine participants at the second focus group (FG2) were the representatives of the local administration, of the National Harcoal Company and of the National Agency for Development and Implementation of Reconstruction Programs in the Mining Zones (ANDIPRZM); all participants had college education.

The initial set of open-ended questions focused on the following problems:
- natural hazards in the Jiu Valley;
- their impact on livelihoods;
- the impact of human activities on the environment;
- the links between human activity and the occurrence of the natural hazards;
- the level of vulnerability to environmental change and of adaptive capacity, in comparison with other regions;
- the quality of the social capital.

During the discussions, new questions arose, concerning the level of human impact on environment before and after 1989, the image of the Jiu Valley and the sustainable development options for this region.

The data analyze. The data obtained at the discussions are qualitative and they are not representative for the opinion of the whole population or decision-makers. The sessions were tape recorded and transcribed after the meeting. One assistant took notes during the meeting, to better capture the participants’ reactions.

After the transcription, we identified key words and concepts that reoccur and group them into several categories. Then, we interpreted the data and we tried to compare the two focus group conclusions. The results couldn’t be compared in a strict quantitative sense, because of the lack of representativeness, but we looked for common views and differences in explanations or interpretations.

Table 1

<table>
<thead>
<tr>
<th>Natural hazards: occurrence, impact, perception</th>
<th>Focus group 1</th>
<th>Focus group 2</th>
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</thead>
<tbody>
<tr>
<td>Common conclusions</td>
<td>The Jiu Valley is characterized by a low level of exposure to natural hazards. <em>Here, in the Jiu Valley, there are only a few natural phenomena with major impact In terms of natural hazards, the Jiu Valley is an isolated and safe region.</em></td>
<td>The human activity influences the occurrence of natural hazards. <em>Natural risk phenomena are related with deforestation.</em> <em>The mining activity has also an influence on the occurrence of natural hazards We should blame people (for the occurrence of natural hazards), not nature.</em></td>
</tr>
<tr>
<td>Impact on livelihoods</td>
<td>Low impact People are not feeling threatened. They think that the local peasants –momăranii– should feel threatened, because they have lands on the hills.</td>
<td>High impact...giving the poverty, every natural risk phenomenon becomes a catastrophe in the Jiu Valley.</td>
</tr>
<tr>
<td>Adaptive capacity to natural hazards</td>
<td>The adaptive capacity to natural hazards was not considered an important issue, because people have higher difficulties to</td>
<td>Very low adaptive capacity, because of the socio-economic context.</td>
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adapt to socio-economic changes.

<table>
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<tr>
<th>Measures required to reduce the impact of natural hazards</th>
<th>Forestations.</th>
<th>Projects aimed to consolidate the areas affected by mass-movements.</th>
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### Impact of human activities on environment

<table>
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<tr>
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<tr>
<td><strong>Common conclusions</strong></td>
<td>The measures aimed to reduce the human impact on environment should be taken by authorities. A change in people mentality it is also required and this will be achieved through education and a new legislation. ... People begin to cooperate with us when they are seeing that our attitude changed...(FG2).</td>
</tr>
<tr>
<td><strong>Comparing the features of the periods before and after 1989 (communist regime fall)</strong></td>
<td>The human impact on environment is higher after 1989. <em>The impact of mining was high before, but now it is disastrous.</em> The proportion of deforestation is incomparably higher now than before... The waste dumps were stable before... Mines conservation will lead to a disaster...after a time the mines will collapse. They (the authorities) shouldn’t close the mines.</td>
</tr>
<tr>
<td><strong>The environmental protection institutions</strong></td>
<td>They were more efficient before 1989. People’s attitude was different. The coercions and the policy of the communist party induced a certain cohesion of the communities and a certain level of civic engagement: They were all indoctrinated and they believed that they have a role to play in building communism...The effect of this mentality was clearly a positive one.</td>
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<tr>
<td><strong>Measures required to mitigate the human impact on environment</strong></td>
<td>Forestations, improved town planning measures, enhancing civic engagement through education and legislative coercions.</td>
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<tr>
<td><strong>Consolidation of the areas affected by the land degradation, investments in ecological reconstruction projects, increase public involvement in decision-making processes at community level.</strong></td>
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### Development options

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<tr>
<th>Focus group 1</th>
<th>Focus group 2</th>
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<tr>
<td><strong>Common conclusions</strong></td>
<td>The negative image of the Jiu Valley hinders the entrepreneurial initiatives and the development of an attractive business environment.</td>
</tr>
<tr>
<td><strong>Tourism</strong></td>
<td>The tourism will not solve the unemployment problem. The image of the Jiu Valley will be improved by tourism development, but tourism could not be a base for economic development. Tourism activities had not a negative impact on the environment. The authorities have difficulties to develop the adequate tourism infrastructure.</td>
</tr>
<tr>
<td><strong>Alternatives for the socio-economic development of the Jiu Valley</strong></td>
<td>Development of the local university. The appearance of a new important employer: a major investment from outside will increase the attractiveness of this area.</td>
</tr>
<tr>
<td><strong>Step-by-step development of the local business environment. Everybody would like that a flourishing industry appears over night and solves the unemployment</strong></td>
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problem...we are aware that this could not happen. A development option would be the utilization of the local resources (gathering forest fruits, medicinal herbs and mushrooms).

Obstacles in the implementation of the development options

<table>
<thead>
<tr>
<th>Obstacles in the implementation</th>
<th>The local investors are hindering outside investments, in order to protect their interests.</th>
<th>The investors have difficulties to find spaces for offices and production facilities. Low level of civic engagement in the local projects.</th>
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Social capital. The image of the region.

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<tr>
<th>Focus group 1</th>
<th>Focus group 2</th>
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<tr>
<td>Social capital</td>
<td>Heterogeneous communities</td>
</tr>
<tr>
<td></td>
<td>Low level of human and social capital</td>
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<td></td>
<td>Obvious “boundaries” between miners’ communities and local peasants’ (momârlani) communities.</td>
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<td></td>
<td>The immigrants who come into the Valley had different levels of human and social capital. The workers arrived after 1950 were not as civilized as the Hungarian or the Austrian immigrants.</td>
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<td></td>
<td>The problems began after Ceauşescu became the leader of the communist party and workers from all over the country were brought into the Valley...since then, after the coming of this human flood, the equilibrium broke... (FG1)</td>
</tr>
<tr>
<td>The image of the Jiu Valley.</td>
<td>There is a negative image of the Jiu Valley at national level, because of the social conflicts emerged here (mineriade)</td>
</tr>
<tr>
<td>The feeling of isolation.</td>
<td>The opinion of a policy-maker from government, quoted by the participants: the Jiu Valley is a small entity, which pollutes its self and it is not a concern for the rest of the country...</td>
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<tr>
<td></td>
<td>...We are isolated because of the way in which we are perceived at the national level and this perception was generated by “mineriade”...It will last ten years until this perception will disappear...or until the changes from the Jiu Valley will strike the country.</td>
</tr>
<tr>
<td></td>
<td>The socio-economic and environmental problems of the Valley are not worse than those of the other regions.</td>
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<tr>
<td></td>
<td>An improved communication between the researchers, policy-makers and the local people it is required in order to understand the realities of the Jiu Valley.</td>
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1. Natural hazards. The questions concerning the frequency, the impact and the perception of natural hazards emphasized a common conclusion of the both focus group meetings: in the Jiu Valley, the level of exposure to natural hazards is perceived as low. All the participants at the FG1 insisted on the causal link between deforestations and the floods’ occurrence. They stated that there are required several measures (as sustainable forestry, forestations and a higher involvement of the civil society) in order to prevent the occurrence of natural hazards and to preserve the natural tourist potential.

The anthropic causes of natural hazards, as floods (e.g. the flood occurred at Lupeni, in June, 2004) or land degradation (e.g. the falls that affected several houses and households in Lupeni and Petrila) were also an important topic at the FG2. The participants at this meeting estimated that the mining activities influenced to a certain extent the increasing frequency of natural hazards. The impact of deforestations on the natural hazards frequency was qualified as low: „there is no causal link between deforestations and the rainfalls from 2004...the deforestations have no impact, only a few landslides...” (FG2).

Concerning the impact of natural hazards on people’s incomes, the unanimous conclusion at the meeting with the authorities was that, given the socio-economic background of the region, the impact on livelihoods is significant and the level of adaptive capacity is very low: „Given the precarious financial resources of the local people, no
matter what event will occur, it will be considered a catastrophe...a rainfall with hail, a damaged road…” (FG2).

The representatives of the local authorities and of the NHC specified the following measures aimed to mitigate the natural hazards impact: the consolidation of the areas affected by mass-movements, reparations for the people whose houses or households were damaged by the geomorphologic hazards. So far, the implementation of these measures was hindered by the lack of financial resources (“there is a lot to do, but we don’t have financial resources” - FG2) and by the local people’s attitude: “they [the local people] have been warned when they bought the houses [in the areas affected by the mass-movements], but they are now claiming for repairs and they are always dissatisfied with their amount” (FG2).

The participants at the FG1 had different opinions concerning the impact of natural hazards, because most of them referred to their one experiences: “the natural hazards wouldn’t affect us, judging from what happened to us so far…” (FG1). Unlike FG2, where the participants referred to the general situation, the results from the FG1 suggested that the impact of natural hazards varies at different spatial levels in the Jiu Valley, e.g., the towns inhabitants are less affected than the local farmers – the so called momârlani. In the towns, several areas with a higher level of exposure to the natural hazards were also distinguished, e.g. the miners districts (colonii) from Petroşani and Lupeni are highly exposed to natural hazards (especially floods and mass-movements), mainly because of the inadequate location of the houses and of the low living standard.

At the FG1, the adaptive capacity to environmental changes was not considered a problem: “the people from all over the country came into the Valley and they adapted to the local conditions”. On the other hand, the participants insisted on the socio-economic changes and on their difficulties to adapt to the new conditions. Only one participant mentioned the poverty as a possible cause of the environmental degradation, which could also influence the people’s ability to adapt to these changes.

The both focus group discussions suggested that it is unlikely that the mines closure would cause environmental degradation, through the development of new economic activities and of new livelihoods (e.g. deforestations aimed to increase the agricultural lands, overgrazing etc.).

Given these results, we concluded that, although the exposure to natural hazards is perceived as low, the local people are aware that these events could have a major impact, because of the socio-economic features of the region. Thus, one of the research hypotheses (high level of exposure, major impact of the natural hazards and low adaptive capacity) was partly validated.

2. Human impact on environment. The research hypotheses concerning the impact of the human activities on environment and the required mitigation measures were validated by the results of the two focus group discussions. The common conclusion of the discussions was that human activities are the main causes of environmental degradation in the Jiu Valley, and the mitigation measures should be implemented by both authorities and local communities. Besides ecological reconstruction of the areas affected by mining, improving the town planning actions and forestations, the participants specified that it is also required the development of civic engagement. They opined that it is necessary to educate people and even to establish legislative coercions in order to change their attitude on environmental issues.

The participants at the focus group discussions were asked to compare the level of human impact on environment before and after 1989 (during the communist regime and in the socio-economic and political transition). At the meeting with the local people, the participants stated that the human impact on environment was lower before 1989 than in
the next period and the environmental protection institutions were more efficient, because of the communist regime compulsions and of the people’s mentality (“socialist construction” required a certain degree of civic involvement). The authorities explained this opinion as a consequence of the dissatisfactions generated by the mines closure.

The representatives of the local authorities, of the NHC and ANDIPRZM had a different opinion: after 1989, the impact of mining activities on environment decreased as a consequence of the economic restructuring and of the ecological reconstruction activities (e.g. cleaning the waters of the Jiu river, grassing the waste dumps). They opined that the Jiu Valley’s environmental problems are not worse than those of other mono-industrial or mining regions (e.g. Baia Mare, the Motru-Rovinari coal field, Copşa Mică) and that the mining affected areas will be reconstructed.

There were emphasized the difficulties faced by NHC in informing the local community about the ecological reconstruction programs, e.g. the cleaning of the Jiu waters was considered by the media an insignificant information: “…so many bad things have been said about the Jiu Valley, that the good news seem untrue…” (FG2).

3. Development options. Given the fact that the tourism is seen by the decision-makers as one of the most important development options for the Jiu Valley, several questions referred to the participants’ opinion on this issue.

The representatives of the local NGOs and of the local people emphasized the fact that the present-day socio-economic and environmental context of the Jiu Valley will hinder the development of tourist activities (e.g. the lack of winter sports facilities, the inadequate infrastructure, the lack of a cultural identity and of the local traditions, the degradation of the natural tourist potential through mining and deforestations): “in the long run, we are going to lose this game…this Valley could have a better future, but if we are destroying the forest, the development of tourism would not be possible anymore” (FG1). They also opined that the tourism development will have a significant impact on the mountain environment, because of the inadequate location and design of the new buildings.

The representatives of the local authorities and ANDIPRZM stated that the tourism development will improve the image of the Jiu Valley, but it will not solve the unemployment problems of the region.

The participants have also mentioned other possible development options for the Jiu Valley, as the development of the local university, the development of the local business environment, the appearance of a new important employer or the utilization of the local resources (gathering medicinal herbs and forest fruits). According to their opinion, the implementation of these options was hindered mainly by the negative image of the Jiu Valley, which discourages the investors to come into this region. The bureaucracy, the corruption and the difficulty to find new production spaces have also a negative influence on the local economy revival.

The representatives of the local administration declared that the difficulties to establish a relationship with the local communities and the low level of civic involvement have also hindered the implementation of some local projects.

4. Social capital. One of the research hypotheses was that the Jiu Valley mining communities have a low level of social and human capital, which jeopardizes their adaptive capacity to socio-economic and environmental changes. The results of the two focus-group meetings confirmed that there are obvious dissimilarities among the inhabitants of the studied region, especially in terms of their education and culture. Those features are related with the period and the context of their arrival into the Jiu Valley.
The demographic heterogeneity affected the communities cohesion and the quality of social capital, that is the social networks between different groups, not inside them, because it is well-known the solidarity of the miners with their co-workers (ortacti). The demographic heterogeneity was also increased by the lack of networks between miners and the local peasants’ communities.

On the other hand, the degradation of human and social capital was induced by the socio-economic processes, not by environmental changes; the participants could hardly specify even one situation in which the environmental changes induced cultural loss or migrations.

5. The image of the Jiu Valley. Both focus-group discussions and interviews run in the same period (August 2004) in the Jiu Valley emphasized the fact that the local people perceive themselves as isolated in comparison with the inhabitants from other regions of the country. According to their opinion, the negative image of the region is a consequence of the social movements emerged into the Valley (minerăde), which affected the whole country stability and external image.

The participants opined that the socio-economic and environmental problems of the Jiu Valley are not worse that those of other mono-industrial regions, and the decision-makers are not well informed about the local context: “they [the decision-makers] are staying in their offices and they believe that they understand the features of the Jiu Valley…in the field, the contact with the real issues of the region changes their opinion…” (FG2).

The media also contributed in a significant measure to the emergence of this unfavorable perception of the Jiu Valley.

6. Conclusions. The final conclusion of the both focus-group discussions was that an improved communication between people and the local authorities it is required in order to better understand the Jiu Valley local context. The primary data obtained from the focus-group discussions provided a more complete image of the local vulnerability context and helped us to validate or reconsider our research hypotheses. That proves the applicability of this research method, less used in the geographical studies.

The conclusions of the focus-group discussions, together with the results of the interviews run into the Jiu Valley communities, will improve the communication between the local people, researchers and decision-makers, ensuring a higher applicability of the research studies.

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