



## The Political Ecology of Gold and Diamond mining in Bolívar State / Venezuela (03/2001)

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### Focus of research

The study focuses on an analysis of actors and socio-economic processes concerning gold and diamond mining activities in forest regions in Bolívar State/Venezuela. Mining activities in these areas have various impacts on the natural environment, most prominent of all the clearing of patches of tropical forest, mercury pollution and river sedimentation. Concerning the actors involved, it needs to be considered that on one hand, mining is an important source of income and a survival strategy for impoverished people in Venezuela as the formal economy can not offer job opportunities to half of the population. On the other hand, also large-scale, industrial mining companies have shown growing interest in mineral exploitation in the region since the 1980s. This situation has caused severe conflicts between environmentalists and mining interests and between large scale mining companies and small scale miners who are fighting over access rights to mineral resources. Current state programmes that particularly support the large scale mining sector, aim to integrate mineral resources in forest areas of the South into the National Economy and to harmonize this economic interests with the conservation of forests. These programmes are, however, not only fragmented and contradictory, but also largely focused on technical feasibilities and macro-economic necessities. Small-scale miners and other local actors mainly appear as statistical figures in national and regional development plans whereas interests of the wider society are completely ignored or pushed to the margin of perspective.

Discussing the mining activities in the Bolívar State in abstract terms of international and national market demands, nation-building processes and/or in narrow ecological discourse, delinks mining from its larger historical and socio-economic context. Locating mining activities in an anonymous space and abstract terms, obstructs the view on important decision-making processes within the Venezuelan mining sector. This study will show that effective management has to accept that the physical region overlaps with a social space with a large diversity of regional and non-regional actors. A central aim of the study is to scrutinize exploitation methods, regulation practices, legitimization and representation strategies of actors involved (small-scale miners, mining companies, state representatives, administration officials) in order to get a deeper - in the Venezuelan context embedded - understanding of forest destruction by mining activities.

### Hypotheses of the study

Leading questions of the study are: Who (which social or economic group respectively institution) realizes his interests on grounds of what political and/or economic position? How do they claim their interests? And what are the impacts of these different interests/activities on forests? In this context the study pursues three hypothesizes:

1. Destruction of the environment through mining activities on the local level results to a great extend from larger national socio-economic problems and the lack of coherent and transparent national politics (environment, regional and mining politics). That means: the environmental destruction on the local level is the manifestation of unsolved conflicts in the national framework and national setting.

2. Relations between institutions on the national and regional level - where the mechanisms are created to regulate the mining sector and environmental laws are worked out - and the local level - where environmental destruction takes place - are relatively poor and weak with the effect that these different actors do not perceive the central problems of the "other world".
3. It is necessary to "demystify" relevant actors and to analyse their perceptions of forests and their concepts of forest use. For example, the miners on the local level should not be seen only as destroyers of the environment. To minimize environmental destruction one has to pursue a more differentiated perception of miners and their activities.

## **Methodology and methods**

The research perspective follows the analytical frame of *Political Ecology* approaches which are based rather on specific ways of inquiry than on a coherent theory (BRYANT & BAILEY 1997; PEET & WATTS 1993). One central aspect in the methodology of *Political Ecology* approaches is to look for the social causes underlying environmental changes, to analyze how environmental change affects different social groups, and to explore the social construction of given explanations for environmental problems. Converting this theoretical perspective into inquiry techniques of empirical and regional social science requires the application of various instruments for data collection and analysis (questionnaires, document analyzes, mapping). Qualitative and interpretative methods, however, are more relevant than quantitative and positivistic methods. Since actors, perceptions and interests receive special attention in political ecology studies, action- and perception-oriented approaches are of particular importance.

### **Data material concern:**

- information on the national economy
- interviews (structured and non-structured) with governmental officials, NGO workers, managers of large-scale mining companies, experts and key-persons
- developing programs and laws concerning environment, regional planning and mining
- political articulation and resistance strategies of miners
- forest images and perceptions of actors involved in mining (oral communication, periodicals, official documents,...)
- socio-economic profile of mining communities, including subjective situation descriptions and long-term life expectations (400 structured questionnaires)
- demographic structure of miners' communities (education, sex,...)
- field studies on exploitation methods and their impact on the forest
- mapping of mining villages and impacts on the surrounding vegetation (superficial)
- evaluation of forest cover destruction by mining activities based on aerial photographs)

### **Preliminary findings**

- Results of the questionnaire surveys indicate that the crisis of the national economy is one of the most important "push-factors" for the expansion of mining activities into the forests and not as generally stated the excessive hope for quick wealth. The forests in the South of Venezuela are to be seen as stages of poverty migration.

- Mining communities are not at all anarchic and unorganized. There are e.g. organized mining co-operatives and associations that try to change the public image of small-scale miners as criminals and mercury-using destroyers of the environment. Small-scale miners' efforts to "green" their activities - e.g. by reforesting former mining areas, and by implementing environmental regulations in mining communities - might often lack efficiency and serious ecological thinking. Yet, their growing awareness of ecological issues as well as already established organization structures in the small-scale mining sector offer opportunities towards a more socially and ecologically just state resource politics.

- Large-scale mining companies are seen as development poles with trickle-down effects. In the official version, (multi-national) private companies will develop the mining sector to a greater extent, creating job opportunities and national benefits through taxes. These arguments are accompanied with an ecological one, advocating capital-intensive and technologically advanced mining as less destructive than small scale mining. Data basis for the state favourisation of large scale mining, however, is not convincing. Neither the economic nor the ecological argumentation is based on empirical facts (see MÜLLER & GRIMMIG & AICHER 1998).

- Only by contextualizing current conflicts around mining in the specific history of Venezuela as a "Petro-state" and the Venezuelan-specific perceptions of natural resources, it becomes understandable why the Government especially opens the mining sector to (trans)national capital. For instance, due to its importance in the oil-dominated development of Venezuela, the Ministry of Energy and Mining (MEM) is one of the best established ministries in the country which developed its "working tools" in large-scale mining (oil, bauxite, iron) with little experience with small-scale projects (see MÜLLER & GRIMMIG & AICHER 1998).

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