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Review of the doctoral dissertation “Methods of obtaining social acceptance for mining activities”, presented by Ms. Zuzanna Łacny

The dissertation for obtaining a doctoral degree at the AGH University of Science and Technology – in the field of Science Engineering and Technology (scientific discipline ‘Environmental Engineering, Mining and Energy’), proposed by Ms Zuzanna Łacny is entitled “Methods of obtaining social acceptance for mining activities”.

The main goals and research-questions of the thesis are clearly stated and outlined at two places in the thesis: in chapter 3.1 the (specific) goals are addressed, while research questions are stated in chapter 1 (introduction):

- The identification of specific solutions that will contribute to the increase of social acceptance for mining activities (p41, chapter 3.1)
- Identification of problems occurring at all stages of mining activity and factors influencing the shaping of social acceptance for mining (p41; chapter 3.1)
- What solutions can raise awareness and support for mining development while respecting the interests of communities and the environment? (p.13, chapter 1)
- How can procedures related to mining activities can be systematised to operate transparently and in line with all stakeholders? (p.13, chapter 1)
- To what extent should the local community be allowed to be involved in decision making processes in order to both meet their expectations but also enable mining companies to run their businesses without disruption? (p.13, chapter 1)

Hence, the main aim of the PhD thesis is to provide a better understanding of mechanism that drive and result in increased social acceptance at different stages of the mining life cycle, expecting that the

“recognition of factors affecting the level of social acceptance of mining activities is the basis for developing methods that can contribute to its improvement. A properly planned mining project, including public participation at all stages of the mine’s life, combined with spatial planning that takes into account the protection of mineral deposits and education, significantly increase the chances for social acceptance of mining activities.” (p.41).

The PhD-thesis is carried out as a monograph and is focussing on Poland from a geographical and policy perspective, with the required institutional/policy links to EU level. The dissertation is structured in 3 main parts: (i) empirically assessing the degree of ‘social acceptance’ (social license to operate) in four case studies, that represent different stages of the mine-life-cycle; (ii) description of the policy framework, focussing on describing policy goals in spatial planning and regarding safeguarding mineral resources/deposits on different administrative levels (national to local); and (iii) assessment of reasons for public disapproval of mining activities and (iv) proposition of different aspects for various planning procedures along the mining life cycle from exploration to revitalisation.

Contextualisation and embeddedness in the academic debate:

The PhD thesis is properly contextualised and embedded in the current policy debate on EU level. Links to the ongoing and previous EU research projects (chapter 2.4) are illustrated and shows that the PhD candidate is aware of the research arena regarding mining and minerals extraction, which in the recent years started to investigate the interstices of mineral extraction/extractive industries, land-use planning, socio-ecologic systems and sustainability sciences. Thus, it is reasonable that the candidate embeds her PhD thesis in the conceptual debates surrounding Social License to Operate (or social acceptance). The candidate shows that she is aware of the current academic debate on SLO and its theoretical roots in CSR. The main literature is depicted, though the main lines of reasoning, commonalities and differences are not clearly worked out. While SLO works quite well for ‘industry’ or company practises gaining SLO, its theoretical and conceptual counterpart on public participation and civic engagement in (spatial/land-use) planning has not been addressed in the thesis, even though (spatial) planning was empirically addressed in chapter five and discussed in chapter six. Using SLO as conceptual lens for public participation (as counterpart to community engagement of companies) might have been possible, but would have required that those two separate academic debates are amalgamated or at least comprehensibly linked in chapter two.

Methodology

The methodology is outlined in chapter 3.2: the author reasons for a case-study approach complemented by a quantitative survey sampling the *“opinions of stakeholders in areas related to mining activities”* (p.44). The survey is applying existing work from Thomson and Boutillier (2011) to measure the degree of public acceptance. The survey analysis is carried out with statistic methods.

The candidate investigates four case studies (metallic mining), covering different stages of the mine-life from ‘planned’, active operational, planned for liquidation and one post-mining site. For reasons of clarity and comprehensibility a more detailed and in-depth explanation and reasoning regarding case-study selection and case boundaries would have been beneficial from a scientific point of view.

The same issue refers to the degree of provided information on the distribution/sampling strategy of the questionnaire, response rate etc. The sample sizes (between 46 and 79 responses per case) might be considered comparatively modest, suggesting that the results might be rather explorative than representative for the sampled mining communities.

A more detailed explanation regarding the policy analysis (chapter 3.2.3) would have been helpful: it might have been worth the effort to use standard methods to investigate policy (e.g. coherence, agenda setting, policy implementation, policy coordination), which are provided in policy science, public administration and even planning studies. Given, that the candidate is actively addressing policy coordination (horizontally/vertically) in chapter five, from my point of view this part would have deserved more attention regarding methodology and the implementation of established methods and categories. The author remains inconclusive how exactly this part of the PhD-research has been conducted, in particular given that there is a significant body of knowledge and methods existing. More clarity and transparency on that part would have been desirable.

Results and Discussion

The case studies and survey results are presented in chapter four: the case study descriptions include information on the companies, geographical embeddedness, historic background, socio-economic context, involved stakeholder-groups and the description of competing or conflicting interests/land-uses. The survey results measuring SLO/social acceptance are presented for the four cases individually. Calculated correlations aim to determine whether different variables are correlating with each other and impact the level of social acceptance.

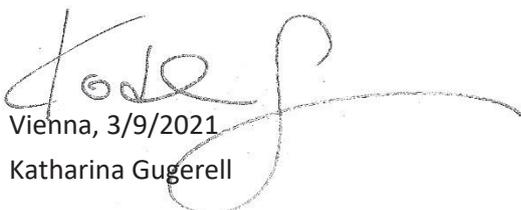
Chapter 5 describes spatial policy on different spatial scales from EU level down to national policies and strategies on national level. In this part, the candidate also introduces the topic and policy goal 'safeguarding' (sterilization) of mineral resources/mineral deposits by the means of spatial planning. Hence, the author pursues to horizontally and vertically link different policy arenas (silos) of spatial planning (incl. participatory approaches) and mineral extraction/mining policy. The chapter illustrates the variety of policy goals regarding mining/quarrying, mineral extraction and public participation and possible tensions arising from competing and/or conflicting goal setting.

Also, chapter five explains challenges (chapter 5.3) on the interface of planning, participation (public, company) and mineral extraction at different stages of the mine life-cycle (including revitalization), vividly illustrating the fragmented or incomplete implementation of (valuable) policy goals on sub-national levels. Hence the candidate illustrates her fundamental understanding of challenges and barriers in policy implementation and challenges emerging from vertical coordination or even the 'unwillingness' to implement, which might cause further tensions and public/community disagreement on local level. In chapter 6 the candidate is taking up this complexity, firstly discussing different aspects that drive social acceptance or public disapproval. While this chapter illustrates a close link to 'practical' considerations and 'praxis' (practise), it is a pity that the candidate did not tangibly discuss how her research contributes to the current academic debate and how the overall scientific body of knowledge benefits from her research. From an academic point of view, this might be considered a shortcoming.

Interesting, but difficult to follow are the subchapters on 'media' and 'education' (p 108) where it remains unclear on which data and original research these chapters are based on; as well as table 6.1 where it remains unclear how the candidate actually assesses the presented factors. In chapter six the author proposes a set of different aspects, tools and mechanisms that address various aspects of civic participation along different stages of the mine cycle that the author considers useful to gain public acceptance. It would have been helpful to discuss that proposal through the conceptual lenses of public participation (planning theory) and SLO to clearly carve out the author's contribution to (i) the current academic debate on SLO and public participation, and (ii) methods to gain SLO and public acceptance, which apparently was the focus of this PhD thesis. However, chapter six provides knowledge and recommendations that are valuable for the extractive industries and practise.

Summarising statement

Overall, the author shows that she has taken an active role in conducting original research on the required PhD level, starting from a comprehensive research question, selecting and implementing the research via different methods and producing meaningful results. Those results probably have a stronger relevance for mining practise/extractive industries than for the academic conceptual/theoretical debate. Despite some weaknesses in particular in the analysis of public policy, spatial planning and theoretical considerations on the public (planning/public participation) side of participation, the dissertation illustrates the candidate's profound understanding of the topic in particular from a mining and engineering perspective. The addressed weaknesses mainly concern issues that might not be in the core of the candidate's professional background and might also explain the stronger practise perspective. The thesis presented by Ms. Zuzanna Łacny meets the fundamental standards of a doctoral thesis and clearly documents the candidate's capacity to independently conduct research in the particular research field. Thus, I recommend to admit it for public defence.



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Katharina Gugerell