Environmental and social impacts of mining activities in the EU
Content of the forthcoming report on impacts of mining activities

1 General information
2 Introduction
3 Impacts of mining activities
4 Brief overview of the most relevant EU legislation
5 Worries, disputes and main sources of conflicts connected to mining activities in EU
6 Analysis of selected petitions
7 Measures to mitigate the negative impacts of mining activities
8 Future of mining activities in the frame of green deal, just transition and sustainable development goals
9 Conclusions and policy recommendations
Mining has always impacts

- Case specific
  - Local characteristics, geology, technology, etc.
- Potential impacts
- Role of risks in mining
- Difficult to generalize
Environmental impacts

- Direct and indirect
- Different scales: site – regional – even global
- Different types of mines
  - Open pit, underground
  - Artisanal, small-scale, traditional gold mining
- Different type of impacts
  - Impact on land, water, air, etc.
Examples of potential impacts

<table>
<thead>
<tr>
<th>Land</th>
<th>Water</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topography, landscape</td>
<td>Changes in hydrology</td>
<td>Dust</td>
</tr>
<tr>
<td>Habitat changes</td>
<td>Ground water</td>
<td>Smell</td>
</tr>
<tr>
<td>Loss of biodiversity</td>
<td>Surface water</td>
<td>Noise pollution</td>
</tr>
<tr>
<td>Erosion</td>
<td>Wastewater discharges</td>
<td>Light pollution</td>
</tr>
<tr>
<td>Alteration of soil profiles</td>
<td>Risks of contamination of nearby waterways</td>
<td>CO2 and other GHG gases</td>
</tr>
<tr>
<td>Risks of contamination</td>
<td>Water scarcity</td>
<td>Seismic</td>
</tr>
<tr>
<td>Deforestation</td>
<td>Clouding</td>
<td>Cumulative impacts</td>
</tr>
</tbody>
</table>
Social impacts

- Positive and negative
- Can be divided unequally
- Different stages, different impacts
- Different types of impacts
  - Economic, employment, competition…
Examples of *potential* impacts

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax income, royalties</td>
<td>Impact to existing livelihoods</td>
</tr>
<tr>
<td>Local employment and contracting opportunities</td>
<td>Economic risks: bankruptcy, increased community dependency</td>
</tr>
<tr>
<td>Investments and business opportunities</td>
<td>Competition of land use</td>
</tr>
<tr>
<td>New infrastructure and services</td>
<td>Perceptions of safety</td>
</tr>
<tr>
<td>“Revitalization of areas”</td>
<td>Risks of rifts between groups</td>
</tr>
</tbody>
</table>

- Migration streams
- Housing
- Recreational areas
- Downstream impacts to other industries etc.
Impacts can transform into concerns and conflicts

- Fueled by changes in environment but also by changing societal values
- Different types of conflicts
  - Local, industry level, national+
  - Latent, moderate, high
Mining conflicts

- Number of conflicts has increased
- … and is predicted to rise more
  - Mineral demand is growing – energy transition and geopolitical reasons
  - Growing demand may increase pressure for projects in sensitive areas
What causes people to send petitions to PETI?

- A total of 92 petitions in 2010-2021
- 33 open cases (in the ‘long file’) with geographical distribution as follows:

<table>
<thead>
<tr>
<th>Country</th>
<th>Total number of petitions/country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>2</td>
</tr>
<tr>
<td>Finland</td>
<td>1</td>
</tr>
<tr>
<td>Germany</td>
<td>2</td>
</tr>
<tr>
<td>Greece</td>
<td>3</td>
</tr>
<tr>
<td>Poland</td>
<td>8</td>
</tr>
<tr>
<td>Slovakia</td>
<td>1</td>
</tr>
<tr>
<td>Spain</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
</tr>
</tbody>
</table>
Some observations / remarks

1. Number of petitions in 2010-2021: high – low?
2. Environmental impacts – water, EIA, Natura2000, negative impacts for protected areas, a threat to area’s ecological values
3. Social impacts – health of local people, serious risk for health, losing incomes, putting region’s economy at risk, irreversible damage to the environment/countryside, private property, and infrastructure
4. Transition to a low-carbon society and circular economy + raw materials - lithium
5. EU funding for various research and innovation projects
6. No comprehensive database about mining activities at EU-level
7. Lack of EU-wide assessments of mining conflicts – only Kivinen et al. 2020 have published
Some references


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