

## **Paper for the Special Session:**

### **Quantifying patterns of resource use transformations and ecological distribution conflicts**

#### **Towards successful resistance: An assessment of contemporary mining conflicts**

From an intellectual perspective, the worldwide intensification of environmental justice (EJ) movements is at the interplay between political ecology (Bridge, 2008; Tetreault, 2014) and social movement theories (Escobar, 1997; Bebbington et al., 2008). And from a social metabolism perspective, minerals and fossils, currently accounting for 70 percent of all used materials, play an important role in the present state of EJ movements: mineral extraction is one of the major issues in the global sustainability debate (Krausmann et al., 2013) and mining conflicts, driven by increased extraction, are a rising global phenomena (Urkidi and Walter, 2011). To provide evidence-based support for successful EJ-activism, this paper sets out to assess the constituents and outcomes of contemporary socio-environmental mining conflicts by using a collaborative statistical approach to the political ecology of mining resistance.

In particular, we analyse the experience of EJOs that pursue environmental justice in mining conflicts by combining qualitative and quantitative methods – including statistical analysis and social network analysis – to understand both the determinants of such conflicts, and the factors that configure environmental justice ‘success’ and ‘failure’ from an EJ-activist viewpoint. What makes a conflict more or less intense? How is environmental justice served? What aspects of resistance movements enable or hamper EJOs in the pursuit of environmental justice? When is a disruptive project stopped? Answers to these questions help us discuss what can be done to strengthen EJOs and communities that resist mining efforts.

The empirical evidence covers more than 350 mining cases around the world from the EJOLT ([www.ejolt.org](http://www.ejolt.org)) dataset, enriched by an interactive discussion of results with activists and experts. Factors examined include variables related to (1) project characteristics, such as commodity groups (e.g. precious, base, etc.), project status (e.g. proposed, planned, operational, stopped) and involvement of international organisations (e.g. financial, non-financial); (2) characteristics of the conflict such as its intensity (e.g. high, medium, low, latent), income level of the country (e.g. high, upper-middle, low) and point in the production chain (e.g. access, extraction, process, waste); (3) impact characteristics, such as impact group (e.g. health, socio-economic, environmental impacts) and type (e.g. potential vs. observed); and (4) characteristics of the resistance such as population type (e.g. rural, urban etc.), timing of mobilisation (preventive, in reaction etc.), mobilised groups (local people, indigenous etc.), repertoires of reaction (e.g. legal, illegal, degree of contention) and pathways to conflict resolution (e.g. positive, negative).

According to some preliminary results, while the timing of mobilisation (e.g. preventive stage), project status (e.g. operational), and the presence of observed impacts seem to play a role in explaining how EJOs consider justice, the income level of the country (e.g. low income), and pathways to conflict resolution (e.g., corruption and criminalisation of activists vs. strengthened participation and negotiated alternative solutions) are decisive in the outcomes of conflict.

These findings indicate that it would be better for EJOs to initiate the resistance as soon as they can, and openly express it as much as possible. In cases where EJOs only react to strong/observed impacts with intense conflict, the chance of success is lower. The results also show that while involving

professionals in the early stages of resistance is important, 'negative' pathways should be avoided as much as possible, since they do not serve the purposes of EJ and EJOs.

Using network analysis, the study also looks at the nature of relations among EJOs and corporations in mining conflicts, and discusses ways to develop a more resilient activist network towards EJ success. The results unveil structural differences between activist and corporate networks. Accordingly, big/international companies are well-connected, and in many instances able to collaborate with local/national companies. Yet, the EJO network is not as connected, and therefore more vulnerable to attacks. This means that EJOs need to develop a more resilient activist network by cooperating with communities that find themselves in similar conditions. Strategic alliances among EJOs and resistance movements should not necessarily be built only with big players, but also between medium and small EJOs as well.

While still preliminary, the findings of the study are presently the best available data in this area, which is extremely politically relevant. The analysis, coproduced with activists, should be seen as a source of engaged knowledge creation, which is increasingly being recognised as a pertinent method to inform scientific debates that have implications in terms of policymaking.

## References

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## Short abstract (150 words)

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the determinants of such conflicts, and the factors that configure environmental justice 'success' and 'failure'. The empirical evidence covers more than 350 mining cases around the world from the EJOLT ([www.ejolt.org](http://www.ejolt.org)) dataset, enriched by an interactive discussion of results with activists and experts. Using network analysis, the study also looks at the nature of relations among EJOs and corporations in mining conflicts and discusses ways to develop a more resilient activist network towards EJ success.