Energy Transition, Vulnerability and Conflicts: The Case of Mexico

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As energy transition processes and mega-projects gain increasing momentum in the global south, a rise in environmental conflicts related to these projects has also been observed. In this paper we set out to answer the following question for the Mexican case: who is exposed to energy transition environmental conflicts? We analyze this by integrating municipal-level georeferenced Environmental Justice Atlas data into the biennial National Income and Expenditure Household Survey (2016–2024). We find that by 2024, national exposure to conflict (EtC) within a 20 km radius reached 26.4% of the population—an 8.2*pp* increase from 2016, driven largely by hydroelectric projects (80.2% of the increase).

Socioeconomic EtC gaps reveal consistent tendencies: urban, non-indigenous, and non-poor households in the top income quintile are more exposed, patterns which are confirmed and qualified by a logistic regression model with municipality-clustered standard errors (survey design specified). However, nested states-in-macroregions Hierarchical Generalized Linear Models (HGLM) show that $81.3 - 87.3\%$ of EtC variance is explained at the state level, highlighting the dominance of geography over individual characteristics. Within this framework, the HGLM allows us to isolate a specific within-states effect for indigenous households, which is positive in 2016 and then reverses, becoming negative

by 2024. We try to explain this by highlighting the potential deterrent role of indigenous mobilizations—which, as we observe by filtering the EJAtlas data, are those most likely to end with the cessation or suspension of projects, potentially reducing the statistical exposure of these households over time.

Furthermore, for critical minerals-related within-state conflicts, indigenous households maintain significantly higher odds of EtC throughout the period ($OR = 1.472 - 3.341$, $p < 0.001$) in HGLMs, pointing to a persistent burden from the extractive dimension of the green transition. We analyze this through the lens of green extractivism literature to highlight risks of an ecological transition that "repaints green" dynamics of dispossession targeting indigenous communities and *ejido* land tenure forms.

We therefore emphasize the importance of a just transition, in terms of avoiding both these types of dynamics in critical mining and the increase in infrastructure-related conflicts. Indeed, although the EtC helps us locate them in the richest and urban areas, their explosive spread provides no assurance that vulnerable groups will not suffer adverse consequences or concerns from transition projects. By analyzing the conflicts data within EJAtlas in urban and semi-urban areas through the lens of political ecology, we highlight a multitude of mobilization actors – local communities and organization, social movements, political parties – driven by a variety of concerns such as ecological, territorial, and procedural ones. An energy transition that wants to be both ecological and inclusive cannot avoid understanding and taking into account the concerns and role of these actors, especially where exposure to conflicts is high, in order to avoid potential social disasters.