## A Global South perspective on stranded regions: insights from the decline of coal mining in Cesar, Colombia

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## 1. Motivations underlying the research

This research was motivated by our interests in understanding what are the specific challenges that the global energy transition with the decline in demand for coal can create locally in regions economically dependent on coal extraction in the Global South. The goal of this project was to fill a gap in the academic literature on economic decline in extractive regions, a body of work widely used in current debates about just transitions in coal regions, which has tended to focus on cases located in the Global North without fully capturing the specific dimensions of Global South producing regions. This research was also motivated by our interest on reflecting about the implications for the economic decline in extractive regions of the implementation of climate policies globally, something that has also not been the focus of most research on economic decline in extractive regions. To address this, we drawn on the burgeoning literature on the notion and risks of stranded fossil fuels assets, which however has focused on the risks and implications for private sectors (financial actors and fossil fuel firms) and with a lower degree to national economies, without considering the risks for subnational regions.

By putting into conversation the literatures on economic decline in extractive regions and debates on stranded fossil fuel assets, we analyzed the empirical case of Cesar, a region located in the north of Colombia. Cesar is Colombia's second most important coal producer region and 40% of its regional GDP is associated with coal production. However, this activity declined by 33% in 2020. The decline in demand during the pandemic also involved the unexpected idling of some of Cesar's largest coal mines. The following research question guided this study: What were the main economic impacts that the region of Cesar faced during 2020 with the drop in coal production and stranding of some of its most important coal mines?

## 2. A short account of the research performed

This paper is based on a case study of the decline in coal production in Cesar. Choosing this case, and 2020 as the key year to analyze the risk of the region becoming stranded, are relevant for three reasons. First, Cesar is highly dependent on coal exports, which makes the region vulnerable to changes in international coal markets, and therefore a useful case to understand the risks of stranded regions. Second, high market concentration in Cesar, dominated by multinational extracting firms, is useful to show how the decision power on the economic future of the region relies on very few and mostly foreign hands. Finally, the unexpected shock in production created by the pandemic, which catalysed the early surrendering of mining titles from the company Prodeco, provided a 'natural experiment' to understand the impacts that an increase in stranded coal mining assets can create regionally.

Qualitative primary data was produced through 26 semi-structured interviews conducted in Cesar during February 2021. The list of interviewees includes direct employees of coal companies (both from management and operational positions), local workers and business owners not directly related to the coal industry, and representatives from local governments, trade unions, civil society organizations, NGOs, and universities (see article's appendix for complete list). Sampling was based on a stakeholder's map, created through the review of secondary literature and contacts gained in previous research projects. Interviews were conducted in Spanish and lasted between 15 and 125 minutes. Some interviews took place online due to pandemic-related restrictions. This case study also included the analysis of sta-

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tistical data and extensive review of secondary literature, including academic articles, company reports, press releases, policy documents, and the grey literature.

## 3. Main conclusions and policy implications of the work

We identify various economic impacts for workers, communities, and local governments caused by the structural crisis faced by this activity. Eight challenges identified can be of relevance to other coal-dependent regions in the Global South. Some of the challenges identified correspond to national challenges accentuated at the regional level (young investments, economic and fiscal dependence, high labour informality and low labour protection, weak environmental liability regulations, and environmental races to the bottom), while others correspond to more regionally-based challenges (poverty exacerbation, vulnerability of informal and low value-added activities, and direct roles of fossil fuel companies in public spending).

The main argument that we draw from this analysis is that in coal-dependent regions in the Global South, many of the impacts recognized by the literature on the Global North are exacerbated. More importantly, however, is the fact that additional challenges for a managed decline in coal production are created. Particularly important is the precariousness of local economies based on high levels of informal and low value-added activities, dependent on the role of coal companies in social spending, and with limited institutional capacities, budgets, and available data on key policy planning variables such as employment and economic linkages.

Drawing from this analysis, two policy recommendations suitable for Cesar and other fossil fuel regions in the Global South are as follows: (1) Planning the phase-out of fossil fuels is not only important from an environmental perspective, but also to reducing the risks of stranded regions. A preventative reconversion process reduces the chances of a sudden destabilization of regional economies and offers opportunities for timely diversification efforts by taking advantages of still existing rents from the fossil fuel industry. A planned response also requires improving regulatory frameworks to deal with abrupt withdraws of mining titles, selling of operations, and drops in production levels. (2) Given the risk of a possible race to the bottom in terms of environmental and labour standards, it is fundamental to timely identify potential risks in this regard, update regulatory frameworks, and prioritize investments that ensure good-quality jobs and more sustainable economies. Moreover, accelerating investments in environmental remediation can create short- and medium-term employment as well as promote an earlier economic reconversion by ensuring appropriate ecological conditions for new productive activities.