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Scales of Inquiry, Shades of Green: Evaluating the Environmental Performance of Mineral Investment in the Americas

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Abstract

International mineral companies have significantly increased their investment in mining, oil and gas projects in the Americas over the last decade in response to national policies of economic liberalization. Mineral development, however, is frequently among the most controversial investment initiatives due to its ability to transform local environments and impact socio-economic structures and traditional land-uses. Most studies of the environmental performance of mineral investment restrict the scale of their analysis to the direct impacts of investment in the immediate vicinity of the mine. In addition to localized environmental impacts at the mine site, however, investment often drives region-wide changes in land-use and land-cover. By influencing the accessibility of land, the value of surface and groundwater rights, and the structure of the wage economy, mineral investment can generate a series of indirect environmental impacts that are not captured by conventional analyses of environmental performance.

This paper examines the question of appropriate analytical and geographical scales for evaluating environmental performance. It illustrates how the question of scale is of significance not only for research on industrial greening, but also for the practice of designing effective corporate strategies and public policies. For example, whereas international mining firms assess the environmental impacts of their operations in terms of the environmental management strategies adopted at the mine site (i.e. direct impacts), environmental and social activist groups focus on the wider ramifications of investment beyond those addressed by a specific management strategy (i.e. indirect impacts).

The paper outlines opportunities for moving beyond these competing and partial explanations of environmental change. It describes on-going research by the author to identify, and distinguish between, the impacts of mineral extraction as a direct source of environmental impacts, and the role of mineral investment in driving other, region-wide land-use changes. A central objective of this research effort is to understand the impact different analytical scales make to the evaluation of environmental performance. Increased understanding of the significance of analytical scale can enhance the contribution made by research on the greening of industry to the design of public policy and corporate strategy approaches for improving environmental performance.