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ENLENS Newsletter (4)

(UN)SUSTAINABLE MINERAL MINING: A CASE STUDY OF LITHIUM EXTRACTION IN CHILE

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Funded by the ENLENS RPA, the Mining for the Energy Transition research group has been analysing various effects of lithium extraction. Carbon-free energy technologies require more metals and minerals than fossil fuel-based technologies and the mining of these raw materials inevitably leads to a local social and ecological impact. Specifically, the focus of this research group is on the socio-environmental impact of lithium production in the Atacama desert in northern Chile. The global lithium boom is bringing about rapid change in this region, but how the increasingly massive extraction of lithium brine will affect the future of human and non-human life in this arid region remains largely unknown.

The composition of the research group reflects the inherently interdisciplinary nature of this topic: a professor from the FGw (Latin America Studies), an assistant professor and associate professor from the

FNWI (IBED), a project coordinator with an interdisciplinary background, four MA students from International Development Studies and two from Earth Sciences. This research has contributed to the progress of Sustainable Development Goals 7, 8, 10, 13, 14, 15, and 16.

After a series of preparatory meetings last autumn and winter, in March the group set off to Chile for a 3-week collective fieldwork period.



Visiting the evaporation ponds of one of the lithium companies.

On the side of earth sciences, the researchers aimed at getting a better understanding of temporal changes of environmental and hydrological patterns in the region since the start of lithium extraction, using satellite images and remote sensing. During their daily “ground-truthing” missions they covered a large terrain of desert and surrounding highlands to get important additional information to the remote sensing trends acquired from desk research. Meanwhile the social science and humanities team members relied on observations and interviews with local stakeholders to complement their preparatory document analysis. Over 30 collective interviews were conducted with representatives from the lithium companies, the state, academia, local communities, activists and artists. In addition, the group went on 15 field trips in the region, including various geological observation trips and a visit to one of the lithium extraction sites.

To stimulate interdisciplinary cross-pollination, the team held daily exchange meetings and joined each other’s data collection activities. Before returning,

the group presented preliminary research results at three Chilean universities, and had meetings at the Dutch embassy and the UN Economic Commission for Latin America and the Caribbean (ECLAC). Beyond the interesting exchange of ideas and information, this provided valuable contacts for future research and education projects about the impact of the energy transition.



The students of the research group on an excursion into the region.

During the fieldwork, team members wrote short impressions for Folia: on the link between *EU energy transition policies and policy and practice in Chile*, on *cultural changes and the agency of indigenous people*, on *opportunities and threats for women*, on *the difficulty of knowing the effects in subsoil water systems*, and the *huge cultural and political distances* between San Pedro de Atacama, (inter)national policy-makers and global markets.

CEDLA AND WORLDS OF LITHIUM PROMOTE A LECTURE ABOUT LITHIUM POLICY - 27th JUNE 2023

On June 27, 2023, from 15:30 to 17:00, Hugo Romero from the Universidad de Chile will discuss the New National Lithium Policy, focusing on the questions, agreements, and disagreements among multi-scale actors.

For more information

ENLENS CALL FOR PROJECT PROPOSAL 2023

Project proposals can be submitted before 1 April and 1 October each year, but intermediate submissions may be considered.

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