The nexus mineral resources – energy transition: a new resources frontier for Latin America?

Marie Emilie Forget, Vincent Bos, Silvina Cecilia Carrizo

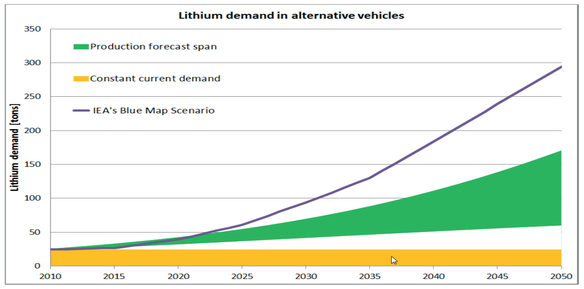
LITHIUM: A KEY FACTOR IN RESOURCE - TRANSITION NEXUS

M. Forget[1], V. Bos[1], S . Carrizo[2]

[1] EDYTEM Lab., Savoie Mont Blanc University, France
marie.forget@univ-smb.fr, vincent.bos@univ-smb.fr
[2] CONICET, La Plata University, Argentina
scarrizo@conicet.gouv.ar

INTRO

* **Energy transition** means the use of intermitent energy and induce **growth of lithium production destinated to lithium-ion batteries**

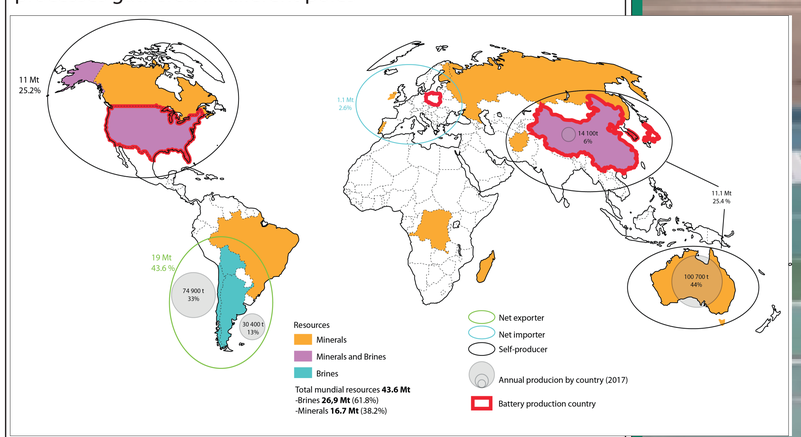


The total lithium demand of a constant current lithium demand combined with growth of electric vehicles according to IEA's blue map scenario (Vikström et al., 2013)

* Energy transition polices intent to **mitigate the effects of global change and preserve vulnerable mountains territories**

* **Goals and impacts differ** between global North and South
  - ***In global North*** development of lithium based devices (electric vehicles, solar energy storage, etc.) as an opportunity for «green» economy
  - ***In global South*** energy transition is more an opportunity to deliver some cheap electricity to deconected mountains territories

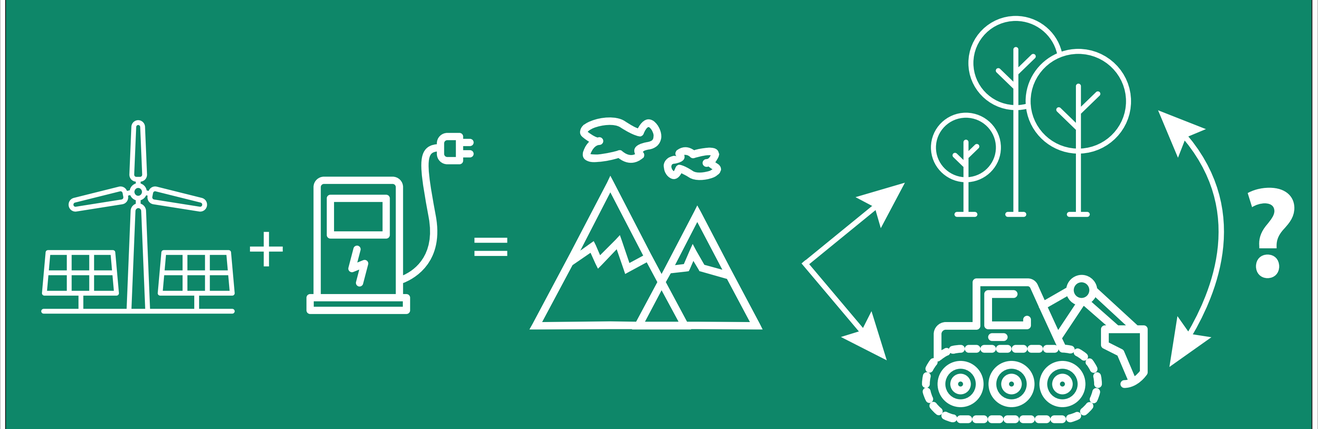
* **Spatial concentration** of the extractive and battery production processes gathered in diferent poles



Map of resource avalaibility and production. Adaped from Grosjean and al., 2012

METHODS

* With social science methods (direct and semi-direct interviews) we analyse the public policies and the exploitation processes of the three main salt-lake brines (Bolivia, Argentina, Chile)
* Mapping



The desire to **preserve the environment** and the **idealised view of mountains** in the **global North** induces **extractive impacts, "denaturing" of indigenous landscapes** and possible **irreversible environmental damage**, in the mountain territories of the **South** where metals needed for new energy technologies are mostly mined

SCAN ME

RESULTS

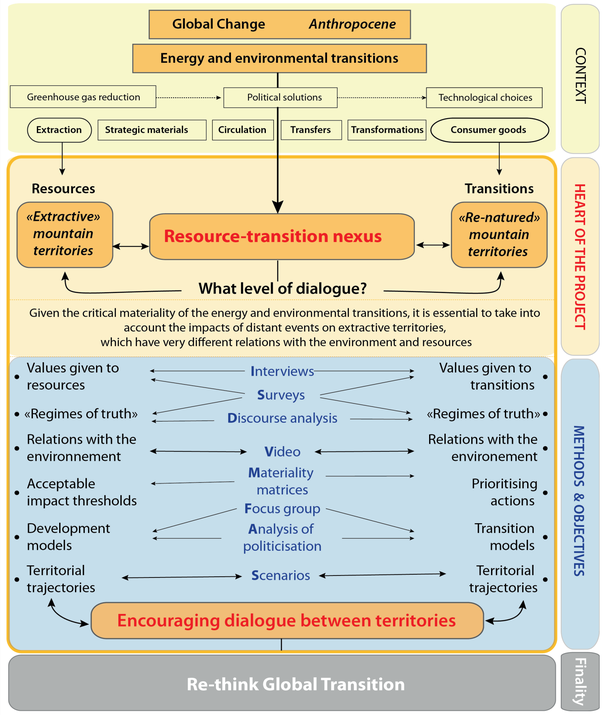
* Results indicate different perceptions of the lithium resource :
  - mineral of the future, territorial development
  - economic oportunity, commodity

Country	Chile	Argentina	Bolivia
Extractive model			
Sense of evolution			
Type of regulation			
Synthesis			

Main extractive stakeholders
private
public-private partnership
public
sense of evolution
Regulated by
central-state
subnational (provinces)

DISCUSSION

* The energy transition, which, beyond its justification as a vital part of the response to global change, reveals enormous contrasts between the logics operating in raw material-extraction territories and territories transitioning toward new ways of producing energy



- Relocalisation of Li-ion batteries chain productions in the extractive territories?
- Developing the extractive processes in Global North rich lithium territories?

* Behaviour-based regulations rather that technological choices (without another extractive pattern in Global South countries to mitigate industrial impacts?)

UNIVERSITÉ SAVOIE MONT BLANC
SCIENCES ET MONTAGNE
edytem
CONICET