



Established by the European Commission



The environmental impacts of global mining Special session at the 13th ESEE conference, Turku, Finland

19.06.2019



- Brief introduction
- Three presentations à 15-20 minutes plus 5 minutes questions:
 - Stefan Giljum: Creating global mining maps as a basis for fine-scale impact assessments
 - Stephan Lutter: Assessing water inputs of global mining activities
 - Anna Schomberg: A spatially explicit water scarcity and water quality footprint on the example of two Lithium mines



- 20-30 minutes plenary discussion on:
 - What links exist to the work of audience members?
 - What other areas of environmental impacts of mining should be covered?
 - Which (policy) initiatives could be informed by the analyses described?
 - Which collaborations should be envisaged?

Rapidly increasing global material consumption



Source: UN IRP, 2018 / www.materialflows.net

fineprint

Increasingly complex and global supply chains

Geographical origin of EU-28 material footprint

Source: Giljum et al., 2016

- Difficult to assess the impacts related to our (material, water, land) footprint on the aggregated national level
- Environmental and social conditions within raw material extraction countries vary considerably
- → Need to analyse environmental pressures and impacts in a consistent assessment framework of high spatial resolution

Impacts depend on specific location

http://www.dw.com/image/0%2C%2C19318441_302%2C00.jpg

ERC Consolidator Grant project

- Spatially explicit material footprints: fine-scale assessment of Europe's global environmental and social impacts
- July 2017 June 2022
- Team of ~10 researchers
- Budget of 2 million Euro

- Develop new method for assessing global material flows and related impacts using high spatial resolution
- Linking spatially-explicit data on raw material extraction and related impacts to models of global supply-chains
- Identifying the often geographically distant socioeconomic drivers (economic sectors/products, consumption areas) of local changes in ecosystems and communities; already investigated in a large number of case studies

Global mapping/relating extraction & impacts

fineprint

www.fineprint.global

github.com/fineprint-global researchgate.net/project/FINEPRINT-

Contact: Stefan Giljum stefan.giljum@wu.ac.at +43 1 31336 5755