Environmental impacts of mining operations

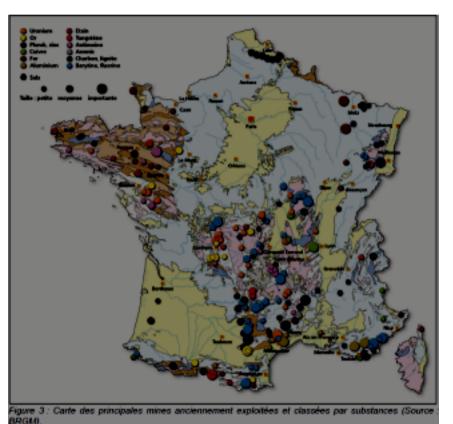


Alain LIGER, former member of the French Mining Commission for the Ministry of Economy and Finance, France A (French) review of mining methods and impacts Impacts of exploration Impacts of mining Dealing with impacts Impacts on society and culture Concluding thoughts

France, 2015/2016: a review of mining methods and impacts

Mining in France, past and present

A working group and a communication strategy



Collection « La mine en France »

Industrie minérale & Activité minière en France



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Impacts, exploration – examples

Negligible to low – always temporary



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Impacts, mine and plant – examples

- **Ground stability**
- **Effluents water**
- **Changes in water circula**
- **Effluents air**
- Fauna, flora
- Industrial area
- Lands



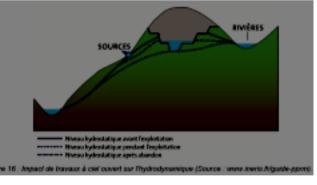


eri generalisi sur le perindite de l'ancienne mine de les d'Hassigns, 54 //





maéquences da drainage minier acide à Carnoulés, Gard (Source : INERA



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Dealing with environmental impacts

avoid / limit / compensate

regulate / commit

Management dimensions: Size Production / Post mining (10y, 100 y?)

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Social impacts – short term

- **Project needs Skilled work force – train**
- Services train, help create
- = an impact on social fabric
- Longer term An economy for the post mining era?

Social impacts – even longer term

Mining: a moving scene through years / centuries

Changes in society social movements of population culture



Indonesian Papua, 1994

Pyrenees, 2017



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A necessary and challenging industry Mining affects territory – and benefits elsewhere

Joint technology/socio approaches and teams? (eg in France the academic network "Réseau Mine et Société")

Potential changes of culture?