MiningAcademy, Other Similar Projects and Challenges of Sustainable Development in Mine Design and Construction

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MiningAcademy’s Seminar on Sustainable Mining Investment 2014
Oulu Mining Exhibition, 21.05.2014
Background and Development

Events

- “Mining boom” (2005-on going);
- Uranium conflict 2006-2008;
- “Researcher”-activism (thesis);
- Talvivaara’s problems (2010-2012);
- Dilution of the climate change debate (E. Grundström, HS Vieraskynä 28.09.2010);
- Environmental debate shifts to mining;
- Media;
- Increasing opposition for mining;
- Academic activation (2010);
- Forest industry ➔ Mining industry
- The State ”wokes up” (2012):
  - Several projects (2012-2014)
  - ?

Government Actions

- 2008: Government decides to support mining investments and training
- 2009 EU Initiatives;
- 2010: Mineral strategy
- 2011: New Mining Act
- 2011: Green Mining-Program
- 2011: Mineral Cluster Development for Government’s Program
- 2012: €30 M financing for mining and mining technology
- 2013: Action Program: *Finland as the Leader of Sustainable Mining*
  - ?
SAM (Sustainable Acceptable Mining) Projects

EXTINCT

Finnish Mining Communities within the Global Transformation: Local Reception Capacity? (University of Eastern Finland, 2010-2012);
- Sparsely Populated Countryside as the Mining Industry’s Operational Millieu (University of Eastern Finland, 2010-2012);
  - DILACOMI – Different Land Uses and Local Communities in Mining Projects (Universities of Lapland and Oulu, Forest Research Institute, 2011-2013);
  - Balanced Estimation of Economic Benefits and Environmental Impacts of Mining and Comparison with other Sectors (Pellervo Economic Research Institute, May 2013-December 2013)

ACTIVE

- MiningAcademy (GTK, 2012-2014);
- Increase of Influence of Internationalizing Tourism Livelihood in the Development of Tourism and Regional Development in Kuusamo (Naturpolis Oy, University of Oulu, 2012-2014)
- Finland as a Leader of Sustainable Mining Industry – Action Program (Government, 2013-2030);
- Argumenta: Responsible Mining (University of Eastern Finland, 2013-2014);
- The Pre-Requisites and Tools of the Social License to Operate - SoLiMi (University of Eastern Finland, 2013-2014);
- Sustainable Acceptable Mining – SAM (VTT, SYKE, GTK, University of Helsinki, 2013-2015);
- Matching of Mining and Tourism at Koillismaa – KAMYK (Forest Research Institute, 2013-2014)
- Sustainable Mining, local communities and environmental regulation in Kolarctic area - SUMILCERE (2013-2014)
- Network of Sustainable Mining (Sitra, 2013-2015);
- Professorships: -Environmental Policy, University of Eastern Finland (Rauno Sairio)
  -Visiting, Journalism, Tampereen yliopisto (Elina Grundström);
  - Natural Resource Justice (LUODE), University of Lapland (Jukka Similä)
  -Mining policy, University of Eastern Finland (Juha Kotilainen)

+ Green Mining Program (technology, environmental research, 22 projects)
Project Constellation

SLO CSR

- Sustainable Mining Network
- Action Program
- KaViKe
- Mining Academy
- KAMYK
- SUMILCERE
- SoLiMi
- Argumenta
- Professorships
- SAM
- Mining Communities Local Reception Capacity
- Countryside Mining Millieu
- DILACOMI

Benefits and Impacts of Mining

Extinct
Active

STATE

UNIVERSITIES

RESEARCH INSTITUTES
Responsible mineral exploration 2012-2014:

- Survey (Autumn 2012, Gaia Oy): 10 companies, 10 stakeholder groups (media, landlords, municipality, NGO)
- Web-site;
- Workshop 29-30.01.2013 Oulu – Responsible exploration;
- Participation and cooperation with other projects
- Seminar 21.05.2014 Oulu – Sustainable Mining Investment;

R&D:
- Model for stakeholder engagement;
- Publications,
- Master Theses:
  Sofia Ziessler-Korppi, Aalto University: Companies’ communication and stakeholder engagement activities;
  Stella Selinheimo, Geography, University of Turku;
- PhD Thesis.
From Mineral Exploration to Mine: CSR and Sustainable Development

Company

Mineral exploration
Stakeholder engagement
(SOCIAL)

Environmental Impacts
EIA
Risks
Base-line
Permits
Tailing ponds
Gas
Dams
Surficial waters
Emissions

Economic
Risks
Profit
Price
Ore
Costs
Reserves
Transport
Infrastructure
Location
Access
Financing

Social
Stakeholders
Community
Safety
Employmnent
Benefits
Grievance
Concerns
Attitudes

Situational analysis

Sittra’s Sustainable Mining Network

- Need established by the Action Program;
- Forum for dialogue;
- Stakeholders and mining industry;
- Authority free;
- Standards, reporting and guidance;
- Central role;
- Collects and disseminates results of other projects;
- Plans in practice.
Characteristics of the Projects

- Flow of researchers from forest industry to mining industry;
- Focus on mines and mining companies;
- Kittilä, Hannukainen, Juomasuo, Pampalo, Talvivaara, Kylylahti;
- Northern and Eastern Finland;
- Mineral exploration in minor role (MiningAcademy);
- Goals are the same (SLO and CSR):
- Financing (7 M€): Tekes Green Mining, EAKR, Culture Fund, Academy of Finland; Ministry of Forest and Agriculture, GTK, State.
- Universities, research intitutes, Sitra, State;
- Emphasis on social sciences;
- Qualitative research (interviews);
- Tourism vs. mining;
- Current emphasis: Kuusamo mining conflict;
Focus on Kuusamo

- Background: Uranium;
- Mining vs. Tourism;
- Urban planning;
- Juomasuo (Dragon Mining),
- Mustavaara (Mustavaaran kaivos Oy)
- Mining conflict;
- At least 5 projects involved;
- Financed by Kuusamo Municipality.
Kuusamo

QUESTIONS

- Impartial investigation?
- Attempt to resolve or
- Interference on conflict?
- And by which side?
- Need for industrial peace?

Benefits and Impacts of Mining

SoLiMi

LUODE?

KAMYK

SAM (Sustainable Acceptable Mining)

Mining and Tourism

KAMYK
Seminars, Panels, Programs, Publications, Guides,...
Challenges and Questions

- Over-reaction, momentary enthusiasm or a permanent phenomenon?
- Academic activism, opportunism or serious scientific research?
- Genuine interest to make mining more acceptable?
- Overlapping, crowding – Coordination;
- Saturation?
- Adaptation of practices (Developing vs. Post-industrialized)
- Realism vs. Idealism (/ideology?)
- Mining professionals under-represented;
- Need for interdisciplinary cooperation;
- Social impact of research?
- No conflict? Create it!
- Researcher’s, activism’s and media’s responsibilities?
- Effectiveness? (industry’s controversial attitudes)
Conclusions

- EU’s and Finland’s strategies;
- “Post-Talvivaara” phenomenon;
- Financing available;
- Need for academic investigation;
- 14 (+ 4) different projects (+ Green Mining Program 22);
- Flood of publications, guides, seminars, etc.;
- New data from a post-industrial country;
- A common learning process;
Thank you for your attention!