

Project Study: Benchmarking Economic, Social, and Environmental Impacts of Mining Activities in the Global South

Minerals and metals play a key role in the global economy, especially for the sustainable energy transition. Yet, mining operations in the Global South come with significant environmental, social, and economic impacts. This project, in collaboration with Kuchera GmbH, aims to benchmark these impacts, identify sustainable practices, and provide recommendations for improvement.

Project Objectives:

As part of a team of 3-5 students, you will:

- **Benchmark Sustainability Metrics:** Evaluate economic, social, and environmental impacts, including job creation, community engagement, and environmental effects.
- **Data Collection and Analysis:** Use primary and secondary data to assess compliance with global sustainability standards and analyze socio-environmental outcomes.
- **Identify Sustainability Champions:** Highlight best practices and develop recommendations for sustainable mining operations.
- **Application of Sustainability Goals:** Provide actionable insights for Kuchera's development of responsible technologies.

Expected Deliverables:

- **Comprehensive Report:** Detailed analysis with case studies and benchmarking results.
- **Sustainability Action Plan:** Recommendations for sustainable improvements in mining.
- **Presentations:** Summary of findings for Kuchera's executive team and stakeholders.

Student Benefits:

This project offers valuable, transferable skills that apply across industries, including:

- **Data Collection & Analysis:** Gain hands-on experience in gathering and analyzing data, applicable in sustainability consulting, environmental impact assessment, and more.
- **Sustainability Benchmarking:** Learn to apply frameworks like the Global Reporting Initiative (GRI), an asset for roles in corporate social responsibility, ESG (environmental, social, governance) analysis, and sustainability management.
- **Problem-Solving in Complex Systems:** Develop skills in tackling multifaceted challenges, a core competency in sectors like consulting, technology, and policy-making.
- **Cross-Cultural & International Perspective:** Build global awareness by examining the social and environmental impacts of mining in the Global South, which is valued by employers seeking culturally informed perspectives.

Requirements:

- Registration in a master's program at TUM.
- Interest in sustainable mining practices.
- Familiarity with sustainability frameworks (e.g., GRI) is advantageous.

Application Procedure:

Apply individually or in teams by 2nd Jan by sending your motivation letter, CV and transcript to gen.li@tum.de. Use the subject line "Application to TUM x Kuchera Project Study: Sustainability in Mining."