

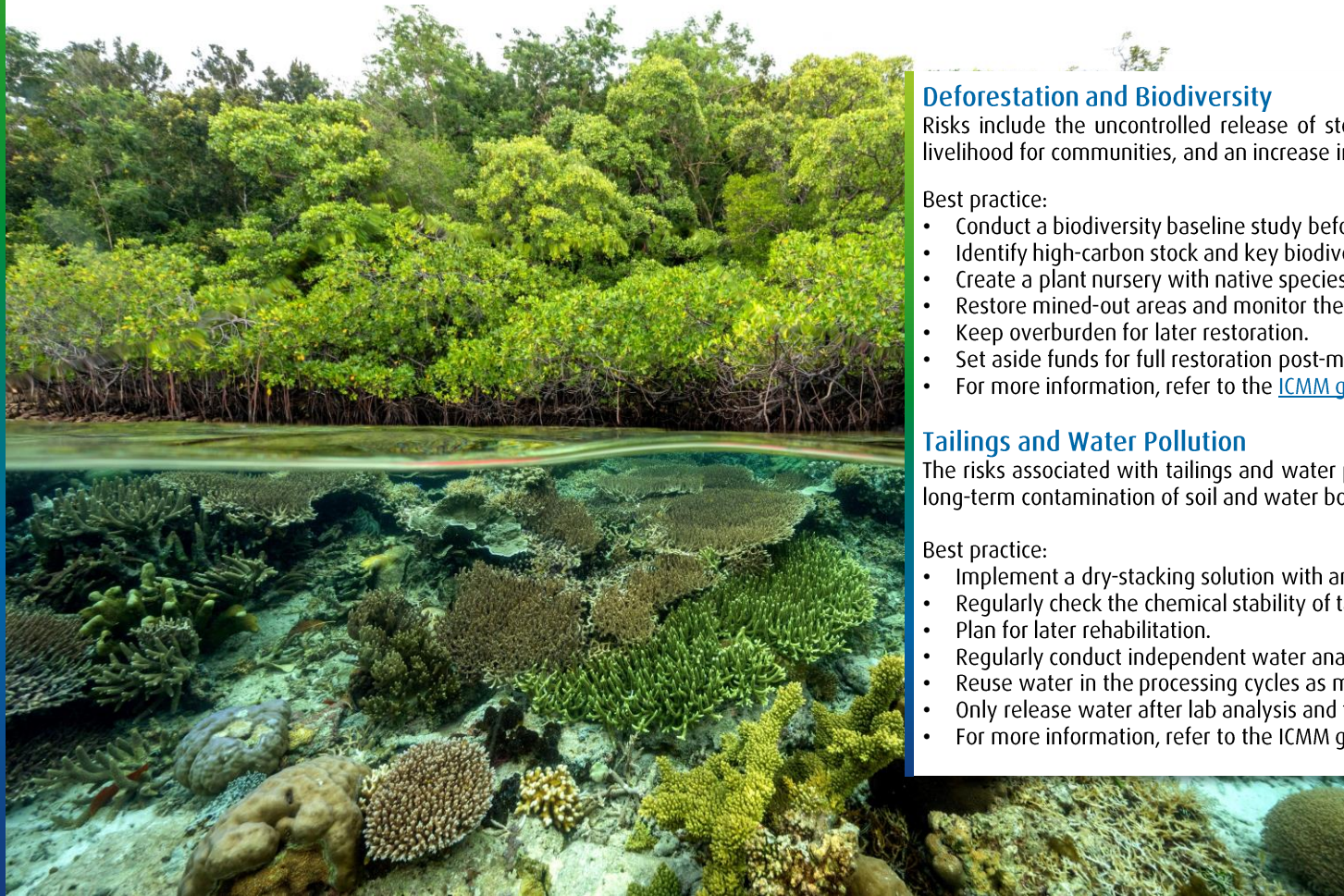
Best Practices for Nickel Mining & Processing – Pocket Guide



At Umicore, we are committed to minimizing the negative impact of our operations and supply chain on people and the environment. This is part of our RISE strategy, and to achieve this goal, we have implemented sustainable procurement policies. Our policies include a nickel-specific sourcing framework, which we follow to ensure responsible sourcing practices.

To provide you with a better understanding of these practices, we have developed a short guidance document that outlines the best practices for different risk categories, focusing specifically on the nickel industry. We have also included links to more detailed sources of information.

We understand that adopting best practices can be challenging, but we look forward to collaborating with you to achieve our shared goals. Please feel free to reach out to our [Responsible Sourcing Team](#) if you have any questions.



Deforestation and Biodiversity

Risks include the uncontrolled release of stored CO₂, irrevocable damage to vulnerable ecosystems, loss of rare species, loss of livelihood for communities, and an increase in flood and landslide events.

Best practice:

- Conduct a biodiversity baseline study before commencing mining operations.
- Identify high-carbon stock and key biodiversity areas on the concession as no-go-zones.
- Create a plant nursery with native species.
- Restore mined-out areas and monitor the return of biodiversity.
- Keep overburden for later restoration.
- Set aside funds for full restoration post-mining.
- For more information, refer to the [ICMM guidance on biodiversity](#)

Tailings and Water Pollution

The risks associated with tailings and water pollution include tailings dam failure, pollution of drinking water and fishing areas, and long-term contamination of soil and water bodies.

Best practice:

- Implement a dry-stacking solution with an integrated water management system. Avoid deep-sea tailings placement.
- Regularly check the chemical stability of tailings by an independent laboratory.
- Plan for later rehabilitation.
- Regularly conduct independent water analysis, such as Cr⁶⁺.
- Reuse water in the processing cycles as much as possible.
- Only release water after lab analysis and treatment.
- For more information, refer to the ICMM guidance on tailings.

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Community

The risks associated with communities include forced evictions, loss of livelihood (e.g., fishing, forest products), destruction of cultural heritage, and community health impact (soil, air & water pollution).

Best practice:

- Proactively engage with local communities, including indigenous tribes, using the FPIC Principles.
- Provide a grievance mechanism (ideally with the option to remain anonymous), address concerns and report transparently - see also p.33 of the [UNGP](#) on effectiveness.
- Explore opportunities for cooperation, such as hiring locally, agricultural off-take agreements.
- Remediate potential impacts on farmland, water, and forests, such as designated community forests and providing safe drinking water.
- Explore additional areas of support, such as education, healthcare, and occupational trainings.
- For more information, refer to the [FPIC Principles](#).

Labor Rights

The risks associated with labor rights include forced labor risks, such as restrictions of movement and retention of identity documents, excessive working hours, and injury/death in case of an accident.

Best practice:

- Establish wide-ranging policies to protect labor rights and safety.
- Allow freedom of association.
- Proactively engage with workers, gather their feedback, and include them in decision-making.
- Offer a grievance mechanism (ideally with the option to remain anonymous) and address any concerns transparently - see also p.33 of the [UNGP](#) on effectiveness
- Promote a cooperative and open work culture, addressing language barriers.
- For more information, refer to [ETI Base Code](#).

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Greenhouse Gas Emissions

The risks associated with greenhouse gas emissions include climate change and biodiversity loss.

Best practice:

- Conduct energy efficiency audits and implement identified improvement measures.
- Switch to renewable electricity.
- Switch to renewable fuels.
- Implement carbon capture for unavoidable GHG emissions.

Links:

- [GHG Accounting and Reporting standard](#)
- [GHG Value Chain Standard \(Scope 3\)](#)
- [GHG Emissions Nickel Metal Class 1 Production](#)
- [Climate-Related Financial Disclosure](#)
- [Science-based Reduction Targets](#)

Traceability

In addition to your own operations, it is crucial to gain insights into the upstream supply chain, where applicable. This includes identifying the sources of raw materials as well as conducting ESG risk assessments and engaging with those suppliers. For more information, refer to the [OECD Due Diligence Guidance](#).

Read more about

[Umicore's Responsible Sourcing Policies](#)