

# Engagement guide on reclamation and mining



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# Introduction

This engagement guide is intended to function as a possible tool for asset managers for engagement with mining companies on reclamation and closure of mine sites. It aims to aid in the development of sustainable water management practices adhering to SMART principles (Specific, Measurable, Achievable, Realistic, Time-bound), leading to an environmentally and socially responsible site-level reclamation strategy. Using this guide, not all questions will be relevant for all mining companies; rather this guide is intended to be used as a background document of which most relevant questions can be selected.

This guide is a result of a joint working group on responsible mining by ACTIAM, Aegon Asset Management, NN Investment Management, Robeco, IUCN NL and VBDO. The joint group participants have been working on starting engagement with mining companies on pressing sustainability issues of which reclamation is one (the other two topics are Water Management and Biodiversity).

This engagement guide is based on multiple international standards and guidelines including IRMA, ICMM, IFC and the GRI.

## **CHALLENGES IN RECLAMATION FOR MINING COMPANIES**

Mine reclamation is the process of restoring land that has been mined to a natural and usable state. Although reclamation happens after a mine is closed, a reclamation strategy should be drafted before mining activities have started. If the process of exploration reclamation is not carried out responsibly, surrounding ecosystems can be damaged and local communities can be negatively affected, which can result in reputational and material risks. An incomplete or inadequate reclamation and closure plan can lead to unforeseen damages to human health and the environment, which are often irreversible.

## **DECIDING ON ENGAGEMENT**

Assess the company's views on reclamation and closure plans. Does the company draft responsible reclamation and closing plans before a mine is taken into use, including guaranteeing sufficient funds to carry out these plans? How does the company include local stakeholders in drafting closing plans on mine-site level? The engagement process should clarify if and how the company has mine site closing and reclamation measures in place, and how it views reclamation in general on both a company and mine-site level. Ideally, the engagement process will enhance the company's understanding of the importance of decent reclamation strategies and induce improvements to their reclamation management.

# 1. Site-level reclamation and closure

Optimal reclamation and closure methods and strategies can vary greatly per site and should be integrated into all stages of the mine's life cycle. It is important to map local conditions and maintain positive relationships with (local) stakeholders (current and future) in order to mitigate risks. Following good practices is encouraged. This chapter has been divided into sections for exploration reclamation, reclamation and closure, and post-closure. Examples of relevant questions are:

## EXPLORATION RECLAMATION

- › **What is the (proposed) timeline for exploration-related reclamation activities? (mine-site level and related infrastructural works)**  
*Good practices would be:* Timeline (including possible deviations), proposed budget.
- › **Which possible challenges exist regarding exploration-related reclamation? (mine-site level and related infrastructural works)**  
*Good practices would be:* List of possible challenges and solutions.
- › **If applicable, what concrete steps have been taken to receive and address stakeholder concerns? (mine-site level and related infrastructural works)**  
*Good practices would be:* Overview of engagement with local communities, list of relevant comments and complaints by stakeholders, grievance mechanism procedure document.

## RECLAMATION AND CLOSURE

- › **What concrete steps have you taken to engage with/consult local communities? Which stakeholders did you consult? Have any updates or changes been made to the reclamation and closure plan based on comments by stakeholders? (mine-site level and related infrastructural works)**  
*Good practices would be:* Overview of engagement with local communities, proof of availability of relevant documents for stakeholders (website link etc.), list of requests by stakeholders to provide them with an (interim) reclamation report (can be anonymous), list of updates to reclamation and closure plan including dates, list of stakeholders contacted about the final reclamation and closure plan.

- › **What challenges are there regarding revegetation and ecological restoration and related best practices? (mine-site level and related infrastructural works)**  
*Good practices would be:* Risk assessment, environmental impact assessment (EIA), strategic environmental assessment (SEA), assessment of relevant best practices.
- › **Have you made an inventory of existing open pits/underground mines that could be used for backfilling if needed? (mine-site level and related infrastructural works)**  
*Good practices would be:* Inventory of open pits/pit lakes/ etc., proposed use (to be backfilled, methods of potential backfilling, etc.), risk assessment, report on water quality in pit lakes/aquifers/etc., research report on environmental and socioeconomic consequences of backfilling, subsidence research report, proposed budget.
- › **What mitigation practices/procedures to prevent the degradation of water resources are in place? How often is data collected on pit lake water quality? (mine-site level and related infrastructural works)**  
*Good practices would be:* Mitigation protocol including underlying data proving its effectiveness, water quality report, proof of frequent water quality data collection spanning several years, risk assessment, proposed budget.
- › **What monitoring procedures and processes are in place? (mine-site level and related infrastructural works)**  
*Good practices would be:* Reclamation and closure plan including monitoring procedure, (proposed) timeline, (proposed) budget.

- › **What provisions have been made to ensure financial surety for mine closure? (mine-site level and related infrastructural works)**  
*Good practices would be:* Budget, financial surety instruments document, financial surety, third-party review of the financial surety instruments document and financial surety.
- › **What concrete steps have you taken to identify and consult with affected communities on the adequacy of the financial surety? (mine-site level and related infrastructural works)**  
*Good practices would be:* Steps taken to identify and engage with affected communities regarding the financial surety documents, overview of engagement with affected communities, list of requests by stakeholders to access financial surety documents (anonymous when needed), methods used to receive public comment on the financial surety, list of independent experts and their reviews if applicable.

## POST-CLOSURE

- › **What contingency and response procedures are in place, and do they cover the entirety of the closed facility? (mine-site level and related infrastructural works)**  
*Good practices would be:* Contingency and response procedure, mapping of closed facility and its sphere of influence with corresponding procedures.
- › **Is there a methodology and timeline in place regarding the monitoring of closed facilities? (mine-site level and related infrastructural works, company level)**  
*Good practices would be:* Closed facilities monitoring procedure document, information on the frequency of monitoring, location of closed facilities to which the methodology and timeline applies,
- › **Has a risk assessment been made for closed facilities (damage, water quality, contamination risks, invasive species management, surrounding ecosystems, local communities etc.)? (mine-site level and related infrastructural works, company level)**  
*Good practices would be:* Risk assessment including underlying data, report on water quality, report on any seepage/waste, and in case of seepage the composition of said seepage, water quality assessment, report on aquatic and terrestrial resources quality, report on pit lake water quality, research report on reach of pit lake water and possible negative consequences if contaminated.
- › **Are you aware of best practices in your field regarding post-closure water treatment, and have you implemented a methodology/policy based on these methods? (mine-site level and related infrastructural works, company level)**  
*Good practices would be:* Mapping of best practice water and waste management methods, post-closure water treatment methodology, proof of implementation of best practices in company and/or mine site policy.
- › **What efforts regarding water management have you made before deciding on long-term water treatment? (mine-site level and related infrastructural works)**  
*Good practices would be:* Report on water quality, volume and location of water to be treated including impact areas, list of steps taken to avoid long-term water treatment, timeline and list of used water management methods, methodology of (proposed) treatment, third-party engineering and risk assessment.
- › **In case of long-term water treatment, has a water quality assessment taken place, and what is the expected time frame during which it is predicted that IRMA Water Quality Criteria or other relevant criteria will be exceeded? (mine-site level and related infrastructural works)**  
*Good practices would be:* Water quality assessment including predicted quality for a period of 10 years, timeline including predicted period of necessary water treatment, impact assessment of risks related to current and predicted water quality.

## 2. Implementation progress

- › **What provisions have been made to ensure financial surety post-closure? (mine-site level and related infrastructural works)**  
*Good practices would be:* Budget, financial surety instruments document, financial surety, third-party review of the financial surety instruments document and financial surety.
- › **Have provisions been made to guarantee the continuation of activities related to closed facilities in case of financial trouble or bankruptcy? (mine-site level and related infrastructural works)**
- › Detailed budget for several scenarios including bankruptcy, financial surety document, review of an independent analyst, NPV calculations.

*Good practice example:* Glencore's closure plan for the Westside open cut coal mine near Lake Macquarie in New South Wales, Australia, divided the site into different rehabilitation domains with different completion criteria. Monitoring programmes are rigorous and have clear goals. High-quality native vegetation has established itself, and nine threatened species have been found on-site, demonstrating the site's biodiversity. (p.58, Integrated Mine Closure: Good Practice Guide)

The implementation of an effective reclamation and closure strategy can be achieved by using one of the leading international standards and guidelines (ICMM, IRMA, others). Additionally, external auditing can be a motivator to improve existing strategies and policies, and aid in developing a more progressive strategy by pointing out gaps and/or flaws in the implementation of existing protocols. Examples of relevant questions are:

- › **Which international standards or guidelines (ICMM, IRMA, etc.) are you using to inform your reclamation strategy/practices? If you are not using international standards or guidelines what are your reasons for doing so? (company level)**  
*Good practices would be:* Proof of signing/subscribing to a standard/guideline/initiative, reference(s) to a standard/guideline/initiative in reporting (sustainability report, annual report etc.), reference to standard/guideline/initiative in reclamation and/or closure strategy.
- › **Have stakeholders involved independent experts in their review process of the reclamation plan? (mine-site level and related infrastructural works)**  
*Good practices would be:* List of (proposed) third party/independent experts and their comments, proof of independent review.

## 3. Disclosure and reporting

Disclosure and reporting are key tools to enhance transparency, which in turn can lead to positive stakeholder relationships, knowledge sharing and improved performance. Additionally, clear (public) communication with stakeholders will strengthen the social license to operate. Examples of relevant questions are:

- › **How do you discuss strategy, performance and adaptive management with relevant stakeholders? (company level, mine-site level and related infrastructural works)**  
*Good practices would be:* List of all relevant stakeholders for each mine site including communication methods, dates and summaries of stakeholder meetings.
- › **How do you report on reclamation and closure in your annual report, sustainability report, or any other reports? (company level)**  
*Good practices would be:* Quantitative and/or qualitative data relating to reclamation and/or closure in reporting, separate statement or document on reclamation and/or closure strategies and planning.
- › **Are reports and other relevant documents on reclamation and closure made publicly available or do you provide them to stakeholders when requested? If no, why are reports not published in the public domain and/or why are reports not provided to stakeholders on request? (company level)**  
*Good practices would be:* Location (online and offline) of reports, list of viewing requests (anonymous).
- › **Can grievances be reported without any obstacles or potential risk to the person reporting said grievance? (company level, mine-site level and related infrastructural works)**  
*Good practices would be:* Location of grievance reporting system, method of communicating existence of grievance system in all relevant languages, accessible (online and offline) grievance reporting system, option to report anonymously.
- › **Do you have multi-stakeholder monitoring teams? (mine-site level and related infrastructural works)**  
*Good practices would be:* Monitoring plan, stakeholder engagement strategy, and list of monitoring team members.
- › **Is there a system for participatory monitoring set-up? (company level, mine-site level and related infrastructural works)**  
*Good practices would be:* Monitoring plan, stakeholder engagement strategy.
- › **How often do you grant community stakeholders the opportunity to review and participate in revising monitoring plans? (mine-site level and related infrastructural works)**  
*Good practices would be:* Local reports on stakeholder meetings, stakeholder engagement strategy/plan/report, dates with possibilities for stakeholders to participate and summaries of said events.  
  
*Good practice example:* During the closure planning process of the Timbarra goldmine two facilitated meetings were held at the site. Stakeholders voiced grievances over past experiences, including concerns over the perceived inadequacy of previous scientific studies and the approvals process, and treatment of highly significant environmental and cultural sites. The meetings were facilitated by an opponent of the development and a spokesperson from the Lismore Rainforest Information Centre. As a result of stakeholder identification and these first meetings the Timbarra Closure Focus Group (TCFG) was created, bringing together a diverse group of stakeholders. (p.64, Mine Closure, Leading Practice Sustainable Development Program for the Mining Industry)

## 4. Accountability and responsibility

Companies can demonstrate their commitment to effective reclamation and closure strategies through holding (executive) management accountable and taking responsibility for its practices.

Examples of relevant questions are:

- › **If an agreement on reclamation and closure was reached with (potentially) affected stakeholders, how did you ensure you incorporated all relevant stakeholders? (mine-site level and related infrastructural works)**  
*Good practices would be:* Proof of participation of local stakeholders, reclamation and closure plan, list of all stakeholders in the agreement, stakeholder engagement plan, list of stakeholders.
- › **Which scenarios do you take into account for the assessment of future risks? (company level, mine-site level and related infrastructural works)**  
*Good practices would be:* Safety parameters, monitoring plan, frequent water quality and quantity data if applicable, value of trigger indicators that provide early warnings, planned actions to monitor predicted impacts, adaptive management plans for when threshold levels are reached including timelines for their implementation, previous data on the use of the adaptive management plan, its execution, and possible setbacks.
- › **To what extent is policy adapted/revised if a predicted potential risk has become reality? (company level, mine-site level and related infrastructural works)**  
*Good practices would be:* Planned actions to monitor predicted impacts, adaptive management plans for when threshold levels are reached including timelines for their implementation, previous data on the use of the adaptive management plan, its execution, possible setbacks.
- › **To what extent is it considered to be the responsibility of the board and/or board committee that an adequate reclamation and closure strategy is implemented? Is this linked to executive compensation? (company level)**  
*Good practices would be:* Proof of the implementation of an adequate reclamation and closure strategy being linked to executive compensation.



# Follow-up and conclusion

This engagement guide has been developed for use during initial engagement on reclamation and closure of mine sites. These concluding questions are intended to encourage continuing engagement on the topic.

- › **How will you follow-up on this discussion? (company level, mine-site level and related infrastructural works)**

**Good practices would be:** List of proposed changes to be implemented, agreement on follow-up appointment for continued engagement.

- › **Will you commit to any changes in your reclamation and closure strategy/planning after this discussion? (only relevant if interview has been held with someone in the position to make these decisions) (company level)**

**Good practices would be:** List of proposed changes to be implemented, potential timeline, agreement to commitment.

<sup>3</sup>Source: [www.icmm.com/website/publications/pdfs/commitments/revise-2015\\_icmm-principles.pdf](http://www.icmm.com/website/publications/pdfs/commitments/revise-2015_icmm-principles.pdf)

# Appendix

## Shortlist of standards, guidelines and other publications regarding reclamation and closure in the mining industry<sup>1</sup>.

Evaluating Performance: Monitoring and Auditing, Leading Practice Sustainable Development Program for the Mining Industry, Australian Government (September 2016).

Financial Concepts for Mine Closure, ICMM.

Guidance notes for the implementation of financial surety for mine closure, The World Bank Group.

Guidelines for Preparing Mine Closure Plans, Department of Mines and Petroleum, Environmental Protection Authority (Australia) (May 2015).

Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories, Mackenzie Valley Land and Water Board, Aboriginal Affairs and Northern Development Canada (November 2013).

Health, Safety and Reclamation Code for Mines in British Columbia, Ministry of Energy and Mines, British Columbia (Canada) (Revised version: June 2007).

Integrated Mine Closure: Good Practice Guide (second edition), ICMM (February 2019).

Mine Closure Checklist for Governments, IGF/APEC Mining Task Force (February 2018).

Mine Closure, Leading Practice Sustainable Development Program for the Mining Industry, Department of Industry, Innovation and Science, Department of Foreign Affairs and Trade (Australia) (September 2016).

Mine Site Reclamation Guidelines for the Northwest Territories, Department of Indian Affairs and Northern Development (Canada) (January 2006).

Mine Rehabilitation, Leading Practice Sustainable Development Program for the Mining Industry, Department of Industry, Innovation and Science, Department of Foreign Affairs and Trade (Australia) (September 2016).

The Policy Framework in Canada for Mine Closure and Management of Long-Term Liabilities: A Guidance Document, National Orphaned/Abandoned Mines Initiative (NAOMI) (Canada) (November 2010).

<sup>2</sup>The International Conference on Mine Closure<sup>2</sup> is an annual event. Published papers could be of interest for engagement on reclamation and closure of mine sites. For the 2019 papers see: <https://papers.acg.uwa.edu.au/c/mc2019>





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