



Deep dive into community, climate, nature, and circularity

Spotlight on closure and planning

ESG is connected to day-to-day site performance. Poor environmental controls, poor relationships with community, or poor data systems can all lead to delays, increased costs, and reputational damage. By contrast, strong ESG practices help sites run more smoothly and efficiently. Good planning, clear expectations, and early engagement support better outcomes for production, safety, and reputation. A solid ESG strategy helps ensure your mine can keep operating, adapting, and creating value over time.



Case Study: ESG considerations in closure, planning beyond compliance

The challenge:

As a West Australian company prepares for the closure of its long-running operation of an open cut zinc and lead mine in Regional Queensland, the company faced several complex challenges: how to rehabilitate a site with legacy impacts, how to ensure positive outcomes for local workers and Traditional Owners, and how to satisfy regulators and investors seeking assurance on long-term environmental and social risk.

Considerations:

It was recognised that closure was not just a technical task, but a strategic ESG priority. The company broadened its approach by embedding environmental, social and governance principles into closure planning:

- **Environmental:** Invested in progressive rehabilitation, wetland construction, and long-term water quality monitoring to protect downstream ecosystems
- **Social:** Partnered with Traditional Owners to co-design post-mining land use, including cultural and training spaces

- **Workforce:** Created retraining pathways for workers, with 65 employees transitioned into other roles across the business or nearby industries
- **Governance:** Engaged third-party reviewers and community panels to build transparency and trust, and updated closure provisions in financial reporting

The outcome:

The company received early regulatory approval for closure plan amendments, maintained strong relationships with local communities and workforce throughout the transition, and improved ESG ratings from external analysts and secured interest in future projects based on the success of its closure approach.

Practical actions you can take to embed ESG:

- How is your role connected to ESG, through the lenses of your company's Governance, Environment and Social performance ?
- How is the company's business performance affected by ESG, how has it influenced project approvals, community engagement, investor interest, or contract wins.
- Understand how your team's data feeds into site or corporate ESG metrics (such as emissions, water use, safety, complaints).

Would you like to know more ?

Next up in Core ESG Fundamentals, Factsheet 4: Deep dive into community, climate, nature, and circularity



Deep dive into community, climate, nature, and circularity

Focus on what matters most to your mine, the material issues.

No two mine sites are the same, each faces different environmental, social, and governance issues depending on its specific location, stakeholders, and activities. To manage ESG well, companies and professionals need to focus on the themes that matter most to their operations, risks, and communities. This process is called a materiality assessment.

A materiality assessment helps identify the most important ESG topics by considering:



What are the greatest environmental and social impacts of our activities ?



What do regulators, Traditional Owners, investors, and communities care about?



What ESG factors could affect our business performance or reputation?

By focusing on material themes, mining companies can use their time and resources more effectively and deliver real value to both the business and society.

Key ESG themes to consider in a materiality assessment

These key themes are shaping the future of mining and something you should consider in the planning, operation, and closure of your mine. Leading companies are acting now to meet rising expectations, reduce long-term risks, and create value beyond compliance. By focusing on what matters most, mines can stay competitive, trusted, and future ready.



Climate change and decarbonisation

- Reducing greenhouse gas emissions across operations and supply chains
- Improving energy efficiency and integrating renewable energy use
- Understanding physical climate risks (flooding, heat, drought) and resilience planning



Biodiversity and nature repair

- Understanding nature related impacts, dependencies, risks and opportunities
- Avoiding critical habitats and mitigating impacts to nature, such as deforestation
- Protecting and restoring ecosystems impacted by mining, reversing nature loss
- Supporting post-mining land use that promotes ecological recovery

For more information visit:

ausimm.com/communities/societies/social-and-environment-society & www.sustainableminingcommunity.com.au



Deep dive into community, climate, nature, and circularity



Circular economy and waste management

- Reducing waste generation and increasing resource efficiency
- Reprocessing tailings and using by-products where possible
- Designing for closure and long-term land use in mine management
- Investigating waste as a resource, shifting away from the take, make, dispose model



Human rights and modern slavery

- Ensuring safe, fair, and respectful working conditions for operations and suppliers
- Checking suppliers and contractors for modern slavery risks
- Supporting worker voice and grievance mechanisms



Indigenous partnerships

- Recognising Traditional Owners and cultural heritage rights
- Embedding Free, Prior and Informed Consent (FPIC) in engagement
- Building long-term relationships based on trust, benefits, and co-design



Community engagement and social performance

- Listening and responding to community concerns
- Supporting local employment, skills, and business development
- Managing local impacts such as noise, dust, access, and traffic
- Considering co-designed legacy community benefits in mine operations and closure

How do these themes connect to your role?

Each of these ESG themes plays out through daily decisions, from planning and permitting to procurement, operations, maintenance and rehabilitation. Understanding your site's material themes and how they relate to your role, helps you focus on what matters and make informed decisions. How are you implementing your mine's ESG strategy?

Discipline Spotlight: Circular economy innovations in processing and metallurgy

Processing and metallurgy teams can embed circular economy principles by recovering and reusing reagents and water, optimising thickening, filtration and water treatment so process water is recycled multiple times rather than discharged, and trialling alternative flotation reagents that are easier to recover or have lower toxicity

to reduce fresh chemical demand and waste treatment needs. They can also design circuits to maximise metal recovery from "waste" streams by re-treating historical tailings or low-grade stockpiles using improved flotation, leaching or sensor-based sorting to turn former liabilities into saleable product, and by capturing by-product metals (such as cobalt, rare earths and molybdenum) that were previously lost to tailings, improving resource efficiency and revenue.

For more information visit:

ausimm.com/communities/societies/social-and-environment-society & www.sustainableminingcommunity.com.au



Deep dive into community, climate, nature, and circularity

Discipline Spotlight: Climate risk and nature impact in drilling and exploration

Drilling and exploration teams reduce impacts to nature and climate in the initial mine design by reviewing environmental constraints before setting out drill pads and tracks. For example, avoiding flood-prone creek lines, landslip areas, or high-fire-risk zones when choosing access routes and camp locations, and planning seasonal work to minimise risks from heat, storms or heavy rainfall. They work with environment teams to map sensitive habitats and species, then position drill pads, sumps, laydown areas and tracks to avoid critical habitats, riparian zones, old-growth vegetation, or cultural heritage sites, and to minimise deforestation and erosion. During operations, they monitor and report environmental conditions (e.g. erosion, sediment in waterways, wildlife sightings, damage to vegetation) so that climate and nature risks are continually reassessed and controls updated.

Discipline Spotlight: human rights, indigenous partners, community in procurement

Procurement sets the rules for who the mine buys from and under what conditions. They can screen suppliers and labour-hire companies for modern slavery risks (e.g. very low prices, high-risk countries or sectors), require codes of conduct and contractual clauses on labour standards, and use pre-qualification questionnaires to check things like worker documentation, recruitment practices and overtime. They can also build modern slavery expectations into tender evaluations, ask for corrective action plans where risks are identified, and work with HSE and HR to ensure there are confidential channels for workers in the supply chain to raise concerns.

Procurement can turn “supporting the local community” into concrete spend. This includes setting targets or preferences for local businesses, breaking large contracts into smaller packages that local suppliers can realistically bid for, and offering clear, simple tender documents and feedback to unsuccessful local bidders. They can coordinate with community and social performance teams

to understand local capability, advertise opportunities locally, and avoid practices (like last-minute tenders or unrealistic payment terms) that disadvantage community businesses.

Procurement plays a central role in Indigenous economic participation by identifying, onboarding and championing Indigenous-owned suppliers and joint ventures. They can include Indigenous participation requirements in contracts (e.g. minimum Indigenous employment or subcontracting), set specific Indigenous spend targets, and align contract scopes with the capabilities and growth plans of Indigenous businesses.

Discipline Spotlight: Climate change, decarbonisation and climate risk in operations

Operations teams contribute to decarbonisation and reducing climate change by reducing emissions from equipment and haulage. For example, optimising haul routes and dump locations, cutting idling, matching truck and shovel combinations, and trialling lower-emission or electric fleets. They also improve energy efficiency on site through better scheduling of high-energy activities like crushing, pumping and ventilation, shutting down non-essential equipment, and keeping engines and tyres well maintained, and by integrating renewables into operations so pumping, processing and other energy-intensive tasks align with solar or wind availability. They manage physical climate risks in day-to-day work by designing pits, roads, drainage and stockpiles for more intense rainfall, adjusting working hours and PPE for extreme heat, planning water storage and usage for drought, and building these climate assumptions into mine plans and production schedules so the operation stays safe, productive and resilient over time.

Together, these examples show that ESG isn't a separate “add-on” to mining, but something shaped by every decision made in every role.

Would you like to know more ?

Next up in Core ESG Fundamentals, Factsheet 5: ESG Reporting, Disclosure and Audits.

For more information visit:

ausimm.com/communities/societies/social-and-environment-society & www.sustainableminingcommunity.com.au