



CLOSURE AND REHABILITATION PLANNING

Strategic closure planning advice can avoid costly surprises and reputational damage during decommissioning or relinquishing a project.

We provide timely, practical advice and prepare closure and rehabilitation plans that include community and employee completion criteria to ensure an orderly process that creates positive legacies.

We have assisted a number of clients by preparing a cost-effective gap analysis of closure issues for consideration by the project team as an initial step towards closure planning.



Closure planning for old mines

Sustainable Solutions Global will help you:

- ⊗ **Meet regulatory, legal and corporate obligations** of closure planning requirements, including rehabilitation budgeting, risk assessments, stakeholder engagement and agreed completion criteria for all environmental and social aspects of the project.
- ⊗ **Enhance your company reputation** through implementation of pro-active social and environmental closure strategies that contribute to ongoing positive legacies.
- ⊗ **Minimise social and environmental closure risks** through specialist studies and provision of strategic advice to ensure an orderly process which avoids ongoing costs.
- ⊗ **Minimise costs** by planning ahead for closure.

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The SSG Approach

Sustainable Solutions Global provides strategic and independent social, environmental and management expertise for the mining, oil and gas, energy, transport and agricultural industries.

We strive to maximise the social, environmental, and economic benefits of a project while minimising risks. We recognise that a solution will only endure if concerns and opportunities are balanced across all project stakeholders.

Closure Liability Assessments

Assessing your environmental and social closure liabilities as part of initial project planning can significantly reduce closure costs, avoid environmental damage and minimise social disruption. We have the skills to incorporate mine closure planning into all stages of your project and the experience to help your team develop appropriate and feasible closure strategies.

Innovative Solutions

Closure planning can be a challenging experience at sites with demanding technical issues such as geotechnical instability and acid rock drainage, and social requirements such as providing sustainable local economic opportunities. These issues are more difficult for operations located in remote or regional areas surrounded by communities which have become dependent on mine income. We incorporate agreed post-closure land use requirements and performance criteria into management strategies for acid producing waste, mine voids, rehabilitated areas and sustainable community development.

Closure Engagement

SSG has worked on technically and socially challenging closure projects which required creative communication methods and extensive stakeholder involvement. We can provide practical action plans for stakeholder engagement which build support for the closure plan within local communities.

NOTABLE PROJECTS

Phu Bia Mining Operations, Lao PDR

SSG reviewed the conceptual Mine Closure Plans for PanAust and provided strategic advice for progressing to operational mine closure planning and leading-practice closure and relinquishment of the site.

This included scoping operational Mine Closure Plans for three sites, identifying gaps in technical and social closure aspects and developing a three year action plan for operational closure planning. We facilitated stakeholder engagement activities and incorporated stakeholder concerns about closure into the site risk management register.

International Council of Mining and Metals (ICMM) – Mine Closure Toolkit

SSG developed and implemented an industry survey of 'mine closure planning and practice' in cooperation with Dr Catherine Macdonald of Social Sustainability Services. The culmination of this work is the ICMM Toolkit: Planning for Integrated Mine Closure, <http://www.icmm.com/document/310>.

Completion Criteria Workshop, Australia

SSG designed and delivered workshops on developing practical completion criteria for mine closure plans. Measurable and achievable completion criteria are now a requirement of most government mine closure regulations to enable effective relinquishment following decommissioning and rehabilitation.

Life of Mine planning, Indonesia

SSG facilitated a workshop funded by the Australia Pacific Economic Cooperation (APEC) Mining Taskforce to build capacity of member economies to encourage mining operations to plan for sustainable post-mining land-use options.

Kelian Equatorial Mining, Indonesia

As Environment and Closure Manager at this remote site for over five years, Dr McGuire was responsible for:

- ◆ Co-ordinating specialist studies and complex stakeholder negotiations through the mine closure steering committee and technical advisory groups over three years.
- ◆ Initiating the conversion of 6570 hectares of the site into a protected forest, funded by an endowment trust account managed by representatives of the Indonesian Government, local communities and the mining company.
- ◆ Negotiating with artisanal miners to ensure the post-closure safety of permanent structures.

Mine Closure Plan – advice and review

Sustainable Solutions Global has provided services as an advisor, writer or reviewer of Mine Closure Plans for:

- ◆ Xstrata Townsville Copper Refinery, Australia
- ◆ Sepon Gold and Copper Operations, Lao PDR
- ◆ Weipa Bauxite Mine, Australia
- ◆ Hunter Valley Coal Operations, Australia
- ◆ Blair Athol Coal Mine, Australia
- ◆ Argyle Diamond Mines, Australia

