

**Submission
No 22**

**INQUIRY INTO BENEFICIAL AND PRODUCTIVE POST-
MINING LAND USE**

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The value of ISO standards on Sustainable Mining and Mine Closure for the Inquiry into beneficial and productive post-mining land use

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Recommendation

- We would like The Standing Committee to consider the work being carried out by the International Organization for Standardization (ISO) Technical Committee 82/SC7 Sustainable Mining and Mine Closure
- The scope of SC7 Sustainable Mining and Mine Closure is outlined in Figure 1.
- Of particular relevance to this is the recently published ISO Standard - Managing Mining Legacies standard - [Part 1](#) and [Part 2](#) where the central focus is on creating positive legacies from negative mining legacies.
- The Convenor of WG3, Dr Corinne Unger would be available to discuss this submission if required

Scope

Standardization of environmental, social and governance aspects of mining to:

- minimize the negative impacts from mining through its life cycle and transition to post-mining land use,
- take action to combat climate change and its impacts,
- develop sustainable benefits and opportunities for local and regional communities,
- respect community cultural connections to places,
- adopt a long-term view that ensures inter-generational equity,
- embrace opportunities for innovation by adopting the principles of the circular economy,
- enhance transparency of mining practices.

Excluded:

- Occupational health and safety aspects related to workplace activities, covered by ISO/TC 283.
- Risk management guidance, provided in ISO 31000.
- Industrial wastewater treatment and reuse, covered by ISO/TC 282/SC4.
- Machinery.

Figure 1: SC7 scope (source: ISO/TC82/SC7 committee [page](#))

Synergies between ISO TC82/SC7 scope and the terms of reference of the Standing Committee on State Development regarding beneficial and productive post-mining land use

The terms of reference adopted by the Standing Committee on 14 May 2024 mirrors the recent standard of ISO TC 82/SC 7 Sustainable mining and mine closure. This new global standard is entitled 'Managing Mining Legacies' (ISO 24419).

That standard covers numerous aspects which will be considered by the inquiry. For example, globally there are innumerable negative mining legacies but only a few nations and fewer sites gaining the attention they require to reverse harm to communities and environments (Kretschmann et al., 2020; Laurencont 2014; Unger et al., 2015; Worrall et al. 2009). To demonstrate the sustainable development of mining and mineral processing operations through their life cycle and to

ensure transparency of the supply chain of mineral extraction, the effective management of legacy mines is required.

Despite an array of guidelines for managing mine closure and mining legacies globally, a standard for managing mining legacies did not exist. The significance of this was identified in late 2018 when the 'Mine Closure and Reclamation management' sub-committee of the Mining Technical Committee for International Organization for Standardisation (ISO) proposed a new work item. The proposal was adopted, and the aforementioned working group took up the development of the standard.

The Managing Mining Legacies standard comprises two parts. Part 1 outlines what must be carried out to comply with the standard while Part 2 is a Technical Report comprising illustrative case studies and a bibliography. Thus, Part 2 provides guidance and support to Part 1. The Standard applies to all stakeholders with an interest in managing mining legacies and encourages the parties responsible for their management to engage community and other stakeholders affected by, and/or benefitting from reclamation and closure. The standard is structured around:

- governance and leadership,
- stakeholder participation
- management planning,
- implementation, and
- stewardship, performance and reporting.

The Standard integrates the 17 United Nations Sustainable Development Goals (SDGs) as it is anticipated that its application will work toward reducing inequalities, peace, justice & strong institutions while restoring life to land and water. Specifically, it is intended that the management of mining legacies will seek to reverse the inequalities of marginalised people living in the degraded environments of these legacies (SDGs 1 & 10). Also, restoring land and water will enhance ecosystems (SDGs 14 & 15) and facilitate the return of productive livelihoods where they have been disrupted by mining legacies (SDG 2). Reversing the impacts of contamination will improve health and well-being (SDGs 3 & 6), an integral component of creating new and decent economic growth (SDG 8) where gender equality is a goal (SDGs 5 & 10). Figure 2 illustrates examples of Australian and overseas mining legacies, engagement, remediation and post-mining uses.

Giving all voices the opportunity to be heard and to participate in the management of mining legacies to shape the transitioning to meet local and regional needs (SDG 7). Importantly, partnerships (SDG 17) ensure everyone seeking to be involved is included and that by working together with respect, trust is built through kinship governance arrangements. For each of these goals to be accomplished, effective, accountable and inclusive institutions are necessary that include education and training to build capacity of those engaging with the reclamation process or new uses of the environment (SDG16).

Development of this Managing Mining Legacies standard was only possible through the voluntary efforts of experts from developed and developing nations who willingly brought their varied expertise, knowledge and lived experience to this collaboration.

The adoption of this standard as an integral part of ensuring transparency of the full life cycle of mining is particularly timely as society strives to meet the critical raw material demands for a green energy transition.



Figure. 2 Managing mining legacies (clockwise): Landholder engagement before mining legacy water sampling, site now remediated for grazing, Peru; Traditional landowner welcome to country and induction for technical team, Australia; Water treatment plant accompanying re-mining, Australia; legacy shaft, potential postmining use for heritage tourism; former uranium mine site reincorporated into national park; tailing pond and dump, before remediation. (© Unger, Laurencont, pixabay)

References

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