

ASI Mine Closure and Rehabilitation Working Group

Call #1 – 15 July 2026

Agenda

- Intro and overview (15 min)
- Plenary discussion (20 min):
 - Progressive rehabilitation metrics
 - Best practice rehabilitation techniques
 - Monitoring Periods
 - Introduction of break-out
- Breakout groups (20 min)
 - Best practice rehabilitation techniques
 - Monitoring Periods
- Share back (30 min)
- Next steps (5 min)

Participants

Industry – Gay Landwehr, Jayden Flint, Juliana Paiva, Rebecca Herbert, Talita Bezerra, Penny Laurance, Ken Kahler, Mohamed Bangoura, Pedro Carvalhaes, Flavio Queiroz Medeiros, Camila Florez, Débora Rizzati, Ligia Carvalho, Issiaga Keita, Pete Forakis, Ashutosh Saha

Civil Society & IPAF – Abu Karimu, Piet Wit, Roshan Ekka, Father Nicholas Barla, Mohamed Sankon

ASI Secretariat – Thomas Robertson, Mark Annandale, Jessica Pereira, Chelsea Reinhardt

Apologies – Vincent Ekka, Francesca Fairbairn, Mayra Barral, Christopher Wiggs

Interpretation provided – Portuguese & French

Discussion Notes:

1. Welcome

- The ASI Secretariat welcomed the group to the first meeting of this new Working Group and introduced the agenda.
- The Secretariat provided an overview of the multi-stakeholder standards revision process for ASI and the role of the Working Groups as an important sounding board to provide ideas, considerations, and recommendations to the ASI Standards Committee. In addition, this WG is designed to be a community of practice for sharing of information and responsible practices on the important topics of closure and rehabilitation

- The Secretariat shared the structure of the current Performance Standard V4 (PSV4) draft, which is under development, and explained how the topics of mine closure and progressive rehabilitation are currently covered
- The Working Group was informed that key topics for this first meeting will focus on:
 - Progressive rehabilitation metrics
 - Best practice rehabilitation techniques
 - Minimum monitoring periods
- The Secretariat gave a short summary of some of the consultation feedback related to mine closure, which included feedback on the topics to be covered in today's call

2. Progressive rehabilitation metrics

- The ASI Secretariat presented the current proposed requirement in the PS V4 draft around progressive rehabilitation: *5.6.1.2. Commence rehabilitation of all land disturbed for mining within three years of completion of mining, unless a specific and timebound operational need for the area is identified, as per the rehabilitation plan (5.6.1.1).*
- ASI explained that during consultation, there were mixed views, with some supporting the three-year timeframe (or asking for other metrics such a percentage of available land within the three years). Other respondents however raised concerns about feasibility and warned about being too prescriptive. An 80% threshold was floated as one discussion option.
- A participant asked for clarification on how we are defining/measuring rehabilitation, and another asked for clarification on the 'progressive' aspect of 'progressive rehabilitation' – "commence rehabilitation" currently means ripping, re-contouring soil, re-spreading topsoil and planting/seeding, however this definition will likely need to be re-visited. The current working definition: rendering a mine or mine area safe, stable and non-polluting in the long term, taking into account beneficial uses of the site and surrounding land (sometimes referred to as reclamation). 'Progressive' means that rehabilitation occurs progressively throughout mining operations, not waiting for mine closure to commence.
- The Working Group discussed the current proposal and raised the following points:
 - Some support for the proposals as drafted, noting that regulators are increasingly are asking for rehabilitation to occur faster than 3 years
 - Some participants supported more specific metrics, e.g. ratio of cleared areas to rehabilitated areas, or ratio of disturbed to rehabilitated land (e.g. 1:1, as one industrial participant already applies as their internal goal, but noting this requires a timeline, for example, annually). It was raised that having a metric around open area is still important for example due to legacy areas – potentially two metrics could be complementary
 - Emphasise that not all areas become available for rehabilitation to commence within the 3-year time period, and this distinction is important in drafting. Also nuance on what 'commence rehabilitation' means and local differences; due to weather conditions, the first stages might not be seeding, for example if the soil is too dry for planting to be effective. A concern was raised that ratios/ metrics may be too prescriptive and don't account for large mines which are 'grade mining' where some areas are left open for longer periods to allow access to specific grades as needed (i.e. open but not available for rehabilitation).

- Noted that prescriptive criteria (i.e. '80%') may lead to complex audit process, and auditability must be considered. Suggest add wording 'predominantly' to 3-year requirement, allowing flexibility.
- It was noted from a Brazil mining operation that 3 year mine rehabilitation can be achieved and based on good planning
- One participant shared an example of strip mining in the Amazon where there are two rain cycles and an ongoing rehabilitation process with specific activities in the dry and rainy season; the mine to rehabilitation commencement cycle is around two years, with rehabilitation involving establishing landforms and planting seedlings; rehabilitation is highly regulated due to conservation values in the area.
- It was noted that some regulators are considering it will be conditional to reduce open mine pit areas which may include having to mine out pits and stockpile elsewhere for blending or other purpose, and 'turn over the pits' for rehabilitation.
- It was noted by one participant they are comfortable with the current draft and noted some environmental considerations are required e.g. soil moisture (drought) and that the basics rehab steps such as the earthworks to reform the land, spread the topsoil, complete the site preparation etc can be completed to ensure the site meets regulatory requirements—a safe and stable landform, non-polluting—these activities are a demonstration that rehabilitation has commenced and then the seasonal weather dependent planting and seeding then follows
- A separate concern was that adding an explicit percentage/ratio metric increases audit complexity for large mines with a mix of open and rehabilitated areas across one site. Preference showed for keeping the current “all disturbed land, with defined flexibility for operational needs” rather than adding a percentage.
- Civil society raised a concern that ambiguity in defining “area available for rehabilitation” could be used to justify delaying rehabilitation
- A live sense-check poll run mid-session showed a majority leaning toward the direction of the current consultation draft
- Summary: enough from today's discussion to begin with some re-drafting to then recirculate to the WG for further feedback

3. Breakout Group Discussions – best practice rehabilitation techniques

Group 1 (main discussion room, Portuguese and French interpretation)

- Breakout group 1 discussed the proposed best practice rehabilitation techniques, noting the following points:
 - Stockpiling topsoil should be standard practice – some participants proposed “best practice” elements were challenged as being minimum standard rather than leading practice: topsoil management and invasive species control were considered non-negotiable minimums
 - There was also some discussion on legacy areas raised as a distinct unresolved issue: areas rehabilitated decades ago under outdated norms or previous regulation may not meet current expectations, but remediating them is costly. How should

certification consider legacy areas? Some suggested collaborative defined closure plans to let companies demonstrate a form of 'best efforts'

- Topsoil segregation: how is soil defined? Should stockpiled/stored soil that is awaiting reuse be classified as 'soil' (referencing a Brazilian technical/regulatory distinction). This is highly site-specific – some sites have metres of topsoil with others having very little
- One participant stated that their company has been building indicators to structure monitoring to help validate techniques that are both operationally effective and support continuous improvement. This resulted in a suggestion: complement technique descriptions with a requirement to use monitoring results for assessment e.g. don't just describe the technique but check whether it's actually working.
 - Monitoring is important and core to any rehab plan but it's been difficult to prescribe specific monitoring results in the standard as its very case specific. The standard does have an overarching requirement to achieve no-net-loss/net-gain on biodiversity
- A technique was described of layer-by-layer soil segregation – removing and storing soil horizon layers separately for later reconstruction during rehabilitation. This is still in the trial phase, it is more expensive but early indications suggest better outcomes.
- Monitoring and evaluation was raised as critical to any rehabilitation approach
- One participant described their company's rehabilitation methodology:
 - Before exploitation, they confirm there's no polluted soil, then do soil scratching/stripping of the topsoil layer, which they refer to as "black soil" – described as organic material that has developed organically over time
 - level the site → strip and set aside the black soil → spread the black soil back → plant. Planting runs in parallel with a company-run tree nursery; replanting/planting typically starts in June, alongside direct planting from the nursery to site.
 - Monitoring starts after year one, against a 4–5 year rehabilitation plan that is itself reviewed on that cycle, with a permanent annual follow-up check on how the rehabilitation is progressing
 - They also monitor and control rivers/water reaching the site, specifically to stop water currents/sediment from reaching larger rivers downstream
- Another participant shared more details:
 - Rehabilitation planning is integrated with mine planning from the start – as soon as a block is identified for exploitation, a geological study is done and specific areas are earmarked as available for the rehabilitation program,
 - Vegetation clearing is done only by bulldozer and never uses fire for clearing or vegetation removal under any circumstances (stated as an absolute company rule, not context-dependent)
 - black soil is recovered/stripped and placed aside (stockpiled) separately from other activities, then returned to the site once the relevant phase of exploitation is complete
 - timber removed during clearing is made available to local communities for uses like cooking fuel

Group 2 (break-out discussion room, no interpretation)

- Breakout group 2 discussed the proposed best practice rehabilitation techniques, noting the following points:
 - Cautioning against being too prescriptive – as long as the Entity's follow what is required by regulators or in agreements reached with indigenous owners or communities this may be enough. Prescriptive requirements may not meet company needs
 - Examples given where ripping may be required in some contexts but not applicable in all
 - It was noted that the current draft needs to consider language with the example given that not all soil horizons can be replaced – as bauxite is one of those horizons and it is of course removed
 - It was noted that different sites apply different techniques, some exclusively use tube stock, while some directly sow seed and follow up with tube stock for recalcitrant species. The techniques applied are dependent on the post mine land uses and documented in the mine closure plan.
 - Discussion confirmed the details of species, techniques for mine rehabilitation are clearly articulated in the mine closure plan and the mine closure plan is guided by regulators, Indigenous peoples and affected communities. In developing planning documents, the boundaries need to be established, what the regulators require, what the technical limitations are and what the affected communities want/need after mine closure and what the companies can implement—that all feeds into the mine closure plan and then the mine rehabilitation planning details are how these closure objectives are achieved
 - It was noted that pioneer species would be used and each site is very specific and that various species can be used for monitoring, as indicators
 - One approach would be to look at these best practices during the planning stage and require the Entity to consider them at planning stage when developing their plan, then implementation looks at whether the plan itself is implemented
 - It was discussed that not all pre mine vegetation can be used in mine rehabilitation, an example being in one case governments retain ownership of above ground natural resources (i.e. timber, mulch from vegetation) and utilise that for non mining purposes.
 - Cross referencing suggested best practices against ICMM, WABSI, area legislation and stakeholder expectations will be important
 - What might be a universal minimum expectation? No alien species for rehabilitation. Also considering access – this is often overlooked, but access and utilisation of the mine rehabilitation areas for local communities and animals is important to be considered
 - Way forward? Consider a more reduced set of minimum expectations as normative and revise requirements so that Entity's must consider best practices during the planning stage, with reference to a number of guidance resources
 - Reviewing wording will be important – the WG will be asked to do this as part of the draft review after the call

4. Minimum Monitoring Periods

- The consultation draft included a minimum prescribed monitoring period to apply after a rehabilitation is complete. ASI flagged this was considered controversial in consultation feedback. It was supported in principle from civil society but had strong industry pushback that it wasn't workable as drafted currently
- ASI did not open this topic for discussion in this session but noted that many of the techniques discussed already touched on monitoring. There will be a session dedicated to this in the future.

5. Next steps

- The Working Group will be asked to review the draft via a shared link after this call
- The Proposed schedule for additional WG meetings is as follows:

Meeting	Topics to cover
July meeting	Progressive rehabilitation – metrics and techniques, monitoring periods
Early August meeting (parallel sessions)	Closure planning – technical discussion on the required elements of a closure plan, technical & feasibility scoping assessments of closure
Late August meeting (parallel sessions)	
September meeting	Circularity (valorisation of waste), socio-economic transitions
October meeting	Consultation with communities, application of Free, Prior and Informed Consent (as required pre and post mining)

- ASI plans to redraft the draft based on the discussions and survey/poll results before recirculating