

ALUMINIUM and ASI – BACKGROUNDER

ASI's independent third party Certification

- ASI has developed an independent third party Certification program to ensure sustainability and human rights principles are increasingly embedded in aluminium production, use and recycling.
- ASI's Performance Standard and Chain of Custody Standard are designed to link responsible production with responsible sourcing, and thus support increased emphasis on sustainability in procurement practices.

Where is aluminium used?

Aluminium's applications include:

- Transport: Lower GHG emissions through lighter vehicles and through its recyclability
- Infrastructure: Bringing energy efficiency for cities and buildings in an energy constrained world
- Packaging: Preserving food and medicines through its unique barrier properties.

Greenhouse gas emissions

- ASI aims to contribute to the global effort for climate change action through its Certification program for the aluminium value chain. This is particularly important in light of the COP 21 agreement to keep global average temperatures below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C. Approximately 80% of all GHG emissions in the aluminium industry worldwide relate to the energy-intensive smelting process.

ASI's role: The ASI Performance Standard includes two smelter-specific criteria. Smelters starting production after 2020 must achieve a level of Scope 1 and 2 GHG emissions below 8 tonnes CO₂-eq per metric tonne of aluminium produced. Existing aluminium smelters that were in production before 2020 must achieve the 8 tonnes CO₂-eq per metric tonne level by 2030. To put this in perspective, the current global average for aluminium ingot production is estimated to be 12 CO₂-eq per metric tonne.

ASI has committed to explore what a 2°C compliant GHG emissions trajectory would look like for the aluminium sector. A GHG Working Group has been established to enable input and engagement with climate change experts, members and stakeholders to be taken into account in the next revision of the Performance Standard.

Biodiversity

- The vast majority of the world's bauxite comes from surface mines in tropical areas, where bauxite occurs in horizontal layers, normally beneath a few meters of overburden. Bauxite mining involves disturbance of relatively large land areas, which can include areas of high biodiversity value.
- Effective mitigation of biodiversity impacts from bauxite mining involves avoiding negative impacts to protected areas and areas with natural and critical habitats (including avoidance of invasive species), as well as rehabilitation of mined areas.

ASI's role: ASI's standards set good practice requirements for biodiversity assessment and management, no-go areas for World Heritage Sites, and rehabilitation with best available

techniques.

ASI has committed to explore expansion of the ASI Performance Standard in the areas of ecosystem services and no-go areas ahead of the next revision process. A Biodiversity and Ecosystem Working Group is being established in early 2018 to enable input and engagement with biodiversity experts, members and stakeholders to be taken into account.

Recycling and Material Stewardship

- Aluminium is 100% recyclable and experiences no loss of properties or quality during the recycling process. Recycling aluminium also uses only 5% of the energy used to create new aluminium and emits only 5% of the greenhouse gases. Approximately 75% of the aluminium ever produced is still in use today.
- The majority of aluminium is used in products with very long use phases, for example transportation products that have a typical lifetime of 20 years or buildings with lifetimes of approximately 50 years.
- Recycling of post-consumer scrap and waste requires a number of conditions, including the availability of systems to collect and sort used materials, and the adequate design of products that enable classification and recycling, among others.

ASI's role: ASI's standards place requirements on downstream companies that design and produce consumer and commercial goods to consider future recyclability and support society's efforts to increase recycling.

Indigenous peoples' rights

- Mining and mining-related activities (exploration, development, resource extraction, processing, transportation and waste disposal) often take place on, or near, indigenous lands. Mining or large-scale industrial development requires access to land and water that is often the basis of livelihoods for local communities. Major industrial developments can have significant adverse impacts on indigenous groups and/or vulnerable groups and individuals, affecting their rights to self-determination, infringing on their lands, territories and resources, and threatening their ability to maintain their culture, including their cultural heritage and recognition of their distinct identities.

ASI's role: ASI has convened an Indigenous Peoples Advisory Forum (IPAF) as part of its formal governance structure. IPAF representatives liaise with both the ASI Board and Standards Committee on matters relating to standards setting, the ASI Complaints Mechanism, and the broader involvement of indigenous peoples in ASI's programs. ASI's standards set good practice requirements for respect of Indigenous Peoples Rights, Free Prior Informed Consent (FPIC), and sacred and cultural heritage.

Waste management

- Between two and four tonnes of bauxite are required to produce one tonne of alumina. Once the alumina is extracted from the bauxite, the remaining bauxite residue is stored in landfills. Disposal of the bauxite residue is a challenging aspect of alumina production.
- Aluminium smelters also generate significant quantities of solid waste. One of the main sources of waste production during the smelting process is 'spent pot lining' (SPL) from the relining of pots, which takes place every five-to-eight years. Leading companies minimise the generation of SPL by extending life times of the pots, and ensure proper handling of SPL waste through treatment or use by other industries, such as the cement industry.

ASI's role: ASI's standards set good practice requirements for both types of wastes, and encourages alternatives to landfill.