



A COLLECTIVE APPROACH TO ACHIEVING A SUSTAINABLE INDONESIAN TIN SECTOR

**LEGACY REPORT OF THE
TIN WORKING GROUP (TWG)**

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aidenvironment





FOREWORD

Convening companies, NGO's and governments around a tough sustainability issue is often the first step in an IDH program. Forming a common understanding of the root causes of unsustainable practices, and a common roadmap for improvement based on a business drive for sustainable improvements are part of that process.

In 2013, Friends of the Earth (FoE) flagged to leading electronics industry, their responsibility to create responsible tin mining practices on Bangka island. At that time, the problems on the ground and the options for contributing to a solution with demand driven interventions were not "collectively understood".

That is what this report is about. It documents the journey IDH was asked to lead. A journey of the industry together with FoE to understand both the systemic drivers behind the harming practices in Bangka, as well as the possibilities to fundamentally improve those practices. A journey to first mobilize the demand side of the chain and later the Indonesian authorities. The journey of relevant NGO's, the tin mining and smelting companies on Bangka and Belitung, to create scalable pilots, modeling the options for real change in tin mining practices in Bangka and Belitung.

It is our privilege to present the learning from this journey, three years that was only possible with the loyal and patient support of our partners and the hard work and strong drive of our small IDH team.

We hope you enjoy reading.



Elea Papaemmanuel
Senior Program Officer



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IDH, The Sustainable Trade Initiative

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QUICK VIEW: SUSTAINABILITY CHALLENGES IN INDONESIAN TIN MINING

Tin in Indonesia: An anchor of livelihoods but with high social and environmental costs

Tin is used in everything from smartphones to cars, and from food packaging to solar cells. Nearly a third of all tin produced comes from Indonesia, and most of that is mined on and around two islands off the east coast of Sumatra called Bangka and Belitung.



Tin mining is a cornerstone of the economy of the two islands. However, there are a number of sustainability challenges in the sector. Tin mining on-shore has been linked to deforestation, erosion and water pollution, while tin mining off-shore, which involves dredging the ocean floor, harms coastal ecosystems and negatively impacts other major industries like fishing and tourism.

The miners themselves often lack adequate safety equipment and are vulnerable to fatal accidents. Child labor is also a major concern in the Indonesian tin industry. Although one large state-owned integrated mining and smelting company holds most of the concessions, most tin is actually mined by artisanal and small-scale miners (ASM) who are not legally recognized or regulated. Collectors serve as middlemen between ASMs and independent smelters. Because collectors also operate outside of formal legal structures it is difficult for smelters to determine the source of the tin ore they are purchasing or the conditions under which it was produced.

Quick view of sustainability challenges in the Indonesian tin sector

Economic

- Income for ASM
- Negative impacts on fishing and agriculture

Commercial

- High price volatility
- Legality of ASM concessions
- Illegal trade
- Lost government royalties

Social

- Health and safety concerns
- Child labor

Environmental

- Limited land rehabilitation
- Deforestation
- Damage to reefs, mangrove forests, fisheries



EXECUTIVE SUMMARY

The Tin Working Group: a first-of-its-kind to address sustainability challenges in tin

In response to the sustainability challenges of tin mining, a group of the most prominent consumer electronics brands approached IDH, the Sustainable Trade Initiative to setup a working group to collectively make meaningful change in the Indonesian tin sector. In 2014, the Tin Working Group (TWG) was formally established, with IDH as a neutral convening partner. The coalition of consumer electronics brands, metal manufacturers, civil society and industry associations was the first voluntary, collaborate initiative in the tin sector that looked beyond conflict mining issues. Through the TWG, members made efforts towards a more sustainable tin sector over and above what was required of them by law.

The Tin Working Group: road to alignment

The TWG used a step-wise approach, to first develop a detailed situation and sustainability analysis in the Indonesian tin sector, which helped to create a shared understanding among its members of the challenges and opportunities in the sector. Following the situation analysis the TWG did extensive outreach to Indonesian stakeholders, raising awareness of sustainability issues and the concerns of international trade. Through this outreach, the TWG established partnerships with key local stakeholders around an ambitious sustainability agenda for the sector.

Together, they developed a 2020 roadmap that outlines strategies and objectives regarding the

Key results of the Tin Working Group 2014 - 2017

Sector Dialogue and Alignment



- Shared industry understanding and dialogue about local realities and challenges
- Increased local awareness of sustainability issues and trade concerns
- Buy-in on 2020 roadmap

Regulatory Framework



- Increased public sector awareness of issues in the sector
- Initial national government engagement
- Empowered progressive local politicians

Supply Chain Practices



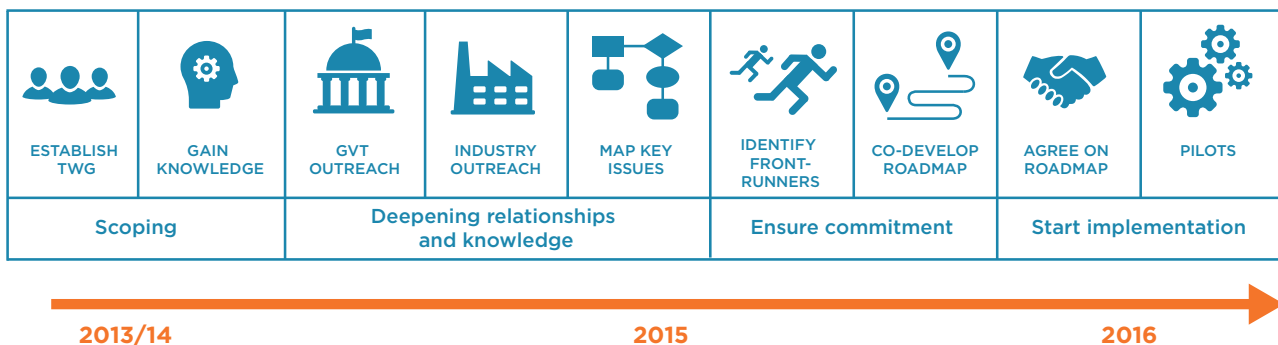
- Drove companies to publish aspirations on sustainable sourcing and communicate them to suppliers
- Members more and more transparent about sourcing

Responsible Mining Practices



- Robust models for on-shore mining and occupational health and safety are about to be piloted, creating momentum with the local industry

TWG Process and Roadmap



improvement of the regulatory environment and law enforcement, public finance for land reclamation and the development of scalable models of sustainable mining practices.

Following the roadmap, two innovative pilots were developed in partnership with local industry, civil society and key experts; one for rehabilitating former on-shore tin mines and another to improve occupational health and safety among miners, especially ASM. The pilots are set to launch in 2017 and results will be used to build further momentum with local industry, the Indonesian authorities, TWG members and other stakeholders. A separate workstream addressed policymaking and law enforcement with an emphasis on land tenure, mining licensing, the governance of tin trade and land reclamation.

The TWG also developed an 'Incentive Guide' outlining responsible sourcing practices to help drive the industry towards more sustainable practices. Companies participating in TWG committed to follow the guide, which encourages them to publish responsible sourcing goals and communicate sourcing guidelines to suppliers from Indonesia.

Future action

In 2017, IDH handed over its convening role to the Electronic Industry Citizenship Coalition (EICC). The road map for future TWG action includes:

- Defining a value proposition for the next phase to strengthen commitments through targets and investments.
- Promoting the pilot outcomes to obtain buy-in from Indonesian government, industry partners, donors and development agencies.
- Developing better practices for off-shore mining.
- Defining an accepted definition of what responsible mining is and developing a standard/benchmark to enable buyers to source responsibly.
- Encouraging participation from industries beyond consumer electronics to increase market leverage.
- Encouraging the participation of NGOs and development partners to maintain a civil society voice and development expertise in the TWG.



THE TIN WORKING GROUP AT A GLANCE

The TWG brought together the biggest brands in electronics to collectively make meaningful change in the Indonesian tin sector

The Tin Working Group was a first-of-its-kind coalition of global downstream and midstream tin users that looked beyond conflict mining issues as required by the Dodd Frank Act in the US. TWG members represented some of the largest end users of tin in the world, especially among electronics producers who made up the majority of the group. The electronics sector represented nearly half of global consumption of tin.

The TWG used the combined market leverage of its membership to drive change in the sector. Together, TWG members were better placed to make an impact on sustainability than individual members on their own. TWG membership offered members an opportunity to gain better understanding of realities on the ground, their own level of responsibility in that reality and ways they could have a positive impact on making the Indonesian tin sector more sustainable.

Friends of the Earth (FoE), the global tin trade association ITRI and the EICC are also members. Industry associations EICC and ITRI add expertise and credibility.

TWG members included some of the biggest electronics and metals brands





RESULTS AND ACHIEVEMENTS



Sector dialogue and alignment

The Tin Working Group created a shared understanding among tin buyers about local realities and challenges. The TWG was the first forum where companies in the electronics industry and supply chain actors discuss social and environmental issues of tin mining in Indonesia. The situational analysis at the beginning of the process, as well as multiple field visits by TWG members to Indonesia created a common understanding of the issues and challenges.

Among Indonesian stakeholders, there is increased awareness of sustainability issues and international trade concerns. The continued dialogue between the TWG and the Indonesian industry and government created a shared awareness of the sustainability issues on Bangka and Belitung. Field visits by the TWG members provided opportunities to create space for dialogue and meaningful interaction. Using supply chain leverage, whether collectively or individually, promoted the willingness of Indonesian actors to listen and created some sense of urgency to act. Having experienced local conveners for specific stakeholder groups has also been an element of success.

From the beginning the TWG tried to engage the whole Indonesian mining sector to maximize market relevance and opportunities for scaling sustainable market practices. However, due to political sensitivities, the TWG focused mainly on the ASM.

In future, both PT Timah, the public tin mining company and the TWG could use parallel engagement strategies to work with both this public tin mining company and the ASM.

There has been initial buy-in on the roadmap, though follow-up could be stronger. The Indonesian industry and government were involved in the development of the roadmap, finalized in 2015. This consultation process was formally endorsed by the Indonesian national government and resulted in a Memorandum of Understanding between IDH and the Association of Indonesian Tin Exporters (AETI) to collaborate on the implementation of the roadmap. This was followed by active engagement of AETI members and local authorities in the pilot design. Getting regulatory and market incentives in place may build a greater sense of urgency among Indonesian industry to act on the roadmap.

“Brand visits were very positive in opening dialogue and raised awareness.”

Jabin Sufianto, director of PT. Eunindo Usaha Mandiri, acting as President of AETI

Most TWG members agree with the roadmap. However, members had different opinions on the responsibility they hold to support local actors in realizing the roadmap. For example, TWG members differ markedly on their willingness to finance pilots and on the degree to which they feel they should use their market leverage within their supply chain.

Although there is now a shared understanding on the key issues and common agreement on the roadmap, the TWG would benefit for more alignment on how members commit to roadmap.



Sustainable supply chain practices

The TWG was an important driver for companies to publish their aspirations on sustainable sourcing and to communicate to suppliers their expectations regarding tin from Indonesia. Participation in the TWG helped members obtain a better understanding of their full supply chain. For many members, participation in the TWG made them also look beyond conflict mining issues which, as a result of the 2010 Dodd-Frank Act in the US, had been the focus of responsible sourcing in recent years. The incentive guide has pushed members to provide more signals to midstream companies to where their customers are heading. Most TWG members are addressing tin mining in Indonesia publicly, and some are setting explicit goals for improving their sourcing and use of responsible tin.

“TWG membership has definitely informed our CSR strategy by broadening the focus from conflict mining with social and environmental when it comes to sourcing minerals.”

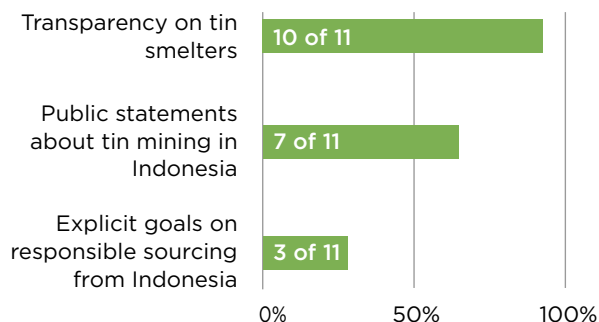
Jason Chang, Senior Manager-Corporate Sustainability Office, ASUSTEK COMPUTER INC.

TWG members became more transparent about their tin sourcing. Most companies now report on their possible sourcing from Indonesia and published a list of tin smelters from BaBel that they source tin from.

Examples of responsible sourcing instruments, including a public commitment, supplier standard and reporting can be found at Apple ([see link](#)).

Members called for the development of a standard or benchmark to enable them to fulfill their goal of sourcing tin responsibly. In order to enforce requirements throughout the supply chain, companies requested clear sustainability criteria, standard or benchmark, to allow them to assess suppliers. It was a conscious strategy of the TWG not to develop standards before there was a clear and accepted understanding of issues and solutions. Now that these are known, and more momentum among members has been generated, standards are needed to source responsibly. Setting standards (or requirements) should be a collaborative exercise involving Indonesian stakeholders and the international industry. Enforcing standards should also be a collective commitment as individual companies feel they have insufficient individual leverage to influence upstream companies. A complementary strategy to enable responsible sourcing is to benchmark smelters and mining companies on their performance.

Proportion of TWG member (brands) implementing a selection of approaches from the incentive guide



Source: Milieudéfensie (2016)*

Certain institutional constraints remain to be solved before responsible sourcing from Indonesia can be mainstreamed. The illegal status of ASM and the limited capacity and willingness of the local authorities to change this effectively excludes the majority of ASM from responsible supply chains.

* Proportions based on eleven TWG members included in the rankings provided by special arrangement with Milieudéfensie. Additional analysis by Aidenvironment. For more information

see Milieudéfensie. (2016), Factsheet: How did we score companies according to tin responsibility? Available at <https://milieudéfensie.nl/publicaties/rapporten/toelichting-ranking-tin-2016>

There is also a need for more transparency on the domestic flows of tin ore and tin concentrate between miners and smelters and of raw tin between smelters and the Indonesian Commodity Exchange. Transparency in tin flows should be a key criteria of any future definition of sustainable tin.

Much work of the TWG so far has laid the groundwork for sustainability improvements on the ground. It is important to have projects and results from the pilots that show positive impact in order to maintain buy-in from TWG members and prevent them from shifting away to focus on other markets.



Regulatory framework and law enforcement

The initial engagement by the Indonesian government was encouraging. In order to create wide-scale impact, the TWG engaged with the Indonesian authorities in recognition of the centrality of regulatory and law enforcement challenges in making the tin sector more sustainable. This created greater awareness at national, provincial and district level and resulted in endorsement letters from five national Ministries (the Ministries of Trade; Mining and Mineral Resources; Marine Affairs and Fisheries; Environment and Forestry; Economy). The Government of Indonesia supports the process in part because it presented an opportunity to solve issues around lost mining royalties due to illegal concessions. The participation of the international brands in the TWG has also helped to obtain the government's attention and initial buy-in.

The national government support for the TWG facilitates the engagement of provincial and district level authorities. The involvement of the provincial level is especially important as provincial authorities issue the licenses for mining concessions. The initial strong participation by the provincial authorities in developing the roadmap was encouraging. It was followed by the active participation of provincial and district authorities in a learning group on regulation and law enforcement. In 2016, this group conducted a more detailed policy gap assessment resulting in policy recommendations on land tenure, tin mining licensing, the governance of tin trade and land reclamation.

The TWG empowers progressive local politicians and community leaders to address sustainability issues in the tin industry. There has also been encouraging participation by the local government in the pilots. The success of the pilots will be essential to convince the Indonesian authorities of the business case of investing in a more sustainable mining sector.

More remains to be done to engage the public sector in follow-up. Changing the regulatory framework and improving law enforcement in line with the roadmap is a challenging undertaking where work remains to be done. Progress has been slow due to complex and changing circumstances, including changes in government representatives following elections, institutional fights over tin mining revenues between provincial and national governments, red tape and rent seeking.

This experience shows that promoting institutional change, crucial to obtaining sector-wide impact, is a complex and long-term process. Engaging international brands helped to create public sector buy-in though it does not guarantee their involved follow-up. International industry alone cannot drive institutional change. This requires additional partners, especially civil society, local industry and development partners. It also requires continuous dialogue and the capacity to deal with changing political landscapes.





Sustainable mining practice

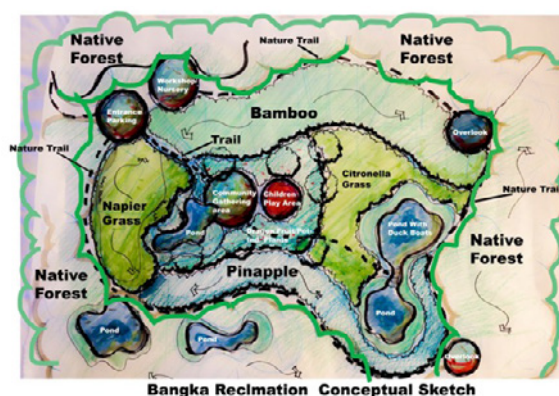
Robust models have been developed for on-shore mining on Reclamation and Occupational Health and Safety and are about to be piloted, creating momentum with the local industry. Bringing the pilots to implementation required surmounting many challenges including addressing issues around the legality of land ownership of the pilot implementers and funding. At the time of writing, the models are about to be piloted. This creates momentum with the local industry and other involved stakeholders. Five Indonesian companies have shown interest in working on the pilot concepts.

Future scaling of the models depends on the business case the pilots support, regulatory and market incentives for Indonesian companies as well as available capacity and funding. A key success factor for future scaling will be the ability of the TWG and its partners to promote outcomes of the pilots and build those into a clear business case for changing practices in the industry. Another key success factor will be the extent to which the government and the international industry can incentivize Indonesian companies to adopt sustainable practices. The pilot results should help convince the government to act upon their part of the roadmap in creating an enabling regulatory environment. In addition, downstream and midstream companies can encourage and support the adoption of sustainable mining practices into their supply chains. Several TWG members will continue supporting implementation. However, as many ASM lack the required capabilities and resources to change practices, another key success factor to enable wider uptake is to convince development partners and donors to also invest.

Case study: Land rehabilitation plan

How can on-shore mining land be rehabilitated and used by local communities to generate sustainable sources of income? With the support of TWG members, a plan was made (see link) to restore and reclaim a 10-hectare area licensed to a local smelter consortium (PTBBTS) on the island of Bangka near the village of Belilik. The plan draws on extensive research into successful reclamation projects implemented in the region and calls for reforestation and wetland restoration to address the depleted topsoil, low water quality and general poor ecological health of the site as a result of mining activities.

The end goal is to show that a model exists for restoring and reclaiming mining lands so that they can support income-generating activities for local communities like agriculture, ecotourism and forestry. A detailed plan that works and is replicable and scalable elsewhere in the country and the region would be a great help to make the tin value chain more environmentally friendly and to improve environmental sustainability and community development in Indonesia. Furthermore, it could help create a business case for why investing in land reclamation and restoration is cost-effective as well as being the right thing for industry, government and development agencies to do.





LESSONS LEARNED

The experience of the TWG offers useful insights that can guide its future strategy and contains some lessons learned that may be useful to other market driven commodity initiatives.

- **The collective industry approach creates shared energy and added credibility.** The focus on the main brands has kept the group size manageable and ensured market leverage. The inclusion of midstream companies has brought in-depth supply chain knowledge and further increased market leverage.
- **The inclusion of NGO and development partners adds credibility, expertise and funding.** It also brings a critical outsider perspective into the group that is needed to push for a strong sustainability agenda.
- **The step-wise approach allows TWG members to gain knowledge as a starting point for defining solutions while maintaining member engagement.** It allows the TWG to accommodate differences in members' motivations and approach to risk management while maintaining broad buy-in and participation from the members.
- **Neutral convening is important to manage differences in member's expectations.** The success of the TWG thus far has hinged in part on managing differences in members' motivation to participate in the group. Neutral convening enables front-runner members to push the agenda and keep the momentum, without losing the other members. This has required IDH to understand different drivers and needs of companies and to maintain regular communication with them.

- **Continuous inclusive dialogue with Indonesian industry and government is key to driving change.** Having capable skillful local conveners is critical to achieve this.
- **Using supply chain leverage promotes awareness and initial buy-in of local stakeholders.** However, this may not be enough to drive institutional change and build the capabilities and resources needed to scale sustainable practices. This requires additional development partners.

“Taking the time to understand local dynamics was valuable. Local stakeholder involvement and buy-in is critical to move forward and make change.”

Christine Ackerson, Senior Manager Sustainability & CSR, LG Electronics

- **Hire quality expertise as needed.** The TWG benefited from hiring external expertise in convening, research and the development of sustainable mining practices.
- **Create an exit strategy to embed within existing organizations.** IDH's exit strategy to embed the TWG within the EICC will promote industry ownership and ensure continuity. With EICC as convener, the TWG is placed in the heart of the electronics industry.



RECOMMENDATIONS FOR FUTURE ACTION

The TWG has achieved a great deal during the years of its existence. However challenges remain. AidEnvironment recommends to the industry the following future actions are taken:

- **Define a value proposition for the next phase to strengthen commitments through targets and investments.** While the step-wise approach helps keep all members on board, the resulting moving targets make it difficult to define a clear value proposition, set targets and create commitments. The TWG is now in a phase where members demand more clarity on focus and targets. The TWG should take stock, determine a vision of success for itself and Indonesian stakeholders and use this as a basis for future target setting and planning.
- **Continue the dialogue with local stakeholders through a local convener.** Experience shows that it is hard to maintain buy-in and create commitment with Indonesian stakeholders. The TWG should keep the dialogue ongoing, preferably through strong local conveners.
- **Promote the pilot outcomes to obtain buy-in from local and national government, industry partners, donors and development agencies.** A critical success factor will be using results from the pilots to show a clear business case for changing practices among the Indonesian tin industry and government as well as other supply chain partners. The pilots may also be useful for convincing donors and development agencies to invest in scaling sustainable mining practices.
- **Develop sustainable practices for off-shore mining.** With two models about to be piloted for on-shore mining, there is a need to develop concepts applicable to off-shore mining.
- **Define an accepted definition of what responsible mining is and develop a standard/ benchmark to enable buyers to source responsibly.** Absent regulatory incentives, market incentives can be effective in promoting the adoption of sustainable mining practices. Tin buyers need a standard or benchmark to assess whether a supplier is sustainable. Setting a standard or benchmark should be a collaborative exercise involving local stakeholders and the international industry. The TWG could consider building a set of standards around one of the many already in use for other metals and commodities.
- **Encourage the participation of key actors from other industries beyond consumer electronics to increase market leverage.** The TWG should present a clear business case to companies in other industries to join the coalition. The business case may also need to be strengthened for existing members, as tin mining faces increasing competition for attention within these companies from issues around conflict mining and cobalt mining.
- **Encourage the participation of NGOs and development partners to maintain a civil society voice and development expertise in the TWG.** Now that FoE and IDH have left the TWG it will be important to find replacements. This will also add to the credibility of the initiative.



Colophon

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