WEBINAR

TDi Sustainability

Mining, ESG safeguards and the spatial economy

Answers to additional questions

In this document, the panellists from the webinar jointly organised by TDi Sustainability and the Asian Development Bank, answer the questions they didn't have time to address during the live event on 16 October.

Peter just mentioned that mining companies move quickly. The scale that they operate does not equate to moving quickly, so surely Governments should be involved early to be able to manage the governance?

Peter Austin: Even in very large and complex projects, private sector companies often advance much faster than low income national governments because they have the technical expertise and global project experience. From the outside it may appear that a mine takes many years to develop, and it does, but compared with the pace of institutional processes in most low income countries, the relative speed is considerable.

This does not lessen the importance of early government engagement, which remains essential for legitimacy, coordination, and long term policy alignment. The reality, however, is that there is often a structural lag between private investment cycles and public institutional capacity. In the short term this creates a governance vacuum that must still be managed. The challenge is to use the company's early momentum to help build the foundations for eventual government leadership, rather than allowing the private sector to move so far ahead that alignment later becomes difficult to achieve.

I'm very interested in learning more about the practicality of this approach. Given the male-dominated nature of in-migration linked to mining projects, how can companies and their partners take meaningful steps to protect and support local women in affected communities through this regional approach? And alongside in-migration, how might mining companies help build lasting social cohesion between migrant and host communities within this approach?

Peter Austin: One of the biggest impacts of in-migration is gender-based violence, because, as you have pointed out, most in-migrants are male. So applying the same principle of prepare, not repair, the key is to get local communities organised early and ensure women are equally represented in local institutions. In Guinea we did this through project-induced migration committees with a balanced gender participation and that received training on GSV and on how to manage and integrate new in-migrants. We also worked with local NGOs that already had effective communication methods and could translate these concepts in ways that were meaningful for local communities. When communities understand the risks beforehand, they can act collectively to reduce them. And that same approach supports social cohesion, because the goal is not to create a divide between migrants and host communities, but to integrate them through shared participation and awareness of the local cultural rules.

Mining, ESG safeguards and the spatial economy
Answers to additional questions

While creating the scaffolding for regional socio-economic development such as the regional economic development hubs along the Simandou development corridor does the miner fall short by not finding private sector partners to deliver the agriculture that the improved infrastructure has the potential to facilitate.

Peter Austin: For me, the key concept is that the regional economic development framework itself is the scaffolding. As long as the mining company enables that temporary scaffolding — through infrastructure design, spatial planning, and coordination mechanisms — it creates the conditions for others to act. That framework then allows government, private sector partners, and local communities to participate in developing the agricultural sector that shared infrastructure can support.

But to expect mining companies to also take responsibility for identifying or managing private sector partners in agriculture may be a stretch. Their role is to make shared infrastructure accessible and predictable so that others can use it productively. The shared use of that new infrastructure should be the catalyst. Expecting mining companies to go further and actively deliver agriculture ventures would stretch their mandate and capabilities well beyond what they are designed to do.

A comprehensive regional development plan should encompass key components such as infrastructure development, social services, environmental management, and economic diversification. To ensure that the benefits of development extend beyond localized communities and contribute to broader regional prosperity, it is essential to consider the inclusion of a well-designed fiscal regime. Such a regime can facilitate equitable revenue distribution, support long-term economic stability, and provide the necessary financial mechanisms for mine closure and rehabilitation. Integrating fiscal measures into the development strategy not only strengthens governance and accountability but also ensures that environmental and social safeguards are upheld throughout the lifecycle of mining operations.

Peter Austin: A well-designed fiscal regime is the function of government. Mining companies contribute through taxes and royalties, but the allocation and redistribution of those revenues — particularly sub-national transfers — are the responsibility of the state. The risk in many low-income contexts is that weak institutional capacity leads to an implicit delegation of fiscal and governance roles to mining companies. That should be avoided. The regional economic development strategy is best understood as temporary scaffolding — a coordination framework that helps manage spatial and economic change while government policy and systems are put in place. Over time, that scaffolding must be realigned with national policy frameworks so that the state retains ownership of regional development, including the design and implementation of fiscal mechanisms.

Mining, ESG safeguards and the spatial economy
Answers to additional questions

I would like to understand more about what would be the credible metrics to measure biodiversity offsets, and what is a realistic measure of nature positive?

Credible Offset Metrics

Sally Johnson: The metrics you choose for your offset depends on the feature(s) you're offsetting. Offsets involve implementing specific measures that result in a no net loss or net gain for those biodiversity features you are compensating for. How you monitor and measure those gains depends on the biodiversity feature.

For habitats/ecosystems, one tends to use area × condition (quality-hectares) and you may add in specific "function" indicators like (e.g., connectivity). Condition metrics differ according to the type of ecosystem.

If you are offsetting "priority" or critical habitat qualifying species you are likely to use species metrics as well. Again the metric you use will depend on the species. The comparison below highlights how species-specific traits (size, behavior, habitat) will likely dictate the metric. Let's look at some examples:

1. Western chimpanzees are hard to see, you are often looking at indirect signs. Therefore it's unlikely that you would have a total population number so you would be looking at density (individuals/km²) using CTDS (Camera-Trap Distance Sampling), validated for western chimps; Genetic capture–recapture (CR/SECR) from faeces gives group size/density and connectivity;
2. Caribou are migratory, with low-density populations facing landscape-scale threats like predation and habitat loss. They use different habitats in different seasons. They are more visible than chimpanzees. So your metric is likely to be "abundance" i.e. the total number of individuals in a specific caribou herd or population within a defined area or range. For example, if a herd has 300 caribou, that's its abundance (N = 300). They are estimated through methods like aerial surveys, telemetry, or genetic capture-recapture.
3. For elephants it might be abundance, density, age structure using genetic mark–recapture from dung (for abundance),or camera-trap distance sampling (CTDS) or sometimes GPS collars for movement/ connectivity mapping
4. For fish it might be density (standardised) with catch per unit effort (CPUE) or spawning success (redd/nest counts × hatching success) Sometimes occupancy is used (reach/site detection incl. eDNA)

In addition to "state"metrics you may also use pressure metrics, hunting pressure or bycatch/mortality incidents etc to support your species metrics.

Nature Positive metrics?

Sally Johnson: Delivering the Nature Positive goals requires measurable net-positive biodiversity outcomes through the improvement in the "abundance, diversity, integrity and resilience of species, ecosystems and natural processes". The metric like for offsets will depend on what you are trying to achieve. See IUCN's Measuring Nature-Positive: Setting and implementing verified, robust targets for species and ecosystems (IUCN, 2023). The Nature Positive Initiative (NPI) is also piloting and rolling out metrics and tools. Although unrelated to offsetting, one might be using similar metrics. It depends on what the objectives are and what you are measuring . Key metrics include ecosystem extent, ecosystem condition, landscape intactness, and species extinction risk.You might be measuring abundance or density, or ecosystem functionality, increasing connectivity,

Mining, ESG safeguards and the spatial economy
Answers to additional questions

TDi Sustainability

Are there better metrics for biodiversity management for landscape scale approaches?

Sally Johnson: This is such an interesting question.

Species thresholds: In Canada for example they have set thresholds for certain Caribou herds. ≥65% "undisturbed habitat" per local range (i.e., ≤35% total disturbance, incl. fire + a 500 m buffer around anthropogenic features) gives ~60% probability the local population is self-sustaining. This allows some development to proceed but when the threshold is exceeded it sends a red flag that this population will no longer be able to self-sustain. These thresholds are not always adhered to. However, wouldn't it be wonderful if we set more thresholds like this in a landscape rather than qualitatively talking about cumulative effects on this species or that species without knowing or setting any boundaries.

Another landscape metric could be Intact habitat extent % of intact habitat landscape function deteriorates when intact core falls below s specific thresholds. Connectivity is another one I would use.

How can governments in Sub - Saharan Africa be capacitated to monitor mining companies' adherence or compliance to mining agreements to reduce social and environmental negative impacts on communities?

Sally Johnson: Governments do need support. MFIs can help with contract/permit conditions, transparency, and environmental & social (E&S) oversight, setting up compliance systems, capacity building, one-off capital (buildings, reference lab vehicles). For example: The World Bank has been supporting Guinea, with the Natural Resources, Mining and Environmental Management Project to "strengthen institutional capacities for integrated management of mineral and natural resources in Guinea and enhance benefits from the mining and environment sectors."

However, increasingly Governments are asking for third-party independent verification (auditors) that are contracted by the government, but paid by the company.

How do we engage governments to take on the responsibility for managing ESG:
I don't have the magic bullet, but ideally it means shifting from reactive compliance to proactive governance, integrating ESG into how public bodies plan, license, oversee and budget etc. Hopefully governments see ESG as safeguarding its natural and social capital.

- Good risk management by Governments, avoids stranded assets, pollution liability, and community unrest that ultimately can deter investment. It would be amazing if we saw more cross-ministry ESG taskforces.
- Position ESG as part of competitiveness and access to global markets (EU CBAM, critical minerals demand). If national regs and governance is weak, less buyers walk, exports stall , jobs, royalties, taxes drop.
- Capacity building. Builds ownership and confidence.

I think the way licenses are allocated could be improved for example: no licences for bad actors. Mandatory disclosure of beneficial owners, global compliance history, unresolved sanctions, tax arrears. Independent Environmental & Social Consultant similar to lenders, appointed by the regulator, paid by the company; quarterly public reports during construction and annually during operation.

Mining, ESG safeguards and the spatial economy
Answers to additional questions

TDi Sustainability

Given the comment on the importance of timing for regional development, how can this be applied at existing projects that have been around for years, and have had immigration issues for years ?

Richard Sherrington: From a safeguards policy perspective, ADB would require its client to undertake an ES Compliance Audit (by 3rd party experts) to assess the existing facilities compliance against national legislation and ADB safeguards requirements. Legacy issues are very much viewed in the context of national legal and regulatory compliance as past impacts are beyond the scope of ADB SPS applicability, but the issues are, nonetheless assessed against SPS to determine the gaps and understand the risks with those gaps remaining during the tenor of the loan. Ongoing and potential new impacts that are directly caused by the activities of the project financed by ADB and which trigger safeguards requirements would need to achieve compliance with ADB safeguard requirements. Induced or cumulative impacts such as influx, if they are assessed as being part of the activities financed by ADB, would be treated like any new impact, with appropriate management put in place to manage commensurate to the risk and the Project's ability to exercise control / mitigate. As discussed during the panel session, where ADB can draw on its broader expertise to support regional governments with planning programs in the context of mining project development, we would consider this on a case by case basis, and in consultation with the developing member country's government as the recipient of the assistance, thus requiring a multistakeholder approach.

Given that Indonesia is scaling up its nickel and cobalt production for the global EV supply chain, how does ADB embeds internationally recognized ESG standards such as IRMA and Organisation for Economic Co-operation and Development Due Diligence Guidance across both upstream mining and downstream processing operations in its financing frameworks?

Richard Sherrington: ADB currently applies its SPS as the core set of policy requirements for borrowers. Internationally recognised standards are currently under review by ADB as part of its preparation for new ESF roll out, to determine how the new ESF aligns with international standards or otherwise, particularly in the critical minerals space as we seek to ensure the highest standards are applied.

How will large scale mining companies apply or train small scale miners in identifying viable areas and collaboration?

Richard Sherrington: ADB has not had any experience with this to date, but if ASM or SSM is affected by a project financed by ADB, we would require the client to assess and manage the impacts for economic displacement and manage in line with Safeguard requirements 2 (involuntary displacement). Where there are legal and regulatory frameworks in place to support ASM as part of displacement / restoration of livelihoods we would require the developer to explore these.

ADB would not support any livelihood restoration programs which promote illegal activities, but would support the clients plans involving formalisation of ASM / SSM where this is feasible.

Large-scale industrial-scale mining has a possibility of pushing out small-scale artisanal mining, especially those that are informal resulting in loss of livelihoods and rights for informal artisanal and small-scale miners (ASM), often leading to economic displacement, social conflict, and erosion of local resilience. Are there adequate considerations given to this issue?

Richard Sherrington: This would need to be treated as economic displacement under ADB SPS SR2 and assessed and managed as such. Restoration involving artisanal mining would very much depend on the legality / formalisation of new / restored artisanal mining activities, ie ADB financed projects cannot promote illegal activities. Alternative livelihoods would have to be defined, though, understandably, this is often problematic for numerous economic and cultural reasons. Where formalisation of ASM is an option we would encourage this is explored as part of the livelihood restoration programming, with such restoration projects, in turn, requiring compliance with SPS (including EHS requirements under Safeguard Requirement 1 - environment, for example).

Mining, ESG safeguards and the spatial economy
Questions asked at registration

Looking back on Guinea projects how have these initiatives benefited the communities 7-10yrs on?

Peter Austin: That's an excellent question. I think the best way to describe it is that mining benefits Guinea at the macroeconomic level but has historically struggled to deliver tangible benefits at the spatial, microeconomic level where people actually live and experience change. That gap between national revenue and local opportunity is what drove the need for a different approach at Simandou. Communities don't want to wait a generation to see results. They expect visible improvements as soon as investment begins.

What are the positive and negative impacts associated with the regional spatial economic reconfiguration caused by mine project?

Peter Austin: The regional spatial and economic reconfiguration can be both enabling and destabilising. It can catalyse broad-based economic opportunity by opening new markets, stimulating trade, and creating the infrastructure backbone that supports diversification beyond the mine itself.

At the same time, if unstructured, the same dynamics can become destabilising. Rapid in-migration and increased demand for goods and services can drive inflation, distort local labour and housing markets, and entrench spatial inequality between core and peripheral areas. Economic dependency on the mining cycle can leave regional economies vulnerable to fluctuations in production or commodity prices. The overall balance depends on timing and coordination specifically, how effectively the mining company and government work together to shape the regional transformation rather than merely react to it.

Get in touch

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