Step 05

Mine Development and Construction

At this fifth step, the development and construction phase of a mine can often determine how sustainable the subsequent operational phase will be. This is also the step at which infrastructure, ancillary facilities and access works are constructed (for transport, power and water supply, storage and waste handling). Construction creates significant and visible changes and impacts on the environment and communities and is therefore likely to be the phase with the most intense ESHR impacts. This phase therefore requires clear requirements around ESHR issues, active monitoring from the authorities and regular engagement with the local communities by the authorities and the company.

Summary of Step 5: Mine Development and Construction

### KEY ACTIONS IN THIS STEP

| A | Set ESHR Requirements for the Construction Phase |

A well-scoped ESIA should cover the potential ESHR impacts at each phase, starting with the construction phase, including impacts associated with the construction of ancillary facilities and infrastructure. Authorities should remain alert to impacts that are more difficult to anticipate, including in-migration and cumulative impacts. Given the range of authorities involved, a coordination mechanism to facilitate coordinated decision-making and monitoring can be useful.

| B | Conduct Regular Monitoring of ESHR Impacts of Construction |

Given the wide range of impacts at the construction phase, there should be proportionately scaled-up monitoring of the mining company and its subcontractors. Informing and involving local communities in monitoring can build trust in monitoring outcomes, can augment scarce governmental capacity and is a very direct approach to providing the right to access to information and public participation.

| C | Regularize Community Engagement |

The mining company and the government should be actively engaging with affected communities and other stakeholders to provide updated information on developments, to address impacts and to respond to concerns and grievances, setting up regular feedback loops to respond to the community and to manage expectations. If not already done, this is a time to develop systematic and sustainable approaches to community development.

### KEY MESSAGES

- Mining Authorities
- Environmental Authorities
- Social Authorities & Human Rights Authorities

Primary Target Audience
## A Set ESHR Requirements for the Construction Phase

Construction is the step in the mining process with the potential for some of the highest, if not the highest ESHR impacts because workforce levels and surface disturbance often peak at this stage. Impacts on the environment and on local communities are often highly visible. For the mining company, the project management team may be under high pressure, with strict budgetary and infrastructure completion goals rather than sustainability goals. For the authorities, there can be a complex range of risks to manage and monitor that involve various government bodies at various levels.

### Inter-authority Coordination to Oversee Linkages Between Risks

Do the relevant authorities have an approach to managing the complex interaction of ESHR risks typical in major mining operations?

- Do the authorities have a workable inter-authority coordination that helps them address the complex linkages between the different types of risks?
  - What may look like purely environmental risks can quickly turn into health and social risks if they impact communities.
  - Community reaction can, in turn, impact on the economics of the project if protests close down operations.
  - Political imperatives to develop mining assets quickly or corruption can mean bypassing environmental and social safeguards, jeopardizing longer-term sustainability.
  - Impacts on other economic activities, such as agriculture, fishing, forest harvesting and tourism, that can harm local livelihoods.
  - Impacts on social cohesion, such as in areas inhabited by populations historically marginalized, discriminated against or excluded, as mining can disrupt the social fabric and even the existence of local communities.
- Well-scoped and well-designed ESIA and ESMP that have specific chapters on the development and construction phase provide important information for this task.

### Full Scope of ESHR Impacts during Mine Development & Construction

Do the ESIA and subsequent ESMP cover the full scope of ESHR issues involved in the construction and development of the mine?

- Do the ESIA and accompanying ESMP cover the full range of ESHR issues at the construction phase?
  - Standard ESIA TORs developed by environment ministries may be weak on social impacts and often fail to mention gender and human rights impacts altogether, although this is slowly changing. If the gaps were not addressed in the ESIA/ESMP, then authorities should be particularly alert, as these areas/issues are more likely to be poorly managed during the high-impact construction phase.
  - Depending on the context, the ESMP may need to be complemented by a series of more specialized action plans, such as construction phase action plans, biodiversity action plans, resettlement action plans or indigenous people’s plans.
- Is there a national law, framework or guidance on resettlement? (See Box 56 on Managing the ESHR Impacts of Resettlement.)

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Resettlement is often not well covered in national law, if at all. Yet resettlement is a predictable activity associated with large-scale mining (LSM) and can have severe human rights and social impacts as well as environmental impacts.

Unlike other industries, mining companies face high levels of uncertainty around their land requirements and, as a result, resettlement may happen during exploration, project design and planning, construction or operations, the latter of which occurs through incremental project expansion. It is therefore likely to require attention, potentially throughout the life of the mine.

In the absence of appropriate national laws, authorities and mining companies apply relevant international standards and guidance on resettlement planning while taking account of the sobering and consistent evidence from mining studies that mining displacement often produces high levels of impoverishment and long-term hardship as well as adverse socio-economic and environmental impacts.

- Do the ESIA and subsequent ESMP cover all related infrastructure and facilities?
- Have the mining authorities (and other relevant authorities) agreed on shared use of infrastructure with the mining companies? Have the authorities planned for mining infrastructure already at the land use planning stage? (See Step 2 on Participatory Planning.)
- Infrastructure can be one of the most direct benefits to local communities if it is accessible to them and designed with community use in mind. (See Figure 1 on Mining and the SDGs.)
- Ancillary infrastructure can help to deliver on public services that also correspond to government obligations to deliver on human rights, particularly the right to water and/or the right to health. (See Box 57 on shared water infrastructure.)
- Are the authorities incorporating ESHR impacts of ancillary infrastructure and facilities into the ESIA & ESMP and monitoring during construction?
- These facilities have ESHR impacts of their own that should not be overlooked.

- In-migration
- Does the government have an approach for managing in-migration around mining projects? Is it covered in the ESIA & ESMP? (See Box 58 on good international practices in managing in-migration.)
- Have the mining authorities addressed in-migration issues in coordination with regional and local authorities?
- In-migration of workers for mining operations and ancillary services is a common phenomenon for large-scale mining projects that should be considered and addressed as part of a thorough ESIA and ESMP.
- In-migration can have significant adverse ESHR impacts over the short and long terms – on communities, the environment and the workers.
- Where there are several mining projects in the same area, the cumulative impact of in-migration can have very significant impacts on the environment and social fabric if not managed well.
- Managing these influxes requires active and coordinated steps with the mining company and its sub-contractors as well. (See Box 58 on good international practices in managing in-migration.)


248 See Mining and Resettlement Hub at the Centre for Social Responsibility in Mining, which hosts an e-library of resources on mining and resettlement, http://www.miningresettlement.org/elibrary
Impacts include:
- On the local community – a sudden influx can have significant negative impacts on social capital, cultural heritage, community safety and access to ecosystem services
- On local services – in terms of straining resources for existing community members, but also potential unavailability of services such as the right to education for migrant children
- On the workers and families who have migrated – temporary construction workers, particularly those several layers down the sub-contracting chain, may be at risk of exploitation, as may be children and adult temporary workers, male and female.

Does the ESMP for the construction phase take account of short-term and long-term closure?
- Mines can close at any phase of the cycle – including the construction phase.
- Construction activities should be carried out while bearing in mind the implications for the short-term or longer-term eventual closure of the mine, including:
  - Environmental impacts – for example, proper storage of fuels and lubricants during construction can reduce long-term contamination, opening up areas can have irreversible impacts on biodiversity
  - Social impacts – for example, the introduction of communicable diseases by construction workers that take extensive time to address

Managing the ESHR Impacts of Resettlement

Recent studies have identified that “there is little evidence to suggest that mining companies agree that investing in social safeguards makes ‘good business sense’. On the contrary, many mining companies fail to calculate the full cost of resettlement and tend to defer allocating the necessary resources.”

Thus, relying solely on mining companies to manage resettlement in the absence of national standards can leave too wide a margin of discretion for an activity that has the potential for such severe impacts, even though there is increasing guidance and experience for mining companies to draw on. Instead, if governments do not yet have their own resettlement laws in place, they can use international standards to fill the gap:

- Apply World Bank Resettlement Safeguards to guide their own actions
- Require mining companies to apply IFC Performance Standard 5 on Land Acquisition and Involuntary Resettlement as part of the licensing/permitting/agreements when planning and executing displacement and resettlement. Through the provision of adequate housing with security of tenure at resettlement sites, IFC Performance Standard 5 sets out requirements for the processes and outcomes to improve or to restore the livelihoods and standards of living of physically displaced persons and the livelihoods of economically displaced persons.
**Shared Water Infrastructure**

With increasing water scarcity, the impacts of mining operations on the availability and quality of water and therefore on communities’ right to water are likely to cause increasing conflicts between mining operations and local communities. At the same time, careful planning can reduce use and impacts and provide opportunities to leverage mining investments in water infrastructure. The Columbia Center for Sustainable Investment’s recent study of water use by mining operations provides the following recommendations to develop a careful and purposeful allocation of water rights with a view to incentivize shared use and to recognize communities’ right to water:

- Assess the actual demand for water from the mines, taking into account that mines can implement water efficiency mechanisms and potentially use alternative water sources.
- Once the actual water supply and demand have been estimated, allocate water rights to satisfy the unmet demand, but devise a priority plan with review mechanisms.
- When mines build additional water infrastructure to serve their needs, adopt a sustainable operational model to ensure that communities benefit from the extra capacity delivered by this infrastructure.
- Ensure an adequate institutional framework to regulate, monitor and enforce water rights. 255

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**Good International Practice on In-migration**

For the mining company, the ESIA & ESMP should anticipate and set out steps to manage in-migration. For the government, this takes forward planning and coordination between central and local government to ensure that local governments are prepared and equipped to manage the environmental and social impacts and to provide services as necessary to the influx. In-migration can also result in cumulative human rights impacts. 256

The IFC Guidance ‘Projects and People: A Handbook for Addressing Project-Induced In-Migration’ from 2009 remains the most widely recognized guidance to date, 257 but it has not been updated. While the IFC Guidance is addressed to private companies involved in projects that might induce significant in-migration, much of it is also relevant to government authorities. 258

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257 Bainton et al. (2017). Project-Induced In-Migration and Large-Scale Mining: A Scoping Study. Centre for Social Responsibility in Mining (CSRM), The University of Queensland, Brisbane.

B Conduct Regular ESHR Monitoring of Construction

Monitoring provides the evidence base to better understand whether construction activities are complying with EHSR requirements and having an impact on neighbouring communities and the broader environment. Yet monitoring is often a weak spot in many countries’ enforcement – efforts are often heavily weighted on preparing and processing ESIs, with less emphasis on follow-up, lack of capacity at the regional and local levels, and potential disincentives for mining companies to make information transparent if that information exposes them to fines. Even where monitoring information is made available by public authorities or mining companies, it may not be trusted, thus defeating the purpose of monitoring. Mining, environment and social authorities should realistically assess potential constraints on monitoring capacity and consider alternative models, particularly those that recognize and integrate the rights of communities to information and participation that can simultaneously make monitoring more effective.

Monitoring Compliance with Plans

Do the mining, environmental and social authorities have a coherent plan for monitoring compliance with the ESMP and other plans developed as part of the ESIA?

• Does the ESMP (and additional management plans) include monitoring plans covering short-term, medium-term and life-of-mine plans that can provide a basis for coordinating government monitoring?
  → A comprehensive monitoring programme that gathers in one place all monitoring requirements and assigns accountability across different authorities and different levels of government can be more efficient for the mining company while also improving coordination across agencies and different levels of government.
  → Monitoring will need to be coordinated across potentially a wide range of public authorities, from the national level down to the local level – with some issues dealt with by local authorities with little mining or technical expertise – and will typically include mining, environment, water (if separate), social, labour and potentially agencies dealing with women and children, culture and indigenous affairs.

• Is monitoring scaled according to the intensity of activities and impacts?
  → Given the often-intensive nature of construction activities, there may need to be more frequent and more intensive monitoring at this stage compared to other mining phases.
  → Monitoring should build on the baseline established as part of the ESIA in Step 4 – Feasibility and Licensing.

• Does the monitoring cover sub-contractors?
  → The construction phase will very typically involve a potentially wide range of sub-contractors, including with several layers of sub-contracting. The authorities should ensure that the mining company is legally responsible for the management and impacts of sub-contractors and includes them as part of its overall monitoring and reporting.
  → Authorities should be able to directly monitor sub-contractors as well.
Monitoring Compliance with the Law

Do the relevant authorities understand what additional monitoring requirements are necessary outside of the ESMP to comply with relevant laws?

- There may be additional monitoring requirements under national law to assess environmental impacts of construction covering – air, water, land, waste and hazardous materials, biodiversity impacts, noise, traffic, etc. (See Box 59 on biodiversity monitoring.)
- Similarly, labour monitoring and inspections should be attuned to typical issues for construction phases – there may be a high number of sub-contractors with often-significant temporary work forces that may include vulnerable groups of workers including women, children and forced labour.
- Authorities should be alert to unanticipated ESHR impacts that are not part of ESMP or other management plans or are outside the requirements of the mining operator’s responsibilities but nonetheless linked to the mining operations – such as the ESHR impacts of in-migration. (See Box 58 on Good International Practice on In-migration.)

Does the law/license/mining agreement and/or the ESMP require that monitoring information be made publicly available?

- Is there easy-to-access and regularly updated information about the project plans (for example, about when the roads will be watered to keep down dust)?
  - The ESIAs and EMPs will provide important, structured information, but communities will likely be looking for information and answers on a more real-time basis that provides responses to local impacts.
- Have the environmental authorities established environmental information systems that ensure a regular flow of information from mining operators and the authorities own monitoring systems directly to the public?
  - This can be achieved by imposing reporting requirements on mining operators for data such as air and water emissions and waste disposal and by requiring that it be made publicly available.
  - Developing web-enabled platforms for environmental and other information and data on mining operations allows many different users far more publicly accessible and understandable access to information.259 It can also create efficiencies in public administration if different agencies can use the same info for different purposes. (See Box 86 on the UNEP Map-X tool that gathers a wide range of information on mining operations into a web-accessible platform.)
- Do the environmental authorities (or other relevant authorities) compare the monitoring results from mining companies to their own monitoring results? Is the comparison made public?
  - Making both sets of monitoring information public with a comparison and explanation of the differences can build transparency and develop trust in government authorities.

Informing the Public & Making Information Accessible

Are the relevant authorities exploring new ways to improve the efficiency and effectiveness of monitoring, including through involving the public?

- Involving local communities in monitoring can improve transparency and trust and is also a way for directly improving the public’s access to information and public participation in environmental decision-making that can make an immediate difference in citizen’s lives.

Public Participation in Monitoring

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Monitoring is very often seen as a purely technical issue, ignoring the significant social dimensions and related tensions and conflicts that may arise when local communities do not trust the monitoring results of the company and/or the government. Community monitoring can be an important tool for conflict prevention, as the community is more empowered and therefore more inclined to negotiate instead of initiating conflicts.260

- Government authorities, together with mining companies, are finding new ways to carry out monitoring of ESHR impacts with stakeholders that are:
  - More transparent – including by providing real-time monitoring information
  - More understandable – such as by developing maps or ‘report cards’ on water use that are simply presented and easy to understand
  - More collaborative – such as sample collection and analysis of pollution levels – with affected stakeholders to build trust in the measurements. (See Box 60 on examples of public participation in water monitoring.)

- Where monitoring capacity is limited and significant impacts during construction and operations are expected, particularly where there are polarized views and great distrust, authorities can consider requiring operators to pay for independent monitoring to ensure that full and accurate information is gathered and analysed.

Linking Monitoring to Consequences & Access to Justice

Does the law/license/agreement provide for consequences when monitoring indicate that ESHR requirements have been breached?

- Monitoring should be the most systematic route to understanding if there has been non-compliance with the law or with licensing/permitting requirements. Attaching consequences to non-compliance, including a failure to report or false reporting, is an important dimension of implementation and enforcement.
  - Consequences may include fines or penalties, obligations to restore the environment and, for more serious breaches, suspension of operations. (See Step 1 – Laying the Foundations, Key Action 6 on enforcement.)

- Requiring that monitoring information be put into the public domain (see above) can significantly support the role of the public in the general enforcement of environmental law by bringing attention to violations of substantive or procedural laws.

- But access to remedy can also be delivered in a more real-time, operational manner where mining companies set up an ‘operational-level grievance mechanism’ to address grievances and provide feedback about how those issues have been dealt with.261 (See Box 22 on Pillar III of the UNGPs on access to remedy.)
  - These mechanisms should provide easy access to communities to raise grievances about construction that can be dealt with swiftly – at a time when nuisance is highest – for example, to address complaints about excessive noise or dust.


Monitoring Specific Types of Impacts – Mining & Biodiversity –
Example from South Africa

The Mining and Biodiversity Guideline: main-streaming biodiversity into the mining sector from South Africa has been formally endorsed by the Ministers of Environmental Affairs and Mineral Resources as well as the CEO of the Chamber of Mines. It interprets the best available biodiversity knowledge and science in terms of the implications and risks for mining and ‘translates’ this into a practical guideline and user-friendly decision support tool for industry and regulators to ensure that biodiversity issues are consistently incorporated into the decision-making and monitoring processes for mining projects.262

Examples of Public Participation in Monitoring in the Mining Sector

There is an increasing range of examples of community monitoring in the mining sector:

- See various examples highlighted in: IFC & ICMM ‘Shared Water, Shared Responsibility, Shared Approach: Water in the Mining Sector’ (2017), including in Mongolia’s Gobi Desert, where participating mining companies agreed to adopt the Voluntary Code of Practice that includes setting up participatory water monitoring programmes.263
- See resources on Goxi on Environmental Monitoring in mining264

Regularize Community Engagement & Community Development

Meaningful community engagement goes well beyond a one-off, ‘transactional’ approach to engagement that is about satisfying the public participation requirement for the ESIA process. Instead, it is about ongoing, constructive dialogue with authorities and mining companies to address and resolve concerns and develop opportunities for communities around mining operations. Community engagement has become increasingly intertwined with discussions around community development – not only do communities want a voice in addressing how negative impacts are addressed, they want to share in the short-term and long-term benefits of resource extraction.

mining-and-biodiversity-guideline/

263 p. 21, http://www.ifc.org/wps/wcm/connect/ee079cb5-222c-4fe7-8844-8210ac77f0dc/170321_ICMM-IFC_shared-water-shared-
responsibility+FINAL+FINAL+FINAL.pdf?MOD=AJPERES&ContentCache=NONE

**Mining Dialogues & Other Avenues for Discussion**

Do the mining and environmental authorities provide other avenues for dialogue on mining issues in addition to providing formal avenues for participation in mining ESIA processes?

- Have the authorities set up alternative processes, avenues or mechanisms for structured discussions to help build trust, address concerns and act as an early alert about building tensions to address citizens’ unrealistic expectations about how quickly benefits will flow to the country and to regions where mining takes place?
  - This may be through dialogue roundtables, community committees, regular town hall meetings, etc. 265

- This has also become an increasing focus of private sector mining companies, some of which have come to recognize that maintaining community relations is an ongoing process and that the long-term success of their operations critically depends on building and maintaining positive relationships with communities. 266

**Managing Social Conflict**

Does the government have procedures to manage social conflict around proposed (or actual) mining sites? Or is it dealt with in an ad hoc manner?

- Many countries have seen a rise in tensions and conflict around mining and mining projects. There are numerous approaches that governments can put in place to reduce and diffuse such tensions, including:
  - Providing relevant and accurate information about potential mining operations and their impacts
  - Providing opportunities for meaningful participation at relevant points throughout the mining cycle – formal and informal
  - Providing various avenues to bring complaints and resolve disputes before tensions build to the point of conflict. This can be through the government, independent mechanisms such as NHRIs or natural resource mediation (see Box 24 on mediating natural resource conflicts) or by requiring mining companies to set up operational level grievance mechanisms in line with the UNGPs (see Box 22 on grievance mechanisms).

- Many countries have seen a rise in social protest around potential or actual mining sites. There has also been a wide range of responses from countries.
  - At one end of the spectrum, the UN has noted a concerning increase in the killings and injury of environmental and human rights defenders and a “closing of civil society space”, which refers to using various methods to make it harder for CSOs working on environmental and human rights issues to register and operate (see Boxes 21 and 40 on closing civil society space and threats to human rights and environmental defenders).
  - At the other end, some governments are training security forces at extractive operations in human rights issues, 267 protecting environmental and human rights defenders and keeping CSO space open to discuss the extractives sector.

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265 See: http://www.securityhumanrightshub.org/content/general-guidance-stakeholder-engagement


267 See the Voluntary Principles on Security and Human Rights Initiative for the extractive sector, which brings together governments, business and civil society to maintain the safety and security of their operations within an operating framework that encourages respect for human rights. http://www.voluntaryprinciples.org/what-are-the-voluntary-principles/
Making Community Development and Benefit-Sharing More Systematic

Has the government put putting laws and frameworks in place on community development or benefit-sharing?

- A key objective is to move towards more systematic and sustainable systems of benefit-sharing that can provide for long-term developments that outlast short-term commodity cycles and in light of the often significant time-lag between the negative impacts of construction and the potential for revenue flows many years later.
- This is an area where there have been many experiments and a wide range of approaches taken by governments:
  - Localized revenue-sharing
  - Local content requirements
  - Mandated community investment projects
  - The formalized use of community development agreements. (See Box 61 on sources of information on community development approaches and agreements.)
- Government authorities should ensure a careful separation between compliance and community development:
  - Ensure that community development or corporate social responsibility (CSR) projects are not used to substitute for compliance with ESHR requirements.
  - Community development projects and benefit-sharing supplement – and should not masquerade as responses to – ESHR requirements.

Good International Practice

Do the mining authorities require or at least encourage mining companies to apply good international practices in community engagement?

- By the construction phase, mining companies should have a community engagement strategy, process and staff in place for engagement and grievance handling, as it is likely to be a phase with many complaints and grievances.
- There is an increasing set of materials specifically for mining companies to engage stakeholders in line with good international practice. (See Box 62 on guidance on community engagement.)
  - This should emphasize inclusive engagement, with particular emphasis on engaging with diverse groups of women in the community, taking into account women’s traditional domestic and childcare responsibilities.
- Government authorities should:
  - Monitor whether regular, meaningful stakeholder engagement by mining companies is taking place.
  - Require or at least encourage companies to establish processes to handle grievances in line with international standards. (See Box 22 on grievance mechanisms under the UNGPs.)

Sources on Community Development Approaches

On Community Development Approaches in the Extractive Sector:
- CommDev: Community Investments and Partnerships
- ICMM Community Development Toolkit and Understanding Company Community Relations Toolkit

For more information about Community Development Agreements in the Extractive Sector:
- Agreements, Treaties and Negotiated Settlement Project
- Impact Benefit Agreement (IBA) Research Network
- Sustainable Development Strategies Group CDA Library

International Good Practice Guidance on Community Engagement for Mining Companies

Stakeholder engagement has become an expected part of extractive sector operations that is grounded in an efficiency argument for companies and recognition of the rights of stakeholders to a voice in activities that are likely to have a significant impact on them.

- OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector
- IFC – A Strategic Approach to Early Stakeholder Engagement – A Good Practice Handbook for Junior Companies in the Extractive Industries
- First Engagement – A Field Guide for Explorers

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269 https://www.commdev.org/topics/community-investment-and-partnerships/
270 http://hub.icmm.com/document/4080
272 http://www.atns.net.au/
273 http://www.impactandbenefit.com/IBA_Database_List/
274 http://www.sdsg.org/archives/cda-library/
275 See, for example, the AU LSDP, pp. 93-94
278 http://www.ifc.org/wps/wcm/connect/938710a0048855805beacfe6ad5158b18/IFC_StakeholderEngagement.pdf?MOD=AJPERES