



Responsible Resource Management through Technical Assistance

Erdenechimeg Regjiibuu^{1,*} and Jennifer Adams²

¹Environmental Officer, MERIT, Mongolia

²Country Representative, MERIT, Mongolia

*Corresponding author: r.erdenechimeg@merit.mn

Abstract. The "Mongolia: Enhancing Resource Management through Institutional Transformation" (MERIT) project, funded by the Government of Canada, aims to strengthen resource management in Mongolia. This is achieved through its technical assistance programs, which focus on building capacity and promoting responsible mining practices. MERIT works with central-level ministries, provincial governments, and agencies to build capacity and awareness about environmentally and socially responsible mining practices.

MERIT project has developed a wide range of training and education programs aimed at strengthening institutional capacity and raising awareness about environmentally and socially responsible mining practices. The goal of these capacity-building programs is to equip stakeholders with the knowledge and skills necessary to promote responsible mining practices. The initiative also focuses on improving social and cultural aspects of resource development through stakeholder and community engagement.

These capacity-building programs encompass field manuals and training tools designed for mine inspectors. They cover crucial topics like mine reclamation and closure, safeguarding, and monitoring mine water resources. Additionally, there are community education initiatives implemented, highlighting the Mining and Petroleum Life cycles.

Furthermore, the project has undertaken a pilot project on the closure plan for the Salkhit Silver Mine. This pilot project represents the first Mine Closure Plan to be developed under recent Mongolian mine closure legislation and is expected to set a new standard in Mongolia by incorporating best practices and innovative approaches.

This presentation explains how MERIT is driving progress in environmental management practices within the extractives industry.

Keywords: capacity development, responsible mining, stakeholder engagement, and community education

1. Introduction

Responsible resource management is a fundamental concept that seeks to optimize the benefits of natural resources while minimizing their negative impacts on the environment and society. In Mongolia, responsible resource management is of utmost importance, given the country's heavy reliance on the mining sector and its unique nomadic culture and traditional lifestyle. The mining sector is a major contributor to the country's economy, accounting for 25.4% of GDP and 90% of exports (NSO 2022). Although the mining sector plays a key role in our economy, Mongolia has a relatively short history of mining development.

Mongolia's mining sector and nomadic lifestyle are often seen as contradicting each other due to the potential negative impacts of mining on the environment and local communities. The rapid expansion of mining activities in the last decades has led to tensions between mining companies and nomadic herders, who frequently express their opposition and dissatisfaction with the industry's practices. Moreover, it is important to note that responsible mining practices can coexist with nomadic lifestyles. The promotion of responsible resource management can lead to sustainable economic development while preserving traditional cultures and ways of life. This requires effective governance, sound policies, and strong institutions that can ensure that mining activities are carried out in a sustainable and socially responsible manner.

Recognizing the importance of sustainable development, the government of Mongolia has been making continuous efforts to update legislation for the extractives sector in accordance with leading industry practices. Hence, Canada's development efforts in Mongolia, through the "Mongolia: Enhancing Resource Management through Institutional Transformation" Project (MERIT) project, focus on the improvement of mining-related policies, and regulations, and promoting increased community engagement and participation in natural resources management. These efforts complement the government of Mongolia's priorities to modernize the regulatory regime and mitigate the environmental and social impacts of mining.

MERIT is an eight-year initiative funded by Global Affairs Canada and implemented by Catalyste+ that began in 2016 and will run until 2024. The ultimate goal of the project is to strengthen the capacity of public institutions to manage the extractive sector responsibly. This will be achieved through the attainment of the following outcomes:

- Improved management capacity and coordination of key strategic mining institutions;
- Strengthened effective collaboration between public institutions (central, provincial, and soum levels), civil society organizations, and local communities involved in mining; and
- Increased public sector training capacity supporting the extractive sector through collaboration with tertiary training institutions.

2. Capacity strengthening programs

The MERIT project is committed to promoting responsible mining practices, by developing the capacity of key ministries and agencies at the central level and with four local administrations (Dornod, Dundgobi, Tuv, and Sukhbaatar provinces) and their affected communities. The MERIT project has developed different training and education programs with the aim of enhancing institutional capacity and increasing awareness of environmentally and socially responsible mining practices. The collaborative development of these programs involves a diverse array of stakeholders, including key ministries, local administrations, and affected communities. The project strategically focuses on Dornod, Dundgobi, Tuv, and Sukhbaatar provinces, acknowledging the unique challenges and opportunities each region presents. These include field manuals and training tools for mine inspectors such as mine reclamation and closure, mine water resources protection and monitoring, Mining Life cycle, and Petroleum Life cycle training. Additionally, the project has undertaken a pilot project on the closure plan for the Salkhit Silver Mine.

2.1 Mine Monitoring Field Training Programs

Two training programs, one on "Mine Reclamation and Closure", and the other on "Mine Water Resources Protection and Monitoring" are specifically designed to serve as practical references for state inspectors and local environmental officers when conducting mine inspections. The development of this training and field manuals is the result of a collaborative effort between Canadian Technical Advisors, Local Consultants, the General Authority of Specialized Inspection, the Ministry of Environment and Tourism, four partner provincial governments, and law enforcement organizations responsible for overseeing Mongolia's mining and environmental sectors.

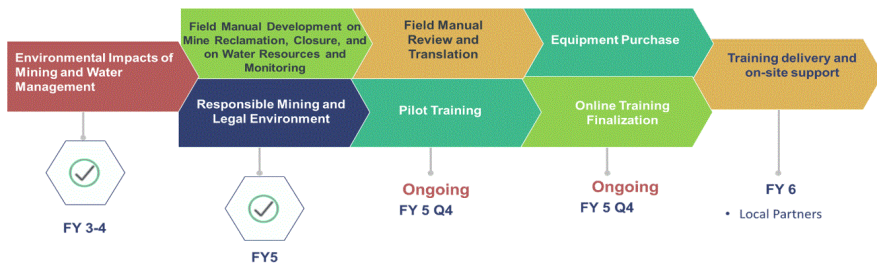
The field manuals developed by MERIT provide comprehensive step-by-step guidance for local inspectors and environmental officers on how to effectively carry out field measurements in placer gold, open-pit coal, and metal mines (2022). These manuals offer the best available field-based tools and techniques, informed by international best practices and aligned with current laws and policies. The goal is to promote a common understanding among practitioners and decision-makers, as well as enhance their capacity to implement responsible mining practices.

By equipping inspectors with basic yet effective field measurements, the manuals empower them to identify and mitigate potential environmental and social impacts of mining activities. The manuals are designed to be user-friendly, ensuring that even those with limited technical knowledge can successfully apply the techniques outlined. Overall, the field manuals are an essential resource for anyone involved in mining inspection and regulation, supporting the promotion of responsible mining practices and the sustainable development of mining communities (MERIT, 2022).

These guidance documents recommend success criteria for interim closure and reclamation compliance and mine water resource quantity and quality monitoring, including key monitoring issues, measurable parameters for monitoring compliance, measurement and analytical techniques and tools, sampling locations, intensity and

frequency, and standards for evaluating compliance.

Combining classroom and on-site demonstration training is an effective way to ensure that participants have a comprehensive understanding of field inspection pro-



cedures, including those related to water resources and site restoration. The field manual training programs were piloted and tested three times for placer gold, silver metal, and zinc mining, and one time for coal incorporating feedback from local compliance officers. Hands-on demonstrations provide practical experience and skills for effective field inspections, as well as identifying potential hazards and strategies for mitigation.

Fig.1. A training program on mine reclamation, closure, and water resources protection and monitoring

The training and field manuals represent a significant contribution to the oversight of operations, mine closure and reclamation and mine water resource quantity and quality monitoring in Mongolia. It reflects a consolidated effort to strengthen environmental protection.

2.2 Salkhit Mine Closure Plan Pilot

MERIT facilitated a Mine Closure Plan pilot with Erdenes Silver Resource LLC, a state-owned mining company, and the Mongolian Government at the Salkhit silver mine located in the province of Dundgobi. The pilot project marks an important milestone in Mongolia's efforts towards comprehensive mine closure planning. It represents the first Mine Closure Plan to be developed in accordance with the country's 2019 mine closure regulation and incorporates best practices and innovative approaches. By setting a standard for mine closure planning, this pilot will provide a benchmark for other mining entities seeking to enhance their closure planning processes.

Mine closure planning is the process in which a mining company prepares scientifically sound and operationally feasible decommissioning and reclamation and environmental monitoring plans, in order to achieve successful reclamation outcomes at the end of a mine's operational life (Asia-Pacific Economic Cooperation, 2018). Mongolian law now requires mining companies to conduct life-cycle closure planning, and as such, mining companies need to integrate closure into the mining company's business and financial planning cycles. The purpose of the Pilot is four-fold:

- i. Build technical capacity within Mongolia specific to mine closure requirements and practices;
- ii. Meaningfully engage, inform, and obtain input from stakeholders during the mine closure planning process;
- iii. Produce a scientifically and technically sound Mine Closure Plan for the Salkhit Silver Mine, which meets current Mongolian laws and regulations, and incorporates International Best Practices, where appropriate; and
- iv. Identify gaps and provide recommendations for improvement of Mongolian mine closure policies and practices.

The final product of Stage 2 will be the Salkhit Mine Closure Plan for submission to the government. The formation of a mine closure planning team is important to capture diverse knowledge and perspectives and to develop a technically sound and operationally feasible closure plan.

By fostering the value of multistakeholder engagement, a coordinated approach was employed to ensure all stakeholders, including affected communities, are adequately informed and involved in the mine closure planning process. The aim is to ensure that the interests and priorities of all stakeholders are addressed in the closure planning process, with the goal of reaching a consensus and promoting a shared understanding of the mine closure concepts (IMMC, 2018).

A series of community-targeted information-sharing and educational activities were conducted to engage with different community groups, including herders, women, youth, and vulnerable members (MERIT, 2017). The processes employed are gender-inclusive and transparent, allowing for the input of community members on how mine closure may impact their livelihoods, gender relations, and the roles of women in the community (MERIT, 2016). This approach promotes equity and helps to avoid any negative impacts on their traditional lifestyle.

The pilot has successfully demonstrated a best-practice model for community consultations and engagement in Mongolia. By involving stakeholders and local communities in the planning process, and the identification of the closure goals and objectives, the pilot is promoting social and cultural sustainability in mine closure. This approach recognizes that mine closure can have significant impacts on communities and that these impacts must be addressed through open and transparent communication with stakeholders.

2.3 Building community awareness and education through mine and petroleum life-cycle training

MERIT developed two comprehensive public education training programs, Mine Life-Cycle (MLC) and Petroleum Life-Cycle (PLC) training with the primary goal of raising community awareness related to activities and opportunities at each phase of the mine or petroleum life-cycle. These programs were developed by working groups guided by Canadian Advisors. They have resulted in increased access to information and resources for mining-affected community members, enabling them to provide feedback, share their concerns, and make informed decisions on issues that affect them.

The learning objectives of the training programs include basic laws that regulate

mining and petroleum development, activities associated with the MLC and PLC, environmental and social considerations associated with extractives development, and employment and business opportunities that may be available.

The training with communities at the provincial, district, and sub-district levels is delivered by academics from Dornod University alongside local government environmental specialists and in the case of PLC, with specialists from the Ministry of Mining and Heavy Industry.

The training programs have had positive results, creating a space for citizens to engage in open dialogue and discussion about the current issues and activities of the petroleum sector in the regions. This indicates that the training has been effective in increasing public awareness and understanding of the mining and petroleum industries. The expected results of the training include increased awareness of the opportunities available to community members through extractive exploration and operations, as well as an increased capacity to make informed decisions related to their socioeconomic welfare (MERIT, 2017). Policymakers have also benefited from the feedback and insights of community members to address challenges. Overall, the training programs developed by MERIT have the potential to benefit the communities in project provinces and contribute to sustainable development in Mongolia.

3 Capacity building outcomes

MERIT led training programs have successfully achieved their objectives, demonstrating effectiveness in equipping government officials, duty bearers, and members of mining-affected communities, as well as right holders, with valuable skills and knowledge.

The qualitative results of the implemented training programs are diverse and impactful, ranging from increased environmental awareness to improved stakeholder relationships. These outcomes collectively contribute to the overarching goal of fostering responsible mining practices and sustainable development in Mongolia.

Improved Compliance Culture: A qualitative shift toward a culture of compliance has been observed. Participants, equipped with the knowledge from the training programs, exhibit an increased commitment to enforcing regulations and ensuring that mining operations align with responsible practices. This shift reflects a positive change in attitudes towards industry accountability.

Strengthened Interagency Collaboration: The collaborative development of the training programs has fostered stronger ties and communication channels among various agencies and stakeholders. The qualitative result is a more cohesive and coordinated approach to addressing environmental and social challenges in the mining sector. Interagency collaboration has become a cornerstone of responsible mining practices.

Empowered Local Inspectors: Local inspectors, armed with the practical skills gained from the training programs, report feeling more empowered in their roles. The qualitative impact is seen in their ability to conduct effective field measurements, identify potential hazards, and implement mitigation strategies. This empowerment translates to more robust on-the-ground oversight of mining activities.

Adoption of Best Practices: A qualitative improvement is noted in the consistent implementation of best practices across different mining scenarios. The field manuals and training tools have created a common understanding among practitioners, leading to a qualitative alignment of actions with international best practices. This standardization is crucial for ensuring responsible mining practices are uniformly applied.

Community Engagement and Inclusivity: Qualitative results extend beyond technical aspects to community engagement. The training programs have facilitated a qualitative improvement in how mining projects engage with local communities. Community-targeted activities are conducted in a more inclusive and transparent manner, allowing for qualitative input from diverse community groups, including herders, women, youth, and vulnerable members.

Gender-Inclusive Approaches: The qualitative impact of gender-inclusive approaches is evident in the increased participation and input from women in the mining sector. These education programs have contributed to breaking gender barriers, with women actively involved in community consultations and discussions about the impacts of mine closure on their livelihoods and roles within the community.

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4 Conclusion

Capacity development is critical for government organizations and regulators to effectively enforce environmental and social standards. Practical training, mentorship, and coaching can provide regulators with the necessary tools and resources to monitor and enforce compliance with responsible mining practices. Additionally, the development of best practices and resources adapted to the Mongolian context can ensure that responsible mining practices are practical and effective.

In essence, the MERIT project, through its holistic and collaborative approach, not only contributes significantly to environmental protection but also sets a precedent for responsible mining practices that integrate the needs and aspirations of local communities. The manuals, training programs, and closure plan pilot collectively represent a comprehensive and forward-thinking strategy toward sustainable mining in Mongolia.

By prioritizing capacity development for regulators and government organizations, Mongolia can enhance its regulatory framework and ensure compliance with environmental and social standards. This will contribute to the long-term benefits of responsible mining, such as improved efficiency, sustainability, and social and economic development.

Furthermore, strengthening responsible mining practices through capacity development can improve trust and collaboration between mining companies, governments, and local communities. This collaboration can lead to more inclusive decision-making,

increased transparency, and better communication, ultimately benefiting all stakeholders.

In summary, the implementation of responsible mining practices in Mongolia requires capacity development for regulators, government organizations, and community groups. Mongolia has the potential to develop in the mining industry while simultaneously promoting sustainability, environmental preservation, and economic growth by giving priority to responsible mining practices and capacity development. In doing so, local communities stand to benefit from these efforts as well.

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