

# EXTERNAL EVALUATION – SHORT REPORT

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Technical evaluator: -

Strengthening of Quality Infrastructure with a particular focus on the Mining  
Sector

Country | Region: Mongolia

Project No.: 2016.2005.3

Period: April 2018 – March 2022 (after extension)

Executing Agency: Physikalisch Technische Bundesanstalt (PTB)  
Ministry of Labor and Social Protection (MLSP)

Implementing Partner: Mongolian Agency for Standardization and Metrology (MASM), Occupational Safety  
and Health-Center (OSH) and General Agency for Specialized Inspection (GASI)

PTB | Section: International Cooperation Department, 9.32 Asia

PTB | Project Coordinator: Marjam Mayer (till 12/2021), Irina Santourian (from 01/2022)

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This is an independent evaluation. The contents represent the view of the evaluator and cannot be taken to reflect the views of PTB.

**List of abbreviations**

<b>AusAID</b>	Australian Agency for Development
<b>CD</b>	Capacity Development
<b>CW</b>	Capacity WORKS
<b>DAC</b>	Development Assistance Committee
<b>ERDENES ETT</b>	Erdenes Tavan Tolgoi, Mongolian Mining Company
<b>GASI</b>	General Agency for Specialized Inspection
<b>GIZ</b>	Deutsche Gesellschaft für Internationale Zusammenarbeit <i>German Agency for International Cooperation</i>
<b>GMIT</b>	German Mongolian Institute of Technology
<b>IKZE</b>	Intermittierende(r) Kurzzeit Experte(in) - <i>Intermitting short term expert</i>
<b>JICA</b>	Japanese International Cooperation Agency
<b>KfW</b>	Kreditanstalt für Wiederaufbau
<b>KOICA</b>	Korean International Cooperation Agency
<b>M+E</b>	Monitoring and Evaluation
<b>MASM</b>	Mongolian Agency for Standardization and Metrology
<b>MEDEA</b>	Metrology-Enabling Developing Economies in Asia
<b>MLSP</b>	Ministry of Labor and Social Protection
<b>OECD</b>	Organization for Economic Co-operation and Development
<b>OSHC</b>	Occupational Safety and Health-Center
<b>PK</b>	Projektkoordinator*in, - <i>Project coordinator (PTB)</i>

<b>PME</b>	Planning, Monitoring and Evaluation
<b>PTB</b>	Physikalisch-Technische Bundesanstalt
<b>QI</b>	Quality Infrastructure
<b>SDG</b>	Sustainable Development Goals
<b>SMART</b>	Specific, Measurable, Achievable, Relevant, Time-bound (Indicators)
<b>WLAN</b>	Wireless Local Area Network

## 1. Project Description

The project “Strengthening of Quality Infrastructure with a particular focus on the Mining sector in Mongolia” was carried out between April 2018 and March 2022 (after extension) with a total budget of 600.000 EUR and with the objective (outcome) "As a result of the implementation of technical regulations and the utilization of quality assurance services, the protection of the employees in the mining sector has been improved".

In terms of mineral resources, Mongolia is one of the richest countries in the world. The raw materials sector is the basis of the country’s economic growth and international trade. National regulations as well as international trading schemes require compliance with minimum criteria for occupational safety and health. Therefore, effective institutions and structures are indispensable. Mongolia’s institutional capacities for inspection and enforcement of the existing national technical regulations on workers’ dust exposure are limited. By providing support towards an improved quality infrastructure system in metrology and support for the implementation of national standards, the project aimed to enhance the competitiveness of the raw materials sector. Furthermore, it notably aimed to contribute to ensuring basic human health and safe working environment rights by improving working conditions in the mining sector. Thus, the project aimed to contribute to the implementation of the Fifth National Program for Occupational Health in the Mining Sector.

## 2. Assessment of the project

The limited Mongolian institutional capacities for inspection and enforcement of the existing national technical regulations on workers’ dust exposure were supported in an integrated manner. Towards an improved quality infrastructure system in metrology and support for the implementation of national standards, the project contributed to ensuring basic human health and safe working environment as well as competitiveness of the raw materials sector.

The sudden Corona Pandemic was ongoing through a larger part of the project’s term, thus hampering planned workshops, consultancy missions, assessment missions. Not all of these measures could be carried out adequately by the substitute of online formats. Nevertheless the project overall could reach important results, and also by carrying out a follow-on workshop with the main partners after completion of the project further contributions could be made to some chances for sustainability.

### 2.1 Status of the change process

Six OECD/DAC criteria serve as basis for assessing the status of the change process:

- Relevance: Is the project doing the right things?
- Coherence: How well does the project fit?
- Effectiveness: Is the project achieving its objectives?
- Impact: What difference does the project make?
- Efficiency: How well are resources being used?
- Sustainability: Will the benefits last?

The following grading scheme is applied:

1	2	3	4	5	6
very successful	successful	successful to a limited extent	rather unsuccessful	mainly unsuccessful	entirely unsuccessful

### Relevance

The overall conception of the project is geared into a good direction towards needs and capacities of the beneficiaries within the QI (Quality Infrastructure) system of Mongolia as well as within (pilot) companies and their workers, especially concentrating on dust measuring and prevention measurements to contribute to occupational safety and health issues underlines the relevance of the project.

Enhancing more networking and participation among relevant stakeholders in the sector would have made the project's design more resilient to fulfil cooperation necessities after Corona circumstances have eased.

Mark: 2.0 "Successful"

### Coherence

At the beginning of the implementation the project was part of a German Programme. As the focus of the Programme moved from mineral resources development towards sustainable pro-poor growth, it was redesigned in 2021 and the integration of the PTB project was terminated. Coordination with the PTB project in the Energy sector was carried out as both projects are delivering services to the QI by supporting MASM (Mongolian Agency for Standardization and Metrology), OSH (Occupational Safety and Health) and GASI (General Agency for Specialized Inspection) laboratories. Furthermore, cooperation was organized with the PTB project on metrology in the Asian Pacific Region (MEDEA).

To influence supporting processes of improvements for safety and health issues in the mining sector, the experiences of the PTB project could have been integrated also within respective curricula of GMIT (German Mongolian Institute of Technology) and University of Medical Sciences.

Mark: 2.5 "Successful to a limited extent"

### **Effectiveness**

The formulation of the objective (outcome) and the attribution of the outputs is basically assessed logical. Two of the indicators at outcome level are assessed ok ("SMART"), one indicator is with slight objections (not defining what does "implementation" mean, how this is verified).

Reaching the desired results was severely hampered by the influence of Corona effects, this has to be taken into account when assessing the effectiveness of the project.

Online formats were developed, e-communication has become a routine format and will be applied in various formats in future also without Pandemic reasons.

Generally, it can be stated that the project contributed a lot on the improvement of QI towards safety and health issues in the mining area. Partners benefited much, including learning how to establish cooperation with clients of the private sector, not only providing technical advice.

The grade of implementation, how far beneficiaries have been reached and do something differently according to safety and health issues, is difficult, as data on learning effects after trainings, from media (videos, posters) are missing.

Another quite important factor hampering good project results is due to very time-consuming procurement processes within the PTB system. A better synchronization between term of the project, faster procurement process of equipment and necessary relevant training is essential.

Mark: 2.8 "Successful to a limited extent"

### **Efficiency**

Much was done and achieved within the project by - in comparison to other donor's projects – a relatively small amount of money.

Inputs were highly specialized and technical, but in addition to international experts competent national/regional experts were delivering inputs efficiently.

Mark: 2.0 "Successful"

### **Impact**

Consultation with project stakeholders during the evaluation process brought up suggestions for improvements in following up the project results reached so far and to contribute towards further development in the sector, combining QI issues with safety and health issues in related mining companies.

The Follow-up Workshop in October this year played a crucial role, to a certain extent to compensate difficulties during the project's time according to the Pandemic, thus contributing to the Higher-Level Results (Impacts) defined in the countries OSH targets as well as towards the relevant Sustainable Development Goals (SDGs no. 3 Good Health and Wellbeing, no. 8 Decent Work and Economic Growth).

Mark: 2.8 "Successful to a limited extent"

## **Sustainability**

The Follow-up Workshop functioned as a review and planning event ensuring to make some results of the project moving towards the earlier envisaged level and to compensate deficits, which have occurred due to the Pandemic. An assessment of this Workshop was not part of the evaluation.

Especially the necessities of closer cooperation within the sector were addressed being essential for reaching assets of sustainability. Establishment of a model company to function as a platform for the exchange of experiences is still pending.

Generally, through an improved cooperation spirit, main Partners are now in the position to further implement standards of the OSH policy.

Mark: 3.0 "Successful to a limited extent"

## **2.2 Success factors for the observed results and change processes**

### **Strategy**

At the start of the project, among relevant stakeholders mutual understanding on a joint strategy was constructed according to the concept of the logical framework/results matrix, but only few strategic adjustments were made later.

Based on a Results Model as the main strategic overview, a joint development of a Capacity Development Strategy would have been helpful for setting up a good cooperation among the different stakeholders to reach to a sustainable development.

### **Cooperation**

Main stakeholders were brought together, direct working relationships were improved. Online communication formats were developed and finally working well for all, thus contributing to the cooperation issues.

No special Capacity WORKS tools were used. Especially an active application of the Map of Actors including discussions and documentation on relations between stakeholders would have been of value.

As usual, PTB technical inputs were very good, but cooperation aspects would have required more effort.

Level of achievement: 60% "Good"

### **Steering structure**

Steering Committee meetings were organized twice a year, discussed topics are well documented thus adding to the projects monitoring function. Decisions were taken on the base of project planning and monitoring. But only indicators were reflected, no monitoring on intended or unintended other issues is documented.

For the perspective of sustainability and fruitful cooperation within a permanent cooperation system in the sector, maybe a more active role of MLSP (Ministry of Labor and Social Protection) would have been advisable. Additionally, the Ministry of Mining might have had a role to play.

Level of achievement: 70% “Good”

### **Processes**

Internationally recognized processes in metrology/QI are established.

The project has successfully applied a steering process by which communication among partners has improved.

But the complete process reaching until beneficiaries, i.e. workers of the mining companies, is not yet established, partly due to Corona effects. To define these processes with Partners, carried out jointly with the model company, ready to be multiplied via a suitable “platform”, is still pending.

Level of achievement: 55% “Satisfactory”

### **Learning and innovation**

Trainings were done and are well documented. But “lessons learnt” are not documented, systematic ex post communication with trainees is missing for understanding how far the “lessons” are implemented.

The well documented Steering Committee meetings can be seen as events where lessons learnt were discussed. Also, the actual evaluation of the project can be understood as a learning exercise, thus contributing to the Follow-up Workshop and formulating recommendations in general.

Still pending is a platform for exchange of experiences with other mining companies, which could be seen as learning instrument providing innovations for improved safety and health issues in the sector.

Level of achievement: 50% “Satisfactory”

### **3. Learning processes and learning experience**

The evaluation is functioning not only as an assessment on DAC criteria and Capacity WORKS Success Factors but serves explicitly also as a learning instrument to collect and discuss experiences and learnings during the course of the project.

Additionally, to the standard evaluation, specific questions were asked by PTB to be evaluated and answered. This can also be seen as a result of a learning process and experiences during the course of the project and carried information and recommendations especially for the Follow-on Workshop in October as well as for PTB in general.

Referring to the previous chapters 2.2 Learning and Innovation, reflection on learning processes and experiences is already incorporated. The following chapter 4 Recommendations is based on the learning and experiences during the implementation of the project thus contributing to further general learning for Partners and PTB.

### **4. Recommendations**

#### **Recommendations to partners**

For the impacts of the QI system in Mongolia it would be worth establishing cooperation with University institutions (University of Medical Sciences, GMIT- Institute for resources and technology), to seek whether topics of safety and health (knowhow on national law, relevant institutions, standards, procedures, economic consequences) could be included in the curricula in an appropriate way. Additionally, one could also look for active roles of the Energy, Geology and Mining Workers' Trade Union as well as the Mongolian National Mining Association.

For future new project opportunities in the safety and health area in Mongolia one should focus also on diagnosis + treatment of dust diseases. It should be interesting for Ministry of Mining and of Ministry of Labor and Social Protection (MLSP) sharing experiences from the cooperation with PTB for developing possible cooperation with JICA, KOICA and others (AusAID).

#### **Recommendations to the project team**

During the course of a project fostering communication by "Story telling" is recommended: Illustrating positive as well as negative experiences, exchanging good practices instead of focusing on indicators, esp. when these are relatively "easy". This means more exchange on "experiences than on statistics".

Enhancing more cooperation/networking among different stakeholders would be helpful (e.g. jointly develop, use and update CW Stakeholder Mapping incl. relations and strategic implications, jointly develop Results Model and CD Strategy).

To be able to prove whether "utilization of quality assurance services is implemented", it is advisable to plan for impact control measures after symposia, trainings, ToT. This means to undertake practical evaluations among trainees to find out after a certain time "who is doing what differently?"

Also, further learnings in pilot companies (ERDENES) matter - who will support this beyond the Follow-up Workshop of October 2022?

Companies have the obligation to protect health of workers, therefore further support to GASI would be necessary - by whom? MEDEA, Energy project? Other donors like JICA, KOICA, Turkish Aid, AusAID. This would mean focusing on “coherence”: Sectoral strategy, sharing experiences, suggestions (Ministry of Mining is in contact with donors) – to be taken up in Follow-up Workshop.

### **Recommendations to the International Cooperation Department (Group 9.3)**

PTB working more closely with GIZ, as GIZ usually has capacity and experience for local coordination/cooperation, there might be chances for doing something on improvement of cooperation/coordination among main Partners/stakeholders - look at this from start of a project: How to develop efficient cooperation (especially if there is established a “German Program”).

Difficult/time consuming procurement processes: This is a severe topic - each stakeholder is concerned about this. It is spoiling image and reputation of PTB (as leading international organization in metrology). Process speeds are not synchronized: Relatively short time of project duration vs. slow and fragmented procurement processes.



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