

EXTERNAL EVALUATION - SHORT REPORT

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Strengthening quality infrastructure for sustainable economic development in
Mauritania



Country/Region:	Mauritania
Project number:	2018.2021.6
Project term:	01 January 2023 – 30 November 2025
Lead executing agency:	Ministry of Mining and Industry
Executing agency(ies):	PTB
PTB Section:	Q.34 Middle East and North Africa
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This evaluation is an independent assessment. Its contents reflect the evaluator's opinion which is not necessarily equivalent to PTB's view.

List of abbreviations

ALGERAC	Organisme Algérien d'Accréditation <i>(Algerian Accreditation Organisation)</i>
DNPQ	Direction Nationale pour la Promotion de la Qualité <i>(National Directorate for Quality Promotion)</i>
GIZ	Gesellschaft für Internationale Zusammenarbeit
LMN	Laboratoire National de Métrologie <i>(National Metrology Laboratory)</i>
ONANOR	Office National de Normalisation et de la Métrologie <i>(National Office for Standardisation and Metrology)</i>
PTB	Physikalisch-Technische Bundesanstalt
SME	Small and medium enterprises

1. Executive summary of the project

The subject of this evaluation is the project “Strengthening quality infrastructure for sustainable economic development in Mauritania”, implemented by the PTB in Mauritania between January 2023 and November 2025. With a budget of EUR 800.000, the project is funded by the Federal Ministry for Economic Cooperation and Development (BMZ). Initially approved for the period from January 2023 to July 2025, it was extended at no additional costs until November 2025 due to various delays. The revised results matrix, included in the change offer of March 2025, forms the basis for this evaluation.

The political partner is the Ministry of Mines and Industry of Mauritania. The implementing partner, and direct beneficiary of the project, is the National Office for Standardisation and Metrology (*Office National de Normalisation et de la Métrologie*, ONANOR), created in 2023 from the former Directorate for Standardisation and Quality Promotion (*Direction Nationale pour la Promotion de la Qualité*, DNPQ). ONANOR is responsible for implementing and monitoring government policy on standardisation and quality promotion and houses the National Metrology Laboratory. Target groups included public and private laboratories, universities, and small and medium sized enterprises (SME) engaged in artisanal fishery and mining as well as their employees.

The project objective was: “The Directorate of Standardisation and Quality Promotion (DNPQ)/ONANOR offers paid market-oriented quality infrastructure services to the fisheries and mining sectors.” To achieve this objective, the project was expected to deliver two outputs:

1. The DNPQ/ONANOR National Metrology Laboratory (LNM) is able to provide calibration services in accordance with ISO 17025.
2. The DNPQ/ONANOR standardisation department is able to develop gender and/or environmentally sensitive Mauritanian standards for the fisheries and mining sectors.

The achievement of the project objective is measured using three outcome indicators:

1. ONANOR's LNM customers have used 200 paid calibration services.
2. ONANOR has developed two draft gender and/or environmentally sensitive standards for the fisheries and mining sectors, considering local needs and conditions.
3. Six quality infrastructure awareness tools, adapted to the Mauritanian context, are used by the DNPQ/ONANOR.

Indicator 1 has been achieved by 37% (73 calibration services provided by ONANOR, 30 of which were provided for a fee). Indicators 2 and 3 have been fully achieved.

2. Evaluation of the project

PTB has commissioned this evaluation for accountability and learning purposes. The evaluation was carried out by Manuela Leonhardt, an independent consultant. Data collection took place remotely from 20 to 31 October 2025 through 24 semi-standardised interviews with the ONANOR team, the project team and external experts and other project partners. The results of the evaluation were presented and discussed with the partner on 5 November 2025 during a debriefing workshop. The evaluator would like to thank the project team for their excellent preparation of the evaluation and all the interviewees for their time and thoughts on the project.

The six OECD/DAC criteria were used as basis for this evaluation:

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

The following marking scale was used for the evaluation:

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

Overall, the project received the mark: 2,4.

Relevance

The project was well aligned with the priorities and policies of the Mauritanian Government and the German Federal Ministry for Economic Cooperation and Development (BMZ). Since 2010, Mauritania has worked to establish a national quality infrastructure, formalised in the 2016 National Quality Policy. The project supported key aspects of this agenda, including the ISO 17025 accreditation of the national metrology laboratory and the development of structures for standardisation and certification. It also contributed to Mauritania's National Strategy for Accelerated Growth and Shared Prosperity (2016–2030), particularly its goal of promoting strong, sustainable and inclusive growth through improved support infrastructure. The design was consistent with German development cooperation frameworks, including the BMZ's policy orientation "BMZ 2030".

The technical advisory services showed a high level of alignment with the needs of the partner organisation, ONANOR, particularly in strengthening institutional capacities in metrology, standardisation and certification. Demand for industrial metrology services is evident, especially among export-oriented industries. However, these sectors offer relatively limited employment potential, which constrains broader socio-economic impact. The project's standardisation objectives were consistent with government efforts to formalise artisanal mining, supporting safer and more transparent practices. In the fisheries sector, improved standards can contribute to improved working conditions and hygiene standards, yet there is a risk that stricter requirements could marginalise informal or small businesses, often led by women, if support measures are not provided.

Project objectives were appropriate and realistic regarding capacity development of the National Metrology Institute, though expectations of wider socio-economic impact were ambitious. The theory of change related to standardisation does not sufficiently reflect the many additional measures required to improve the livelihoods of vulnerable groups.

The project demonstrated flexibility by adjusting its level of ambition through a formal change offer to BMZ and by managing implementation delays pragmatically, thereby maintaining relevance under evolving institutional conditions.

Overall, the criterion received the mark: 2,0

Coherence

The project was designed to complement other modules of German development cooperation programme "Employment promotion and private sector development". In the mining sector, it was intended to complement technical cooperation projects on integrated economic development in the raw materials sector and on the promotion of non-metallic raw materials, implemented by the Federal Institute for Geosciences and Natural Resources (BGR). In fisheries, it was conceived to complement technical and financial cooperation projects supporting sustainable artisanal fishing, port modernisation in Nouadhibou and fisheries value chains. The project's contribution was to develop sectoral standards and promote quality improvement for these sectors.

In practice, however, these planned complementarities did not fully materialise. Significant delays in establishing technical committees due to the late adoption of the required decrees meant that sectoral standards for fisheries and mining were developed only towards the end of the project period. As a result, cooperation with other German development actors on the practical implementation of these standards could not be realised. A future collaboration between GIZ and ONANOR to disseminate standards is foreseen as part of the exit strategy.

The project supported ONANOR in aligning its technical and management processes with ISO standards to ensure international compatibility. It also aimed to promote gender equality, environmental protection and occupational safety through sectoral standards. Owing to delays in the transition from the former directorate DNPQ to the semi-public ONANOR, these objectives were only partially achieved. The project had limited influence on ensuring that standards were gender sensitive.

Externally, the project closely complemented the partner ministry's own reform efforts, particularly the transformation of the DNPQ into ONANOR and the strengthening of the national quality policy framework. It provided technical and organisational support to these reforms. During implementation, it was ONANOR's sole international partner, and no formal coordination took place with other donors. The project relied on national and regional structures.

Overall, the criterion received the mark: 2,5

Effectiveness

The project largely achieved its objective of strengthening the capacities of the Mauritanian National Office for Standardisation and Metrology, ONANOR, in metrology, standardisation and certification, enabling it to provide basic services in these fields. The project's major achievement was the accreditation of the National Metrology Laboratory by the Algerian accreditation body ALGERAC in November 2025. The project further contributed to improving staff qualifications, quality management and compliance with ISO/IEC 17025 standards. Due to limited market demand, the laboratory still struggles with self-financing through the provision of metrology services.

A further key achievement was the establishment of two technical committees, tasked with developing technical norms for the mining and fishery sectors. Four fisheries standards were prepared and submitted for public consultation, while a mining standard was drafted but delayed due to differing stakeholder interests. The project supported communication and sensibilisation activities that increased awareness of quality issues among businesses and the public through events, seminars, media outreach and a communication strategy, helping to raise ONANOR's profile. Additional achievements included training certification staff to ISO standards and supporting a new university metrology course at the University of Nouakchott, building future expertise.

Technical expertise was the project's main contribution, complemented by limited equipment support. Regional and international experts trained staff and helped to establish procedures, though sustainability risks remain due to staff turnover and inconsistent application of quality processes. Benefits were shared among male and female partner staff, though vulnerable groups were reached only indirectly. Women's organisations were not represented in technical committees tasked with drafting sectoral standards despite the project's efforts in this regard.

Implementation quality was assessed as good, with strong cooperation between partners, flexible adaptation to institutional changes, and effective planning tools. Political support and economic momentum in Mauritania facilitated progress, though delays in political decision-making slowed implementation. There are risks of unintended negative project effects, such as contributing to regulatory burdens that could disadvantage small producers or encourage corruption. Overall, the project made important contributions to building a national

quality infrastructure in a difficult institutional context, though long-term impact depends on sustained reforms, broader stakeholder inclusion and continued institutional commitment.

Overall, the criterion received the mark: 2,2

Efficiency

The project was commissioned with a budget of EUR 800,000 and an initial duration of two years and seven months (January 2023 to July 2025). Due to various delays, it was extended by four months in May 2025 without additional costs, ending in November 2025. Spending was broadly in line with the budget, with high disbursement rates for personnel, technical services and travel, but lower than planned expenditure on equipment and training. Personnel and travel costs include the many short-term experts that offered capacity building support to ONANOR and the technical committees. The project team consisted of coordinators in Germany and Mauritania, supported by short-term experts in organisational development, communication, metrology, standardisation, certification and quality management. Equipment repairs and communication materials were also funded.

More than half of total spending went on general costs, with the remainder divided between the project's two main outputs. Resources were used efficiently, focusing on targeted technical expertise and cost-saving measures such as regional experts and virtual support. Limited spending on workshops and equipment reflected this approach. Overall, the project supported 13 expert deployments to Mauritania. However, major delays in establishing the partner institution and technical committees reduced efficiency, costing nearly a year of implementation time. Although progress was made later, some planned results could not be achieved or sufficiently consolidated, which may threaten sustainability.

In terms of allocation efficiency, the project carefully selected support measures to maximise impact within limited resources. The Ministry of Industry showed ownership of the project objectives by making financial contributions to the development of ONANOR, such as funding salaries, some equipment and operational costs. The steering committee was suspended when allowances were not financed.

Overall, project activities were appropriate and strengthened the partner's institutional capacity, supporting the development of a national quality infrastructure. However, benefits for vulnerable target groups, such as artisanal miners and fish processors, remain unclear due to long impact chains. Achieving meaningful outcomes for these groups will require complementary measures, including technical support, training, improved infrastructure, and access to finance to help them comply with quality requirements. This needs closer coordination with other development partners.

Overall, the criterion received the mark: 2,0

Impact (higher-level development results)

The project aimed to contribute to sustainable development goals, notably decent work and economic growth (SDG 8) and sustainable production and consumption (SDG 12). This was to be achieved by the development of safety and hygiene standards in artisanal mining and fisheries and environmental standards to limit harmful practices, and by establishing partner capacities for the calibration of commercial measuring instruments to protect consumers and improve transparent billing and taxation. Overall, these measures were expected to enhance value creation in key sectors and improve protein supply for low-income households.

At the time of evaluation, no observable changes in Mauritania's economic performance, employment, or incomes in artisanal mining and fish processing could yet be attributed to the project. Economic growth remains modest and heavily dependent on extractive industries, which generate most exports and public

revenue but little employment. Informality remains widespread, poverty has increased, and economic diversification is widely recognised as necessary but hindered by weak institutions, regulatory complexity, and limited coordination among inspection bodies. In fisheries, overfishing by international fleets and weak governance reduce local value creation, while artisanal fishing faces infrastructure shortages and low incomes, particularly for women processors. Artisanal gold mining provides employment but is associated with toxic chemicals, unsafe conditions and social problems.

The project addressed relevant issues such as regulatory transparency, product quality, and environmental and labour standards, yet these challenges are embedded in a complex political and economic context marked by powerful interests and weak governance. Meaningful impact will require complementary reforms, including improved infrastructure, new technologies, better access for marginalised groups, and transparent regulation.

Some project outputs, such as accreditation of the national metrology laboratory and draft fisheries standards, were too recent to show measurable effects but could support competitiveness and consumer protection over time. Overall, the project has helped establish the foundations of a national quality infrastructure, which has the potential to generate positive economic development effects in the longer term. However, this remains dependent on long-term institutional reforms and sustained collaboration with other partners.

Overall, the criterion received the mark: 3,0

Sustainability

The project strengthened technical capacities within the national standards and metrology body, ONANOR, to improve prospects for sustainability. This was supported by clear political commitment of the Government of Mauritania to establishing a functional quality infrastructure. The Ministry of Industry formalised this commitment in 2023 by transforming a ministerial directorate into the semi-public institution ONANOR with legal and financial autonomy, meeting international requirements for independence. The Ministry also covers staff and operating costs, and ONANOR aims to expand paid services in the areas of metrology, standardisation, certification and inspection in order to generate its own revenues. ONANOR staff generally understand the institution's mandate, and the National Metrology Laboratory now has trained personnel, operational equipment and international accreditation, increasing the likelihood of maintaining quality standards.

However, significant challenges remain. The newly created standardisation and certification departments had little time to implement project-supported training and must now manage complex processes independently. The metrology laboratory lacks staff with a technical background, raising doubts about its ability to solve problems autonomously, and some newly introduced procedures have already lapsed. Long-term sustainability also depends on demand from paying clients, as a market for paid quality infrastructure services has yet to be established in Mauritania. Limited calibration capabilities of the National Metrology Laboratory still force many firms to seek services abroad, and past efforts showed that improvements in laboratory management can collapse without continued demand.

The project nevertheless laid foundations for the institutional autonomy of ONANOR by strengthening communication, training decision-makers, supporting capacity development, facilitating client outreach and helping establish a university metrology module. These actions enhanced ONANOR's resilience. This requires complex a holistic approach, including an appropriate legal framework, enforcement structures, a market for certified products, rule of law, anti-corruption measures, and measures to facilitate private sector compliance.

Overall sustainability remains uncertain. Continued government subsidies, an adequate legal framework and expansion of quality infrastructure services are essential. While economic modernisation may increase demand in future, the ONANOR's long-term viability cannot yet be guaranteed.

Overall, the criterion received the mark: 2,7

3. Learning processes and experiences

The project generated several key lessons for future initiatives. New projects should be planned strictly on the basis of existing laws, decrees, and institutions, as verbal commitments from partners may prove overly optimistic. Planning must also allow for the lengthy processes required to establish new institutions, technical committees, and regulatory frameworks, including those related to quality infrastructure.

Unexpected delays in establishing new institutions and structures can cause projects to exceed their time frames, but they can also offer new opportunities. By extending project durations or adopting a programme or partnership approach, the PTB could respond more flexibly to such situations.

Quality infrastructure services must be used continuously to remain effective, which requires sufficient market demand for such services. Establishing a market for paid quality infrastructure services such as calibrations, verifications and certifications requires a holistic approach that involves the establishment of a legal framework, implementation structures, demand for certified products, private sector promotion, and anti-corruption measures.

Although quality infrastructure can promote economic development, it does not automatically reduce poverty. Informal micro enterprises need technical and financial support to comply with quality standards as well as markets that pay a prime for high quality products. Public support is required, such as public investment in facilities, cold chains, or storage for artisanal fisheries, enabling compliance with hygiene or labour standards that informal operators cannot finance alone.

PTB should promote respectful treatment of persons acting on its behalf and develop appropriate mechanisms to this end.

4. Recommendations

Recommendations to the partners:

- Continue to develop standards in the areas of fisheries and mining and cooperate with relevant stakeholders to implement these standards.
- Strengthen the involvement of the private sector and civil society in identifying other areas requiring regulation (e.g. consumer protection) and implement corresponding processes
- Collaborate with the University of Nouakchott, in particular with graduates of the metrology training module, in order to recruit staff with strong technical background
- Support Mauritanian SMEs in adapting their economic activities to the required quality standards
- Help build a national market for quality infrastructure services by regulations, inspection etc.
- Develop incentives for the implementation of quality standards (e.g. advantages in public tenders)
- Continue regional cooperation with other national quality infrastructures (e.g. Tunisia)

Recommendations to the project team:

- Involve disadvantaged population groups in the development of standards and technical regulations that will affect their livelihoods.
- When providing expert advice, balance technical advice with organisational development
- Ensure appropriate follow-up of expert assignments, accompany and monitor the implementation of expert recommendations

Recommendations to the International Cooperation Department (Q.3):

- Work towards embedding of projects in the German development cooperation portfolio in coordination with the BMZ, including through joint timelines and indicators, to support private sector actors in developing compliance capacity with quality standards
- Consider value chain approach to quality infrastructures, supporting specific products from production to processing and conformity assessment to export requirements, establish value chain traceability systems
- Develop programme or partnership approaches in coordination with the BMZ that enable long-term and flexible support for QI structures in selected countries
- Maintain equal focus on legal and industrial metrology, design projects that also support implementation of legal metrology (e.g. training of inspectors)
- Develop and implement a deeper understanding of the gender dimension of quality infrastructures
- Develop a code of conduct or similar instruments to ensure respectful treatment of persons working for the PTB
- Support the digitalisation of QI structures in partner countries

Recommendations to the evaluation unit of Working Group Q.01:

- Allow for on-site data collection so that the views of disadvantaged target groups can be gathered.



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