

EXTERNAL EVALUATION - SHORT REPORT

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Strengthening of the Quality Infrastructure for Sustainable Economic Development
in Nepal

Country/Region: Nepal | Asia

Project number: FV-95365-06 / BMZ-No. 2020.2132.7
Project term: 01 January 2022 - 31 December 2025

Lead executing agency: Ministry of Industry, Commerce and Supplies (MoICS)
Executing agencies: Nepal Bureau of Standards and Metrology (NBSM), Department of Plant Resources (DPR), Department of Food Technology and Quality Control (DFTQC), Association of Pharmaceutical Producers of Nepal (APPON), Dairy Industries Association (DIA)

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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 abbreviationsA faint, light gray world map composed of small squares is visible in the background of the page, centered behind the list of abbreviations.

APPON	Association of Pharmaceutical Producers of Nepal
CW	Capacity WORKS
DFTQC	Department of Food Technology and Quality Control
DIA	Dairy Industries Association
DPR	Department of Plant Resources
EU	European Union
FSSAI	Food Safety and Standards Authority of India
ITC	International Trade Centre
MoICS	Ministry of Industry, Commerce and Supplies
NBSM	Nepal Bureau of Standards and Metrology
QI	Quality Infrastructure
OECD- DAC	Organisation for Economic Co-operation and Development -Development Assistance Committee
SDG	Sustainable Development Goals
SOP	Standard Operating Procedure

1. Executive summary of the project

The object of this evaluation is the project “Strengthening Quality Infrastructure for Sustainable Economic Development in Nepal”, a stand-alone module commissioned by the Federal Ministry for Economic Cooperation and Development (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung, BMZ) and implemented by the National Metrology Institute of Germany (Physikalisch-Technische Bundesanstalt, PTB). It builds on PTB’s long-standing cooperation with Nepal since 2007 and was originally planned for January 2022 to December 2023 with a budget of EUR 1.8 million. The project was extended twice - first cost-neutrally to December 2024, and then with an additional EUR 200,000 to December 2025.

The project objective is: Nepali Quality Infrastructure (QI) stakeholders offer demand-oriented services in economically and trade-relevant sectors. The project consists of three core intervention areas: (1) strengthening the national metrology and QI system, (2) enhancing food safety and (3) improving quality assurance in selected value chains. In addition, the project phase was used to support the initial set-up of the forthcoming health-sector project.

The module targets users of quality assurance services in industry and trade, supported through strengthened public QI institutions. Consumers benefit indirectly from safer products and improved food safety, while producers gain improved access to domestic and international markets. Direct effects apply to institutions and associations receiving tailored capacity development, enabling them to expand their service portfolios for broader target groups.

The political partner is the Ministry of Industry, Commerce and Supplies (MoICS). Implementing partners are the Nepal Bureau of Standards and Metrology (NBSM), the Department of Plant Resources (DPR), the Department of Food Technology and Quality Control (DFTQC), the Association of Pharmaceutical Producers of Nepal (APPON), and the Dairy Industries Association (DIA).

2. Evaluation of the project

The evaluation covers the period from January 2022 until the interview phase from September to November 2025. A mixed-methods approach was used, combining desk research with semi-structured interviews and site visits. Document review began in July 2025, followed by virtual and on-site interviews between 4 September and 9 November 2025. Interviewees included PTB representatives, implementation partners, and technical experts. Violent demonstrations at the start of the evaluation significantly affected the process, requiring an extension of the interview phase. Additionally, the destruction of the NBSM laboratories made it difficult to assess the partner’s progress, particularly its sustainability.

The aim of the evaluation is to provide accountability, support institutional learning, and inform the design of future interventions in Nepal and comparable country contexts.

The six OECD/DAC criteria were used as an evaluation 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?

In addition, a specific evaluation question examined whether the soft-opening approach was an efficient and effective way to prepare the upcoming health project and under what conditions it is suitable for future interventions.

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 intervention is strongly aligned with Nepal's national policies and BMZ priorities. Key national strategies - the Nepal Trade Policy (2015), Trade Integration Strategy (2016, revised 2023), and the new Trade Policy (2025) - all emphasise the need for strengthened QI systems, improved product quality and expanded testing capacities. The project addressed these priorities directly by supporting metrology, food safety, and quality assurance. Sector-specific needs were well reflected: NBSM required expanded calibration services to fulfil its mandate; DFTQC faced high demand for pesticide residue testing in light of growing food safety regulations; and Nepal's pharmaceutical industry needed stronger internal quality systems to compete with foreign products. The project's design also fits well within BMZ's focus on sustainable economic development and aligns with the Sustainable Development Goals (SDGs) and the Asia Strategy's "Just Transition" approach.

The intervention corresponded closely to the needs and capacities of both institutional partners and end-beneficiaries. Companies benefited from more reliable calibration, improved food safety testing, and sector-specific quality assurance support. DFTQC and NBSM staff strengthened their technical skills, while pharmaceutical companies applied harmonised standard operating procedures (SOPs) and training. Consumers benefited indirectly from safer food and more affordable medicines. Vulnerable groups - particularly low-income households and individuals with health challenges - benefited from safer products and more accessible pharmaceuticals.

The original project design was coherent and realistic for a two-year phase, with a clear link between capacity development and improved service delivery. However, shortcomings reduced traceability during implementation: several indicators lacked specificity, reporting was inconsistent, and major contextual changes - such as substantial over-achievement at DFTQC and the introduction of the soft-opening activities - were not reflected in the results framework. The inclusion of less active partners further diluted focus and resources.

Responsiveness to changing conditions was limited. While activity-level flexibility existed, the project design and indicators were not adjusted despite extensions, evolving partner engagement, and extension in scope. The soft-opening for the new health-sector project was a positive step, but it was not integrated into the results logic, reducing transparency and strategic coherence.

Overall, the criterion received the mark: 2.5

Coherence

Internal coherence within German development cooperation was very good. The project design was prepared in consultation with GIZ, and although no thematic overlap allowed for technical cooperation during implementation, administrative collaboration worked smoothly and regular sector meetings facilitated constructive exchange. Clear complementarities emerged in the soft-opening phase of the new health project, where PTB and KfW coordinated closely: KfW will invest in laboratory infrastructure at the Paropakar Maternity and Women's Hospital, while PTB will support its quality management and accreditation. The project was also well aligned with PTB's regional and global initiatives (MEDEA 3.0 and M4DT-IC), especially after NBSM's increased engagement under new leadership in 2023.

External coherence was generally good. The project complemented partner efforts when these were clearly articulated, such as DFTQC's expanded pesticide testing and APPON's organisational development. However, engagement with DIA was only partly demand-driven. Coordination with other donors remained mostly at information-exchange level. Some synergies existed - such as EU/ITC providing equipment and PTB offering complementary training.

Overall, the criterion received the mark: 1.5

Effectiveness

The project achieved its outcome indicators to a high degree. NBSM fully met its indicator by developing two additional accreditable services; however, their operationalisation is now impossible due to the destruction of its laboratories. DFTQC strongly exceeded its target by achieving accreditation for 123 pesticides instead of

the planned ten, confirming excellent performance. The indicator of the business associations was achieved by 50%. While APPON developed one harmonised Quality Risk Management SOP used by 27 companies DIA did not establish a new service as its training measure to build up a pool of quality assurance multipliers had very limited effects.

Effectiveness differed substantially across partners. NBSM, DFTQC and APPON demonstrated strong ownership, resulting in significant capacity gains and meaningful contributions to the objective. NBSM built robust competencies through extensive calibration and management training and was ready for scope extension before the destruction of its metrology laboratories. DFTQC achieved outstanding results in pesticide testing, driven by strong leadership, regulatory changes and project support. APPON strengthened both technical practices and institutional structures, including development of an awareness campaign and a harmonised Quality Risk Management SOP. By contrast, DPR and DIA showed minimal progress due to low ownership, leadership instability, and in case of DIA limited sectoral demand for quality services due to economic challenges in the dairy sector. As a result, these partners did not contribute meaningfully to the project's outcome.

The quality of implementation moderately supported outcome achievement. Cooperation among engaged partners was good, with well-functioning reflection group meetings fostering exchange and unexpected cross-partner initiatives on working level. However, strategic steering was weak: no overarching strategy for all five partners was established, objectives and indicators were never revised despite two extensions, and monitoring tools (e.g. results matrix, operational plans) were incomplete or inconsistently used. Steering structures lacked political backing, as MoICS did not fulfil its leadership role. Learning and process management occurred, but institutionalization depended on the respective partner and was not systematically documented. APPON for example shared its training material on their website with their members.

The project effectively leveraged positive unintended developments in case of the increased national emphasis on food safety and the recognition of the Food Safety and Standards Authority of India (FSSAI), which amplified DFTQC's relevance. In contrast, the most severe negative event - the destruction of NBSM's metrology laboratories in September 2025 - could not be solved by the end of the interview phase. Discussions about a project extension were still ongoing at the time, due to the limited timeframe. The absence of national calibration services now poses significant economic and technical risks across all sectors.

Overall, the criterion received the mark: 2.5

Efficiency

The project's efficiency was also mixed. In terms of production efficiency, financial and human resources were generally used in a reasonable manner to deliver outputs. Most funds went into cost-efficient capacity-building measures, supported by online formats and local trainers. Efficiency gains were achieved through the productive use of previously underutilised laboratory equipment, and the non-procurement of the force calibrator for NBSM avoided misallocated spending and ultimately prevented losses after the laboratory's destruction. However, production efficiency was low for less active partners such as DPR and DIA, where limited engagement resulted in minimal outputs. Significant under-expenditure - only 63% of the budget used by September 2025 - signals that several planned activities could not be implemented, partly due to high staff turnover and coordination delays.

Allocation efficiency was positive for active partners. Investments in DFTQC, APPON and NBSM yielded substantial progress toward the outcome, supported by notable own contributions from these institutions, including accreditation costs, internal quality control and the payment of training fees. In contrast, support to DPR and DIA produced little effect, indicating that earlier reallocation of resources could have enhanced overall efficiency. High staff turnover further reduced effectiveness of resource use.

The increase in project budget during the 2024 extension seems not fully justified due to a considerable under-expenditure. Moreover, costs related to the soft-opening activities are not transparently reflected in the indicator system, limiting the ability to assess their efficiency.

Overall, the criterion received the mark: 3.0

Impact (higher-level development results)

An increase in overall quality awareness in Nepal, comprising policy, industry and consumer level can be observed. The project is likely to contribute to several higher-level development changes, particularly in food safety, trade facilitation and the competitiveness of Nepali products. The most significant expected change stems from DFTQC's substantially expanded pesticide-testing capacity and the mutual recognition agreement with FSSAI, which together allow mandatory food safety tests to be conducted domestically. This reduces border delays for perishable goods, lowers spoilage and transport costs, and strengthens export opportunities. These improvements are expected to enhance profitability for producers and increase income stability in agriculture and food processing. Social benefits arise from reduced consumer exposure to harmful pesticide residues, which may lead to improved public health outcomes, especially for low-income households. Environmentally, reduced pesticide use could decrease soil and water contamination.

In the pharmaceutical sector, improved quality management systems and harmonised SOPs are likely to reinforce domestic production and market acceptance of Nepali medicines. This can increase access to affordable, high-quality pharmaceuticals for vulnerable groups and create skilled employment in the long term. Overall, the interaction of economic, social and environmental outcomes is positive, with no major trade-offs identified.

The project's contributions to these higher-level changes are plausible. At DFTQC, project-supported capacity development was essential for meeting the requirements of the bilateral recognition agreement. In the pharmaceutical sector, training, mock audits and organisational development activities strengthened production standards and consumer trust. PTB's long-term engagement since 2007 has also supported structural changes, including increased governmental recognition of QI and stronger food safety regulation.

No unintended higher-level development changes - positive or negative - were identified.

Overall, the criterion received the mark: 1.8

Sustainability

The sustainability of the project's results varies considerably across partners, reflecting differences in institutional capacity, ownership, and the broader political and economic context. Some partners are well positioned to progress faster by applying the competencies developed through the project, while others face structural or external constraints that seriously slow down long-term progress.

DFTQC shows strong sustainability prospects. Staff can independently perform the newly introduced pesticide residue methods, and routine participation in proficiency testing has reinforced laboratory competence. Increased government recognition of food safety and additional public funding in recent years support long-term continuation. However, the ability to maintain these gains depends on the government's capacity to fund laboratory operations sufficiently in a period marked by political unrest, reconstruction needs and upcoming elections.

APPON also demonstrates good sustainability potential. The association has strengthened its organisational and strategic capacities, developed an awareness campaign, and established structured dialogue with government authorities. Working groups for the development of further SOPs are established and training is conducted already by APPON itself. Because members directly benefit from improved quality management, strong incentives for continuation exist.

In contrast, NBSM faces severe challenges. The complete destruction of its metrology laboratories has removed the physical foundation for service delivery and accreditation, and reconstruction funding remains uncertain. Although staff skills and institutional recognition persist, systemic staff rotation threatens retention. Sustainability is therefore unclear.

DIA and DPR have low prospects of sustaining results due to weak ownership, limited institutional capacity and financially constrained sectors. The sustainability concept commissioned in mid-2025 - though well designed and jointly developed - came too late to be meaningfully implemented, reducing its effectiveness.

The project contributed substantially to strengthening technical and organisational capacities at DFTQC, APPON and at NBSM, and these gains provide a basis for future resilience. However, durability remains highly uneven. DFTQC and APPON are likely to sustain results, while NBSM, DIA and DPR face significant risks related to financing, staffing and strategic direction.

Overall, the criterion received the mark: 3,0

Specific evaluation question

Was the soft-opening approach developed by the project a successful measure to efficiently and effectively prepare an upcoming project in a new sector? Under what circumstances is such an approach suitable for other future projects?

The soft-opening approach served as a useful preparatory mechanism for the planned health-sector project, enabling early partner identification, initial advisory support and trust-building. Over two years, PTB conducted expert missions and virtual consultations that clarified mandates, assessed institutional capacities and initiated dialogue with relevant stakeholders. This early engagement is likely to reduce the typical start-up delays of new projects, as key groundwork - such as understanding approval procedures, aligning expectations and coordinating with KfW on complementary roles - was already completed.

However, the final effectiveness and efficiency of the soft-opening can only be assessed once the follow-up project begins. If partners are ready to move directly into technical implementation, the approach will have proven successful; if not, the additional investment may yield limited gains. Cost transparency was limited, as soft-opening activities were not reflected in the indicator framework. Overall, the approach is suitable only under specific conditions and therefore has limited applicability.

Overall assessment

The long-standing cooperation between PTB and Nepalese QI institutions created a good foundation that enabled strong progress among the highly engaged partners DFTQC, APPON and NBSM. The project complemented committed leadership, hard-working staff and increasing government support very well by targeted capacity development, resulting in clear improvements in service quality, institutional visibility and sector relevance. The long-term engagement of PTB since 2007 also contributed to a broader systemic shift: QI has gained political importance, reflected in higher public funding and expanded mandates. The positive results in the public QI institutions are clearly visible and appreciated.

However, structural shortcomings reduced the project's overall effectiveness. The decision to continue working with all partners from the previous phase - including those with persistently low ownership - limited efficiency and diluted results. Strategic guidance remained weak, as the results framework lacked an overarching logic, and no substantial adjustments were made despite two project extensions and changing conditions. More consistent steering, regular planning workshops and the willingness to discontinue cooperation with less engaged institutions would have enabled a sharper focus and greater overall impact.

3. Learning processes and experiences

All partners and stakeholders spoke very positively about the national advisor, emphasising the value of her continuity, coordination role in Nepal, and strong technical expertise and project knowledge. At the same time, her involvement in strategic project coordination appears limited. Given the frequent turnover in project coordination, it would be advisable to integrate her more closely into strategic processes to help maintain continuity and avoid delays in implementation.

4. Recommendations

Recommendations to the partners:

NBSM: Building on the substantial knowledge developed in recent years, the reconstruction phase offers an opportunity to establish a well-designed, future-oriented organisation aligned with the needs of industry and

government. Developing a clear strategic plan with defined priorities and milestones will help guide this process and strengthen the basis for targeted discussions with government and donors. A focused approach to resource mobilisation - rather than accepting support without strategic fit - will ensure that new structures effectively serve NBSM's core functions.

Recommendations to the project team:

- Ensure that indicators for the upcoming health project are fully SMART and that all stakeholders share a clear, common understanding of what is being measured, in order to avoid monitoring inconsistencies and evaluation challenges.
- Conduct annual planning meetings with all partners that review progress, identify necessary adjustments, and jointly plan the upcoming year to improve transparency and strategic alignment. This will help ensure timely adaptations and maintain continuity despite staff turnover.
- Update indicators when the project environment changes and define explicit objectives and corresponding indicators for any newly introduced components, particularly when additional funding is allocated, to provide clear guidance for implementation, monitoring and evaluation.
- Apply all Capacity WORKS tools consistently throughout the entire project cycle - not only during planning - to strengthen adaptive management, maintain continuity, and reduce information loss caused by staff turnover.
- Prepare the full set of required documents (as per PTB's checklist) in advance and ensure they are complete and available at the kick-off meeting with the evaluation team, enabling a prompt and efficient start of the evaluation.

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

- Introduce a standardised and well-structured filing system from the outset of each project, including clear naming conventions and folder structures, to ensure smooth handovers and facilitate easy access to essential information.
- Standardise the format of expert reports and require that they are written in English, including both an assessment of progress and concrete recommendations to the project team, to enhance transparency, usability and continuous improvement of project activities.

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

- Maintain the practice of assigning an evaluation team consisting of a lead evaluator with strong methodological expertise and a technical evaluator with sector-specific knowledge in metrology or related fields as this combination strengthens the validity and practical relevance of evaluation results.
- Consider streamlining the OECD-DAC assessment dimensions by reducing overlaps between relevance, effectiveness, sustainability, and impact, as these boundaries can be difficult to distinguish in practice.
- Reduce the complexity of the current instructions to avoid confusion and consider introducing a concise best-practice document instead to provide clearer guidance and practical orientation.



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