

External evaluation

Lead assessor: Ulrike Rösler
Technical assessor: Didul Kodagoda

Strengthening Quality Infrastructure in Sri Lanka II



Country | Region: Sri Lanka

Project number: 2018.2021.6
Project term: 01/2019 – 12/2023

Lead executing agency: Ministry of Trade, Commerce and Food Security
Executing agency(ies): Measurement Units, Standards and Services Department (MUSSD), Sri Lankan Standards Institution (SLSI), Industrial Technology Institute (ITI), and other QI institutions at national and regional level

PTB | Section: 9.32 Asia
PTB | Project Coordinator: since 09/22: Marius Metz

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This evaluation is an independent assessment. Its contents reflect the assessor's opinion which is not necessarily equivalent to PTB's view.

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List of abbreviations

APMP	Asia-Pacific Metrology Program
ARW	Awareness Raising Workshop
ATL	Association of Testing Laboratories
CCiy	Chamber of Commerce and Industry of Yarlpanam
GQII	Global Quality Infrastructure Index
GMP	Good Manufacturing Practices
HACCP	Hazard Analysis and Critical Control Points
HCD	Human Capacity Development
ISO	International Organization for Standardization
ITI	Industrial Technology Institute
LEEDS	Lanka Enterprise and Entrepreneurs Development Services
MUSSD	Measurement Units, Standards, and Services Department
NIPHM	National Institute of Post-Harvest Management
NCPCCIA	Northcentral Province Chamber of Commerce, Industry and Agriculture
NMI	National Metrology Institute
NWSDB	National Water Supply and Drainage Board
PDHS	Provincial Director of Health Services
PRI	Palmyrah Research Institute (PRI)
QI	Quality infrastructure
SAARC	South Asian Association for Regional Cooperation
SDG	Sustainable Development Goal
SLAB	Sri Lanka Accreditation Board for Conformity Assessment
SLSI	Sri Lankan Standards Institution
WRB	Water Resources Board
UNIDO	United Nations Industrial Development Organization

1. Summary

Subject of the evaluation was the project 'Strengthening quality infrastructure in Sri Lanka II'. The project built on a predecessor project that was active at national level and in the Northern Province of Sri Lanka with a focus on the food sector. The evaluated project maintained the sectoral focus and was extended to the North-Central province. Both provinces are former civil-war zones.

The project was scheduled to be implemented from 01/2019 to 12/2021 with a budget of 1 million EUR. As the bilateral cooperation with Sri Lanka will end in 2024, it was extended until 12/2023 and the budget increased to 1,8 million EUR. Module objective was that 'Small and medium-sized enterprises from the project region make increased use of the offer of quality assurance services based on international good practices.' The project objective was to be achieved via four outputs: (1) strengthening the national quality infrastructure (QI) with a focus on calibration services for mass, volume and temperature and proficiency testing, (2) strengthening the capacities of seven testing laboratories in the provinces with a focus on water, arrack, ice cream, fruit juices, and (3) accompanying selected SMEs in an upgrading process towards obtaining relevant certifications including massive awareness raising campaigns. A fourth output was added in 2021 that aimed at strengthening the sustainability of achieved results.

The project was implemented in a very difficult political and economic setting: Frequent changes of partners that occurred at policy level, the Covid pandemic limiting implementation from 2020 on, and a massive deterioration of Sri Lanka's economic situation. Budget cuts also affect QI institutions, who have no funds to purchase equipment or to staff vacant positions. Inflation also puts SMEs under pressure, who have less funds for quality management measures and investment.

Assessment according to the OECD DAC criteria

Criterion	Evaluation of the criterion
1. Relevance	1,3
2. Coherence	1,5
3. Effectiveness	1,3
4. Efficiency	1,5
5. Impact	1,3
6. Sustainability	1,7
Global assessment	1,4

- Since effectiveness, impact or sustainability were rated "4" or worse, the global assessment is downgraded to "4" although the mean would actually be better than "4".
- No downgrading of the global assessment.

Relevance	The project was in line with the strategic orientations both of Sri Lanka and the donor. It was strongly oriented at the needs and capacities of project partners and final beneficiaries. The project design was innovative and the underlying results hypotheses plausible, however the chosen approach also stretched the
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	<p>available human and financial resources. The project has very well adapted to changes in the environment, for instance by adding a fourth output to support sustainability and changing the mode of delivery e.g. during the Covid pandemic.</p> <p>Mark: very successful (1,3)</p>
Coherence	<p>Synergies were realized with two regional PTB projects where partners were trained on complementary topics. A potentially beneficial cooperation with GIZ projects in Sri Lanka could not be realised. Coordination and division of labour with UNIDO was outstanding.</p> <p>Mark: very successful to successful (1,5).</p>
Effectiveness	<p>Three objective indicators were fully achieved; one indicator will probably be achieved by 90%. Project contribution to the achieved results could be confirmed and external influence be ruled out. The quality of implementation and application of Capacity WORKS tools was very good. The project monitored unintended effects and some positive unintended effects were observed.</p> <p>Mark: very successful (1,3).</p>
Efficiency	<p>Production efficiency (input-output) is good to very good for all outputs. Output 3 has used significantly more budget than previously planned and will not fully achieve all its indicators. However, the analysis showed that costs from other outputs were allocated to output 3. Overall, production efficiency is still assessed as successful. Allocation efficiency is assessed as very good. This is due to the good division of labour with UNIDO and the convincing project concept. There are no alternative approaches that could have brought similar results.</p> <p>Mark: very successful to successful (1,5)</p>
Impact	<p>The rather negative economic performance of Sri Lanka in recent years and the still shaky path to recovery limit the potential for significant impact notably for SDG8. However, project partners and SMEs have shown surprising resilience in view of the crisis. The project has contributed to strengthening the QI institutional system, there was a large outreach to SMEs and good up-scaling approaches. Several positive unintended effects were discovered that show how partners upscale the project results.</p> <p>Mark: very successful (1,3)</p>
Sustainability	<p>All partners and SMEs interviewed confirmed that they have the capacities to maintain the achieved results. The willingness of customers to pay for QI services is a good precondition for sustainability. Budget cuts may risk sustainability at public sector partners, though. The project has developed a sustainability component (output 4) and a sustainability concept in output 3. The durability of the upgrading process is seen as the most critical element, due to the lack of partner capacities to continue and the not yet convincing business model of the current solution. In spite of this, durability is assessed as successful, as most results are structurally anchored. Pull and push factors are at work that favour sustainability over time and may override risks such as a prolonged economic crisis and the lack of government attention to quality infrastructure.</p> <p>Mark: successful (1,7)</p>

2. Introduction

Project (evaluation object)	Strengthening Quality Infrastructure in Sri Lanka II
Project term	01/19 to 12/23
Financial volume	1,8 million EUR
Evaluation period	03/23 – 10/23
Evaluation team	Ulrike Roesler, Didul Kodagoda
Goals of evaluation	The project was part of PTB's random sample in 2022. Findings and recommendations may be relevant for similar projects.
Users of evaluation	Project partners, PTB, BMZ
Methods used	document analysis, individual and group interviews, triangulation (of sources and methods, researcher triangulation)
Specific evaluation questions	<ul style="list-style-type: none"> • Will the structures/networks created throughout the project persist (also in the decentralized project region)? • What were advantages and obstacles of the distinct conceptualization of the project, and can the approach be applied to other PTB projects and regions? • Did the “upgrading process” of participating companies (assisting companies in different steps and process stages to obtain relevant certificates) and the resulting certifications lead to changes in the participating companies in terms of: Production processes, economic use of raw materials and production ingredients, product volume, labor relations and volume of business?

3. Framework conditions and strategic approach of the project

3.1. Framework conditions

The evaluated project is building on a predecessor project that was active at national level and in the Northern Province of Sri Lanka ('Strengthening QI in Sri Lanka', PN 2015.2066.7, 01/2016 to 12/2018) and that focused on the food sector including drinking water. The successor project, subject of this evaluation, maintained the sectoral focus and was extended to the North-Central province. Both the Northern and the North Central provinces are former civil-war zones, and even though the war ended in 2009, they still lag behind in economic development. According to the first module proposal from 2018, the food sector in the two regions had at the time developed positively, however still remained below the potential to create employment and income. Companies were not integrated in national or international value chains and were much less competitive than those in the south. The lack of business and quality-related services was identified as one of the reasons for low competitiveness. The project's **core problem** was defined as a lack of coordinated, needs-based QI-services.

The country's economic situation, already rather weak at the time when the project started, massively deteriorated in the project duration. The economy suffered from the Covid crisis, also due to the decline of tourism – one of the main foreign exchange earners - which had already seen a downturn after the terrorist attacks on Easter 2019. In 2020, Sri Lanka lost access to international financial markets due to

credit rating downgrades, and the country had to pay its external debt and for imports using official reserves and loans from the banking sector. This led to shortages of fuel, medicines and inputs needed for economic activities. Food scarcity was exacerbated by the introduction of the agricultural system to organic farming that was announced ad-hoc by President Rajapaksa and that decreased harvests. In 04/22, Sri Lanka announced an external debt service suspension. According to the World Bank, the country is currently going through the 'worst economic crisis in decades.'

The economic crisis was accompanied by a political crisis. Since 2021, the country has seen mass protests against the food and fuel scarcity and rising living costs. The protests became increasingly violent and in 04/22, the government declared the state of emergency. In 07/22, the president palace was stormed by protesters. President Rajapaksa resigned officially the same month. Parliament elected Ranil Wickremesinghe as new president, who is to remain in office until the next presidential election in 2024. However, political tensions remain elevated due to the economic crisis, as the new government had to shorten budgets further. Working hours in the public sector are restricted to 4 days a week, schools are closed down and there are frequent power cuts.

The situation also influenced the project implementation: Frequent government reshuffles led to frequent changes of partners at policy level. Since 2022, the project was under the responsibility of the restructured Ministry of Trade, Commerce and Food Security. From 2020 on, physical trainings had to be limited (in 2021, no physical training at all took place). Some laboratories were shut down during the pandemic and trainings had to be delayed as experts could not travel to Sri Lanka. The budget cuts also affect the QI institutions, who have no funds to purchase or replace equipment. There is an official instruction that vacant positions are not to be staffed. Inflation also puts SMEs under pressure, who struggle for survival and have less funds for quality management measures and investment.

3.2. Strategic approach of the intervention

The project was initially scheduled to be implemented from 01/2019 to 12/2021 (3 years) and an overall budget of 1 million EUR. As the bilateral cooperation with Sri Lanka will end in 2024, the project was extended in 07/2021 by 2 years until 12/2023 to ensure sustainability of the achieved results. In the context of the project extension, the budget was increased by 800,000 EUR to an overall budget of 1,8 million EUR. The modification entailed a quantitative increase of all indicators and the addition of a fourth output, focusing on strengthening sustainability of results.

Module objective is that 'Small and medium-sized enterprises from the project region make increased use of the offer of quality assurance services based on international good practices.' The project is focussing on drinking water, ice-cream, fruit juice and arrack and regionally on the Northern and North Central Provinces of Sri Lanka. The project objective is to be achieved via four outputs, namely:

1. 'The national quality infrastructure has further enhanced the spectrum of its services in accordance with international good practices'. The output aims at strengthening the national QI with a focus on calibration services for mass, volume and temperature and proficiency testing.
2. 'The capacities of the testing laboratories operating in the Northern and the North Central Provinces are in accordance with ISO 17025:2017, and these laboratories have continued gearing their services to customer demands'. Output 2 aims at strengthening the capacities of seven testing laboratories in the Northern and the North Central Provinces with a focus on certain product categories (water, arrack, ice cream, fruit juices).
3. 'SMEs in the Northern and North Central Provinces have been sensitized to the aspects of quality and now use the offer for more in-depth consultation.' Besides awareness raising among potential QI users (mostly SMEs), the project accompanies selected SMEs in a step-by-step upgrading process in introducing quality management and achieving certifications.

4. 'The cooperation between providers, intermediaries and users of QI services in food handling is expanded through additional services for needs-based quality assurance.' This output, added in 2021, basically intends to strengthen the sustainability of achieved results.

The underlying results hypotheses are, according to the module proposal, that SMEs will, once informed about the benefits of QI services, use QI services, and apply quality management measures in their company (output 3, demand side). On the supply side, the services of regional laboratories better meet the needs of the SMEs and correspond to international standards (output 2). To achieve this, they use the services offered by the national QI system in calibration and proficiency testing, which itself is increasingly aligned with international standards (output 1). Output 4 links the different QI service providers with SMEs by offering additional services for quality assurance, such as post-certification guidance, training, risk analysis etc. When companies use QI services and apply quality management, they increase their competitiveness, which in turn contributes to increased income and employment and thus to conflict transformation (impact). Relevant SDGs at impact level are SDG 8 (economic growth and income), SDG 9 (infrastructure and industrialization), SDG 3 (health) and SDG 6 (access to water and sanitation). Relevant DAC markers are PD/GG-1 and LE-1 (rural development).

4. Evaluation methodology

4.1. Evaluation design

The main methods of data collection for the evaluation were document analysis, interviews and observation. All **documents** provided by the project were analyzed and findings were allocated to the respective evaluation criteria. **Interviews** were conducted semi-structured, based on a specific interview guideline for every interview partner. Most interviews in Sri Lanka were conducted by the technical evaluator who met the project partners on-site. The lead evaluator conducted all interviews with German staff or consultants. Interviews were documented in English, using a pre-developed template. Overall, the quality of the interviews is assessed as very good. Visual **observation** was used by the technical evaluator during his visits of the partner laboratories based on the following criteria: Housekeeping (cleanliness /orderly nature), controlled environmental conditions (defined, monitored), equipment (accuracy, calibration status, measurement traceability, maintenance).

Triangulation was done by using different sources (e.g., project documents, interview transcriptions). In addition, the evaluators compared their findings to come to a joint assessment of the evaluation criteria. This evaluation approach was, in view of the resources and time available, the best possible approach. The application of a survey among participating companies was discussed in the inception phase but rejected, as it would have been a challenge due to language issues, programming, and too small number of companies to justify the effort. The specific questions are addressed in chapter 6.

4.2. Data sources; data quality

The project documents that served as the main source for the evaluation (in addition to interviews) were of exceptionally good quality, including financial data. All required documents were provided on time. The project had a recommendable good monitoring system and made good notes of lessons learned and unintended effects. Capacity Works tools were applied, and the relevant documentation was also made available.

5. Evaluation results

5.1 Status of the transformation process (OECD/DAC)

Marking scale for the evaluation of the OECD/DAC criteria

Evaluation	Grade	Description
very successful	1	very good result, far above expectations
Successful	2	good result, entirely meets expectations
successful to a limited extent	3	satisfactory; results are below expectations, but mainly positive
rather unsuccessful	4	unsatisfactory result; below expectations; negative results prevail despite several positive results
mainly unsuccessful	5	negative results clearly prevail despite several positive partial results
entirely unsuccessful	6	the project has failed completely; situation has rather deteriorated

5.1.1 Relevance

Dimension 1: The intervention’s design is geared to country-specific, regional, and global policies and priorities of the partners and the BMZ.

The project corresponds to the Sri Lanka’s ‘National Quality Infrastructure Strategy 2018 – 2022’ by addressing supply-side issues (increasing competencies of QI staff, providing conformity assessment services) as well as demand-side issues (increasing understanding among potential users of QI services, stimulating demand). More specifically, it is in line with the strategic objective 2 (achieving a wider international recognition of the country’s QI system) and strategic objective 3 (improving provision of NQI services and foster a national quality culture). Several interview partners however mentioned that the strategy is not a priority of the government, and the status of its implementation is unknown and the frequent ministry reshuffles don’t help either. The project is also in line with the overarching strategy ‘Vision 2025’. Even though QI is not specifically mentioned, the project contributes indirectly to integrating SMEs into inter/national value chains and to reducing regional inequalities, both elements of ‘Vision 2025’. In the context of the National Policy Framework for SME Development (2015) and the related Action Plan (2016), the project contributes to ‘entrepreneurial culture and skills development’ by strengthening laboratory and quality assurance services. Finally, the project is in line with Sri Lanka’s Agenda 2030.¹

The project is aligned with the BMZ sectoral concept on ‘metrology, standardising, testing (MNPQ)’ from 2004 and the sector concept on private sector promotion (2013), where QI is considered an important factor for competitiveness. BMZ’s “New Asia Policy” (2015) mentions an internationally recognised quality infrastructure as an important contribution to the quality of goods and services and to sustainable economic growth. By supporting SMEs and contributing to economic growth in the former civil-war zones

¹ For reason of space, the contribution to Agenda 2030 is presented in detail only in chapter impact.

of the Northern and North-Central provinces, the project is also in line with the Federal government guidelines on crisis prevention (2017) and the strategy on Development for peace and security (2013).

Overall, the project was in line with all strategic orientations of the partner country and the donor. For this reason, the dimension is assessed '**very successful**'.

Dimension 2: The intervention's design is geared to the needs and capacities of the target groups.

In dimension 2, the needs of the project partners as well as those of the target group (final beneficiaries) are assessed. Main **implementing partners at national level** (output 1) are the Measurement Units, Standards and Services Department (MUSSD), the Sri Lanka Standards Institution (SLSI), the Industrial Technology Institute (ITI) and the national accreditation body Sri Lanka Accreditation Board for Conformity Assessment (SLAB). These partners confirmed in interviews that the project helped them to address major constraints for instance through participation in interlaboratory comparisons, proficiency testing (PT) and, most of all, customized metrology training. MUSSD for instance now feels that they better understand client needs and are better equipped to serve them, even though they would have appreciated more help in establishing traceability. SLSI would have preferred to have assistance in force calibration and PT in this field, which they felt was missing, as was calibrating the reference standards of length and temperature.

To improve the services of testing laboratories at **regional level** (output 2), the project supported seven labs: two laboratories of the National Water Supply and Drainage Board (NWSDB) and the Palmyrah Research Institute (PRI) in the Northern Province, and in the North Central Province the National Water Supply and Drainage Board (NWSDB) Anuradhapura, the Water Resources Board (WRB), the National Institute of Post-Harvest Management (NIPHM) and the Water Quality Laboratory of the Mahaweli Authority of Sri Lanka in Dambulla. All partners too confirmed that the project support was essential in obtaining accreditation. Here again, the quality of the training and advice given was highly appreciated.

Further partners at regional level were Provincial Departments of Health Services (PDHS), as well as several universities (Rajarata University, University College of Anuradhapura, the University College of Jaffna, the University of Jaffna and the University of Vavuniya). These partners too confirmed the high relevance of the project notably for supporting SMEs to introduce GMP certification and quality management (output 3) as well as introducing the first academic metrology course in Sri Lanka. For the young counselors that were recruited at the universities (overall, about 50) the project was highly relevant as it permitted them to gain practical knowledge in companies. The Chamber of Commerce and Industry of Yarlpanam CCIY was described as a performing partner in output 3 until 2022, when cooperation had to be terminated due to irregularities in CCIY governance. Cooperation with the North Central Province Chamber of Commerce, Industry and Agriculture (NCPCCIA) was for this reason also extended to the northern region.

Final beneficiaries of the project are small and medium-sized enterprises (SMEs, output 3) in the food sector in the Northern and the North Central Province of Sri Lanka. They unanimously confirmed that the project was important. A mixture of push factors (GMP certification had become mandatory) and pull factors (the wish to extend the business, export opportunities) were at work to make the project highly relevant. As one interviewee mentioned, the project helped '*to fulfill the dream of improving the company to the level of other well-established companies*'. The project also considered, by the choice of project regions, the needs and capacities of both Tamil and Sinhala ethnicities.

Overall, the project was very much oriented at the needs and capacities of project partners and final beneficiaries. For this reason, this dimension, too, is assessed '**very successful**'.

Dimension 3: The intervention’s design is appropriately, realistically, and plausibly geared towards achieving the intervention’s objective.

The project’s ‘bottom up’ approach as described in chapter 3.2 was well suited to create demand for QI services and to render QI services more customer-oriented (all along the results chain from company level to testing laboratories to metrology institutions at national level). The sustainability component was a valuable addition to the original approach. Activities were adequate and the results hypotheses as presented in chapter 3 are plausible. In this regard, the project design was well developed and appropriate. In terms of organisational and financial aspects however, this design also stretched the available resources. For instance, the large number of contracts for consultants and counsellors in output 3 caused a considerable administrative workload, and the project could have benefitted from more budget to wrap up some activities or purchase additional equipment in outputs 1 and 2. Even if external factors such as Covid and the discontinuation of cooperation with CCIY played a role in budget requirements: in view of the available budget, the project design was ambitious.

Indicator quality was mixed, as several did not respond to the SMART criteria. However, as the monitoring table contained a more precise definition of all indicators, this was not an impediment to knowing what was to be achieved. Budget-intensive activities such as the food handling handbook could also have been more visible through an output indicator.

By the choice of project regions and target groups the project design considered social and economic dimensions of sustainability (contribution at impact level). Environmental aspects were not explicitly addressed. The idea to support the management of hazardous waste at laboratory level could not be realised due to financial constraints, but also was not part of the original design (and would not have been sustainable for the laboratories because of the high cost of implementation). In summary, the project design is assessed as **successful**.

Dimension 4: The intervention’s design has responded to changes in the environment and adapted to the needs.

The most important change that occurred in the project duration was BMZ’s decision in 2020 to end bilateral cooperation with Sri Lanka by 2024. The project reacted by adapting the concept and adding a fourth output to ensure sustainability of project results (modification offer submitted in 07/21).

During the Covid pandemic that started in 2020, the project switched to online and hybrid activities and developed new activities that could be done off-site, such as the handbook on food safety. When cooperation with CCIY had to end, the consultants of output 3 decided to create their own social enterprise ‘LEEDS’ to complete the upgrading process for companies from the north-central region and to provide services in quality management beyond the project duration. The latter was not necessarily a project decision but enabled it to complete the activities in output 3.

Overall, the project has adequately reacted to changes in the environment. For this reason, the assessment is entirely in line with expectations and is assessed ‘**very successful**’.

Summarized evaluation

Criterion	Evaluation dimension	Weighting	Appraisal
Relevance	The intervention’s design is geared to country-specific, regional, and global policies and priorities of the partners and the BMZ.	25 %	1

	The intervention's design is geared towards the needs and capacities of the target groups	25 %	1
	The intervention's design is realistically and plausibly geared towards achieving the intervention's objective	25 %	2
	The intervention's design has responded to changes in the environment and adapted to the needs.	25 %	1
Global assessment of the relevance			1,3

5.1.2 Coherence

Dimension 1, Internal coherence: Within German development cooperation, the intervention was designed and implemented in a complementary manner, based on the division of tasks.

Since BMZ decided to end bilateral cooperation with Sri Lanka (the country was already previously ranked among the 'B countries'), only few German bilateral projects were active in the same regions and at the same time as the evaluated project. The module offer mentions potential synergies with two GIZ projects on SME promotion and vocational education; notably the development of business services or the joint promotion of value chains could have been an interesting area for cooperation. However, those synergies were never realised. Possible reasons for this might be the lack of PTB on-site presence but also a lack of interest by GIZ. The fact that no GIZ staff responded to the requests for interviews rather seems to confirm the latter.

Therefore, the only projects relevant for this dimension are the two PTB regional projects on promoting cooperation in metrology in the Asia-Pacific region MEDEA (PN 2020.2234.1, on-going) and the project on strengthening regional integration and cooperation in QI in SAARC (South Asian Association for Regional Cooperation, PN 2017.2187.7, until 12/22). In the context of the SAARC project, the exchange with their Indian peers was interesting for the Sri Lankan QI institutions; MUSSD and the Sri Lankan accreditation body SLAB were very active and interested in learning experiences of others. All in all, this exchange that was promoted for 12 years created trust and connections between regional partners. The PTB project MEDEA is focused on supporting selected metrology systems in the Asia-Pacific region in the implementation of national priorities of the 2030 Agenda. The Sri Lankan participant is MUSSD, which has in 2023 also assumed the chairmanship of the Developing Economies' Committee (DEC) of the Asia-Pacific Metrology Program (APMP). MUSSD staff participates in technical trainings that are complementary to the bilateral project and in fundraising training. Training on lobbying at policy level – something that required in the Sri Lankan context – was unfortunately not (yet) taken up by MUSSD.

The project is fully consistent with international and national norms and standards; it was inscribed in the peace and conflict transformation topic set by BMZ and has contributed, in the limit of its mandate, to conflict transformation. In summary, internal coherence is assessed as **successful**.

Dimension 2, External coherence: The intervention's design and implementation complement the partner's own efforts and are coordinated with other donors' activities.

The only relevant project on QI is the EU-funded project implemented by UNIDO on 'mainstreaming standards-based best practices for agri-food sector development' that started in 11/2021 with a duration of 4 years and a budget of 6,5 million EUR. The project consists of 4 components, of which component

2 aims at 'quality infrastructure institutions and service providers meeting conformity assessment demand of selected agri-food value chains. The project supports MUSSD, SLSI and 20 conformity assessment bodies.

PTB and UNIDO work with the same partner institutions (MUSSD, ITI and SLSI) and in doing so, have closely cooperated throughout the years and divided the tasks. UNIDO supported MUSSD's volume lab with expertise and equipment, whereas the PTB project supported the mass laboratory; both projects also shared the support of the pressure lab and even contracted the same consultants. With a view to sustainability, UNIDO will continue to support the mass lab – which is close to accreditation - for instance with additional equipment. Overall, the coordination and cooperation of the two projects can be considered best practice - the fact that UNIDO asked BMZ to extend the PTB project is a fine example for good cooperation.

It seems however that UNIDO was mainly informed about outputs 1 and 2 and had little knowledge of activities in output 3. Only in 2022 it became known that UNIDO has also produced a manual on safe food handling, at a time when the PTB handbook was already well advanced. The PTB team subsequently redesigned the manual to differentiate the product by making it very context- and application-oriented (integrating checklists etc.) and decided to publish it in Tamil and Sinhala.

The project supported the partners own efforts; several interviewees mentioned that the project had a singular approach in 'supporting and pushing us. It did not do the partners' jobs and the subsidiarity principle was well observed.

There are not shared systems for monitoring; but lessons learned were shared in the project steering structure and with UNIDO. Overall, external coherence is assessed as **very successful**.

Summarized evaluation

Criterion	Evaluation dimension	Weighting	Appraisal
Coherence	Internal coherence: Within German development cooperation, the intervention was designed and implemented in a complementary manner, based on the division of tasks.	50 %	2
	External coherence: The intervention's design and implementation complement the partner's own efforts and are coordinated with other donors' activities.	50 %	1
Global assessment of the coherence			1,5

5.1.3 Effectiveness

Dimension 1: The intervention has achieved its objective (at outcome level) according to the indicators agreed upon.

Outcome indicator	Degree of fulfilment (in %)	Appraisal (A-C)*	Justification
<p>1. Regional laboratories from the North Central Province furnish proof of their capabilities by using calibration services for mass, volume, and temperature and by successfully taking part in proficiency tests.</p> <p>Base value: 0 Target value: 20 calibration services, 20 participations in proficiency tests Actual value (08/23): 72 calibration services used, 27 participations in proficiency tests</p>	100% ²	B: The indicator is not specific, as it contains 2 elements. It is also not describing the objective (use of services by SMEs, relevance criterion), but the process of getting there (relevance).	The indicator has been overachieved. There are 7 laboratories (3 in the north and 4 in north-central region) that have proven their capacities through this indicator.
<p>2. Laboratories in the north of the country (Northern Province and North Central Province) provide demand-oriented testing services in accordance with ISO 17025:2017 for three additional foodstuffs.</p> <p>Base value: 0 demand-oriented testing services “with proven use by SMEs” Target value: 3 demand-oriented testing services “with proven use by SMEs” Actual value (08/23): testing services for 3 foodstuffs</p>	100%	B: The indicator is clear. The addition to the target value (“with proven use by SMEs”) however adds another dimension that is not measured. The indicator also describes the provision of service, not their use (relevance).	The indicator has been achieved; Ice cream, arrack and fruit juice are the three food products for which testing services are available. In addition, testing services for water are available.
<p>3. 80 additional SMEs from the food sector use improved quality management in accordance with national guidelines.</p> <p>Base value: 23</p>	At time of evaluation 17,5%	A: only certified SMEs are counted (proof of use)	Efforts to complete the upgrading process with 58 SMEs were on-going at the time of the evaluation. All interviewed not-certified companies confirmed that

² By BMZ definition, an indicator can only be achieved at 100%, even if overachieved.

Target value: 103 Actual value (08/23): 37 at time of evaluation, expected in 12/23: 95	Expected by project end 90%		they were striving for certification and have the funds to do so.
4. At least 15 certified SMEs from the Northern and Northcentral provinces have used a service of the local chambers of commerce for renewed certification. Base value: 0 Target value: 15 Actual value (08/23): 17	100%	B: the recertification of SMEs from the new, Northcentral province seems too ambitious. They would have had to obtain their first certification very early in the project. The indicator also reads as if the chambers are responsible for certification, which they are not.	The indicator has been achieved. 17 certified SMEs from the Northern province were taking part in the Post Certification Guidance Service delivered by LEEDS and other measures such as water sampling training by the chambers, sample transport, etc. The indicator however only applies to SMEs from the Northern region who obtained their first certificate in the previous project phase.

*: Appraisal: A = adequate indicator; B = slight objections; C = poor indicator, to be revised if applicable

The evaluation team concludes that 3 indicators were fully achieved, and one indicator (indicator 3) will probably be achieved by 90% at the end of the project. Achievement of indicators is thus assessed as **very successful**³.

Dimension 2: The intervention’s activities, inputs and outputs have considerably contributed to achieving the intervention’s objective (at outcome level).

Two elements play an important role when assessing contribution: the achievement of output indicators and the absence of external factors that could have contributed to the outcome. In the case of this project, such factors can be ruled out: there exist no other donor interventions in the same regions and topics (see division of labour with UNIDO, coherence), and there are no public or private services to support SMEs in the certification process. All output indicators were achieved or overachieved. The only exception is indicator 3.2 (“at least 100 small and medium-sized enterprises from the Northern Province have taken part in in-depth consultation measures”), where the actual value stands at 77 companies, which means that this indicator is 77% achieved.

To test attribution, the evaluators asked in each interview with project partners and final beneficiaries what would have happened if there had not been the PTB project (situation without project). The unanimous response to this was that nothing would have happened, and the achieved results would probably not have happened at all (mainly at SME level and partly at laboratory level) or that it would have taken much longer to achieve certain results. Here are some quotes to underline this finding:

“If the PTB collaboration was not available nothing would have happened.”

³ Overall achievement is 97,5% which still justifies “very successful”. “Successful” would correspond to only 80% indicator achievement.

“If PTB had not come in, we would not have reached this level both in accreditation scope as well as testing services.”

“If we did not receive PTB support the quality of my product and the service would not be as good as now.”

“Us gaining international recognition would have been delayed without PTB support.”

As external influence can be ruled out and project contribution could be ascertained, dimension 2 is assessed as **very successful**.

Dimension 3: The quality of the intervention’s implementation has considerably contributed to achieving the intervention’s objective (at outcome level).

This dimension is assessed by considering the application of Capacity WORKS (CW) in the project management, but also considers the quality of project implementation from the partners’ point of view.

Regarding the CW factor ‘**strategy**’, the project approach was developed jointly with the partners and based on the predecessor’s evaluation and resulting recommendations. The concept is well described in the initial and modification offer to BMZ. The strategy was shared, and progress was reflected with partners in regular meetings of the steering committee and its taskforces (metrology task force in output 1, head-of-laboratories task force output 2). The project has not developed an explicit capacity development strategy; however, all levels of capacity building (except the dimension on policy advice) were considered.

Regarding the factor ‘**cooperation**’, all relevant partners and actors were integrated into project activities. A stakeholder map exists. One strength of the project was linking the different actors either in the respective outputs (e.g., linking MUSSD, ITI and SLSI metrology in output 1 or the seven testing labs in output 2), but also bringing actors from different outputs together (such as metrology and testing labs, or testing labs and SMEs).

Cooperation among the metrology organisations in output 1 was not always easy as MUSSD perceives SLSI and ITI as competition, and cooperation with the Chamber of Commerce in the Northern Region (CCiy) had to be terminated in 2022 due to irregularities that did not allow to continue joint activities. The formal agreement with the North-Central Chamber of Commerce was significantly delayed due to a lack of capacities at PTB (project coordinator), which led to a late signing of the MoU and accordingly, a very late start of activities.

The **steering structure** was already described; it was functioning, and the meetings are well documented. There even exist signed ‘Rules of Procedure’ for the steering structure. However, the frequent changes at ministry level were an impediment to making the project visible at policy level. Results-based monitoring, which is also part of this success factor, was very well set up. The project team also monitored unintended effects and had a close eye on risks. This was beneficial to project management, as it allowed a quick reaction to external or internal challenges. An operational plan was developed for each component and regularly updated.

The project has not developed an explicit **process** mapping. However, the results model (which is not a results model in its very sense) resembles such a process map, as it outlines the different interventions and how they are intertwined to achieve the intended changes. Core processes (outputs and related activities) were well defined, as were supporting processes (steering structure, regular team meetings, results-based monitoring). An important support process was to have a local office in Sri Lanka with one staff member that assisted all organisational and logistic tasks and held contact to the project partners.

The success factor '**Learning and Innovation**' was, as already outlined above, well developed. Lessons learned were documented and fed back into the system either in the day-to-day work, in meetings with and trainings of project partners and in steering committee meetings. Targets were set with each implementation partner (e.g. accreditation) and necessary inputs and activities, including partner contributions, defined.

The **self-assessment** based on the Capacity WORKS questionnaire was done individually by the project coordinator and the two international consultants accompanying the project. The only factor that was assessed by all three respondents as very successful ('totally agree') was 'learning and innovation'. The second-best assessed success factor was 'cooperation' (between 'totally agree' and 'tending to agree'.) All three also agreed that the strategy was developed jointly with and shared with the partners. Interestingly, the question whether the project used an explicit CD strategy was rated as 'partly agree/disagree' (rating 3), even though a written strategy is not documented. Regarding processes, the rating is rather dispersed (between level 1 to level 4 rating). Particularly the question whether the cooperation partners had made the necessary organisational and institutional adjustments to achieve the agreed objectives was answered rather critically (rating 4, disagree). Finally, the factor 'steering structure' obtained the most heterogenous ratings, from 1 (very successful, totally agree) to 4 (disagree). Notably the political backing for the project felt to be missing, which was confirmed in many interviews.

Interestingly, the very first question of the self-assessment ('The PTB team uses some of the tools, but this didn't have a significant impact on the implementation of the project') was assessed as true / partly true by all respondents. One possible explanation for this rather negative evaluation might be that CW elements such as results-based monitoring or the operational plan (both belonging to the factor 'steering structure') are not recognised as tools and thus not included. Other explanations could be a general unfamiliarity with Capacity WORKS, or the problem to align the questions with the day-to-day experience (one respondent mentioned that the questions were very abstract and academic, and that some of them contained several topics within one question which made it difficult to answer).

The evaluators assess the quality of implementation and its contribution to project success more positively. In comparison to other projects, this project has made exemplary good use of important CW tools. Notably the steering structure, the results monitoring, and the operational plan were used as strategic tools to plan and steer the project. The cooperation with and among project partners was managed very well, and interview partners highlighted the 'different' approach of not only capacitating the partners, but also challenging or 'pushing' them to implement. All interview partners highly praised the engagement and knowledge of consultants and the quality of their advice.

A point mentioned by several interview partners was the change of the project coordinator, which caused some delays in implementation. In addition, the overload of the first project coordinator was mentioned several times as a serious factor that further delayed implementation.

In summary, the quality of implementation is rated as **successful**. Reasons for deducting points are the aforementioned limiting factors with regard to human resources at PTB.

Dimension 4: The intervention has leveraged potentials of unintended positive results and reacted to risks and/or the occurrence of (unintended) negative results.

As described, the project regularly monitored unintended results and developed strategies to either promote positive results or reduce negative results.

The evaluators could identify as unintended result the topic of waste management for laboratories (hazardous waste). This subject was initiated early in the project and later had to be abandoned, mainly for budgetary reasons and as the process was not followed-up PTB internally. This per se might have

been an unintended negative result (creating expectations that were later not met, causing irritation at partner level). However, NWSDB Jaffna developed an own system of handling hazardous waste, inspired by the project's input. Another positive unintended effect will be described in the chapter impact.

The evaluators assess this dimension as **very successful**, as the project has actually monitored unintended effects and positive effects could be observed.

Summarized evaluation

Criterion	Evaluation dimension	Weighting	Appraisal
Effectiveness	The intervention has achieved its objective (at outcome level) according to the indicators agreed upon.	25 %	1
	The intervention's activities, inputs and outputs have considerably contributed to achieving the project's objective (at outcome level).	25 %	1
	The quality of the intervention's implementation has considerably contributed to achieving the intervention's objective (at outcome level).	25 %	2
	The intervention has leveraged potentials of unintended positive results and reacted to risks and/or the occurrence of (unintended) negative results.	25 %	1
Global assessment of the effectiveness			1,3

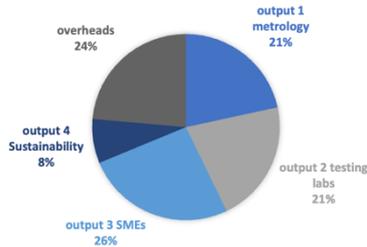
5.1.4 Efficiency

Dimension 1: The use of resources by the intervention is deemed reasonable with regard to the outputs achieved (production efficiency)

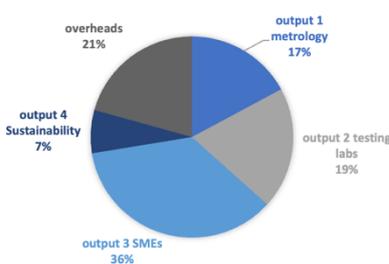
The project employed 2 long-term staff in Germany (a project coordinator who changed once and a project assistant who changed twice in the project duration) and a project assistant in Sri Lanka. Two international short-term experts (iKZE) accompanied the project, one for outputs 1 and 2 and another for outputs 3 and 4. In addition, the project employed 5 national experts on the different outputs based in the regions, and 19 short-term experts on different technical topics. Equipment was with few exceptions in the low-number range; the highest expenditure was 11.000 EUR for the repair of a gas chromatograph at the Palmyrah Research Institute. The planning also contained a financing agreement for CCIY, which was not realized as the cooperation was terminated.

Partner contributions according to the module offer were estimated at 50.000 EUR equivalent. Contributions in outputs 1 and 2 comprised the provision of transport, training facilities such as laboratories and meeting rooms and lunch during trainings. MUSSD provided artefacts for proficiency testing and the metrology course and conducted trainings for regional laboratories. MUSSD also helped developing the metrology training at Vavuniya University. ITI and SLAB offered discounts for PTs respectively training. The National Water Supply and Drainage Board (NWSDB) trained CCIY staff on

PLANNED COSTS PER OUTPUT



ACTUAL COSTS PER OUTPUT



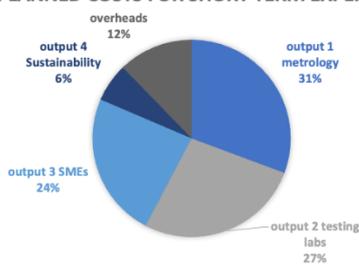
water sampling, PRI trained SMEs on ice-cream testing, and the health authorities widely supported the awareness raising workshops in the context of output 3. All testing laboratories supported in output 2 pay themselves for accreditation, as do the SMEs to obtain their certificates. There exist more examples of partner contributions, and even though they are difficult to quantify, they are assessed as very good.

Looking at the division of budget across outputs, the percentage of overhead costs (planned 24%, actual 21%) is comparatively high. They comprise for instance the office in Colombo (also used for accommodation and meetings), insurance and overheads, but also a percentage of staff costs (notably administrative services) over a period of 5 years.

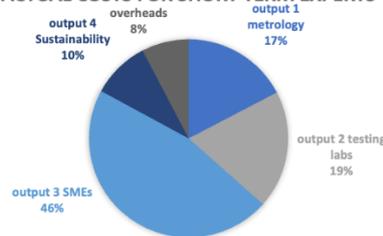
The actual costs also show higher labs costs than anticipated for output 3 (36% actual vs. 26% planned). This gets even more apparent when looking at the share of short-term experts for

output 3, which is twice as high as planned (46% of all expert costs as opposed to 24% planned). Whereas the number of iKZE expert days is 16% higher (271 days for outputs 1&2 versus 252 days for outputs 3&4), the difference for national short-term experts is 472 versus 1.153.

PLANNED COSTS FOR SHORT-TERM EXPERTS



ACTUAL COSTS FOR SHORT-TERM EXPERTS



This disproportionate cost development was explained by the Covid pandemic: as international experts could not travel, local experts obtained large contracts to accompany the upgrading process. In addition, CCIY was not available anymore for the upgrading process; originally 164.000 EUR were budgeted for this under output 3. But even assuming that this budget was instead used for short-term experts, the budget overrun would still amount to around 74.000 EUR.

However, it also has to be taken into account that not all costs could be correctly allocated, for instance the costs for the food-handling handbook (normally output 4) were allocated to output 3, as was the salary of the Sri Lankan PTB staff member, which was fully budgeted under output 3 even though a larger part of her work was actually dedicated to outputs 1&2. It was explained that consultant contracts – as they concerned the same experts - were concluded for outputs 3 and 4 together and allocation alternated between the two budget lines.

If we compare **input to output** as demanded by production efficiency, we see that output 1 indicators were achieved (1.1 calibration services) or overachieved (1.2 proficiency tests). The performance of MUSSD laboratories that were supported is however described as rather heterogenous, notably the mass laboratory which is very important for the country is not yet up to scratch and requires further assistance by UNIDO, whereas the volume lab has been accredited and the dimension lab was assessed with only minor non-conformities. Output 2 indicators (2.1 testing methods offered, 2.2 accreditation of testing labs) were achieved, and a relatively small investment (19% of the budget) brought considerable results. Output 3 indicators were slightly overachieved (3.1 SMEs sensitized) and

partly achieved (3.2 SMEs participation in upgrading achieved at 63%). Output 4 indicators were either overachieved (4.1 services for SMEs) or will be so by the 12/23 (4.2 university events on food handling; comprises the food handling handbook, short and certificate courses, and the metrology academic course at Vavuniya University). Output 4 with its important contribution to sustainability can be considered very efficient; working with the universities proved very successful and did not incur large costs.

From looking at this, one can assess production efficiency for outputs 1, 2 and 4 as good to very good, whereas it is somewhat lower for output 3 as indicator 3.2 will not be fully achieved.

The evaluators also assessed whether it would have been possible to achieve the given results with less money (**minimum principle**). What can be assumed that costs in output 3 would have been lower if the collaboration with CCIY had not had to be terminated, but this was an external factor that could not be influenced by the project. To the contrary, a strategy had to be devised to compensate for this. Training during the pandemic was done, where possible, online. Partner contributions are considered as very good, and no cost saving potential could be detected.

The **maximum principle** assesses whether it would have been possible to achieve, with the available funds, more results. Here too, the evaluators conclude that this would have been difficult. For instance, including more laboratories in output 2 would not have been possible, as all relevant labs were informed about the opportunities to cooperate with PTB and those interested joined the project. Other laboratories such as those of the Health Ministry in the North-Central province are supported by UNIDO (the project included at least one laboratory from the Ministry of Health, however the response was described as very low with little results). As services to SMEs on quality-related topics are not available in the project regions (which might have substituted CCIY or PTB consultants), this was also not an option.

In summary, even though output 3 has not achieved all output indicators, production efficiency is assessed as **successful**, also as this output bears costs that should have been allocated to other outputs.

Dimension 2: The use of resources by the intervention is deemed reasonable regarding the achievement of the intervention's objective/outcome (allocation efficiency).

When comparing inputs to outcome, the achievement of outcome indicators as presented in chapter 5.1.3 is taken into account. As presented above, indicator 1 was overachieved (27 PT participations and 72 calibration services compared to a target value of 20 each). Indicator 2 was fully achieved. Indicator 3 on certified SMEs will be achieved at 90% by end of project. Indicator 4 (use of services for renewed certification) was achieved, however only for companies from the Northern province, but here a mistake in the indicator wording is assumed. The non-achievement of indicator three is due to the pandemic (but this was also a factor impacting the other outputs), the discontinuance of cooperation with CCIY and the delay in signing the MoU with the North Central Province Chamber of Commerce, Industry and Agriculture (NCPCCIA).

The questions whether the outcome could have been achieved by using fewer financial resources (minimum principle) or be maximised using the same budget are difficult to answer. The only possible alternative would have been to change the project's concept and to pursue a 'classical' PTB approach by focussing more strongly at the national (and regional) QI institutions and minimising the demonstration effect of QI services in companies to a handful of companies only, as is often the case in other projects. This would however have had a limiting effect on the demand for QI services, as those are only developed and offered if there is sufficient demand for it.

In addition, the active division of labour with UNIDO has helped to increase allocation efficiency.

Overall, allocation efficiency is assessed as **very successful**.

Summarized evaluation

Criterion	Evaluation dimension	Weighting	Appraisal
Efficiency	The use of resources by the intervention is deemed reasonable with regard to the outputs achieved (production efficiency).	50 %	2
	The use of resources by the intervention is deemed reasonable with regard to the achievement of the objective/outcome (allocation efficiency).	50 %	1
Global assessment of the efficiency			1,5

5.1.5 Higher-level development results

Dimension 1: The intended higher-level development changes have taken place or are expected to take place in the near future.

According to the module proposal, impact is defined as contributions to SDG 8 (decent work and economic growth), 9 (industry, innovation, and infrastructure), 6 (clean water and sanitation) and 3 (health for all). In addition, the project is supposed to contribute to conflict transformation in the previously civil war ridden project regions. The results model mentions as intended impact an increased competitiveness of SMEs, inclusive economic growth and employment, and decreasing economic discrepancies between provinces.

In order to answer the questions to what extent this impact can be foreseen, an analysis of current developments and statistics is required. As presented in chapter 3.1, the economic and political crisis in the project duration had caused the loss of half a million jobs and even led to food insecurity. According to the latest data of the World Bank (Sri Lanka Development Update, October 2023), the economy has contracted by another 8% in the first half of 2023. In spite of this deterioration of the economy which led to further job losses, there are some slight positive signals of recovery. Inflation declined from 80% in 09/22 to 4% in 08/23, the trade deficit could be lowered, and foreign exchange liquidity improved due to strong remittance flows and improved tourism earnings. The government is currently implementing structural reforms to improve macroeconomic stability. This is supported by the IMF and other donors, for instance through a US\$3 billion budget support. The World Bank estimates that poverty might still increase in 2023 before declining over the medium term and that recovery will be slow, provided the government continues with the reforms (*“Overall, downside risks remain high, given a narrow path to recovery and limited buffers.”*)

The ‘Sustainable Development Report Dashboard’ shows the actual trend for Sri Lanka’s SDGs (<https://dashboards.sdqindex.org/profiles/sri-lanka>): progress on SDG 8 is stagnating, whereas SDGs 3

and 6 show moderate improvement (SDG 9 due to improved access to basic drinking water and sanitation services). SDG 9 is on track (mainly due to good logistics performance and internet access).

No further statistical data are available in order to assess how the project region have developed and whether economic discrepancies were reduced. At the level of final beneficiaries, statistical data was not available. Monitoring data collected after the evaluation however showed that the certification had a quite positive impact on employment: the seven companies visited in the evaluation (six of them certified and one ready for certification) saw an overall increase in employment of 80%, from 219 employees prior to certification to 402 today. The evaluation also showed that all interviewed companies had a quite optimistic outlook and were planning to expand their business in the near future. However, as the sample was very small, this cannot be assumed to depict a general trend. There is anecdotal evidence that the Northern and North-Central provinces have in recent years developed positively with regard to infrastructure and income from tourism. In conclusion, it could be assumed that final beneficiaries – SMEs, their employees but also final consumers – might benefit from improved social and economic conditions, however this will be the case rather in the medium than in the short term.

No trade-offs between social, economic and environmental changes could be observed. The project did not target particularly disadvantaged or vulnerable groups.

In summary, given the rather negative economic development of Sri Lanka in the recent years and the still shaky path to recovery, but considering positive anecdotal evidence, this dimension is assessed as **successful to a limited extent** (satisfying).

Dimension 2: The results achieved by the intervention (at outcome level) have contributed to the intended or implemented higher-level changes.

Even though higher-level development results are limited by external factors as outlined in dimension 1, there are still contributions by the project that can be assumed.

First of all, Sri Lanka has maintained a good medium ranking in the 2021 Global Quality Infrastructure Index (GQII), where Sri Lanka ranks on 61st position of 184 countries and an index 0.658 (1 is the highest index value). Considering the good progress achieved with the help of the project and UNIDO, it can be expected that this ranking is either maintained or will improve in future. The World Bank estimates the potential impact of improved Quality Infrastructure on the GDP as an additional 1 to 3% of GDP over a time horizon of 5 years (source: National QI Strategy of Sri Lanka), which means that the contribution of a strong QI is tangible. In addition, improvement in the quality control of selected products (drinking water and food products) directly contribute to better consumer protection.

The project objective was achieved and elements of sustainability are in place (see next chapter), these are preconditions for impact. In terms of **upscaling** - another element strongly contributing to impact - the high level of awareness raising at company level (with 920 it can be assumed that a good percentage of SMEs in the project regions were addressed) is a strong point, even though not all companies will make increasingly use of QI services. Another upscaling effect observed (see also dimension 3) is that the National Water Supply and Drainage Board (NWSDB) is extending accreditation of their regional laboratories (the project has supported accreditation of their laboratory in Anuradhapura) based on the good experience made in the context of this project. NWSDB staff that participated in project training actively disseminate the knowledge even country wide. All laboratories also have plans to extend their accreditation scope or offer their services to new clients, e.g. wastewater testing for hotels, testing of traffic-light parameters, textile factory canteens, testing of alcohol for ethanol and methanol, etc.

A contribution, if only minor in terms of numbers, can be deducted from the results achieved under the predecessor project, where it was shown that the certified companies had increased employment by

15%. It can be assumed that the companies certifying or re-certifying under this project may be more competitive than other companies, which in turn will help them to either grow or at least to maintain their current level of business and staff. This was confirmed in interviews (see also chapter 6).

Regarding contributions to structural changes, the project's influence at policy level – where structural change emanates – was non-existing. What was felt missing was an apex body for policy making and the coordination of all QI institutions, such as the Quality Council that had been discussed years ago but never been put into practice. It was also expressed that MUSSD, SLAB and SLSI should be under the same Ministry to have a coherent and friction-free quality infrastructure at national level. Nevertheless, the bottom-up approach may incite change from below, driving QI institutions to change due to market requirements and demand. Finally, every accreditation represents an organizational change at the level of QI institutions.

In terms of contributing to conflict transformation, the project supported the exchange between the Northern province (Tamil) and the North-Central province (Sinhalese) for instance by organizing laboratory visits and by hiring bi-lingual experts and developing bi-lingual material such as the food-handling handbook.

In summary, this dimension is assessed as **very successful**, due to the visible contributions to QI institutions, the large outreach to SMEs and good upscaling approaches.

Dimension 3: The intervention has contributed to positive and not to negative unintended higher-level development changes.

At impact level, the evaluators could detect several unintended positive effects: First of all, the extension of accreditation by NWSDB to their regional laboratories. Secondly, it was confirmed by the Health Authorities that the awareness raising in water treatment for SMEs and health services was very useful and will be upscaled. Finally, a positive employment effect was created when students of food technology at the University of Jaffna and the University College of Jaffna who were trained as counsellors were employed by the SMEs they were consulting. Even though the number is rather limited - 10 counsellors employed by 2020 – employment is a result at impact level. No negative unintended results were detected.

In summary, the dimension is assessed as **very successful**.

Summarized evaluation

Criterion	Evaluation dimension	Weighting	Appraisal
Higher-level development results	The intended higher-level development results have taken place or are expected to take place.	25 %	3
	The results achieved by the intervention (at outcome level) have contributed to the intended or implemented higher-level results.	50 %	1

	The intervention has contributed to positive and not to negative unintended higher-level development changes.	25 %	1
Total assessment of the higher-level development results			1,3

5.1.6 Sustainability

Dimension 1: The partners, target groups and organizations involved have the capacities required to ensure that positive results are continued.

All partners of output 1 stated in interviews that they had the human capacities and budget to maintain the results achieved with the project; ITI and SLSI earn their income by offering demand-oriented services. Laboratories that were supported by output 2 also confirmed that they have the required financial and human resources to continue; all labs stated that they had the budget to pay for (requested) accreditation and/or re-accreditation. (The fact that customers are used to and willing to pay for QI services, is a good precondition to sustainability, see also dimension 3). Nevertheless, a limiting factor notably for public sector partners is that the current economic crisis has put a hold to recruitments; in addition, there are no funds to maintain or repair equipment (even though the budget for re-assessment will be allocated in the budget).

The interviewed SMEs were all confident, in spite of the crisis, that they would be able to finance the certification or re-certification and that they would be able to maintain the good manufacturing practices (GMP) introduced in their companies.

All in all, a large willingness was perceived with all interviewed partners, no matter which institution or company, to sustain the positive results of the intervention. They all showed surprisingly high levels of resilience in view of the ongoing economic crisis. In summary, this dimension is assessed as **successful**.

Dimension 2: The intervention has considerably contributed to the capacity of partners, target groups and other organizations involved to continue the positive results.

As already outlined in effectiveness, dimension 2, the changes achieved could be fully contributed to the project's interventions. It is particularly noteworthy that the project has developed rather early in the project duration a sustainability concept (for output 3) that was subsequently implemented. Elements that contribute to sustainability are also the project results per se (achieved accreditations, successful PTs, certifications etc.), as they constitute structural elements that are maintained over time.

Elements to supporting sustainability are the handbook for food handling, which will be published at the end of the project in Tamil and Sinhala and will be used by SMEs, the health authorities and in the university courses, and in the courses at Vavuniya University (metrology course as element of the academic courses and short courses on safe food handling).

The efforts to establish networks among the testing laboratories and to improve cooperation among the national QI institutions were thought of as other components of sustainability. However, the evaluators estimate that it will be difficult to maintain the networks over time, unless some organisation takes the

driver's seat to keep them alive (for instance in the chemical task force, which seems not to work very well due to a lack of active participation).

As regards the upgrading process and related services to SMEs, the original plan for sustainability was to enable the chambers of commerce and industry to provide such services, notably by CCIY that was already supported by the previous project. However, this plan had to be abandoned and the PTB consultants instead founded their own social (non-profit) enterprise to carry the process forward (see also dimension 3). Support to the chamber in the North-Central province (NCPCCIA) only commenced in early 2023 – due to the late signing of the MoU - so that the capacities were yet too weak to deliver services. NCPCCIA was so far mainly involved in conducting awareness workshops.

Overall, the dimension is assessed as **very successful**.

Dimension 3: The results of the intervention are durable.

Assessing durability is of course only an estimation, as it depends, just as impact, from many external factors and developments that lie in the future.

Looking at projects results and as already mentioned earlier, many changes such as accreditations are structural changes that are maintained at least for a certain period of time. Accreditation has visibly led (or will lead) to increased demand by customers, so that a virtuous circle is put into place.

The metrology university course has found its way into the academic curriculum and will stay there for at least 10 years, so that students learn about the importance of QI and QI institutions and companies on the other hand have young talents to recruit from (quote: '*The courses on food technology and metrology will contribute towards strengthening the QI in Sri Lanka in a big way.*') Demand for the course is increasing; in 2023, 60 students had enrolled. The cooperation with MUSSD is essential to delivering the course, as the university resorts to MUSSD experts (and equipment, which however is not possible in the long term). Financial arrangements for the MUSSD lecturer still need to be developed.

What can be observed is that results in the Northern province, that was supported already in the previous project, are more mature and have already shown a certain sustainability: NWSDB and NIPHM labs will be sustainable as management strive at accreditation financial resources are available. In addition, water analyses are mandatory, which also creates a market for services.

Interventions in the North-Central province would certainly have benefited from more time, therefore the probability for sustainability is to a certain degree lower.

The creation of LEEDS (Lanka Enterprise and Entrepreneurs Development Services) in 08/22 by the PTB consultants with a focus on food-handling to fill the gap of service provider (replace CCIY) will, for the time being, ensure that the upgrading services can be completed and may even continue. A business model of how these services can be provided for a long time on a sustainable, cost-covering basis is yet missing. While companies are paying for the certificate and the related process, they have not yet paid for participating in the upgrading process. Whether public subsidies will be in place to support SMEs in using business services was not clear.

Positive external factors that contribute to sustainability are that GMP was officially made mandatory in 2019 and that companies wishing to export their products or to become suppliers for supermarket chains have to follow and apply certain quality standards; the high demand for GMP certification was confirmed in interviews. This will stabilize also the demand for QI services such as calibration and product testing. All testing labs have confirmed in recent years a rising demand for their services, for instance the PRI testing lab has increased its testing in 2020 by 65%, and the laboratory services of NWSDB for external customers have increased from 2021 to 2023 by about 35%.

It was also indicated that the Government might offer a subsidizing programme for micro businesses that would support them in using business-relevant services, which would also help to render QI services sustainable and at the same time contribute to impact.

Factors that have a rather negative influence on sustainability (and impact) are the economic crisis that limits public institutions in their activities (lower budgets, ban on recruitments), and also puts additional burdens on companies (e.g., by increasing taxes). The lack of awareness at policy level regarding the importance of QI in combination with frequent reshuffles at government level are also a limiting factor to sustainability. It is difficult to assess how these risks will develop over time.

Nevertheless, this dimension is assessed as **successful**, as most results are structurally anchored, and strong pull and push factors are at work that favour sustainability over time.

Summarized evaluation

Criterion	Evaluation dimension	Weighting	Appraisal
Sustainability	The partners, target groups and organizations involved have the capacities required to ensure that positive results are continued.	33.33 %	2
	The intervention has considerably contributed to the capacity of partners, target groups and other organizations involved to continue the positive results.	33.33 %	1
	The results of the intervention are durable.	33.33 %	2
Total assessment of the sustainability			1,7

5.1.7 Summary of the intervention’s contributions to the 2030 Agenda for Sustainable Development

Universality, shared responsibility, and accountability

- The project contributes notably to SDG 6 (water) and SDG 8 (decent employment), even though the contribution is rather limited in terms of scale, given the extent of the project and the external factors at work. Other SDGs where we can see a certain contribution are SDG 3 (health) which mainly derives from improved consumer protection, and SDG 9 (infrastructure), even though QI does not figure among the indicators with which this SDG is assessed.
- The project strengthened existing partner structures and adhered to the principle of subsidiarity.
- There was a very good and successful cooperation with UNIDO and with other regional PTB projects. Potential synergies with GIZ projects that were active in the same regions could not be capitalised.
- There are no joint systems for monitoring, but the project has developed an excellent results-based monitoring system.

Interplay of economic, environmental, and social development

- The project was aiming at improving the competitiveness of SMEs in the project regions. By doing so, the economic dimension is complemented by a social component, as successful companies create employment. Consumer protection (access to safe drinking water and food products) add another aspect to the social dimension. Environmental aspects were addressed in the context of the GMP certification at company level.
- The evaluation could not detect any negative interactions between the results achieved by the intervention. However, several positive unintended effects could be detected which reinforce the social and economic dimensions of the project.
- Companies were visibly strengthened in their resilience; by obtaining GMP and other certifications they are more competitive than other companies and are thus more likely to survive. The project did however not target, directly or indirectly, particularly disadvantaged or vulnerable groups. However, the selected project regions lag behind in economic development due to the long history of civil war.

Inclusiveness/Leave no one behind

- The project was found to be fully in line with international standards and contributed actively for instance to conflict transformation, even if the influence on this is negligible.
- No unintended positive or negative effects could be observed on particularly disadvantaged groups. One can however assume that by contributing to safe drinking water, also disadvantaged persons profit from the intervention.

6. Assessment of specific evaluation questions

Will the structures/networks created throughout the project persist (also in the decentralized project region)?

As regards the project partners (laboratories, NMI etc.), the probability of sustainability is rather high (see criterion sustainability). Regarding the networks and cooperation that were facilitated by the project, the evaluators estimate that those will be difficult to maintain, unless someone assumes responsibility to keep them alive (for instance in the chemical task force). Networks across organisations will be probably more difficult to maintain than networks within structures such as the water board. An approach to animating the networks should be discussed still in the project duration (see also recommendations).

Did the “upgrading process” of participating companies and the resulting certifications lead to changes in the participating companies in terms of: Production processes, economic use of raw materials and production ingredients, product volume, labor relations and volume of business?

It was not possible in the during the evaluation to obtain concrete numbers from the companies for instance on turnover or number of staff, however the national consultants delivered some late monitoring data that showed that for six companies certified and one enterprise ready for certification, a total of 183 jobs was created, which is an average increase of more than 80%. In addition, all interviewed companies that had already undergone the upgrading process and obtained certification mentioned the following improvements:

- better purchasing and delivery quality,
- reduced wastage, better storage,
- improved staff hygiene, pest control,
- Better relationship with staff; significantly changed attitude of staff,
- Increased production volume, turnover, profit, more customers.

What were advantages and obstacles of the distinct concept of the project, and can the approach be applied to other PTB projects and regions?

As the assessment of the evaluation criteria has shown, the project had a very specific approach that proved to be quite beneficial for instance for impact (due to the large outreach at company level and the upscaling approaches) and sustainability (sustainability concept of output 3). The concept also narrows the attribution gap as it shows that QI services have a direct impact on companies (and vice versa, companies can influence the services offered). The decision to be active not only at the national level but to have a strong focus at regional level proved in this case as beneficial, as the project partners were very engaged and had developed high ownership for the change process.

There are several distinct features of the project that are worth replicating, for instance:

- the bottom-up and regional approach (identifying QI services through company needs),
- the inclusive nature of the project that included all partners notably at regional level to create a dynamic in favor of change (output 2),
- the large extent of sensibilization (920 companies) that created awareness about and demand for QI services,
- the certification process that further drives demand for QI services and creates a quality culture, the quality improvement teams that are part of the upgrading process were particularly appreciated;
- the metrology course(s) at university and, overall, the sustainability component.

An obstacle, or rather a **precondition** to make such an approach work are sufficient resources not only in terms of budget, but also in terms of human resources, such as qualified consultants that are willing to 'go the extra mile', a performing (and available) project management and strong administrative support, as the number of contracts and invoices to be handled was very high and put considerable strain on the PTB resources. Another resource that needs to be available is sufficient time to build the structures, networks and capacities required to achieve the intended changes.

Other preconditions that need to be in place are intermediaries such as chambers or even private consulting companies that are able and interested to offer such services, and a private sector that is willing to pay for services.

Lastly, it can be argued whether interventions at company level are actually a 'core competence' of PTB (they are rather not), and whether PTB should actually engage that deeply in the development of business services. In this case, it worked and even under very difficult circumstances, the project was a large success. It might be argued whether a division of labor for instance with GIZ (which could develop business services) would not be an alternative, however reality shows that the project objectives and logics are often quite different.

7. Learning processes and experiences

As already outlined above, the project had applied a very good monitoring system and paid particular attention to documenting **learning processes** (what worked well, what did not work well, for which reasons) and resulting lessons learned. Those were documented for each output and subsequently integrated in project implementation. Some examples are the replacement of a national consultant, stronger contacts with laboratory management, or to improve communication with the one or other project partner. In most instances the lessons learned could be integrated successfully in the implementation, in others less. For instance, the lesson learned to have a closer cooperation with the ministry could not be successfully implemented due to the frequent changes at ministry level.

Experiences were also documented in the monitoring tool (table unintended results). They were documented for each year, and in the case of positive effects it was assessed whether an upscaling would be possible. The few notes on unintended negative effects are, from the point of view of the evaluators, either external factors that would exist even without the project (competition between MUSSD, ITI and SLSI) or problems in implementation (late payments by PTB that delayed implementation).

All in all, as stated before, the monitoring system of the project was excellent and should be promoted as best-practice example within PTB.

8. Recommendations

Recommendations to partners:

MUSSD, SLSI & SLAB should be under the same Ministry, as this would reduce friction and enable a smooth implementation of the QI strategy.

It is important for MUSSD, SLSI and ITI to cooperate with each other to strengthen the QI in Sri Lanka.

Secretaries in this Ministry should understand the importance of the work of the QI institutions for the economic development of the country. For this it is important that the 'QI community' and notably institutions such as MUSSD, SLSI and ITI lobby for their cause and sensitize ministry staff about the significance of QI for the competitiveness and economic development of the country.

In this context, it is recommended that MUSSD uses the training offer of the regional PTB project "MEDEA" that offers training also on lobbying and policy dialogue.

Both SLSI & ITI send their reference standards out of the country for calibration at present as only the Pressure and Volume labs at MUSSD are accredited. A policy decision should be taken at the relevant authority level to establish a green channel with the Sri Lanka Customs for this purpose until MUSSD labs comply with SLAB requirements to provide traceability to SLSI & ITI.

MUSSD is functioning as a department which restricts implementation of some of its QI responsibilities. It is recommended to relook at the MUSSD responsibility and authority defined for a) Scientific Metrology b) Industrial Calibrations and c) Legal Metrology. This should be done considering technical requirements as well as the concerns of the present staff if it is to be a success.

The University of Vavuniya has established a metrology programme with a very positive contribution from MUSSD. The training division of MUSSD should look at the possibility of collaborating with other universities which offer Engineering or Physics Degrees for establishing similar programmes.

As an outcome of the PTB project, SLSI and ITI now have the capacity to provide PT services to calibration laboratories for certain parameters. MUSSD should investigate the possibility (there seemed

to be an interest of doing so) of providing PT services to SLSI & ITI with the long-term goal of being accredited for ISO17043 standard.

MUSSD could consider to designate other organizations with strong measurement capacities as responsible for certain national measurement standards (e.g. in chemistry).

SLAB has developed extensive Assessor Training Programmes for different accreditation schemes. However, the method of providing feedback (both positive & negative) to assessors after regular monitoring of their performance could be further improved. We recommend the establishment of a training division at SLAB with the responsibility for training, monitoring and evaluation of assessor performance. It is also recommended not to enlarge the SLAB services into many new areas as it is already difficult to serve existing topics (such as ISO 17025) due to a lack of (well trained) assessors. New topics could (at least temporarily) be covered by partner accreditation bodies, e.g. from India.

Creating awareness and conducting regular stakeholder meetings could make more companies use QI services. All QI institutions should get involved in this exercise.

Recommendations to the project team:

Develop an approach to finance the upgrading process, either by finding alternative sources (e.g., government schemes for SMEs, other donors) or developing a payment scheme for companies; otherwise, the upgrading process will not be sustainable.

Assist the University in Vavuniya and MUSSD to find a financial arrangement for paying the MUSSD experts (or at least, initiate the process).

In the remaining project time, a process should be developed jointly with the partners to ensure sustainability of the Chemical Task force, respectively of all networks that were created with the support of the project. Particularly – but not only- in the case of cross-organizational networks it seems important that one responsible body and person assumes responsibility for managing the network (sustaining communication, organizing events, etc.).

A Similar approach should be developed with and for the cooperation among MUSSD, SLSI and ITI. This would contribute very positively to strengthening the QI in Sri Lanka (e.g., Quality Council). It might be worth discussing this with UNIDO.

Recommendations to the International Cooperation Department (Group 9.3):

Sufficient internal human resources need to be available to implement a project in the given time. This is particularly important when project coordinators are responsible for more than one project.

The monitoring approach of the project, notably also of lessons learned and the monitoring of unintended effects is recommendable and should be shared as best practice.

Also, the specific project concept should be shared and discussed within PTB, to see which elements could be easily replicated and which preconditions need to be in place to do so.

Some reports of the iKZE of outputs 1&2 contain, in addition to the 'official' report, further explanations and assessments in German language of internal character. This seems helpful for project management (and evaluations) and are recommendable.

The CW self-assessments indicate that some CW factors, tools and their application are not yet well understood (for instance that the monitoring and operational plans are tools of CW). Ideally, some CW elements should be developed or implemented jointly with the partners (steering committee, monitoring).

However, even without partner implication (as a team exercise), some instruments can be useful such as a results model, a CD strategy or monitoring. It is thus recommended to point this out in CW training and also offer CW training to consultants (notably iKZE).

Recommendations to the evaluation unit of Working Group 9.01.:

The Capacity WORKS questionnaire should be further simplified. It should for instance be clarified that elements such as monitoring and operational planning are elements of the factor 'steering structure', which is probably widely unknown (steering structure seems to be interpreted differently, this is due to the rather unfortunate title of the factor).

It seems unfortunate to commence the questionnaire with a negative question ('The PTB team uses some of the tools, but this didn't have a significant impact on the implementation of the project.')

The reporting template for this evaluation report could be further improved (a commented template was submitted jointly with this report), as some elements seem missing or are difficult to understand.

9. Annexes to the evaluation report

1. Intervention logic (from the module proposal)
2. Evaluation schedule
3. Schedule of the field phase/data acquisition, and list of contact persons
4. Questionnaires and/or interview guidelines