

Independent Terminal Evaluation

of the projects

“Market Access and Trade Facilitation for SAARC Countries (South Asian Association for Regional Cooperation) Bhutan, Nepal and Maldives, through strengthening of Institutional and National Capacities related to Standards, Metrology Testing and Quality (SMTQ) – Phase III”

UNIDO Project Number: 106034

and

“Trade capacity-building in the Mekong Delta countries of Cambodia and Lao People’s Democratic Republic through strengthening institutional and national capacities related to standards, metrology, testing and quality (SMTQ) phase III”

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UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO INDEPENDENT EVALUATION DIVISION

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The evaluation team hopes that the findings, conclusions and recommendations will contribute to the successful completion of the project and to the continuous improvement of similar projects in other countries.

Abbreviations and acronyms

ADB	Asian Development Bank
BAFRA	Bhutan Agriculture and Food Regulatory Authority
BSB	Bhutan Standards Bureau
BoA	Bureau of Accreditation (Vietnam)
CFL	Central Food Laboratory
CRRRI	Cambodia Rubber Research Institute
CTA	Chief Technical Adviser
DFTQC	Department of Food Technology and Quality Control (Nepal)
DOS	Division of Standards (Lao PDR)
EIF	Enhanced Integrated Framework
FDQCC	Food and Drug Control Centre (FDQCC)
FYP	Five Year Plan
GDP	Gross Domestic Product
ILCC	Industrial Laboratory Centre of Cambodia
ISC	Institute of Standards of Cambodia
ITC	The International Trade Center
LDC	Least Developed Country
MFDA	Maldives Food and Drug Authority
MTR	Mid-Term Review
NBSM	Nepal Bureau of Standards and Metrology
NC	Non-Conformity
NMC	National Metrology Centre of Cambodia
NQI	National Quality Infrastructure
NSL	National Specifications Laboratory
PM	Project Manager
PTB	Physikalisch-Technische Bundesanstalt (Germany)
RBM	Results-Based Management
SDMT	State Enterprise for Survey Design and Materials Testing
SMEs	Small- and Medium-sized Enterprises
SMTQ	Standards, Metrology, Testing and Quality
ToR	Terms of Reference
UNEG	United Nations Evaluation Group
UNIDO	United Nations Industrial Development Organization

Glossary of evaluation related terms

Term	Definition
Baseline	The situation, prior to an intervention, against which progress can be assessed.
Effect	Intended or unintended change due directly or indirectly to an intervention.
Effectiveness	The extent to which the development objectives of an intervention were or are expected to be achieved.
Efficiency	A measure of how economically inputs (through activities) are converted into outputs.
Impact	Positive and negative, intended and non-intended, directly and indirectly, long term effects produced by a development intervention.
Indicator	Quantitative or qualitative factors that provide a means to measure the changes caused by an intervention.
Intervention	An external action to assist a national effort to achieve specific development goals.
Lessons learned	Generalizations based on evaluation experiences that abstract from specific to broader circumstances.
Log frame (logical framework approach)	Management tool used to guide the planning, implementation and evaluation of an intervention. System based on MBO (management by objectives) also called RBM (results based management) principles.
Outcomes	The achieved or likely effects of an intervention's outputs.
Outputs	The products in terms of physical and human capacities that result from an intervention.
Relevance	The extent to which the objectives of an intervention are consistent with the requirements of the end-users, government and donor's policies.
Risks	Factors, normally outside the scope of an intervention, which may affect the achievement of an intervention's objectives.
Sustainability	The continuation of benefits from an intervention, after the development assistance has been completed.
Target groups	The specific individuals or organizations for whose benefit an intervention is undertaken.

Executive summary

Background, purpose, methodology and limitations of this terminal evaluation

This Independent Terminal Evaluation “the Evaluation” covers two projects, which were both funded by the Norwegian Agency for Development Cooperation (NORAD):

- The project “Market Access and Trade Facilitation for SAARC Countries (South Asian Association for Regional Cooperation) Bhutan, Nepal and Maldives, through strengthening of Institutional and National Capacities related to Standards, Metrology Testing and Quality (SMTQ) – Phase III” (UNIDO Project Number: 106034), subsequently referred to as “the SAARC Project”. Beneficiary countries include Bhutan, Nepal and the Maldives. The SAARC Project did not work with any regional institutions. Implementation started in July 2013 and was expected to end in December 2016, after one no-cost extension. The project budget amounted to € 836,000 (NOK 7.8 million¹), without supporting cost.
- The project “Trade capacity-building in the Mekong Delta countries of Cambodia and Lao People’s Democratic Republic through strengthening institutional and national capacities related to standards, metrology, testing and quality (SMTQ) Phase III” (UNIDO Project Number: 106078) that is subsequently referred to as “the Mekong Project”. With a budget of € 1,230,625 (NOK 11.49 million) without supporting cost, the Mekong Project targeted Cambodia and Lao PDR. It started in October 2011 and is expected to end in December 2016, after two no-cost extensions.

Both projects consolidated and complemented prior long-term support of UNIDO during two phases and over thirteen and fourteen years respectively. UNIDO provided the following main services:

- upgrading and accreditation of testing laboratories;
- enhancing the legal and industrial metrology (including accreditation);
- support to certification schemes (including accreditation);
- strengthening the capacities of certification bodies (management system certifications), including fostering the demand for them;
- standard formulation;
- establishment of a quality prize.

The Evaluation was undertaken by Mr. Daniel P. KELLER, of Evillard/Leubringen, Switzerland, Team Leader, and Ms. Rana FAKHOURY, Vienna, Austria, “the Evaluators”. Both evaluators are independent of the projects’ design and implementation and they signed a declaration that they are free from any conflicts of interest.

The main purpose of the Evaluation was an assessment of whether both projects provided the right type of support to achieve their key objectives in the right way, with the main purpose of organizational learning. Besides providing an evidence-based assessment of project performance, the Evaluators were requested to develop recommendations on how to improve the selection, design and implementation of similar interventions.

Methodology: The Evaluation was guided by the Terms of Reference (ToR) dated 16 September 2016 ([Annex 4](#)). It covered the entire implementation period of both projects until 12 December 2016, including their preparation time. Data of prior phases were used as contextual information. Project quality was assessed based on the five standard evaluation criteria reflected in UNIDO’s evaluation policy: relevance, effectiveness, efficiency, impact and potential sustainability of results. While maintaining independence in compliance with UNIDO’s evaluation standards, the Evaluators applied a

¹ In this report, the UN exchange rate of April 2017 is used: EURO 1 = NOK 9.34.

participatory approach, taking the views of all stakeholders into account and seeking alignment on main conclusions and recommendations. The methodological mix included an in-depth document review (see list in [Annex 2](#)), semi-structured interviews with key stakeholders (see list in [Annex 3](#)) and personal observation in all beneficiary countries. Extensive discussions with top management of beneficiary institutions (especially in Bhutan, Nepal) allowed for an in-depth exchange of views. Personal observation in companies provided a lot of additional insights.

In each country, the evaluators de-briefed key stakeholders on key findings, conclusions and recommendations. A comprehensive overall de-briefing took place in Vienna on 12 December 2016. The evaluation Team Leader shared the de-briefing presentation with NORAD on 13 December 2016. This evaluation report incorporates the comments and factual corrections by the UNIDO Project Manager, project management staff, the Chief Technical Advisors and the Independent Evaluation Division and NORAD.

Key limitations: Firstly, the delivery of key outputs was still ongoing. It would be premature to assess their future potential wider benefits (outcomes) and sustainability. Secondly, gender aspects were neither integrated into the results framework nor were they monitored. It was thus not possible to address the gender-related evaluative questions in the ToR. Finally, partially unclear, incomplete and outdated implementation reports provided to the evaluators required extensive investigative work during relatively short field missions. Fact-finding was challenging. While most stakeholders interviewed were willing to actively contribute to the Evaluation, some were initially reluctant to freely share information. Findings of the initial desk study and the briefing with Project Management on the one hand and interviews and personal observation on the other hand were to a large degree inconsistent. Language problems affected the communication with some counterpart institutions in Lao PDR and Cambodia. Despite these significant challenges, the Evaluators managed to establish a sound factual basis for an evidence-based assessment.

Main findings and conclusions

1. Project design

Project design replicates to a large degree UNIDO's former generic approach to the upgrading of SMTQ systems. In parallel however, UNIDO used a value chain analysis in identifying and addressing NQI-related constraints of certain priority export products (e.g. cashmere wool in Nepal, coffee in Lao PDR, and rubber in Cambodia). This was an innovative step over the largely supply-driven approach to the development of SMTQ in prior project phases. Both project documents were operationalized through inception reports, which include precise and meaningful recommendations. Neither the results framework nor the implementation plans and budgets of the projects were subsequently updated. Not all expected results are clearly spelled out and some targets are clearly unrealistic. The application of the logical framework tool was weak. Different result levels are not linked to specific, measurable, achievable, relevant and time-bound (SMART) indicators. It is unclear how UNIDO's limited support (outputs) could, if clearly defined assumptions on external factors materialize, translate into the envisaged, rather ambitious higher-level objectives (outcomes, impact). *Overall, the design of both projects was moderately unsatisfactory.*

2. Project management

Project coordination and implementation: Project coordination was largely delegated to the CTA (SAARC) and the NPCs in Lao PDR/Cambodia, where UNIDO was unsuccessful in recruiting qualified candidates for the CTA position. The CTA (SAARC) region and the NPC in Cambodia played an important role in representing the Project Manager on the ground. Focal points for all counterparts

interviewed were the CTA and the NPCs who also provided most of the initial briefing to the Evaluators. UNIDO's reaction on problems encountered was often slow. This could either indicate that the supervision by the Project Manager was insufficient or that he did not timely address the challenges he was aware of. Communication among the different persons involved into implementation was often unclear and led to misunderstandings. Several beneficiary institutions interviewed complained that they were left in the dark on what support they would receive. Management challenges were not the only factor leading to delays. Absorption capacities and ownership in some beneficiary institutions were weak. Some of UNIDO's partners consistently ignored email communications. The implementation of a new SAP system by UNIDO and insufficient support staff caused serious disruptions. Other reasons beyond the Project's control were a severe earthquake in Nepal, changes in government policies on accreditation (Cambodia, Lao PDR) and disruptions caused by the introduction of UNIDO's new SAP system. National Steering Committees were mainly used for a platform for information exchange rather than for strategic decision making. A representation of NORAD in the national Steering Committees was not foreseen in the Project Document. Instead, UNIDO and NORAD hold semi-annual review meetings. The limited information shared with the non-UNIDO Steering Committee members, including financial information, was insufficient for a well-informed decision making.

Monitoring and operational reporting leaves significant room for improvement. Implementation reports do not provide a clear, complete picture on the progress towards results. Major problems with potential serious effects on achievement of results (e.g. delayed, accreditations, defective equipment, quality prize in Cambodia) are not timely reported. Relevant, correct and updated information in detailed implementation reports prepared by several beneficiary institutions are not reflected in UNIDO's progress reports. The UNIDO project management team did not systematically monitor the quality of the services provided under the Project. Progress towards achieving results is measured as a percentage of planned versus implemented activities. This is an out-of-date and inadequate method for technical capacity building projects. NORAD has raised the issue of the quality of reporting continuously with UNIDO at the portfolio-level and specifically relating to these projects. *Overall, management of both projects was moderately unsatisfactory.*

3. Relevance

Overall, project objectives and the planned support are highly relevant for beneficiary institutions. They are generally also aligned with the development assistance framework of beneficiary countries, although not fully integrated into the trade-integration strategy of Nepal and Cambodia (Enhanced Integrated Framework, EIF). They match UNIDO's core mandate and strategic objectives to promote sustainable industrial development. The degree of ownership is mixed (very high in some institutions, weak in others). Ownership was negatively affected by frequent management changes in some institutions. In Laos, the tragic death of Director General of Department of Standardization and Metrology resulted in a major set-back. Many institutions contributed significantly, some of them even financially, to the achievement of objectives. This applies to all in Bhutan and Nepal, to the Maldives Food and Drug Authority, to the Food and Drug Control Centre (FDQCC) in Lao PDR and to the Cambodian Rubber Research Institute (CRRRI). Important elements of NQI development, such as the strategic overall planning of NQI systems (policy level) and the institutional strengthening of beneficiary institutions, would have been highly relevant, but were insufficiently covered. *Overall, relevance of both projects was moderately satisfactory.*

4. Effectiveness

At the time of the evaluation, many of the planned key outputs were still in the process of being delivered. Pivotal among them is the support to the various planned accreditations and the delivery of

some equipment in the Mekong Region and some metrology support in the Maldives. Completing all ongoing outputs will require some estimated additional six months. Other accreditations had only been recently achieved. It would be unrealistic to already observe wider results (e.g. on the industry using the services, on public health and safety, etc.). The evaluators noted some unplanned, promising outcomes, such as significant operational improvements in factories in Bhutan (animal feed, steel) and in Cambodia (rubber processing) following visits of UNIDO experts.

Most of the trainings, study visits and the equipment procured were of high quality. In the Mekong Region, some equipment procured was substandard with significant quality problems. It appears that the selection of some equipment in both projects has mainly been driven by budget considerations rather than by what would have provided the most economical value to beneficiary institutions. Another reason is that UNIDO's procurement rules require purchasing the cheapest and technically acceptable offer. In some cases, although the characteristics provided by the suppliers seem to comply with the requirements of the technical specifications, the equipment might be of low quality. This is the reason why its price is lower. Procurement rules do not sufficiently consider aspects such as the cost/availability of spare parts and after sales service.

Furthermore, some vital technical equipment and/or equipment parts were not procured, reportedly for budget reasons. The quality of expert input was, overall, satisfactory. Where possible, twinning international with national experts in standard formulation might have been a good way to consider local particularities and to ensure know-how transfer. *Effectiveness of the Mekong Project is moderately unsatisfactory, while it is moderately satisfactory for the SAARC project. An extension might allow to provide of at least some of the remaining key outputs. If all of them were provided, the Mekong Project would also be rated moderately satisfactory.*

5. Efficiency

Approach: UNIDO made some efforts to integrate some good practices of NQI development into the projects (example: marketing plan for certification services of NBSM, some strategic advice requested by the Cambodia government). But generally, both projects perpetuated the patchwork approach in “upgrading” some services and/or public service providers through equipment procurement and training used in the previous phases. Important strategic aspects to NQI development (policies, masterplans, institutional development of public service providers) were only marginally covered. Furthermore, UNIDO's approach to promote unaccredited certification services in Nepal and Bhutan to gain experience is not appropriate as it undermines the credibility and value of those certifications, which UNIDO intends to promote. The same objective would be much better achieved through promoting joint-accreditations in partnership with an already accredited certification body abroad. The regional dimension of both projects was inherited from prior phases. Both projects are in fact not regional, but a combination of national interventions into one programme. No evidence of economies of scope (e.g. experience exchange among the different beneficiary countries) was found. Economies of scale, such as sharing expert resources for several countries, were limited. Due to the complexities of covering several countries under one project, the regional dimension did not add any value.

Synergies: Generally, UNIDO and its partners coordinated well with other donors. In some cases, UNIDO achieved some interesting complementarities with other development actors (e.g. on strengthening the cashmere value chain in coordination with the ITC in Nepal, with the ADB in laboratory upgrading in Cambodia and with the Physikalisch-Technische Bundesanstalt (PTB) in the SAARC region).

Economic efficiency (value for money): Relating disbursements to the limited results achieved, economic efficiency was low compared with other similar UNIDO interventions.

Overall, efficiency of both projects was moderately unsatisfactory. The recommended no-cost extension would increase the likelihood that some of the pending outputs in Lao PDR, Cambodia and the Maldives will be completed. In this case, the efficiency of both projects would be considered as moderately satisfactory.

6. Sustainability

The question of institutional sustainability is less relevant than for other projects, as UNIDO mainly worked with public service providers. Regarding financial sustainability, the challenge is to maintain and eventually replace expensive equipment. In Bhutan, Maldives, and Nepal, budget for regular operations of equipment and the renewal of accreditation seems to be available. Lao PDR has an established good bilateral cooperation with Vietnam's Bureau of Accreditation, which potentially enhances the access to and affordability of accreditation services.

It takes however significant time to mobilize funds for complex repairs and replacement of equipment. Beneficiary institutions in Lao PDR and Cambodia still count on donor support to repair or replace equipment. This is equally valid for institutions generating own funds through testing services (e.g. CRRI), as revenues from testing fees are too low to cover costs.

In Lao PDR and Cambodia, the evaluators discovered various broken equipment procured under prior phases. The picture of technical sustainability is mixed. Some institutions have developed a systematic approach to building and maintaining internal know-how. Other institutions suffer from permanent staff turnover. Trained officials are appointed to other functions. Because of financial difficulties, some institutions had to cut qualified staff. The challenge of follow-up expert support in technically high complex fields remains. *Sustainability is moderately unsatisfactory.*

Recommendations
A. Project-specific recommendations to UNIDO (both projects)
1. Propose a further, final no-cost extension of 6 months (until June 2017) for both projects to NORAD and the beneficiary governments. Its purpose should exclusively be to complete the ongoing delivery of outputs to already existing beneficiary institutions in good quality. <u>This recommendation is of high priority and importance.</u>
a. The proposal for an extension should identify all outputs that are already being delivered and establish an action plan on how to finalize them within a clear extended deadline and in good quality. For each of the outputs, UNIDO should explain why without an extension, parts of the funds already spent on ongoing outputs might be lost.
b. In close consultation with counterparts, agree on organizational modalities and an action plan on how to finalize ongoing activities, (including the delivery of essential equipment, replacement of damaged equipment, accreditations).
c. Finalizing the timely delivery of outputs in good quality might require the allocation of additional personnel resources at Headquarters and the fielding of an expert who is qualified in the technical areas that require support.
B. General recommendations (Department/Division, general)
2. Standardize monitoring of quality/quantity of outputs and of direct outcomes (considering existing good practices, e.g. by UNIDO's projects in Central Africa).
3. Use regional approaches only if challenges need to be tackled at a regional level and if a regional institutional framework to link into does already exist.
4. For countries with an existing basic national quality infrastructure, standardize approaches, services and procedures for institutional and technical strengthening, considering good practices already available within UNIDO.
5. Assess expert qualifications against the TORs of each specific assignment, even for experts that are regularly retained. Conduct thorough background checks on new experts. Refrain from entrusting the same expert with different tasks if not all of them match his/her specialization.
6. Twin national with international experts for assignments requiring specific local knowledge (e.g. policy- and standard formulation).
7. Conduct a rigorous, standardized institutional assessment of partner organizations prior to designing the assistance for them. Such an assessment should also be the basis for selecting non-government partners (e.g. NGOs).

8. Establish business plans with a clear calculation of costs and expected revenues for all services to be established and/or strengthened. Where financing of the service is not clearly ensured, refrain from providing support.
9. Discontinue using unaccredited certification services to develop certification capacities.
10. Ensure that overall project management responsibility remains not only formally, but also in practice with the Project Manager. Refrain from delegating overall project coordination to third parties (CTAs, contractors). Third parties may exercise specific management responsibilities, but always under close supervision of the Project Manager.
11. For technically complex projects (e.g. NQI upgrading), ensure ongoing support with strong technical and organizational skills in the country (if possible, a national CTA and/or additional local technical experts if appropriate).
12. Explore options on how to provide LDCs and low-income developing countries with targeted follow-up support on a demand-basis (e.g. policy formulation, expertise to upgrade conformity assessment institutions, etc.) outside formal projects. Cost participation would be a good way to enhance ownership.
13. Explore a possible follow-up of industry support (e.g. rubber sector in Cambodia, cashmere in Nepal) through relevant other UNIDO interventions (especially in the field of environment).
C. Project-specific recommendations to NORAD
14. Favorably and timely consider a request by UNIDO for a no-cost extension of both projects by six months under the conditions and considerations outlined in recommendation 1 above.
D. Project-specific recommendations to all beneficiary governments
15. Favorably and timely consider a request by UNIDO for a no cost extension until June 2017 under the considerations and conditions outlined in recommendation 1 above. Facilitate the necessary administrative procedures to formalize the extension.

Lessons learned
1. The evaluation did not identify any good practices that could be replicated elsewhere.

2. This evaluation confirms a strong correlation between weak application of results-based management (RBM) principles and poor results. Building quality infrastructure and fostering a quality culture is a complex undertaking. Thorough, detailed planning is important. Ad-hoc provision of support leads to a patchy, uncoordinated, and unsustainable approach. The results of spontaneous actions are often errors and/or delays, which may have a significant negative impact on project efficiency. This does not mean that plans should be carved in stone! Flexibility in adapting them remains important. Planning alone is not sufficient. Communication of plans is pivotal as well. If beneficiary institutions are unaware of what support they will receive, they are unable to seek for budget of their governments or for support from other donors. The lack of quality monitoring leads to a risk of replicating poor services (expertise and substandard equipment). UNIDO's existing good practices in planning and monitoring need to be translated into binding standard operating procedures and then consistently enforced.

Table 1: Rating of the projects (summary)

Evaluation criteria	Rating by evaluators (SAARC Project)	Rating by evaluators (Mekong Project)
1. Project design	MU (3/6)	MU (3/6)
2. Project management	MU (3/6)	MU (3/6)
3. Relevance	MS (4/6)	MS (4/6)
4. Effectiveness to date	MS (4/6)	MU (3/6)
5. Efficiency to date	MU (3/6)	MU (3/6)
6. Prospects of sustainability	MU (3/6)	MU (3/6)
Overall conclusion	MU (3/6)	MU (3/6)

Explanations:

- Highly satisfactory (HS = 6): The project had no shortcomings
- Satisfactory (S = 5): The project had minor shortcomings
- Moderately satisfactory (MS = 4): The project had moderate shortcomings
- Moderately unsatisfactory (MU = 3): The project had significant shortcomings
- Unsatisfactory (U = 2) The project had major shortcomings
- Highly unsatisfactory (HU = 1): The project had severe shortcomings

1. Background, objectives, methodology and limitations

This Independent Terminal Evaluation (“the Evaluation”) covers two projects, which were both funded by the Norwegian Agency for Development Cooperation (NORAD):

- The project “Market Access and Trade Facilitation for SAARC Countries (South Asian Association for Regional Cooperation) Bhutan, Nepal and Maldives, through strengthening of Institutional and National Capacities related to Standards, Metrology Testing and Quality (SMTQ) – Phase III” (UNIDO Project Number: 106034), subsequently referred to as “the SAARC Project²”. Beneficiary countries include Bhutan, Nepal and the Maldives. The SAARC Project did not work with any regional institutions.
- The project “Trade capacity-building in the Mekong Delta countries of Cambodia and Lao People’s Democratic Republic through strengthening institutional and national capacities related to standards, metrology, testing and quality (SMTQ) Phase III” (UNIDO Project Number: 106078), subsequently referred to as “the Mekong Project”. The Mekong Project was implemented in Cambodia and Lao PDR.

Both projects were designed as a follow-up to two prior phases with the main intention to consolidate and complement extensive long-term support spanning over 10 years.

This evaluation report provides a global assessment of the two projects, which is based on the data collection in each of the five beneficiary countries.

Annexes 1 A-E includes information on national contexts of all countries covered.

1.1 Project background and description

(a) The “SAARC Project”

The “SAARC Project” started in July 2013 and was expected to end in December 2016. It received a no-cost extension until December 2016. NORAD funding excluding UNIDO support costs amounts to € 836,000 (NOK 7.8 million). Counterparts were expected to provide in-kind contributions. Geographically, the SAARC Project covered Bhutan, Nepal and the Maldives.

Main objectives were:

- Bhutan: To achieve accreditation of the food-testing laboratory of the Bhutan Agriculture and Food Regulatory Authority (BAFRA) with a full scope of testing, strengthen the metrology and construction products certification schemes of the Bhutan Standards Bureau (BSB) and determine the best approach to encourage the national use of management systems.
- Maldives: Ensure safe food through enactment of laws and regulations verified by an accredited Maldives Food and Drug Authority (MFDA) food safety laboratory with a full range of testing parameters, strengthen the metrology scheme provided by the Polytechnic and the Atolls inspectors,

² The South Asian Association for Regional Cooperation (SAARC) was formed in December 1985 and includes Afghanistan; Bangladesh; Bhutan; India; Maldives; Nepal; Pakistan; Sri Lanka. Phases I and II of the “SAARC Project” covered Bangladesh, Bhutan, Maldives, Nepal, and Sri Lanka.

and establish measures to assist the yellowfin tuna industry to retain required management system certifications for exports, and facilitate the dried fish industry to increase exports through effective use of management systems.

- Nepal: Strengthen the food safety system through improvements to the Department of Food Technology and Quality Control (DFTQC) Central Food Laboratory (CFL) operations and scope extension, strengthen the Pashmina industry through improved Nepal Bureau of Standards and Metrology (NBSM) textile testing and certification scheme, improve construction product quality through NBSM certification, and determine the best approach to encourage the national use of different management systems, as well as strengthening training for, and accreditation scope.

During the field visits, project activities were ongoing.

(b) The Mekong project

The Mekong Project commenced in October 2011 and was originally expected to end in December 2014. NORAD provided a total funding of € 1,230,625 (NOK 11.49 million). It received two no-cost extensions, the latest one until December 2016. At the time of the evaluation, the delivery of key outputs, including to the preparation of accreditations, was still ongoing.

Main objectives for Cambodia were:

- Project Component 1: Improvement of product quality and protection of consumers in respect of safety and health by supporting the Institute of Standards of Cambodia (ISC) to approve and publish 40 draft standards developed in Phase II and to attract at least three new products and expand the scope of accreditation for product certification.
- Project Component 2: Improvement of measurement accuracy, international traceability and consumer protection by upgrading of the industrial and legal metrology sections of the National Metrology Centre (NMC) and provincial legal metrology offices.
- Project Component 3: Improved capability of Cambodian exporters to meet international requirement for trade by upgrading the National Specifications Laboratory (NSL) of the Cambodia Rubber Research Institute (CRRI) and non-food chemical testing laboratory of the Industrial Laboratory Centre (ILCC).
- Project Component 4: In collaboration with Cambodia Chamber of Commerce, awareness on quality among industrialists, consumers and the general population will be increased by creation of a quality award and organization of awareness building seminars.

Main objectives for Lao PDR were

- Project Component 1: Improvement of quality of products and protection of consumers in respect of safety and health services by: supporting the Division of Standards (DOS) in developing and disseminating standards for key export products; supporting its Quality Centre in identifying new product categories and expanding accreditation; and supporting its Information and Training Centre to develop a standards library.
- Project Component 2: Improvement of measurement accuracy, international traceability and consumer protection by: upgrading the Lao Metrology Centre and support for accreditation; support the division of Consumer Protection for legal metrology.
- Project Component 3: Improved capability of Lao PDR exporters to meet international requirements for trade by: supporting the Lao Coffee Association (LCA) in the establishment of a coffee testing laboratory; upgrading the food chemistry section of the Food and Drug Control Centre (FDQCC); and upgrade the testing capacities of the State Enterprise for Survey Design and Materials Testing (SDMT) for accreditation.

Project implementation in all countries was considerably delayed through different internal and external factors. Some beneficiary institutions displayed a low degree of ownership and absorption capacity. Nepal suffered from the aftermath of an earthquake. In Lao PDR, the Director General of the department of Standards & Metrology passed away in a tragic traffic accident, which caused a major set-back. UNIDO implemented an SAP system, which led temporarily to considerable disruptions. Another general problem was constant staff turnover in beneficiary institutions, resulting in the loss of capacities built and insufficient support staff and UNIDO headquarters. Besides these external factors, project management by UNIDO leaves significant room for improvement. Problems with a serious impact on the timely achievement of results remained either undiscovered, were not reported or not timely addressed.

Both projects did not undergo an external Mid-Term Review (MTR), which might have flagged challenges at an earlier stage.

National Steering Committees in each country, which comprised most of the key stakeholders except the donor (NORAD), were responsible for project governance. The national Steering Committees have however not always met as planned. The CTA in the SAARC region and the NPC in Cambodia played an important role in moving the Projects forward.

In addition, NORAD coordinates all its activities with UNIDO through a single annual portfolio review, which is conducted semi-annually but does not include national stakeholders.

Currently, no follow-up phases or new similar projects are planned in any of the countries.

1.2 Objectives and methodology of the evaluation

The Evaluation was conducted by two independent external evaluators (“the Evaluators”)³ based on the Terms of Reference (“TORs”) dated 2 September 2016 enclosed in Annex 4, UNIDO’s Evaluation Policy⁴ and the UNEG Evaluation Norms and Standards⁵. The evaluation methodology and approach was fine-tuned through an inception report dated 3 November 2016, which was approved by UNIDO’s Independent Evaluation Division.

UNIDO’s Independent Evaluation Division⁶ managed the evaluation and ensured quality control. The Evaluators were recruited by UNIDO following a transparent selection process. They fulfill the requirements of impartiality and independence⁷.

The field work was carried out in Nepal, Bhutan, the Maldives, Lao PDR and Cambodia between 18 October 2016 and 10 December 2016.⁸

The main objectives of the Evaluation were to:

- (i) Assess the project performance in terms of relevance, effectiveness, efficiency, sustainability and impact; and

³ Mr. Daniel P. KELLER, Evillard/Leubringen, Switzerland, Team Leader; and Ms. Rana FAKHOURY.

⁴ Available from www.unido.org (last updated on 19 March 2015)

⁵ United Nations Evaluation Group (UNEG), Norms for Evaluations in the UN System, 29 April 2005

⁶ UNIDO’s Office for Independent Evaluation is responsible for the independent evaluation function. It supports learning, continuous improvement and accountability, and provides information about result and practices that feed into UNIDO’s programmatic and strategic decision-making processes.

⁷ See paragraph 48 of UNIDO’s Evaluation Policy: Evaluators must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. Moreover, evaluators are not to seek assignments with the manager(s) in charge of the project before the completion of their contract with the Office for Independent Evaluation.

⁸ Field missions covered all countries. The Team Leader visited Bhutan, the Maldives and Lao PDR alone.

- (ii) Develop a series of findings, lessons and recommendations for enhancing the design of new and implementation of ongoing UNIDO projects;

The ToR includes an extensive list of detailed, specific evaluative questions. Accordingly, the evaluators were essentially requested to assess whether:

- (a) Appropriate type of support has been provided to the right beneficiaries in the right way to best achieve planned objectives;
- (b) Planned results were delivered timely and in good quality (or otherwise, why not);
- (c) The direct deliverables (outputs) led to the expected outcomes and wider changes (if not, what were the reasons); and
- (d) The benefits generated by the two projects are likely to be maintained beyond their end;
- (e) The extent to which gender has been mainstreamed and carried out in both projects; and
- (f) The need for potential follow-up support and how it could be provided.

Unlike their prior phases, the current phases of projects were designed immediately after UNIDO revisited its approach to quality infrastructure development based on a Thematic Evaluation⁹. Moreover, within the framework of the DECD, UNIDO and the Swiss State Secretariat for Economic Affairs (SECO) funded, supervised, reviewed and guided the development of a technical publication, which summarized approaches to quality infrastructure development from a variety of development actors active in the field.¹⁰

The Evaluators were thus requested to assess whether lessons learned by UNIDO and other organizations were applied, including:

- Whether a systematic and strategic approach to National Quality Infrastructure (NQI) development was applied;
- Did UNIDO consider the specific context of Least Developed Countries (LDCs);
- Whether a demand and supply analysis for quality-related services was conducted;
- Whether the problem of an enabling policy- and legal framework (if any) was addressed?
- The combination of technical- with institutional strengthening (develop institutions as financially, technically and organizationally sustainable public service providers);
- The appropriate use of regional approaches in both projects;
- The approach to developing certification service providers.

The Evaluation covered the period from 1 July 2013 (SAARC Project) respectively 1 October 2013 (Mekong Project) to 10 December 2016, including prior project preparation work. Subsequent developments are not accounted for. Results of prior phases identified during the Evaluation were considered as contextual information.

Despite significant weaknesses in applying standard project designing tools (including not clearly separating different result levels), the Project's intervention logic and causal chain is reasonably clear. A reconstitution of the Project's intervention theory was not needed. The evaluation process

⁹ UNIDO, Thematic Evaluation Report of UNIDO activities in the area of Standards, Metrology, Testing and Quality (SMTQ), by Ben BENNET, Daniel KELLER and Peter LOEWE, Vienna 2010

¹⁰ Donor Committee for Enterprise Development (DCED), Leveraging the Impact of Business Environment Reform: The Contribution of Quality Infrastructure, by Martin KELLERMANN and Daniel KELLER, June 2014

balanced the need for organizational learning with the purpose of ensuring UNIDO's accountability towards the donor and the beneficiary governments.

While maintaining their independence in compliance with UNIDO's evaluation policy, the Evaluators used a highly participatory approach, seeking the views of all stakeholder groups. Enrolling them closely in the evaluation process and seeking alignment on key findings, conclusions and recommendations aimed at facilitating organizational learning. The evaluation process itself was conducted in a way to contribute to continuous improvement.

Different evaluation tools were combined to ensure an evidence-based qualitative and quantitative assessment. The Evaluators cross-validated data and performed an assessment of the plausibility of results obtained. The methodological mix included extensive desk study of relevant documents provided by UNIDO (see [Annex 1](#)), semi-structured interviews, focal group discussions and direct observation. In each of the countries, except the Maldives where companies were not directly targeted, the Evaluators conducted on-site visits of beneficiary companies.

Interviews were conducted in the form of open discussions following the guiding questions in the ToR, complemented by additional questions developed by the evaluators based on the desk review and the briefing with the project team, the CTA of the SAARC Project, and UNIDO's technical expert of the Mekong (both by phone) on 16 September 2016.

Applying an iterative approach to data collection, the Evaluators used intermediate findings to further expand their guiding questions.

A list of organizations met is included in [Annex 3](#).

The Evaluators' assessment of whether the two projects provided the right type of support in the right way to achieve its objectives was based on the following **evaluation criteria**:

- **Relevance:** the extent to which objectives at all levels are and remained consistent with beneficiaries' requirements, national and global priorities and policies;
- **Efficiency:** the appropriateness of the approach used, the quality of project management, how economically resources/inputs (e.g. funds, expertise, time) are converted into results (value for money), an assessment of quality of service delivery, and possible synergies achieved with other donor-funded initiatives;
- **Effectiveness:** the extent to which objectives are achieved, or are expected to be achieved, considering their relative importance. The Evaluators further explored possible unplanned/unexpected negative/positive outcomes; and
- **Sustainability:** an assessment of the likelihood that benefits generated will continue after the assistance/support has been completed.

UNIDO furthermore asked the Evaluators to look at the **proper use of standard tools of results-based management (RBM) in project planning and monitoring**.

Evaluation findings, conclusions and recommendations were discussed in detail at face-to-face de-briefings in each of the beneficiary countries. In Lao PDR and Cambodia, the Head of UNIDO operations participated in the de-briefings. UNIDO (Vienna) was de-briefed on 12 December 2016. The de-briefing slides were shared with the donor on 13 December 2016. Purpose of all de-briefings was a factual verification of key findings and an in-depth discussion of evaluation results. A draft report was circulated to UNIDO for factual verification on 29 December 2016. The Evaluation Group provided feed-back on 26 January 2017. The Project Manager commented separately on 20 February 2017, 21 February 2017, 1 March 2017 and 13 March 2017. NORAD provided feed-back on 20 April 2017.

All his factual corrections are addressed in this final version of the evaluation report

1.3 Limitations

Fact-finding was challenging and time consuming. Progress reports received prior to the mission were outdated, incomplete, unclear or in some parts even misleading. Initially, Project Management did not actively contribute to fact-finding. The Evaluators went on mission without being aware of significant implementation problems. Noting a significant contrast between facts presented at the briefing and in the implementation reports, the Evaluators were required to start establishing facts at the activity level. This work, which is normally part of monitoring, was challenging and time consuming. Thanks to the readiness of stakeholders in the field to openly share all relevant information and updated reports by UNIDO provided at the de-briefing, information used in this report is now comprehensive, consistent and clear.

Secondly, many key outputs essential to the achievements, particularly UNIDO's support to accreditations of SMTQ institutions (advice, equipment), had not yet been fully delivered. It is thus not possible to assess potential benefits (e.g. accreditations as a direct outcome, or more indirect outcomes such as service provision) and their sustainability. In most cases, assessing outcomes would be premature. Nevertheless, the evaluators noted some positive planned and unplanned outcomes.

Thirdly, the financial value of counterpart contributions as per project document had not been regularly reported and tracked until after NORAD repeatedly requested this from UNIDO in semi-annual meetings. The report provided to the evaluation team leader on 28 April 2017 did not link partners' contribution to the project outputs and the actual contribution were not compared against the planned contribution and therefore do not allow for a detailed analysis of financial efficiency. Finally, the Project had no gender objectives, activities and reporting. The evaluators were unable to answer gender-related evaluation questions of the ToR. Despite these limitations, sufficient information for a well-founded assessment was available.

2. Findings and assessment

2.1 Project design

This chapter assesses the quality of project design reflected in the original project document, including its identification and formulation.

A. Project concepts

Both projects were designed as follow-up phases, mainly to consolidate and complement ongoing support. Therefore, the project design replicates to a large degree UNIDO's former generic approach to the upgrading of SMTQ systems under which individual service providers are strengthened through the provision of equipment and expertise.

Some lessons learned of the evaluation of Phase II were taken up, but not consistently, e.g.:

- The project focused on the building of priority capacities that are needed by key industries or to ensure public health and safety
- An attempt of business planning and costing for some services (e.g. certification in Nepal), but not for the quality prize in Cambodia.

In parallel, UNIDO also used a value chain analysis in identifying and addressing NQI-related constraints of certain priority export products (e.g. cashmere wool in Nepal, coffee in Lao PDR, and rubber in Cambodia). This was an innovative step over the largely capacity-driven approach of SMTQ development in prior project phases.

The value chain analysis of the coffee sector in Lao PDR, however, did not cover the entire value chain. It did not attempt to identify all key challenges within comprehensively, either under the Project or with other resources. UNIDO's value chain analysis was to some degree biased towards justifying the deployment of UNIDO's standard service repertoire – the upgrading of a (coffee) testing laboratory. The risk of conducting a value chain analysis under the limited scope of quality infrastructure is that more important challenges preventing value addition within the chain are not identified and addressed. On the other hand, a comprehensive strengthening of value chains would need more time and resources that were available to UNIDO. This might have been the reason for looking at conformity assessment aspects only.

B. Application of planning tools

Both project documents include a logical framework, but it is not properly used. Not all expected results are clearly spelled out and some targets are unrealistic. Both projects make promises that go far beyond the scope and extent of support they can provide. Causality between envisaged wider outcomes and support provided is weak. Competitiveness of industries requires far more than quality infrastructure.

Different result levels (outputs, outcomes and impact) are not separated, making it difficult for the project management team to monitor and track results during the project implementation. In many cases, no difference is made between deliverables of UNIDO (outputs), which are generated using project resources (inputs), and their use (outcomes). Neither policy decisions nor accreditations are deliverables of UNIDO.

Moreover, results are also not consistently linked to specific, measurable, achievable, relevant and time-bound (SMART) indicators. It is unclear how UNIDO's limited support (outputs) could, if clearly defined assumptions on external factors materialize, translate into the envisaged, rather ambitious higher-level objectives (outcomes, impact).

The timeline and budgets for the delivery of outputs (services) were reasonably realistic.

Clearly overambitious were the expected results at outcome and impact level. Expected significant and broad socio-economic changes to be achieved are not commensurate with the limited scope of the projects.

Overall, the design of both projects was moderately unsatisfactory (3/6).

2.2 Relevance

The assessment of relevance looks at the extent to which project objectives were consistent with the requirements of key beneficiaries, international priorities, donor policies and UNIDO's mandate.

A. Relevance to national priorities

In all countries, project objectives were fully in line with national priorities.

The theme of both projects was primarily trade facilitation. Compliance with standards is of course a key requirement for exporters. A well-functioning NQI helps countries to protect themselves from dumping of substandard goods into their market. In addition to these trade-related aspects, an enabling business environment, including a strong NQI, contributes to private sector development, revenue generation and poverty reduction. The NQI plays an equally important role in protecting consumers, especially the poor relying on cheap products, from hazards and economic losses caused by substandard goods. Benefits of the NQI are thus also of potential high relevance to improved livelihoods of the population. The Evaluators noted that in all countries, ensuring public health and safety are at least equally important to trade facilitation objectives.

B. Relevance to direct and indirect beneficiaries

Generally, both projects provided the right type of services to the right beneficiaries with some room of improvement as follows:

- Bhutan (BSB): Relevant but not covered was the ISO 17020 accreditation of its inspection, which is pivotal for a mutual recognition agreement that is currently under negotiation with India. India is the key export market. BSB is a new organization. Assistance in how to develop BSB into an effective, sustainable public service provider would have been useful;
- Cambodia: The concept of the Quality Award to be implemented through the Cambodian Chamber of Commerce is financially and technically not feasible;
- Consistent negative feedback that was independently provided by different institutions in different countries indicate that some support provided in standard formulation (Cambodia, Lao PDR, Maldives) and policy advice (Maldives) was based on a generic replication of what is not adapted to specific country needs.

C. Relevance to UNIDO

The NQIP obviously matches the operational mandate and core competencies, expertise and experience of UNIDO. Project objectives are fully aligned to UNIDO's core objective and mandate to promote sustainable industrial development.

In conclusion: The Project was fully aligned with national and international priorities, the needs of all beneficiaries, UNIDO's core mandate. Relevance of both projects was moderately satisfactory (4/6).

2.3 Effectiveness

Effectiveness looks at the extent to which the development objectives of an intervention were or are expected to be achieved. This section assesses progress towards achieving planned outputs and outcomes. Planned versus achieved results are presented by country in alphabetic order, following expected country-specific outcomes in both project documents. More detailed information per country is included in Annexes 1A – 1E.

A. Bhutan (SAARC project)

Expected outcome 1: Bhutan will have food assessment facilities capable of identifying unsafe and unwanted foods, quantity statements acceptable to all purchasers, certified products freely traded, and a strategy to improve business and government through use of Management System Standards.

Output 1.1: UNIDO supported BAFRA to draft eight food-safety related standards¹¹. The key benefit of UNIDO's assistance was to apply, unprecedented, a systematic process to standards development in the country. Among those standards formulated with UNIDO's assistance, seven were endorsed and published (see website BAFRA), while one standard was dropped by the National Codex Committee (NFSQ). Following UNIDO's assistance in standard drafting, BAFRA developed 12 standards on its own, of which ten were approved and two rejected. It should be emphasized that based on the Bhutanese standards act, BSB and not BAFRA is Bhutan's standard body responsible for publishing standards covering all technical areas.

Output 1.2 Under Phase II and III, UNIDO supported a total of two companies to obtain HACCP certification and a total of four companies to obtain ISO 22000 certification. UNIDO provided a consultant to prepare for certification and the certification fees. BAFRA inspectors were involved into the process and benefitted from on-the-job training. All companies have passed a first surveillance audit in 2016 (at their own cost). BAFRA considers it as likely that in 2017, they will be able to renew their certificates with their own financial means. Companies seem to recognize the value of ISO 22000 certification. Main advantage appears to be operational improvements (e.g. food storage management), access to new clients (e.g. international tour operators), and consumer confidence. The evaluation Team Leader observed that some companies pursued ISO 22000 certification outside the Project. It seems that the application of Food Safety Management Systems in some companies contributed in a more general way to the better awareness on food safety.

Outputs 1.3 and 1.4: UNIDO assisted the National Food Testing Laboratory (NFTL) to extend the status of its prior accreditation (obtained 2013) and to obtain accreditation for 14 additional parameters (13 for chemical testing and one for micro-biology). The micro-biology laboratory suffered from a lack of trained staff. A further extension of testing scopes in the field of micro-biology was therefore not possible. UNIDO's contribution included extensive training (in-house,

¹¹ Bhutanese rice, maize and maize products, chili and chill powder, dried fish, contaminates, food additives and adulterants, home processed vegetarian pickles, animal meat and co-products, Dhatsi and Chugo).

within country and a few trainings in India)¹², the coverage of 100% of the accreditation fees and the purchase of some consumables and equipment. Trainings were of high quality. An additional training was planned 14-26 November 2016. One of the key concerns of BAFRA is to maintain trained staff. They established a succession plan for staff, which should ensure the hand-over of knowledge. They also continue to recruit additional staff (supported by Royal Civil Service Commission), most of whom need to be trained on the job.

UNIDO's contribution to food testing in Bhutan was significant, as the NFTL was the first laboratory in Bhutan to achieve ISO 17025 accreditation. Private sector companies were involved into training activities, which increased their awareness on food safety. It should also be noted that the accredited NFTL is to a large degree an outcome of UNIDO support. Evidenced by interviews with BAFRA, BSB and personal observation in the laboratories, other donor support was modest. It included some isolated trainings by FAO and WHO as well as some small equipment procured by the EU. After UNIDO support, BAFRA is currently using the practical knowledge in ISO 17025 certification to further expand the scope for additional testing parameters. UNIDO has also provided them with some limited support in costing their services. A Protein Analyzer supplied under Phase II is no longer operational. UNIDO promised to replace the equipment. As a subsequent event to this evaluation, UNIDO reported that delivery, installation and training by the supplier had been provided.

Outcomes observed: The NFTL conducts currently around 60 tests per month, most of which are provided to internal clients (inspection). As confirmed by one feed producing company, BAFRA also seems to have initiated its own, although limited, capacity building activities for food processing companies.

Planned outcome 2: Nation-wide, internationally based metrology system, construction products certification scheme for regional market and the use of Management System Standards to support organizational continual improvements of Bhutanese organizations.

Outputs 2.1 – 2.5 (Metrology): UNIDO procured a thermometer set and accessories, which were delivered in June 2016, commissioned and functional. Furthermore, the Project procured a computer and a camera. The order for some additional metrology equipment relating to pressure calibration has been placed. Generally, BSB has been satisfied with the quality of trainings provided. Both trainings and delivery of equipment are however not properly sequenced. For metrology training (in measurement uncertainty calculation), it would have been important to have the newly procured pressure calibration equipment. Two officials received training on ISO 17025 in India (2015), one of them is currently in Australia for training, and is expected to return.

According to the Project Document, the purchase of a “vehicle and equipment for calibration in remote areas” was planned. A pick-up truck was procured and commissioned in October 2016. The evaluation Team Leader observed that the car was currently used for inspection purposes (to collect samples of bricks for testing). Apparently, UNIDO first wanted to supply the same vehicle (a light truck transporter) that was purchased under EU funding for Nepal and Bangladesh, but BSB refused, because this vehicle would not be fit for use on mountain roads. UNIDO reported after the evaluation that modifications in the trunk of vehicle were made to safely transport metrology equipment.

Outcomes observed: The metrology laboratory achieved accreditation for mass and length per ISO 17025 in 2013. This is however an outcome of phase II and not of phase III, as it occurred before the activities of phase III started. Accreditation of temperature and volume is in the final process of being

¹² Capacity building of lab analysts: Training on laboratory management system (4-7 August 2014 in New Delhi, India, 4th meeting of SARSO STC on Food & Agriculture Products (21 -22 September 2014, New Delhi, 3rd National Conclave for Laboratory (28-29 October 2014), Estimation of Measurement Uncertainties in testing and calibration (19 – 21 Jan 2015) (one person).

prepared and from today's perspective, likely to be obtained within the next 3-6 months. Main reason for the delays was the late delivery of some essential equipment (thermometers and accessories). No significant wider outcomes in the field of metrology were observed. The metrology laboratory seems to be only sporadically used. One steel company visited by the evaluator had used BSB's calibration service, but did not pay for it. The Director of one company claimed that he tried to use calibration services of BSB, but did not receive any reply. Both companies stated that the availability of calibration within Bhutan (especially on-site in their factories) results in significant cost savings for them (steel company: 70 – 80,000 Rupiah per year). Furthermore, some equipment requires on-site calibration (as it is not possible to move it). The fact that only a limited number of companies use BSB's calibration service indicates a lack of marketing efforts and systematic approach to customers. For one steel company interviewed, accreditation of the calibration service provider they use is crucial.

The current basic metrology infrastructure in Bhutan (hardware) is to a large degree a result of UNIDO's support over three project phases. In terms of training, Physikalisch-Technische Bundesanstalt (PTB, funded by SAARC) also contributed significantly to its operationalization. The PTB's metrology expert worked for both UNIDO and PTB in parallel. Furthermore, BSB also contributed its own budget to the preparation of accreditation (e.g. covering the costs for the blank audit).

Output 2.6: Accreditation of BSB as Product Certification Body to ISO/IEC 17065. UNIDO funded a study tour on product certification to Singapore, Malaysia and Indonesia in March 2014. Two officials each received training in cement, steel and bitumen testing. Under Phase II, UNIDO had provided support in preparing the documentation. Under the current phase, UNIDO covered the accreditation fees.

Outcomes observed: BSB achieved accreditation for product certification ISO 17065: Steel, bitumen and cement. BSB plans to expand the scope of accreditation for product certification to other products, using their own means.

One steel producer interviewed confirmed the importance of the mark and its possible future recognition by India. It is very time-consuming and costly for them to get the Indian quality mark (granted by the Bureau of Indian Standards, BIS¹³): the total costs of obtaining and maintaining the BIS mark is currently around 300,000 Rupiah. BIS is not accredited, so the company perceives the BSB mark as more credible. Yet currently, as the BSB mark is not recognized in India. The BSI mark is still required for exporting to India.

Output 2.7 – 2.10: Development of Management System Certification Services. Planned UNIDO support included the development of a "business case", the inclusion of Management System Certificates in the requirements for the "Brand Bhutan, Seal of Quality, Seal of Excellence", explore ways on how to provide management system certification services (through the establishment of a national Certification Body (CB) or contract with a foreign CB).

UNIDO provided exposure visits and extensive training. No evidence of a business plan was found. BSB took the decision to provide certification services. In June 2016, three officials benefitted from a lead auditor training for ISO 9000:2015 certification in India. UNIDO assisted five organizations¹⁴ to obtain unaccredited ISO 9000:2015 certification (prior to BSB's accreditation as a management certification service providers, thus a similar approach as in Nepal was used). It should be noted that, due to a lack of budget, the lead auditor for the certification was funded by BSB and not by UNIDO.

¹³ www.bis.org, which is responsible, inter alia, for mandatory product certification.

¹⁴ Including: two bitumen manufacturers, one animal feeds producer visited by the evaluator, one municipality, the anti-corruption commission and the Bank of Bhutan.

Two persons of BSB participated in the preparatory work. UNIDO and BSB jointly funded one training workshop on ISO 9000:2015 for 30 persons. Both BSB and one company interviewed confirmed the high quality and the usefulness of the training. As a follow-up, BSB funded the training of four additional officials in India, which brings the number of BSB's lead auditors to seven. Interviews by the evaluators indicate a high commitment of BSB to develop management system certification services.

Effectiveness of the SAARC Project in Bhutan was moderately satisfactory (4/6).

B. Cambodia (Mekong Project)

Immediate Objective was to facilitate the industrial development, consumer protection and enhancement of export capabilities through further strengthening of national quality infrastructure and human capacities related to standards, metrology, testing and quality.

Expected Outcome 1: Improvement of quality of products and protection of consumers in respect of safety and health.

Output 1: Standard formulation. UNIDO supported the Institute of Standards of Cambodia in publishing 12 additional standards, which brings the total of standards developed under the project to 40, of which 19 were published. UNIDO furthermore funded the publication of standards. Besides procedural reasons, delays were caused by redrafting standards, which the ISC felt were not adapted to Cambodia's requirements.

Output 2: Expansion of the scope of ICS's accreditation to three new products. Following UNIDO's support, the application for expanding accreditation of product certification (ISO17065:2013) to three new products (chili, fish sauce and emulsion paint) was submitted in June 2016. The first assessment by the accreditation body indicated various non-conformities. UNIDO's technical expert stated that NCs were due to some of the procedures followed by the ISC. Also, the Cambodian standards against which the products are certified were not available in the English language. The evaluator was unable to verify the reasons for the NCs through other sources. Finalizing the preparatory work for accreditation needs further expert support and is expected to take until June 2017. Without further UNIDO support, accreditation is unlikely to be achieved. Funds already spent would be lost.

Planned outcome 2: Improvement of measurement accuracy, international traceability and consumer protection

Output 3: Industrial and legal metrology sections of the NMC upgraded. UNIDO supported the National Metrology Centre of Cambodia in upgrading its industrial lab and applying for accreditation to ISO/IEC17025 (April 2016). UNIDO's contribution included in-house training (March 2016), internal audit and formulation of manual, and the purchase of two auxiliary equipment needed for accreditation. The assessment by the BoA took place mid-summer and NMC was given a 3-month period until end of November to attend to various NCs. Based on information provided by the Project Manager on 1 March 2017, 16 minor NCs and six observations remained after a follow-up visit between 23 and 25th November 2016. It is not possible for the Evaluators to triangulate this information with other sources. Without coaching by a UNIDO expert over a minimum of three more months, an achievement of accreditation seems unlikely.

Output 4: Provincial metrology offices upgraded. UNIDO provided some small equipment, which was however moved back to the NMC. No outcomes were observed.

Expected outcome 3: Improved capability of Cambodian exporters to meet international requirement for trade

Output 5: The NSL of CRRI is upgraded. Besides equipment procurement¹⁵, UNIDO provided different trainings and capacity buildings (three persons in Malaysia and five on-site). Moreover, UNIDO dispatched an expert to support the Cambodian Rubber Research Institute to train 60 small manufacturers. UNIDO furthermore assisted CRRI to prepare for the accreditation extension (ISO/IEC 17025). CRRI paid for the expansion of accreditation fees.

An assessment for extension of scope of accreditation for tests on rubber-based products at the NSL was performed by BoA Vietnam in May 2016. NCs included missing and malfunctioning equipment. CRRI is awaiting UNIDO support for remediation. At the time of the evaluation mission, corrective action reports were still not sent to BoA because CRRI did not receive a replacement of the sensor which broke down in January 2016. Most of the equipment procured by UNIDO was of poor quality, apparently for cost reasons. Some essential equipment was not provided and CRRI did not have a budget to purchase it.

With UNIDO's support, the CRRI also printed 1000 "fact sheets", which they distributed at the event. Otherwise, CRRI uses Facebook page for marketing and communication.

The quality of UNIDO's support was mixed. At least some of the equipment selected, procured and paid by UNIDO was of poor quality and unfit for accreditation purposes. UNIDO's project management's reaction on addressing the problems has been slow.

Outcomes observed: As an unexpected and not reported positive outcome, CRRI developed a guide book on rubber processing, which seems to be widely used. The UNIDO expert not only provided trainings to small holders, but also provided useful hands-on support to some rubber processing factories. These and the guide books resulted in significant operational improvements. In one case, the guidebook was used to design the layout of a new factory. The new equipment was, despite its malfunctioning, also used to do research, based on which the CRRI presented a paper entitled "Processing of Viscosity Stabilized Ribbed Smoked Sheet Natural Rubber (RSS CV60)" at the International Rubber Conference in November 2016.

Outcome 4: In collaboration with Cambodia Chamber of Commerce, awareness on quality among industrialists, consumers and the general population created.

Output 7: Quality awareness raising and the development of a quality award. UNIDO assisted the Cambodian Chamber of Commerce for the development of the Quality Award scheme (reflected in a manual). Following the launching event in July 2016, businesses that showed interest were invited for a training session with UNIDO expert in October 2015 to get familiar with the application process. No applications have so far been received. Apparently, companies found the application procedure too complex and cumbersome. UNIDO subsequently cancelled the end-of-year award ceremony. It is also obvious that in the form it has been planned, the quality award would be too costly (around US\$60,000 per year) and thus financially unsustainable. No outcomes are observed.

Effectiveness of UNIDO's support in Cambodia is currently unsatisfactory (2/6). A no cost extension ideally until June 2017 is vital to complete pending accreditations of product certification, the accreditation of NMC for volume/mass, the provision of essential equipment to NSL of the CRRI and if possible also the expansion of CRRI's accreditation scope. *If all those outcomes were to be achieved prior to the Project's end, its effectiveness in Cambodia would be rated moderately satisfactory (4/6).*

C. Lao PDR

¹⁵ A tensometer, a DIN abrasion tester, a rheometer and a hardness tester

Immediate Objective: to facilitate the industrial development, consumer protection and enhancement of export capabilities through further strengthening of national quality infrastructure and human capacities related to standards, metrology, testing and quality.

Expected Outcome 1: Improvement of quality of products and protection of consumers in respect of safety and health services

Output 1: Development and dissemination of standards for key export products: During phase III, UNIDO provided the Division of Standards (DOS) with support to drafting of four standards: plywood, gypsum and pre-stressed concrete poles and cassava. Furthermore, UNIDO funded two meetings of the Technical Committees. The standard on cassava, which is a potential export commodity for Lao PDR, has been published. The publication of the other standards is pending. No outcomes are observed.

Output 2: Support to the Quality Center (QC) in identifying new product categories and expanding accreditation. UNIDO provided support in drafting a quality manual in preparation of accreditation (ISO 17065). Currently, accreditation is put on hold due to a change of management (Director General and Quality Manager). It appears that the accreditation body (BoA) identified various non-conformities. Accreditation will be funded by budget provided under the Enhanced Integrated Framework (EIF).

Output 3: Information & Training Center (ITC) is supported to develop standards library. UNIDO helped the DSM to install a database software (FileMaker) for the standards library.

Outcome 2: Improvement of measurement accuracy, international traceability and consumer protection

Output 4: Lao Metrology Centre is upgraded and supported for accreditation. UNIDO procured various equipment for temperature, mass, pressure and electricity calibration. Staff interviewed claimed that the “Pneumatic Dead Weight Pressure Tester” (PO20997 delivered in 2014) was not in use. UNIDO’s metrology expert said that he installed the equipment and trained staff during his mission in 2016. Language problems prevented the Team Leader of the Evaluation to identify the exact reasons. Electricity and mass calibration equipment is installed and seems to be working. The Thermocouple Calibration Furnace (PO20997) is functional. Staff interviewed stated that traceable reference standards were not available and that the DSM did not have a budget to address the problem. UNIDO’s metrology expert denied this.

Outcomes observed: In practice, the DSM only calibrates electricity, mass, weight and volume. They are also responsible for the calibration of fuel pumps. Their regular clients are mostly large companies. Metrology services are also provided by the Departments of Science and Technology at provincial and even district levels. While they do have the equipment, they lack enough trained staff to calibrate temperature and pressure. One steel producing company interviewed did not perceive any difference before and after the UNIDO intervention, but was generally satisfied with the calibration service received on-site (weight). A bottled drinking water company visited had so far not used calibration services. It seems quite unlikely that DSM will achieve the expected accreditation within the next 12 months. Apparently, they plan to accredit their electricity laboratory first and call for funding from the EIF for this. Further UNIDO support is not warranted.

Output 5: Division of Consumer Protection is supported for legal metrology. UNIDO provided various equipment, mainly for mass and weight calibration. Neither was the use of the equipment monitored by the Project, nor was the Team Leader able to verify it. The DSM appreciated the support of UNIDO in upgrading the provincial departments as useful, as it is the policy of the government to decentralize industry metrology service provision to the provincial and district level.

Outcome 3: Improved capability of exporters to meet international requirements for trade.

Output 6: The Lao Coffee Association (LCA) is supported for establishment of a coffee testing laboratory. Equipment was procured as planned. UNIDO reported that it was installed, commissioned and functioning. It was not possible to check whether and how it is used. Due to the high costs involved (additional domestic flight), the evaluation Team Leader did not conduct an on-site visit.

Output 7: The Food & Drug Quality Control Centre (FDQCC) is supported for upgrading Food Chemistry Section.

It was apparently decided to upgrade the Micro-Biology rather than the food chemistry section, due to a lack of staff. UNIDO provided various equipment and supplies¹⁶. Moreover, UNIDO covered the costs of proficiency testing. UNIDO experts conducted a total of three assessments (December 2014, November 2015 and July 2016). FDQCC was satisfied with UNIDO's experts. They still expect UNIDO to cover the cost of upgrading of the Food Chemistry Laboratory, claiming that UNIDO had orally promised during a recent conference call. A contract for accreditation has been signed with BoA. Obtaining accreditation will however need at least an additional six months. It appears that due to a lack of shared understanding about a clear work plan, a lot of confusion evolved around what support FDQCC could expect by UNIDO and by when.

Output 8: Survey Design and Materials Testing (SDMT) is supported for upgrading testing capacities and for accreditation. SDMT benefitted from training on quality management, internal audits, and the determination of measurement uncertainty. UNIDO also procured equipment and assisted SDMT in developing a quality manual. One High Pressure Cement Autoclave delivered in 2014 is defective. The conditioning chamber needed to operate the equipment was only delivered in August 2015. By that time, the warranty of the autoclave had already expired. SDMT claims that the Thai expert they hired to continue preparation for accreditation found many NCs in the quality manual developed by UNIDO. SDMT contested that the UNIDO expert had little experience in civil engineering. UNIDO denies the quality problems and highlights qualifications and experience of the consultant.

Outcomes observed: All SDMT staff trained under the Project left for the private sector. SDMT now plans to pursue accreditation by using its own budget.

Overall, effectiveness of the Mekong Project in Lao PDR has been moderately unsatisfactory (3/6). Effectiveness could be improved through an extension, which would allow UNIDO to complete the pending accreditation of the FDQCC laboratory.

D. Maldives

Immediate Objectives:

- *Ensure safe food through enactment of laws and regulations verified by an accredited MFDA food safety laboratory with a full range of testing parameters*
- *Strengthen the metrology scheme provided by the Polytechnic and the Atolls inspectors, and*
- *Establish measures to assist the yellow fin tuna industry to retain required management system certifications for exports, and facilitate the dried fish industry to increase exports through effective use of management systems.*

¹⁶ A freezer for the reference culture (-30 Degrees), two reference samples on food and one sample for water, documents for 10 test methods (ISO standards).

Outcome 2: The Maldives will have food assessment facilities capable of identifying unsafe and unwanted foods, quantity statements acceptable to all purchasers, and a strategy to improve exports of fish through use of Management System Standards.

Output 3, Maldives Food & Drug Authority (MFDA): Published laws and regulations along with accredited testing capacity to detect residues, additives, pesticides and contaminants

Output 3.1: Finalize and publish a Food Safety Law for food produced, processed, or prepared in the Maldives, as well as food imported, complying with the Codex Alimentarius Commission requirements. Under Phase III, UNIDO funded the participation of 2 officials in a workshop on food safety and nutrition in Nepal (2013). Otherwise, no assistance was provided. The new bill is expected to be passed by the Parliament in mid-2017. Despite the missing law, the MFDA is still performing inspections by applying the law on public health and the consumer protection law.

Output 3.2: Prepare and publish regulations based on CAC standards covering activities involved in producing, processing, preparing food for domestic use and export, as well as for food importers. Regulations concerning residues, additives, pesticides and contaminants. A UNIDO consultant assisted MFDA in drafting eight technical regulations and one code of practice on importing practices. Most of the initial work delivered by the consultant was a replication of standards from other countries or from the CODEX, in addition to standards they did not ask for. The consultant submitted the draft standards after he already left, which made the communication rather difficult, as both sides took time to respond to emails and the local “drafting team” was already dissolved. Consequently, the MFDA had to carry out most of the task by themselves. Performing as much as possible of the standard drafting work during the consultant’s presence in the country rather than through email exchanges would obviously have been more efficient.

Output 3.3: Enhance food testing capability of MFDA through training and procurement of equipment. Equipment procurement is nearly completed, with 10 out of 11 machines on the list delivered. The procurement process advanced slowly: NHL prepared a list of proposed equipment for UNIDO at the end of 2013, the list was finalized at the beginning of 2014, and most of the equipment was delivered in May 2015. One equipment was supplied without a printer connected (due to the printer not having been ordered by UNIDO). Some parts of another equipment were missing due to supplier’s mistake, but this was corrected in August 2015. Parts of the delays were due to a failed attempt to procure some of the equipment locally. The laboratory is in possession of the warranty documents, and will try to obtain government budget to procure a printer, which will take time. In the meantime, the equipment is not yet operational.

Output 3.4: Provide training for re-accreditation. Staff was trained in “method validation and measurement uncertainty” and internal quality control (November 2015, March 2016 respectively). The method instructed by the UNIDO expert was not accepted by the accreditation body, because it was outdated. The MFDA became aware of the problem only in June 2016. Subsequently, the assessor provided the standard and they applied them by themselves. The general understanding provided by the UNIDO expert was useful for this. MFDA was consulted on the selection of the expert, but trusted that UNIDO would check.

Assistance to the development of a product registration mechanism (additional activity proposed by MFDA): UNIDO had initially proposed the same consultant previously used for standard formulation. As they had not been satisfied with the expert’s work, the MFDA rejected the proposal. The consultant whom UNIDO eventually fielded performed an excellent job!

Outcomes observed:

- The NHL has expanded its testing capabilities to 11 additional parameters and will apply for accreditation by a Thai accreditation body in 2017. Accreditation costs will be paid by the

government budget. UNIDO's support was essential for them to meet export testing requirements. Fish export import is second most important economic sector after tourism. Apart from the MFDA laboratory, only a private water testing laboratory is available. This means that most tests would have to be performed abroad (Sri Lanka is the nearest option), which is rather costly and for perishable food problematic. The product registration mechanism (developed as an additional output) was immediately applied and proved to be effective.

- Food Safety Management System Certification: There were no activities under Phase III. The fish exporters that received support to ISO22000 certification under phase II have maintained it. The certification helps companies to access the EU as the major export market. The airport inspection area (certified HACCP with UNIDO support) did not maintain the certification, because a new terminal has been built.

Output 4, Maldives Standards & Metrology Unit (MSMU) & Maldives Polytechnic (MP): Measuring Instruments used in the Maldives calibrated with international acceptance of calibration certificates and support for Management Systems in support of trade.

Output 4.1: Complete update of Polytechnic metrology lab facilities. Initially, it was planned to establish metrology at the Ministry of Economy. This option was rejected, as it was not possible to get qualified staff (with an engineering degree) within the non-competitive salary scale that applies to government officials. The salary scale for teaching staff is higher, hence the decision to establish the laboratory at the University.

Under Phase II (2013), two staff were sent to India for training on ISO 17025, but they left the Polytechnic University. Furthermore, two on-site trainings were conducted (one under phase II and one under phase III). The documentation for accreditation (mass, volume, length) has reportedly been prepared. The scope of accreditation has been defined based on a needs assessment (including priorities of the legal metrology).

Problems in calibrating the equipment (output 4), for which the Project was responsible, contributed to delays¹⁷. But the main reason for delays was the lack of commitment and staff at the Polytechnic University, before a national metrology expert was recruited in August 2016. For more than two years, activities had come to a standstill, except some limited email exchanges. UNIDO project management did also not take any action to remediate the situation. Even more recently, implementation continued to drag along, e.g. the calibration of equipment. The reasons given to the evaluator by the persons involved differed significantly. It is planned that UNIDO will pay for calibration and accreditation of the metrology laboratory. It seems however highly unlikely that this will be completed before mid-2017. Five out of seven planned metrology cells have been established (by the Ministry). Two were not established, because of insufficient space. The evaluator visited the metrology cell (one office) in the capital Male and found that it was working.

Output 4.2: Develop and make available training course for calibration Inspectors. MED organized training for the persons responsible for operating metrology cells at five Atolls.

Output 4.5: Assess the market potential for Management System Certification as well as Management System Certification Training: A study was carried out by IC which recommended MED to have MOU arrangement with foreign CB (preferably SLSI, national standards body of Sri Lanka).

No results were observed on the following planned outputs¹⁸:

¹⁷ At the end of 2013, UNIDO shipped the metrology equipment sent to India, where it did not pass customs in Mumbai. After 8 months, the equipment was released, but some of it was damaged or lost. UNIDO did not pay for the damage caused.

¹⁸ Since UNIDO does not take policy decisions and laws, outputs 4.3 and 4.4 would be outcomes.

- *Output 4.3: Policy Decision to ensure continuous availability of trained calibration inspectors in each Atoll.* Interviews concluded that no measures to counter staff turnover were taken. It would not be possible to take such measure in a single government entity in isolation, thus the expected outcome was unrealistic.
- *Output 4.4: Publish standards act.*¹⁹ (reason: delays in the parliamentary process)
- *Output 4.6: Policy decision to support Management System Certification awareness/ certification through a national Certification Body, contract with a foreign Certification Body* (reason output 4.5 would be a pre-condition).
- *Output 4.7: Establish a national Certification Body accredited to ISO/IEC 17021 or contract with a foreign Certification Body.* The government took a decision to leave this activity to the private sector. No outcomes have yet been observed (reason: outputs 4.5 and 4.6 would be a pre-condition).

Effectiveness of the SAARC project in the Maldives has been moderately unsatisfactory (moderately satisfactory 4/6 regarding outcome 3 and unsatisfactory 2/6 regarding outcome 4). Effectiveness could be improved through an extension, which would allow UNIDO to complete metrology-related output 4.1 (calibration and accreditation of the metrology laboratory).

E. Nepal

Immediate Objective:

The project's overall objective in Nepal was to strengthen the food safety system through improvements to the operations of the Central Food Laboratory (CFL) of the Department of Food Technology and Quality Control (DFTQC) and scope extension, strengthen the Pashmina industry through improved Nepal Bureau of Standards and Metrology (NBSM) textile testing and certification scheme, improve construction product quality through NBSM certification, and determine the best approach to encourage the national use of different management systems, as well as strengthening training for, and accreditation scope.

Outcome 3: Nepal will have food assessment facilities capable of identifying unsafe and unwanted foods, products supported by test certificates, certified products freely traded, and training and certification capacity to improve business through use of Management System Standards.

Output 5 (DFTQC): Published regulations along with accredited testing capacity to detect residues, additives, pesticides and contaminants.

Output 5.1: Prepare and publish regulations covering activities of those involved in producing, processing, preparing food in Nepal for domestic use and export, as well as for food importers: Through a national expert, the Project supported the drafting of 15 technical regulations for priority food products (export relevance, high risk products) and the translation of 8 of them into Nepali. The technical regulations were discussed in a workshop. UNIDO also procured a computer and a printer for the DFTQC.

Outcomes observed: all technical regulations are in different stages of undergoing validation. One standard (water) has been approved. None of the standards has been published. None of the broader expected outcomes has been observed.

¹⁹ Under Phase I, UNIDO drafted a standards law, which was essentially a replica of India's standards. This was not useful (phase I), as it was not adapted to Maldives' needs. The law has not been passed. No further support was provided under phase III. Currently, the Maldives plan to use the SAARC Standards Body. The Ministry explores an option to add a chapter to the Consumer Protection Act rather than to draft a separate law. In regards to standard formulation, they explore the option to grant the competence to the Minister of Economy to establish ad-hoc standard formulation teams (not permanent).

Output 5.2 and 5.3: Increase food testing capability of DFTQC to assess residues, additives, pesticides and contaminants through procurement of equipment and training of operators for that equipment. Apply and achieve re-accreditation for extended scopes of the Chemical Food Laboratory. The Project procured various small essential accessories and critical consumables. Due to delays in the bidding process, delivery took place only in 2016. The Project furthermore provided financial support to the refurbishment of the micro-biology laboratory, which was essential to fulfill the requirements of ISO 17025 accreditation. UNIDO partially (40%) funded the external calibration of equipment at the Chemical Food Laboratory by an Indian calibration service provider. Laboratory staff received the opportunity of a study visit to two Indian accredited laboratories and a training on Quality Assurance and Quality Control (as required by ISO 17025) for the personnel of the Chemical Food Laboratory. Onsite training on measurement uncertainties is planned for 24-27th October 2016 National Accreditation Board for Testing and Calibration Laboratories (NABL).

Outcomes observed: The key expected direct outcome, the accreditation of the microbiology laboratory for extended scope and re-accreditation of the Food Chemical Laboratory of DFTQC, materialized on 24 November 2016 (after the field mission).

Output 5.4: Policy Decision to ensure continuous availability of trained laboratory equipment operators. No outputs or outcomes were observed.

Output 6 (NBSM): Improved training and conformance capacity for product testing, product certification and Management Systems

Outputs 6.1 Augment testing capacity to provide support for product development, exports, and CB and Output 6.2 Accreditation of NBSM as Testing Laboratory to ISO/IEC 17025

The Project upgraded the textile, micro-biology, and cement testing laboratories through the procurement of various equipment. Support to the preparation of ISO 17025 (including staff training) was provided. Apart from purchasing some additional equipment, the Project did not specifically cover the food chemical laboratory.

Outcomes observed: The NBSM estimates that accreditation of the cement and the textile laboratory to ISO 17025 is likely to be achieved prior to the end of 2016 (through the same accreditation body), while for the micro-biology, accreditation within the foreseeable future is unrealistic to be achieved, due to the lack of qualified micro-biologists. It was not possible for the evaluators to validate whether and when the accreditation would be achieved. It should be noted that implementation was affected by the earthquake in 2015, which required repairs of around 2-3 months, when the cement testing laboratory was damaged. Further delays occurred due to slow procurement of the equipment.

The accreditation of the textile laboratory and the equipment supplied (Optical Fiber Analyzer) is essential for the proper testing needed for the “CHYANGRA” collective trade mark for high quality cashmere issued by the Pashmina Industry association. The availability of local, accredited testing capabilities (versus the need to send samples abroad for testing) led to significant cost savings for the users of the collective trade mark. A total of 150 tests were performed. Costs per test were around US\$10 instead of at least US\$250 for tests performed abroad (including shipping costs).

The availability of local testing capacities significantly contributed to the success of the collective mark. Products sold under the “CHYANGRA” collective trade mark achieve a 20% higher price than those that are not labelled. Overall, all users of the “CHYANGRA” collective trade mark achieved a revenue increase of ca. US\$ 300,000.

Output 6.3 Accreditation of NBSM as Product Certification Body to ISO/IEC 17065. The Project assisted the NBSM to get accredited as a Product Certification Body to (ISO/IEC 17065). This included covering the audit fees.

Outcomes observed: NBSM achieved accreditation ISO/IEC 17065 in June 2014 for five International Accreditation Forum (IAF) scopes. The second surveillance assessment in March 2016 was successfully passed. Accreditation fee for transition of PCS from ISO guide 65 to ISO 17065 and for accreditation of additional scope of QMS was born from the Project. The other costs were covered by government funding. NBSM performs regular product certification activities (for both mandatory and voluntary quality marks). Total products covered under the accreditation scope are 13 (food products: 4, construction and engineering material: 9). A total of 191 of companies were served, 112 of which are manufacturing products for which the NBSM provides accredited certifications. NBSM issued a total of 268 licenses, of which 162 were falling into the NBSM's scope of accreditation. The two companies interviewed were not able to clearly articulate the advantage of an "accredited" versus a "non-accredited" product certification. The accreditation is essential for the recognition of Nepalese testing and inspection results in export markets. A mutual recognition agreement with India was prepared and approved by the Ministry of Trade; however, negotiations between the two governments have yet to commence.

Output 6.4 – 6.5: Market survey and business plan for management system certification services and training in a variety of quality management system. Prepare NBSM for operations, including training and qualifying lead auditors. A "survey report" on the market for management system certification services and the provision of training was produced. The "survey report" is more of a business plan for NBSM to provide system certification services. It concluded that a market opportunity existed. A plan for revised fees has been submitted to the National Standards Council (chaired by the Minister of Trade) for approval. UNIDO provided training and lead auditor courses for ISO 9001:2015, a course in ISO 17011 as well as a course in ISO 22000 with financial support from UNIDO. Furthermore, an exposure visit to the SLSI was conducted. The Project also conducted pilot training in Food Safety Management to six industries. Training modules and material for the industry were not developed.

Outcomes observed: in 2015, a total of eight companies applied for ISO 9001:2015, 6 applicants for ISO 14001 certification (NBSM is not accredited to certify though) and 5 applicants for ISO 22000. The practice of providing "unaccredited certifications" for practicing and training purposes are questionable. It is likely to undermine the reputation of NBSM's certification services and the credibility of management certification in general. A better option would be to use joint-certifications through cooperation with an accredited certification service provider to gain the necessary experience. Joint-certifications have the additional advantage of providing operational "know-how" as a certification provider.

Output 6.6: Accreditation of NBSM as Management Systems Certification Body to ISO/IEC 17021 (in addition to ISO 9001 achieved in February 2013). UNIDO covered the assessor's travel and audit fees for the accreditation of NBSM as Management Systems Certification Body to ISO/IEC 17021 for ISO 9001 (seven additional scopes to those already covered by their prior accreditation received in February 2013).

Outcomes observed: The NBSM certified a total of 11 companies. These companies will need to be re-certified based on the new ISO 9001:2015 standard. NBSM expects to transit to the ISO 9001:2015 standards in 2017 with their own resources.

The Project delivered most of the expected support to Nepal in good quality although at a slow pace. Few of the expected outcomes were however achieved. *The effectiveness of the SAARC Project in Nepal was moderately satisfactory (4/6).*

The effectiveness of the SAARC (in all three countries) and the Mekong Project overall (in both countries) was moderately satisfactory (4/6). The effectiveness of the Mekong Project overall (in both countries) was moderately unsatisfactory 3/6.

2.4 Efficiency

This section looks at how economically inputs were converted into results.

A. Approach

UNIDO made some efforts to integrate some good practices of NQI development into the projects (example: marketing plan for certification services of NBSM, some strategic advice requested by the Cambodia government). But generally, both projects perpetuated the patchwork approach in “upgrading” some services and/or public service providers through equipment procurement and training used in the previous phases. Important strategic aspects to NQI development (policies, masterplans, institutional development of public service providers) were only marginally covered.

Generally, UNIDO undertook efforts to use funds efficiently. In some cases, this cost savings led to quality problem of equipment, e.g. in the CRRI (see section 2.3 above). The vehicle purchased in Bhutan as a mobile metrology laboratory is relatively costly compared to alternative options and not the ideal solution for the purpose to be used.²⁰ The justification given by UNIDO for the choice was that procurement maintained a list of approved vehicles. Some alternative car brands did not figure on it and were thus not eligible to bid.

The “regional” dimension of both projects was “inherited” from prior phases. Both projects are in fact not regional, but a combination of national interventions into one programme. No evidence of economies of scope (e.g. experience exchange across the region) were found. Economies of scale, such as sharing expert resources for several countries, were limited. Due to the complexities of covering several countries under one project, the “regional dimension” did not add any value. Regional approaches are typically used for the strengthening of existing regional or supranational bodies, which are mandated to address problems that need cooperation between countries. Both projects would not fulfill these conditions.

Overall, the approach of both projects was moderately satisfactory (4/6).

B. Operational and strategic management

Project coordination was largely delegated to the CTA (SAARC) and the NPCs (Lao PDR/Cambodia). The CTA (SAARC) region and the NPC in Cambodia played an important role in representing the Project Manager on the ground. Focal points for all counterparts interviewed were the CTA and the NPCs who also provided most of the initial briefing to the Evaluators. The NPC in Lao PDR was only appointed in 2015. UNIDO’s reaction on problems encountered was often slow. This could either indicate that the supervision by the Project Manager was insufficient or that he did not timely address the challenges he was aware off. Communication among the different persons involved into implementation was often unclear and led to misunderstandings. Several beneficiary institutions interviewed complained that they were left in the dark on what support they would receive.

In some instances, obvious management errors caused significant damage. At the end of 2013 for example, UNIDO shipped metrology equipment to India for calibration. As it was not properly declared, it did not pass customs in Mumbai. After 8 months, the equipment was released, but some of it was lost. UNIDO did not cover the damage caused. Also, equipment was purchased without checking whether the conditions to operate it were in place or whether other equipment/part was needed (see for more details

²⁰ BSB did not need a heavy duty 4WD vehicle with a 4-litre engine. The weak shock-absorption system adapted using the vehicle for heavy loads is problematic if the vehicle is to carry sensible metrology equipment. The import process encountered difficulties, as due to its high price, the use of this category of vehicle is usually reserved for officials/offices at a higher level than the BSB.

in Chapter 2.3 above). Several beneficiary institutions interviewed complained that they were often left in the dark on what support they would receive. Apart from the inception report at the beginning, which was of good quality, no clear actions plans were agreed upon and then implemented. UNIDO applied an “ask-give” mechanism, whereas beneficiaries would request for specific support and UNIDO would then decide on what to grant and by when.

The National Steering Committees were driven by UNIDO and seem to have primarily the function of information exchange rather than governance. NORAD was not represented in the national Steering Committees. In Nepal, the representative of Norwegian Embassy was invited for Steering Committee as an observer, but excused his presence. The limited information shared with the non-UNIDO Steering Committee Members, including financial information, was insufficient for a well-educated decision making. Strategic leadership within both projects was weak. Weak strategic and operational management was a major root cause for significant delays.

Other, external factors were:

- Limited absorption capacities in some beneficiary institutions (including difficulties to communicate with them through email); The implementation of a new SAP within UNIDO, which temporarily disrupted operations significantly;
- In the case of Nepal, a severe earthquake in 2015;
- Frequent changes of interlocutors representing beneficiary institutions (one caused by the death of the former Director of the Lao Metrology Institute);
- Delays in submitting the application was mainly due to a new regulation within ASEAN, which stipulates that accreditations are to be granted by a single accreditation body per country. Neither Cambodia nor Lao PDR did have an accreditation body. It took time to first set up and operationalize an accreditation focal point. Until the new accreditation focal point will have developed into a recognized accreditation body, accreditations will be provided by an already recognized accreditation body in another ASEAN country. For both Cambodia and Lao PDR, this will be the BoA (Vietnam).

Overall, management of both projects was moderately unsatisfactory (3/6).

C. Analysis of financial implementation

Due to the lack of detailed financial data (including on counterpart contributions to project outputs), it is not possible to assess financial efficiency in detail. Information per outcome and budget line is not available.

Table 2: SAARC Project: Cumulative expenditures per budget line

<i>BL</i>	<i>Details</i>	<i>Spent in €</i>	<i>% of Total</i>
11:00	International Experts	326567.1	41.45
15:00	Local & International Travel	3382.69	0.43
16:00	Staff Travel (UNIDO HQ)	16960.57	2.15
17:00	National Experts	28461.56	3.61
21:00	Contractual Services (subcontracts)	63636.52	8.08
30:00	Training / Fellowship / Study Tours	110524.92	14.03
43:00	Premises	0.00	0.00
45:00	Equipment	190271.83	24.15
51:00	Other Direct Costs	2221.02	0.28
Total (excluding support costs)		742,026.21	94.18

Source: Cumulative spending as reported by UNIDO per 31 December 2016

An analysis of financial data provided by UNIDO for the SAARC Project in [Table 2](#) above shows that as of 31 December 2016, € 742,026 (NOK 10.3 mil), which is equivalent to 94.18% of the project budget had been committed or disbursed. This leaves a remaining budget of € 45,892 (NOK 0.42 mil). All these figures exclude 13% UNIDO support cost.

Table 3: Mekong Project: Cumulative expenditures per budget line

<i>BL</i>	<i>Details</i>	<i>Spent in €</i>	<i>% of Total</i>
11:00	International Experts	291,354.35	23.68
15:00	Local & International Travel	15,488.75	1.26
16:00	Staff Travel (UNIDO HQ)	55,991.76	4.55
17:00	National Experts	182,019.81	14.79
21:00	Contractual Services (subcontracts)	55,923.22	4.54
30:00	Training / Fellowship / Study Tours	39,127.69	3.18
43:00	Premises	165.57	0.01
45:00	Equipment	411,340.22	33.43
51:00	Other Direct Costs	49,824.70	4.05
Total (excluding support costs)		1,101,236.07	89.49

Source: As reported by UNIDO per 31 December 2016

An analysis of financial data provided by UNIDO for the Mekong Project in [Table 3](#) above shows that as of 31 December 2016, € **1,101,236** (NOK 10.3 million), which is equivalent to 89.49% of the project budget of € 1,230,625 (NOK 11.49 million) had been committed or disbursed. This leaves a remaining budget of € 129,389 (NOK 1.2 million) (rounded). All these figures exclude 13% UNIDO support cost.

Based on an assessment of the funds spent against the *output results* reported in [Chapter 2.3](#), *value for money of UNIDO's service provision* has so far been moderately unsatisfactory (3/6). *If remaining outputs are completed and (which is likely) result in the planned accreditation, efficiency in financial terms would be moderately satisfactory (4/6).*

D. Quality of input (UNIDO services)

Most trainings and study visits were of high quality. In contrast, some equipment procured by UNIDO (CRRI) was sub-standard with significant quality problems. It appears that in all countries, the selection of equipment has mainly been driven by budget considerations rather than by what would have provided the most economical value to beneficiary institutions. Furthermore, some vital technical equipment and/or equipment parts were not procured, reportedly for budget reasons.

The quality of expertise was mixed. Most experts did an excellent job, while others did not fully meet the expectations of beneficiaries. Some advice provided was not adapted to country needs (e.g. standard formulation and some policy advice). Twinning international with national experts might have been a good way to consider local particularities and to ensure know-how transfer.

The use of “unaccredited certification services” by UNIDO in Nepal and Bhutan to gain experience is not appropriate as it undermines the credibility and value of those certifications, which UNIDO intends to promote. The same objective would be much better achieved through promoting “joint-accreditations” in partnership with an already accredited certification body abroad.

Overall, the quality of UNIDO inputs in both projects was moderately unsatisfactory (3/6).

E. Monitoring and reporting

Implementation reports do not provide a clear, accurate picture on the progress towards results. Major problems with potential serious effects on achievement of results (e.g. delayed, accreditations, defective equipment, quality prize in Cambodia, the confiscation of metrology equipment sent from the Maldives to India for Calibration) are not reported. Relevant, complete and updated information in detailed implementation reports prepared by several beneficiary institutions (e.g. the food safety agencies in Bhutan, Nepal, the Maldives and Lao PDR and the CRRI) are not reflected in UNIDO’s progress reports. UNIDO did also not systematically monitor the quality of its services provided. This led to a repetition of the same quality problems in several beneficiary institutions, for example in preparing accreditations in the Mekong Region.

One expert who underperformed as a standard expert in the Maldives was proposed a second time to the same beneficiary institution, now as an expert for product registration schemes. Progress towards achieving results is measured as a percentage of planned versus implemented activities, instead of comparing planned with achieved results. For technical capacity building projects, this is an out-of-date and inadequate method. NORAD has raised the issue of the quality of reporting continuously with UNIDO at the portfolio-level and specifically relating to these projects.

Updated, disaggregated financial figures that provide a clear analysis on type of costs per objective/cost center and type of costs are not shared with counterparts. Counterparts highlighted the need of detailed financial data of donor support to justify their applications for possible government funding. Analyzing the amount type of costs (e.g. international expertise) used to achieve a specific result would provide important input to more accurate planning of future interventions. UNIDO could compare different options to achieve a specific objective. In the past, NORAD had highlighted the need of a proper managerial accounting for its own information and reporting purposes. The Project started before UNIDO had the necessary software to automatically generate this type of reports.

Monitoring and reporting in both projects was moderately unsatisfactory (3/6).

F. Synergies with other donor interventions

Generally, UNIDO and its partners coordinated well with other donors. No duplication of support provided by different donors was found. In Cambodia, UNIDO was involved into upgrading of fisheries testing laboratory at Fisheries Administration under the Ministry of Agriculture, Forestry and Fisheries (MAFF), which seems to offer the same testing services the ILCC laboratory accredited under the Project provides. Advocating for the avoidance of duplications and then implementing a project that aims at building up duplicate capacities undermines UNIDO’s credibility and would better be avoided.

In some cases, UNIDO achieved some interesting complementarities with other development actors (e.g. on strengthening the cashmere value chain in coordination with the ITC in Nepal, with the ADB in laboratory upgrading in Cambodia and with PTB in the SAARC region). *Overall, donor coordination and synergies achieved was in both projects satisfactory (5/6).*

Efficiency of both projects was overall moderately unsatisfactory (3/6).

2.5 Sustainability

This section looks at the likelihood of continued benefits beyond the Project's duration.

The question of institutional sustainability is less relevant than for other projects, as UNIDO mainly worked with public service providers.

Regarding financial sustainability, the challenge is to maintain and eventually replace expensive equipment. In Bhutan, Maldives, and Nepal, budget for regular operations of equipment seems to be available. It takes however significant time to mobilize funds for complex repairs and replacement of equipment. This means that equipment might be out of order and laboratories in some cases are unable to fulfill their work for weeks or even months. Beneficiary institutions in Lao PDR and Cambodia still count on donor support to repair or replace equipment. The problem of equipment maintenance is equally valid for institutions generating own funds through testing services (e.g. CRRRI), as revenues from testing fees are too low to cover costs. In different laboratories, the evaluators observed various broken equipment procured by UNIDO under prior phases.

The picture of technical sustainability is mixed. Some institutions have developed a systematic approach to building and maintaining internal know-how. Other institutions suffer from permanent staff turnover (qualified staff leaves due to unfavorable working conditions and/or trained officials are appointed to other functions). The challenge of follow-up expert support for LDCs and recently graduated developing countries to in technically high complex fields remains.

Overall, sustainability of results is in both projects moderately unsatisfactory (3/6), with significant differences between different institutions, but not countries.

3. Conclusions and overall rating

3.1 Conclusions

(i) On project design

Project design replicates to a large degree UNIDO's former generic approach to the "upgrading" of SMTQ systems. In parallel however, UNIDO used a value chain analysis in identifying and addressing NQI-related constraints of certain priority export products (e.g. cashmere wool in Nepal, coffee in Lao PDR, and rubber in Cambodia). This was an innovative step over the largely "supply-driven" approach to the development of SMTQ in prior project phases. Both project documents were operationalized through inception reports, which include precise and meaningful recommendations. Neither the results framework nor the implementation plans and budgets of the projects were subsequently updated. Not all expected results are clearly spelled out and some targets are clearly unrealistic. The application of the logical framework tool was weak. Different result levels are not linked to specific, measurable, achievable, relevant and time-bound "SMART" indicators. It is unclear how UNIDO's limited support (outputs) could, if clearly defined assumptions on external factors materialize, translate into the envisaged, rather ambitious higher-level objectives (outcomes, impact). *Overall, planning was moderately unsatisfactory.*

(ii) On project management

Project coordination and implementation: Project coordination was largely delegated to the CTA (SAARC) and the NPCs in Lao PDR/Cambodia, where UNIDO was unsuccessful in recruiting qualified candidates for the CTA position. The CTA (SAARC) region and the NPC in Cambodia played an important role in representing the Project Manager on the ground. Focal points for all counterparts interviewed were the CTA and the NPCs who also provided most of the initial briefing to the Evaluators. UNIDO's reaction on problems encountered was often slow. This could either indicate that the supervision by the Project Manager was insufficient or that he did not timely address the challenges he was aware of. Communication among the different persons involved into implementation was often unclear and led to misunderstandings. Several beneficiary institutions interviewed complained that they were left in the dark on what support they would receive. NORAD has numerous times emphasized significant concerns with delays of both projects at the semi-annual meetings with UNIDO but received assurances that the projects were on track and could be finalized on time. Management challenges were not the only factor leading to delays. Absorption capacities and ownership in some beneficiary institutions were weak. Some of UNIDO's partners consistently ignored email communications. The implementation of a new SAP system by UNIDO and insufficient support staff caused serious disruptions. Other reasons beyond the Project's control were a severe earthquake in Nepal, changes in government policies on accreditation (Cambodia, Lao PDR) and disruptions caused by the introduction of UNIDO's new SAP system. National Steering Committees were mainly used for a platform for information exchange rather than for strategic decision making. NORAD was not represented in the national Steering Committees. The limited information shared with the non-UNIDO Steering Committee Members, including financial information, was insufficient for a well-informed decision making.

Monitoring and operational reporting leaves significant room for improvement. Implementation reports do not provide a clear, complete picture on the progress towards results. Major problems with potential serious effects on achievement of results (e.g. delayed, accreditations, defective equipment,

quality prize in Cambodia) are not timely reported. Relevant, correct and updated information in detailed implementation reports prepared by several beneficiary institutions are not reflected in UNIDO's progress reports. The UNIDO project management team did not systematically monitor the quality of the services provided under the Project. Progress towards achieving results is measured as a percentage of planned versus implemented activities. This is an out-of-date and inadequate method for technical capacity building projects. NORAD has raised the issue of the quality of reporting continuously with UNIDO at the portfolio-level and specifically relating to these projects.

Overall, project management was moderately unsatisfactory.

(iii) Relevance

Overall, project objectives and the planned support are highly relevant for beneficiary institutions. They are generally also aligned with the development assistance framework of beneficiary countries, although not fully integrated into the trade-integration strategy of Nepal and Cambodia (Enhanced Integrated Framework, EIF). They match UNIDO's core mandate and strategic objectives to promote sustainable industrial development. The degree of ownership is mixed (very high in some institutions, weak in others). Ownership was negatively affected by frequent management changes in some institutions. In Laos, the tragic death the death of Director General of Department of Standardization and Metrology resulted in a major set-back. Many institutions contributed significantly, some of them even financially, to the achievement of objectives. This applies to all in Bhutan and Nepal, to the Maldives Food and Drug Authority, to the Food and Drug Control Centre (FDQCC) in Lao PDR and to the Cambodian Rubber Research Institute (CRRI). Important elements of NQI development, such as the strategic overall planning of NQI systems (policy level) and the institutional strengthening of beneficiary institutions, would have been highly relevant, but were insufficiently covered. *Overall, relevance was moderately satisfactory.*

(iv) Effectiveness

At the time of the evaluation, many of the planned key outputs were still in the process of being delivered. Pivotal among them is the support to the various planned accreditations and the delivery of some equipment. Completing all ongoing outputs will require some estimated additional six months. Other accreditations had only been recently achieved. It would be unrealistic to already observe wider results (e.g. on the industry using the services, on public health and safety, etc.). The evaluators noted some unplanned, promising outcomes, such as significant operational improvements in factories in Bhutan (animal feed, steel) and in Cambodia (rubber processing) following visits of UNIDO experts.

Most of the trainings, study visits and the equipment procured were mostly of high quality. In the Mekong region, some equipment procured was substandard with significant quality problems. It appears that the selection of some equipment has mainly been driven by budget considerations rather than by what would have provided the most economical value to beneficiary institutions. Another reason is that UNIDO's procurement rules require to purchase the cheapest and technically acceptable offer. In some cases, although the characteristics provided by the suppliers seem to comply with the requirements of the technical specifications, the equipment might be of low quality. This is the reason why its price is lower. Procurement rules do not sufficiently consider aspects such as the cost/availability of spare parts and after sales service. Furthermore, some vital technical equipment and/or equipment parts were not procured, reportedly for budget reasons. The quality of expert input was, overall, satisfactory. Where possible, twinning international with national experts in standard formulation might have been a good way to consider local particularities and to ensure know-how transfer. *Effectiveness is moderately unsatisfactory. An extension might allow the delivery of at least some of the remaining key outputs.*

(v) Efficiency

Approach: UNIDO made some efforts to integrate some good practices of NQI development into the projects (example: marketing plan for certification services of NBSM, some strategic advice requested by the Cambodia government). But generally, both projects perpetuated the patchwork approach in “upgrading” some services and/or public service providers through equipment procurement and training used in the previous phases. Important strategic aspects to NQI development (policies, masterplans, institutional development of public service providers) were only marginally covered. Furthermore, UNIDO’s approach to promote “unaccredited certification services” in Nepal and Bhutan to gain experience is not appropriate as it undermines the credibility and value of those certifications, which UNIDO intends to promote. The same objective would be much better achieved through promoting “joint-accreditations” in partnership with an already accredited certification body abroad. The “regional” dimension of both projects was “inherited” from prior phases. Both projects are in fact not regional, but a combination of national interventions into one programme. No evidence of economies of scope (e.g. experience exchange among the different beneficiary countries) was found. Economies of scale, such as sharing expert resources for several countries, were limited. Due to the complexities of covering several countries under one project, the “regional dimension” did not add any value.

Synergies: Generally, UNIDO and its partners coordinated well with other donors. In some cases, UNIDO achieved some interesting complementarities with other development actors (e.g. on strengthening the cashmere value chain in coordination with the ITC in Nepal, with the ADB in laboratory upgrading in Cambodia and with the Physikalisch-Technische Bundesanstalt (PTB) in the SAARC region).

Economic efficiency (value for money): Relating disbursements to the limited results achieved, economic efficiency was low compared with other similar UNIDO interventions.

Overall, efficiency was moderately unsatisfactory. The recommended no-cost extension would increase the likelihood that some of the pending outputs in Lao, Cambodia and the Maldives (metrology) will be completed. In this case, efficiency would be considered as moderately satisfactory.

(vi) Sustainability

The question of institutional sustainability is less relevant than for other projects, as UNIDO mainly worked with public service providers. Regarding financial sustainability, the challenge is to maintain and eventually replace expensive equipment. In Bhutan, Maldives, and Nepal, budget for regular operations of equipment and the renewal of accreditation seems to be available. Lao PDR has an established good bilateral cooperation with Vietnam’s Bureau of Accreditation, which potentially enhances the access to and affordability of accreditation services. It takes however significant time to mobilize funds for complex repairs and replacement of equipment. Beneficiary institutions in Lao PDR and Cambodia still count on donor support to repair or replace equipment. This is equally valid for institutions generating own funds through testing services (e.g. CRRI), as revenues from testing fees are too low to cover costs. In Lao PDR and Cambodia, the evaluators discovered various broken equipment procured under prior phases. The picture of technical sustainability is mixed. Some institutions have developed a systematic approach to building and maintaining internal know-how. Other institutions suffer from permanent staff turnover (qualified staff leaves due to unfavorable working conditions and/or trained officials are appointed to other functions). NORAD has raised the issue of sustainability and exit strategies for both of these projects in the semi-annual meetings. The challenge of follow-up expert support in technically high complex fields remains. *Sustainability is moderately unsatisfactory.*

3.2 Overall rating of the projects based on standard evaluation criteria at exit

EVALUATION CRITERIA	EVALUATOR'S SUMMARY COMMENTS	EVALUATOR'S RATING	
		SAARC PROJECT	MEKONG PROJECT
Industrial development impact	Limited outcomes observed; delivery of outputs partially ongoing.	Not able to assess	Not able to assess
Project design			
✓ Overall design		Moderately unsatisfactory (3/6)	Moderately unsatisfactory (3/6)
Project performance			
✓ Relevance	Objectives highly relevant; strategic/policy advice and institutional development only marginally included.	Moderately satisfactory (4/6)	Moderately satisfactory (4/6)
✓ Effectiveness	SAARC: except metrology support in Maldives, better quality of outputs and some positive effects on private sector in Bhutan and Nepal Mekong: Few outcomes, important outputs not delivered. Quality of some outputs is low.	Moderately satisfactory (4/6)	Moderately unsatisfactory (3/6)
✓ Efficiency	Management weak; unfavorable relationship between funds spent and results achieved to date.	Moderately unsatisfactory (3/6)	Moderately unsatisfactory (3/6)
✓ Sustainability of project results	Many beneficiary laboratories are unlikely to have funding to maintain equipment and accreditation.	Moderately unsatisfactory (3/6)	Moderately unsatisfactory (3/6)
Other performance criteria			
✓ Gender mainstreaming	No gender objectives defined/monitored; no signs of gender discrimination found	Not able to assess	Not able to assess

EVALUATION CRITERIA	EVALUATOR'S SUMMARY COMMENTS	EVALUATOR'S RATING	
		SAARC PROJECT	MEKONG PROJECT
✓ M&E: <ul style="list-style-type: none"> • M&E at design • M&E implementation • Budgeting and funding from M&E activities 	Project document includes logframe, but it is not accurately used and is not regularly updated. Progress reports not up to date, important information not clearly presented, activity- rather than result-based. There is budget for evaluation, but not for M&E; no mid-term review	Moderately unsatisfactory (3/6)	Moderately unsatisfactory (3/6)
✓ Project management	UNIDO implementation approach, UNIDO supervision and backstopping, results-based management	Moderately unsatisfactory (3/6)	Moderately unsatisfactory (3/6)
Overall project achievement		Moderately unsatisfactory (3/6)	Moderately unsatisfactory (3/6)

Explanations:

- Highly satisfactory (HS = 6): The project had no shortcomings
- Satisfactory (S = 5): The project had minor shortcomings
- Moderately satisfactory (MS = 4): The project had moderate shortcomings
- Moderately unsatisfactory (MU = 3): The project had significant shortcomings
- Unsatisfactory (U = 2) The project had major shortcomings
- Highly unsatisfactory (HU = 1): The project had severe shortcomings

4. Recommendations and lessons learned

4.1 Recommendations

A. Project-specific recommendations to UNIDO (both projects)
1. Propose a further, final no-cost extension of 6 months (until June 2017) for both projects to NORAD and the beneficiary governments. Its purpose should exclusively be to complete the ongoing delivery of outputs to already existing beneficiary institutions in good quality. This recommendation is of high priority and importance.
<ul style="list-style-type: none"> a. The proposal for an extension should identify all outputs that are already in the process of being delivered and establish an action plan on how to finalize them within a clear extended deadline and in good quality. For each of the outputs, UNIDO should explain why without an extension, parts of the funds already spent on the outputs that are in the process of being delivered might be lost.
<ul style="list-style-type: none"> b. In close consultation with counterparts, agree on organizational modalities and an action plan on how to finalize ongoing activities, (including the delivery of essential equipment, replacement of damaged equipment, accreditations).
B. General recommendations (Department/Division, general)
2. Standardize monitoring of quality/quantity of outputs and of direct outcomes (considering existing good practices, e.g. by UNIDO's projects in Central Africa).
3. Use regional approaches only if challenges need to be tackled at a regional level and if a regional institutional framework to link into does already exist.
4. For countries with an existing basic national quality infrastructure, standardize approaches, services and procedures for institutional and technical strengthening, considering good practices already available within UNIDO.
5. Assess expert qualifications against the TORs of each specific assignment, even for experts that are regularly retained. Conduct thorough background checks on new experts. Refrain from entrusting the same expert with different tasks if not all of them match his/her specialization.
6. Twin national with international experts for assignments requiring specific local knowledge (e.g. policy- and standard formulation).
7. Conduct a rigorous, standardized institutional assessment of partner organizations prior to designing the assistance for them. Such an assessment should also be the basis for selecting non-government partners (e.g. NGOs).

8. Establish business plans with a clear calculation of costs and expected revenues for all services to be established and/or strengthened. Where financing of the service is not clearly ensured, refrain from providing support.
9. Discontinue using unaccredited certification services to develop certification capacities.
10. Ensure that overall project management responsibility remains not only formally, but also in practice with the Project Manager. Refrain from delegating overall project coordination to third parties (CTAs, contractors). Third parties may exercise specific management responsibilities, but always under close supervision of the Project Manager.
11. For technically complex projects (e.g. NQI upgrading), ensure ongoing support with strong technical and organizational skills in the country (if possible, a national CTA and/or additional local technical experts if appropriate).
12. Explore options on how to provide LDCs and low-income developing countries with targeted follow-up support on a demand-basis (e.g. policy formulation, expertise to upgrade conformity assessment institutions, etc.) outside formal projects. Cost participation would be a good way to enhance “ownership”.
13. Explore a possible follow-up of industry support (e.g. rubber sector in Cambodia, cashmere in Nepal) through relevant other UNIDO interventions (especially in the field of environment).
C. Project-specific recommendations to NORAD
14. Favorably and timely consider a request by UNIDO for a no-cost extension of both projects by six months under the conditions and considerations outlined in recommendation 1 above.
D. Project-specific recommendations to all beneficiary governments
15. Favorably and timely consider a request by UNIDO for a no cost extension until June 2017 under the considerations and conditions outlined in recommendation 1 above. Facilitate the necessary administrative procedures to formalize the extension.

4.2 Lessons learned

This evaluation confirms a strong correlation between weak application of results-based management (RBM) principles and poor results. Building quality infrastructure and fostering a quality culture is a complex undertaking. Thorough, detailed planning is important. Ad-hoc provision of support leads to a patchy, uncoordinated, and unsustainable approach. The results of spontaneous actions are often errors and/or delays, which may have a significant negative impact on project efficiency. This does not mean that plans should be carved in stone. Flexibility in adapting them remains important. Planning is not sufficient. Communication of plans is pivotal as well. If beneficiary institutions are unaware of what support they will receive, they are unable to seek for budget of their governments or for support from other donors. The lack of quality monitoring leads to a risk of replicating poor services (expertise and substandard equipment). UNIDO’s existing good practices in planning and monitoring need to be translated into binding standard operating procedures and then consistently enforced.

ANNEXES:

Annex 1A: Country context Bhutan

A. National context

Bhutan is a small, mountainous kingdom located in the eastern Himalayas, bordered by India and China. Its population in 2015 was about 775,000 spread over approximately 38,394 square kilometers. With about 70.5% of Bhutan's land under forest cover, much of the population lives in the central highlands, and almost two-thirds are classified as rural inhabitants. The terrain is mostly mountainous, with alpine peaks in the north and some sub-tropical foothills in the south. GDP has consistently risen from US\$439 million in 2000 to US\$1,962 billion in 2015²¹.

Bhutan's economy, one of the smallest in the world, has been growing consistently in recent years. The country's robust economic expansion is supported by rapid growth in services and industry. Drivers of growth include a thriving hydropower sector, a lucrative wholesale trade in construction-related goods and the implementation of the five-year plan (FYP) 2013-2018 through increased government spending financed by grants and tourism. While the contribution of agriculture to GDP has been declining, it continues to be an important sector. Bhutan is predominantly an "agriculture-based society". The agriculture sector is dominated by smallholder subsistence farmers who occupy most the arable land and produce most of the crop and livestock products. The agriculture sector provided livelihood to 62.2% of the total population contributing to 12% of the total GDP in 2012.

Bhutan's overall development strategy is assessed against the expected impact on the Gross National Happiness (GNH) indicator, by focusing on providing the population with basic needs, maintaining social cohesion and pursuing sustainable environmental policies. The overall goal of the 11th FYP is "Self-Reliance and Inclusive Green Socio-Economic development". The Guidelines for the Preparation of the 11th FYP states that although economic growth is a necessary condition for development, economic growth by itself does not necessarily translate into effective poverty reduction and broad-based improvement in people's quality of life. Lead by this vision, the government has focused on the development of low volume, high quality tourism, to protect the environment and mitigate the impact of disrupting influences on the domestic culture.

Bhutan's FYP constitutes the basis for the country's Poverty Reduction Strategy. While Bhutan has made remarkable gains in reducing extreme poverty, sections of its population remain vulnerable to falling back into poverty. In just over five years, from 2007-2012, the number of poor in Bhutan reduced by almost half - from 23 per cent in 2007 to 12 per cent in 2012. For every two families that escaped poverty, one fell into poverty. The poverty rate at the international poverty line of US\$1.90 a day was 2.2% in 2012, one of the lowest in South Asia. At a higher poverty line of US\$3.1 a day, poverty decreased from 29.1% to 13.4% between 2007 and 2012. Despite remarkable progress in poverty reduction, large urban/rural gaps remain. In 2012, rural poverty rate stood at 19 percent, compared to less than 2 percent in urban areas. Over 90 % of the poor (at PPP US\$3.1/day) lived in rural areas. While poverty incidence is low, urban areas face a higher unemployment rate (6.7 %) than rural areas (1.2%). The gap is more pronounced for youth unemployment: 28 % in urban and 4.8% in rural in 2015.

²¹ <http://www.worldbank.org/en/country/bhutan/overview>

Bhutan maintains close fiscal and trading ties with India. With 75% of Bhutan's imports coming from India and an exchange rate at par with the Indian rupee, Bhutan's consumer inflation is intimately linked to India's inflation²². Food and beverages has the heaviest weighting in Bhutan's consumer price index, at 36.9. With most of such items imported from India, food prices there will continue to have the strongest impact on the overall rate of inflation in Bhutan. Electricity sales to India account for the country's largest share of foreign currency earnings. Other exports include fruit timber, spices and gemstones. Imports consist primarily of petroleum products, machinery and vehicles.

B. National Quality Infrastructure

Bhutan has considerably opened its economy to trade over the past decades and is committed to continuing this policy course as evidenced by WTO accession process. Bhutan joined the Enhanced Integrated Framework (EIF) in September 2009, which has played a key role in institutional strengthening to mainstream trade into country planning processes. The DTIS and its Action Matrix were validated in early 2012.

The Bhutanese quality infrastructure is in the stage of development. Bhutan Standards Bureau (BSB), the national standards body, was established in 2010 following the introduction of the Bhutan Standards Act of 7th July 2010. A National Quality Infrastructure policy is currently being drafted in-house by the BSB. BSB is the national standards body. It is an autonomous umbrella institution that coordinates and oversees all standardization and related activities in the country. In addition, the Bureau is the TBT Enquiry Point responsible for establishing linkages with the WTO Secretariat, national enquiry points in other member countries, national institutions and ISO and IEC. BSB is also associate member to the Pacific Accreditation Cooperation (PAC) and Asia Pacific Laboratory Accreditation Cooperation (APLAC). BSB has a Metrology Laboratory which is the technical authority that exercises metrological control functions and provides services to legal metrology system, industries, testing laboratories and other users of measurement data. BSB also comprises a Product Testing Laboratory for construction material test services. The Bureau is the National Accreditation Focal Point (NAFP) which facilitates accreditation of conformity assessment bodies in the country and provides access to international recognized accreditation services.

Bhutan Agriculture and Food Regulatory Authority (BAFRA), under the Ministry of Agriculture and Forests, has been identified as the sanitary and phytosanitary (SPS)-Enquiry point for Bhutan. The National Food Testing Laboratory NFTL, a subordinate body of the Ministry of Agriculture and Forests, provides testing services for food samples. BAFRA obtained accreditation to ISO/IEC 17025 for basic food safety in February 2013.

²² Bhutan Country Snapshots, 2014. The World Bank

Annex 1B: Country context Cambodia

A. National context

The Kingdom of Cambodia is a South-Eastern Asian country between Thailand, Vietnam, and Laos, bordering the Gulf of Thailand in the South. Cambodia has a population of over 15.5 million spread over a land area of 181,035 square kilometers. Cambodia's climate is characterized by two main seasons: the monsoon, which brings rain from mid-May to October, and dry season from November to April. Cambodia gained its independence in 1953. Since then and through the late 1960's, it was an autonomous country that excelled in many development areas. After an extended period of civil war which resulted in severe loss of human life and capital, and extensive destruction of state institutions, peace and political stability were re-established following the 1991 Paris Peace Accord, and the 1993 Constitution which provides for liberal democratic development and a market economy.

Following more than two decades of strong economic growth, Cambodia has attained the lower-middle-income status as of 2015. The World Bank has officially revised the status of Cambodia's economy after its GNI per capita reached \$1,070 in 2015, moving it up a stage from the low-income into lower-middle income territory. Economic performance has been remarkable despite a highly rural economy, a narrow growth base (garments, tourism, agriculture, and construction), and flaws in governance and transparency. Recent efforts to strengthen governance include the adoption and implementation of the Law on Anti-Corruption in 2010, and the establishment of an anticorruption unit.

The garment sector, construction, and services have been the main drivers of the economy. The garment and footwear sector is Cambodia's largest manufacturing industry and the country's largest foreign exchange earner. The sector accounts for nearly 80% of the country's total merchandise exports and employs more than 600,000 workers, of which 86% are female²³. The services sector is the biggest contributor to GDP, accounting for 41% of total GDP, followed by industry at 32%, and agriculture with 27%. However, agriculture continues to make a rising contribution to the growth of the Cambodian economy. The sector grew 4.3% in 2012 and accounted for 4.75 million workers out of a labour force of 8 million in 2011. Cambodia is putting considerable effort into diversifying its agricultural sector. In addition to rice production which makes such a major contribution to output growth, it is also now farming rubber, corn, cashew nuts and cassava. As well as diversifying its agricultural sector, Cambodia has also been putting greater emphasis on productivity and promoting economies of scale in the sector²⁴. It has switched from expanding the area of land under cultivation to intensive farming. This strategy involves improving technology, widening the provision of agricultural services to rural areas, setting up community networks of volunteers and partnerships among agricultural industry players.

Cambodia is member of the ASEAN Economic Community, which allows its 10 members to benefit from "the free flow of goods, services, investments, skilled labor, and the freer movement of capital across the region"²⁵.

Despite these achievements, Cambodia still faces many development challenges including poor infrastructure in rail, ports, as well as the limitations of the local electricity supply and telecommunications, which impede inclusive development, ineffective management of land and natural resources, environmental sustainability, and good governance. Income poverty in Cambodia

²³ Report. "Growth continues for Cambodia's garment and footwear sector". ILO, 2015

²⁴ Economic Outlook for SE Asia, China and India 2014: Beyond the Middle-Income Trap, OECD, 2014

²⁵ Nay Pyi Taw Declaration, May 2014

has fallen dramatically, but many families totter only just above the poverty line. With a very large share of the population concentrated at the bottom of the income distribution, the poverty rate is highly sensitive to where the line is drawn. Vulnerability to poverty has increased, and urban poverty may be rising. At the official poverty lines introduced in 2013 (\$1.90 a day) it shows that the poverty rate fell sharply from 47.8% in 2007 to 22.9% in 2009, 19.8% in 2011, and 18.9% in 2012. Regional differences persist, and about 90% of the poor live in rural areas²⁶.

B. National Quality Infrastructure

The Institute of Standards of Cambodia (ISC) is the national standards body responsible for the preparation and publication of Cambodian standards and guidelines for products, commodities, materials, services and operations. The standard formulation and adoption process is very slow despite long-term support from NORAD/UNIDO, and more recently also from ADB and the World Bank. The main reason for low output seems to be a cumbersome standardization process whereby ISC is responsible for extensive scientific and documentary work. ISC has a register for establishments with GMP and HACCP.

There are five laboratories with food testing capacity: CAMCONTROL, ILCC, the laboratory of the Ministry of Health for testing drug and food, a laboratory of the Fisheries Administration and the Pasteur laboratory. Only the ILCC and CAMCONTROL have adequate capacity for testing residues of pesticides, veterinary drugs and growth enhancers, heavy metals and other contaminants.

Until recently, the lack of an internationally accredited testing and certification laboratory in Cambodia impeded broad market access for the rubber sector, which instead relied on sending samples to international laboratories to secure certificates (an expensive and time-consuming process). Since 2011, the international accreditation of the National Specific Laboratory (NSL) in the Cambodia Rubber Research Institute (CRRI) has helped ease the burden of export certification for rubber exporters. However, the Cambodian Specified Rubber (CSR) grading system/standards remains relatively obscure in international markets and significant government and industry effort will be needed to promote the standard to ensure CSR becomes more widely accepted.

The National Metrological Center (NMC) was established in 2011 and is housed in new buildings with a laboratory. A legal metrology program is being extended progressively in the country. The program faces financial and technical limitations, especially in consumer protection. To fund its field work, the program is dependent on mandatory fees, which means that it can only test and calibrate among registered enterprises and not among informal enterprises and in markets. The funding for legal metrology does not allow for risk-based testing and calibration. In many areas, legal metrology still needs more trained staff and standards.

²⁶ ADB, Cambodia Country Poverty Analysis, 2014

Annex 1C: Country context Lao PDR

A. National context

Lao People's Democratic Republic (Lao PDR), is one of the fastest growing economies in the East Asia and Pacific region²⁷. It has maintained a solid and persistent economic growth with real GDP of more than 7% per annum, for nearly a decade starting 2003. The resource-rich country with an economy heavily dependent on mining and hydropower has transformed itself into a provider of natural resources in the region, mainly in energy. Electricity generation from the growing number of hydropower plants and the Hongsa lignite-powered plant is trending up. Construction of new hydropower projects, residential and commercial buildings, and facilities in special economic zones is contributing to the growth in GDP. Construction and services also expanded, attracting foreign investment and further energizing the tourism sector²⁸.

Lao PDR is a lower middle-income country, in the middle of the Indochinese peninsula, landlocked by Myanmar, China, Vietnam, Cambodia and Thailand. A French colony until the 1953, the country witnessed power struggle between royalists and the communist group Pathet Lao and was caught up in the Vietnam War. Communist forces overthrew the monarchy in 1975, embarking on years of isolation. After the fall of the Soviet Union in the 1990s, Laos began opening up to the world. But despite economic reforms, the country remains poor and heavily dependent on foreign aid. It has a population of 6.8 million (2015), with 23.2% living below the national poverty line²⁹. While growth has contributed to lowering the number of poor people to around 25% in 2012/13 from 33.5% a decade ago, the decline rate remains slow compared to some regional peers, and the inequality persists with the industry sector having grown at a slower pace than the service sector. Poverty is predominantly rural, and concentrated in the remote and mountainous northeastern border with Vietnam. Large proportions of the workforce are trapped in lower-productivity farming jobs; seven in ten workers are employed in the agriculture sector.

The Lao PDR central government is currently implementing the eighth generation of its national socioeconomic development plan (NSEDP), 2016–2020. Under its national socioeconomic development plans, the government has adopted a policy to transform the Lao PDR from a landlocked to a land-linked country³⁰, and is aiming to make the transition from a Least Developed Country (LDC) to a middle-income country by 2020 supported by inclusive, stable and sustainable economic growth whilst alleviating poverty. The seventh NSEDP³¹ aimed to (i) sustain inclusive growth; (ii) diminish inequality; improve education, health, and sanitation; (iii) increase public administration effectiveness; and (iv) increase competitiveness through optimal use of natural resources, increased regional integration, and develop investment promotion policies. In line with the directions of the Five-Year Plan, there has been a gradual change from agriculture–forestry to industry. The agriculture–forestry sector decreased from 27.9 percent in 2010–2011 to 27.9 percent in 2015. The industry sector, however, increased from 26.9 percent in 2010–2011 to 29.1 percent in 2014–2015, and the service sector increased from 45.2 percent in 2010–2011 to 47.2 percent in 2015.

²⁷ <http://www.worldbank.org/en/country/lao>

²⁸ <https://www.adb.org/countries/lao-pdr/economy>

²⁹ <http://la.one.un.org/>

³⁰ http://www.ide.go.jp/English/Publish/Download/Brc/pdf/07_chapter3.pdf

³¹ <http://www.un.org/en/ga/president/65/initiatives/lcds/laos.pdf>

As a member of ASEAN and chair in the year 2016, Lao is actively pursuing regional and global economic integration. Lao launched the ASEAN Economic Community in 2016 with the purpose of liberalizing the movement of goods and services, capital and high-skilled labour in the region. Lao PDR has been a member of the WTO since February 2013 and an active member of the Greater Mekong sub-region (GMS) Economic Cooperation Program, and the Association of Southeast Asian Nations.

B. National Quality Infrastructure

With Lao actively pursuing regional and global economic integration, quality infrastructure and access to market information is considered key to regional integration and post WTO accession action plan. Lao PDR has already joined international organizations on standards setting: ISO, Codex Alimentarius, the International Plant Protection Convention (IPPC), and the World Organization for Animal Health (OIE). It is also a member of and benefits from capacity building programmes of the ADB, the IMF, World Bank, World Customs Organization (WCO) and WIPO.

Trade facilitation was singled out both as a priority area in the Diagnostic Trade Integration Study (DTIS)³² as well as a major component of the Trade Development Facility (TDF) project, supported by the World Bank. With additional funding, the Customs and Trade Facilitation Project (CTFP) aims to facilitate trade by improving the efficiency and effectiveness of customs administration and simplifying customs procedures to eliminate duplication and redundancy, reduce transactions costs and time to clear goods, and increase transparency and accountability.

Under Lao's Diagnostic Trade Integration Study 2012 which sets out the means to achieve the trade-related targets in the NSEDP, a main pillar is on building quality Infrastructure capacities for enhanced application of SPS and TBT standards including legal requirements and regulatory bodies, resulting in enhanced quality of products in line with international standards

Early 2014, Lao PDR's Ministry of Industry and Commerce (MOIC) launched the first EIF Tier 2 project³³ to strengthen national quality infrastructure and industrial statistics, in preparation for the implementation of the ASEAN Economic Community Agreement by 2015 and to meet Lao PDR's commitments under the WTO Action Plan. With national standards infrastructure being identified among the country's main development barriers to trade (and development at large), the project aims at supporting the government efforts in enabling technicians to certify the standards of local producers and give production certification before market supply. While component A of the EIF Tier 2 project addresses market access issues for the private sector through providing better access to certification and testing services, component B attends to building institutional capacity of Industry and Handicraft Department.

In Lao PDR, testing and certification services were mainly presently carried out in Thailand and Vietnam, a rather expensive and time-consuming practice which leaves Lao traders at a competitive disadvantage with costly logistics and hinders their immediate ability to access new markets and integrate into regional and global supply value chains. The EIF National Implementation Unit is seated in MOIC's Planning and Cooperation Department. MOIC's Industry and Handicraft Department in collaboration with UNIDO, and the Ministry of Science and Technology's Standardization and Metrology Department, are in charge of implementing technical project activities.

³² <http://www.worldbank.org/en/news/feature/2016/07/20/good-trade-practices-in-lao-pdr-opens-new-opportunities-for-business>

³³ <http://www.enhancedif.org/en/country-profile/lao-pdr>

Lao PDR's SPS management system is in its infancy stage. Capacity weaknesses are present in all three SPS areas: covering plant health, animal health and food safety³⁴. The country has no capacity to conduct systematic surveillance and inspection programs, leading to Lao PDR having the highest incidences of food and water borne illnesses and human deaths in the region – approximately 3,200 persons per 100,000 persons are productively affected each year in Lao PDR, eight times higher than the rate in Thailand and Viet Nam. ADB staff estimates the cost to the economy from the lost in productivity of persons falling ill from food related diseases and premature mortality could be as high \$149 million. While the Government has a broad SPS action plan, efforts for its implementation fall short of what is needed in the light of the limited local know-how and expertise.

³⁴ ADB. Country Partnership Strategy: Lao PDR, 2012–2016

Annex 1D: Country context Maldives

A. National context

The Maldives is located in Southern Asia, southwest of Sri Lanka and India. It is one of the smallest countries in Asia and the Pacific by population and land area, with its inhabitants scattered across 194 islands. It comprises an archipelago of about 1,190 low-lying coral reef islands that cross strategic shipping routes, and has a marine environment that is richly diverse. The land area, which includes about 26 natural atolls, is grouped into 20 administrative atolls. The country is particularly vulnerable to natural disasters, as the very low elevation of its islands (averaging about 1.5m above sea level) makes it more susceptible to tsunamis and effects of climate change. Nature-based tourism and fishing have been key drivers of the country's economic growth in the last decade. Key export item is fish, with Thailand, Sri Lanka, France and Italy being main export destinations. Maldives mainly imports oil, machinery and electronic equipment from the UAE, Singapore, India, Sri Lanka and Malaysia³⁵. The Maldives is a member of SAARC and the WTO.

Until the Asian Tsunami in 2004, Maldives had been regarded as a development success story. In the early 1980s, it ranked among the world's 20 poorest countries with a population of 156,000. However, it managed to graduate from a least-developed country in the 1970s to middle-income country status in 2011³⁶. Today, with a population of over 400,000, it has a GDP of \$3,143 Billion³⁷. Yet, the country's financial position has been deteriorating following the tsunami and continues to struggle in the face of unsustainable high public spending. The increase in public spending is attributed to higher-than-budgeted expenditures on the wage bill (15.8% of GDP), universal subsidies (including food and electricity subsidies), social welfare payments, transfers to state-owned enterprises and capital spending in the outer atolls³⁸. In addition, and since the Maldives is a small economy importing almost all its food and fuel needs, the country was deeply impacted by the food and fuel crisis of 2007-08 and the subsequent global financial crisis of 2008-09.

The Maldives' topographic structure limits the country's choice of economic activities. The country's services sector, of which tourism is the largest actor, has been by far the major contributor to GDP during the last 3 decades. The services sector averaged 82.8% of GDP during 1986–2014, except in 2004-2005 when the country was hit by the Tsunami (contribution fell to 2.6% only). Agriculture's share of GDP (including fishery and mining) plays a minor role in the economy, and has been continuously declining. The sector's contribution fell from about 9% in 1986 to 3.6% during 2011-2014, largely due to low productivity growth and the decreasing fish catch. In addition, agriculture production has been constrained by the availability of arable land, and a soil that is not conducive for a whole range of agricultural products. The industrial sector accounts for only about 9% of GDP. The garments industry had been the only major manufacturing activity in the country, at just under 9% of GDP. Until 2004, the Maldives had a thriving apparel industry, which has vanished in 2005 when the general system of quotas under the WTO Agreement on Textiles and Clothing was terminated. Without quota protection, local production was uncompetitive due to high wage costs, a reliance on expatriate labor, lack of local raw materials, and relatively high transport costs. Foreign garment investors in the Maldives moved elsewhere³⁹.

³⁵ ITC Country Report. Maldives (2014)

³⁶ UN DESA and the Committee for Development Policy Secretariat (2012).

³⁷ World Bank, World Development Indicators

³⁸ World Bank Country Snapshot Report. Maldives. (2014)

³⁹ African Development Bank. Maldives. Overcoming the Challenges of a Small Island State. Country Diagnostic Study. (2015)

The last decade saw significant progress in poverty reduction with poverty, as measured by the share of population below the national poverty line, having declined from 23% in 2002 to 15% in 2014⁴⁰. The sustained growth and rising prosperity of the last three decades was founded on a private sector-led tourism industry based upon the country's extraordinary natural assets. The 2015 Human Development Report classifies the Maldives as having high human development⁴¹, ranking 104th of 188 countries with a human development index of 0.706.

B. National Quality Infrastructure

The Maldives Standard and Metrology Unit (MSMU) is the national standards body. Established under the authority of the Ministry of Economic Development (MED) with UNIDO support under Phase I of the project, it has the mandate to develop an appropriate set of national standards and technical regulations; assess conformity to national and international standards; ensure that the metrology of retailers and producers are accurate; and ensure the protection of health and the rights of consumers.

According to notifications to the WTO, the MED is indicated as the national enquiry point and national notification authority under the TBT Agreement. Since 1995, Maldives has not submitted any notification to the WTO TBT Committee.⁴² There is still no specific law related to standards, testing and certification in Maldives; a bill is under preparation. Maldives is not a member of the ISO. It is neither a member of the IEC, nor a participant in its ACP.

At the regional level, Maldives is collaborating with other SAARC countries in standards harmonization in sectors deemed of key trade interest, with the goal of enhancing intra-regional trade. In this context, the South Asian Regional Standards Organization (SARSO) was established in August 2011 with the objective of harmonizing standards in the following five sectors: food and agricultural products; jute, textiles and leather; building materials; chemicals and chemical products; and electrical and electronic products. It became operational in April 2014.

The Maldives Food and Drug Authority (MFDA) is the regulatory authority in this area. Its mandate includes food safety and the development of standards, regulations and laws related to food (including MRLs and MLs settings). It is the competent authority for food exports and the contact point for Codex Alimentarius and the World Organization for Animal Health (OIE). The Health Protection Agency is the enforcement agency for food hygiene, including food inspection. However, its competencies for the inspection of imported and exported food products were transferred to the MFDA with effect from 1 November 2015. Inspections are carried out by MFDA agents posted at the borders. The preparation of legislation, regulations and standards related to food control are under the responsibility of the Food Control Division of the MFDA. The MFDA's National Health Laboratory (NHL) is the only provider of chemical and microbiological laboratory testing services for food products including fish in the Maldives. The MFDA achieved accreditation for the general requirements for the competence of testing and calibration (ISO 17025) for its microbiology and chemical laboratories in 2008 and in 2010 respectively.

Fish exports generally adhere to the standards required by export markets. An audit carried out in January 2013 by the EU's Food and Veterinary Office found Maldives' regulatory framework for fishery products to be generally in accordance with the EU requirements⁴³. The report highlighted some improvements in the implementation of the official control, and noted some deficiencies,

⁴⁰ <http://povertydata.worldbank.org/poverty/country/MDV>, <https://www.adb.org/countries/maldives/poverty>

⁴¹ UNDP. Human Development Report. (2015)

⁴² WTO. Trade Policy Review of Maldives. (2016)

⁴³ EU Commission. (2014)

particularly in Hazard Analysis and Critical Control Points (HACCP) plan implementation. A draft food bill was submitted to the Attorney General in June 2014 for review, but has not yet been enacted.

Annex 1E: Country context Nepal

A. National context

Locked between India and China, at the feet of the Himalaya, Nepal has historically been among the poorest and most remote countries in the world. Nepal is a low-income country with a GDP of \$20.88 billion in 2015⁴⁴ and a population of 28.5 million. The country has achieved remarkable progress over the last years. Using the national poverty line, poverty incidence has been falling at an accelerated pace from 41.8% to 30.9% between 1996 and 2004 and further to 25.2% of the overall population in 2014⁴⁵. Several social indicators in education, health and gender have also improved⁴⁶. Net official development assistance (ODA) to Nepal in 2014 totaled USD 880 million, with 55% of bilateral ODA going to economic and social infrastructure and services.⁴⁷

After the end of the civil conflict in 2006, the country has embarked on a number of reforms and investments that have slowly improved the competitiveness of the country and reduced poverty. And while the country's political transition has taken longer than expected, the new Constitution of Nepal which provides for the division of the country into 7 federal provinces was adopted on 20 September 2015. Meanwhile, Nepal's path to development was struck by the earthquakes that hit the country in April and May 2015, which damaged or destroyed infrastructure and homes and set back economic development, slowing growth to 3% in 2015 from 5.1% in 2014. Political gridlock in the past several years and recent public protests, predominantly in the southern Tarai region, have hindered post-earthquake recovery and prevented much-needed economic reform. Infrastructure remains one of the main weaknesses of the country, although Nepal has improved its performance especially in terms of access to electricity through hydro-electric generation. Given its landlocked nature and the orographic conditions of the territory, Nepal remains poorly connected to its neighbors and therefore cut out from access to the sea. This makes it extremely difficult for the country to join global value chains and build a manufacturing sector.

The Nepalese economy is characterized by a large rural sector based on subsistence agriculture and small industries focused on manufacturing activities and tourism. At one-third of GDP, agriculture represents an important source of growth and remains, at least over the medium-term, the largest employment sector for over three-quarters of the population. Only about 20% of the total area is cultivable; another 33% is forested; most of the rest is mountainous. Industry accounts for about 17 per cent of GDP and is focused on exports. Tourism was also a key economic sector for Nepal but visitor numbers has fallen dramatically. The growing and continued mismatch between import and export has resulted in an alarming level of trade deficit in Nepal⁴⁸. Over the years, export has almost stagnated, and the import skyrocketed. Available statistics show that the total export, which used to be 9.4% of the GDP a decade ago, was reduced to 5.2%, whereas import has swelled to almost 40 percent of the GDP⁴⁹. India continued to command a major share in Nepal's foreign trade. Recently, the Government has concentrated its efforts to diversify both the export products and markets. The government has implemented the 13th Three Year Plan with a view to engage in the multi-faceted development through increased investment in energy, agriculture, education, health, drinking water, sanitation, tourism, environment protection and climate change, infrastructure development, trade and good governance. The Government is committed to transform the country through the introduction of commercialized and scientific pattern of farming in

⁴⁴ World Development Indicators database, World Bank, 22 July 2016

⁴⁵ ADB. Country Poverty Analysis (Detailed). Nepal. 2013-2017; and <https://www.adb.org/countries/nepal/poverty>

⁴⁶ <http://www.worldbank.org/en/country/nepal/overview> (last updated 19 June 2015)

⁴⁷ OECD – DAC, last updated 27 February 2016 <http://www.oecd.org/dac/stats>

⁴⁸ The National Planning Commission Secretariat

⁴⁹ Michigan State University <http://globalede.msu.edu/countries/nepal/tradestats>

agriculture, proper irrigation facility, all-weather farming, self-employment schemes, and proper skill training to the farmers. Similarly, the Government has planned to revive uncompetitive industries and create proper investment climate, industrial environment and industrial relations in the existing industries.

Nepal's National Trade Integration Strategy 2016 (NTIS 2016)⁵⁰ was developed with the objective of enhancing the contribution of the trade sector to growth and to overcome the constraints and challenges associated with trade development and export promotion. NTIS 2016, thus, prioritizes

- i. agro and forest products (cardamom; ginger; tea; and medicinal and aromatic plants);
- ii. Craft and manufacturing products (all fabrics, textile, yarn and rope; leather; footwear; Chyangra pashmina; and, knotted carpets); and
- iii. Services (skilled and semi-skilled professionals at various categories; Information Technology and Business Process Outsourcing (IT and BPO); and tourism [including leisure, business, education, and medical).

B. National quality infrastructure

Nepal is struggling to create an investment and trade friendly environment because of various factors, including poor industrial security, uneasy labour relations, unstable political situation, and inadequate supply of electricity. Other persistent problems in the trade sector include the inability to integrate industries with other productive economic areas such as agriculture, forests, and tourism; the reliance of most exportable goods on imported raw materials; the lack of adequate physical infrastructure to cater to exports; not fully operational existing infrastructures; the inability of major exportable commodities to meet and maintain international standards of quality; the absence of institutional capacity to certify the quality of exports; and the limited number of products and markets.

Nepal's quality infrastructure capacity is low compared to similar countries. Table 1 shows the rankings for Nepal and benchmark countries across the ten compliance functions covered by the Trade Standards Compliance Capacity Indices (TSCCI)⁵¹. The results suggest that Nepal has weak capacity across the board and the lowest capacity compared with countries in the region (Bangladesh, Pakistan and Sri Lanka) and landlocked countries with substantial agricultural exports (Rwanda and Uganda). Nepal is placed in the lowest quintile for food safety capacity and in the second lowest quintile for six of the ten indices including standardization, technical regulations, metrology, and certification, among others.

	Nepal	Bangladesh	Pakistan	Sri Lanka	Rwanda	Uganda
Quality policy/ legislative framework	2	3	5	5	4	3
Standardization capacity	2	4	4	5	4	3
Technical regulation	2	2	2	2	4	4

⁵⁰ NTIS 2016 is Nepal's third generation trade integration strategy. Nepal joined the Integrated Framework (IF) in 2002 and as part of the program carried out a Diagnostic Trade Integration Study (DTIS) and received assistance with 2 projects on trade-related capacity building. Under the EIF but before the EIF Trust Fund (TF) was operational, Nepal undertook a DTIS Update (called Nepal Trade Integration Study, NTIS) funded by a consortium of donors including UNDP (the then EIF Donor Facilitator (DF) for Nepal), DFID, Finland, ITC, IFC. The NTIS was validated in 2010 and launched in June 2010.

⁵¹ The TSCCI focus on the ability of countries to perform the key functions needed for compliance with technical regulations and standards with a specific focus on its relevance for the country's participation in international trade.

capacity						
Metrology capacity	2	3	5	4	3	3
Accreditation capacity	3	4	4	5	1	4
Inspection capacity	2	3	2	2	2	2
Testing capacity	3	4	5	5	1	4
Certification capacity	2	4	5	5	4	3
Food safety capacity	2	1	1	3	5	5
WTO-related institutions for technical regulations and standards	4	4	4	3	4	4

Source: UNIDO 2015. *Meeting Standards, Winning Markets. Trade Standards Compliance 2015 Report*

Inadequate national quality infrastructure exacerbates some of the disadvantages that Nepal faces as a landlocked country. SPS measures contribute significantly to trade time and costs along the Kathmandu-Kolkata corridor. Nepal's current SPS system has major capacity gaps and weaknesses in WTO compliance, namely: (i) the SPS system is not risk-based; (ii) the food control system is mainly focused on quality requirements, not on food safety requirements; (iii) SPS agencies and laboratories suffer from frequent rotation of staff; (iv) insufficient capacity in plant pest surveillance and diagnostics; (v) no capacity to control pesticides; (vi) SPS import inspection is hardly in place and ineffective; and (vii) there is at present no testing capacity and accreditation for food safety parameters in microbiology, pesticide residues, veterinary drug residues, heavy metals, other pollutants and mycotoxins.⁵² There are several instances in which product standards developed by Nepali authorities do not fulfill international standards either because their limits do not comply with international ones or because domestic standards do not include some parameters required in international markets. The misalignment of domestic and international standards for export products limits their growth potential and, in some cases, excludes exports from specific markets. The capacity of laboratories to test and certify goods for developed markets is uneven. The lack of internationally accredited laboratories that can issue internationally recognized sanitary certificates and test reports makes exporting costlier. Most key agricultural products sold by Nepal are sent to other countries for testing and certification due to weak capacity to test, certify or accredit in the country, and hence increasing the cost of each product and making it less competitive in the global market.

⁵² World Bank (2015). Exports and Imports of Nepal of agriculture and food products SPS-related issues and solutions. Mimeo.

Annex 2: List of reference documents

1. Project Documents
 - 1.1. Market access and Trade Facilitation Support for South Asian LDCs, through Strengthening Institutional and National Capacities Related to Standards, Metrology, Testing and Quality (SMTQ) – Phase III. (ID 106034). SAARC project
 - 1.2. Trade capacity-building in the Mekong Delta countries of Cambodia and Lao People’s Democratic Republic through strengthening institutional and national capacities related to standards, metrology, testing and quality (SMTQ) Phase III. (ID 106078). Mekong project
 - 1.3. SAARC project. Inception report prepared by S.C. Arora dated 12 December 2013
 - 1.4. Mekong project. Inception reports for Lao PDR and Cambodia prepared by the PM based on the work of Dr. G.M.S De Silva, CTA under Phase II
 - 1.5. Independent Evaluation Report Market access and Trade Facilitation Support for South Asian LDCs, through Strengthening Institutional and National Capacities Related to Standards, Metrology, Testing and Quality (SMTQ) – Phase II (TE/RAS/07/001), by Mr. Colm M. Halloran, dated October 2012
 - 1.6. Maldives. Sample of Minutes of Meeting of the National Steering Committees
 - 1.7. Maldives. Ministry of Economic Development: workplan for the accreditation of the Metrology Unit (provided by Mr. Nasih Jamaal, National Consultant).
 - 1.8. Lao’s PDR. Minute record on Teleconference for Steering Committee meeting, 20 January 2016.
 - 1.9. Project Agreement between NORAD and UNIDO dated 8 July 2013
2. Progress Reports
 - For project ID 106034
 - 2.1. Progress Report as of 19 December 2013
 - 2.2. Progress report covering October 2013 – February 2014
 - 2.3. Progress report covering April 2014 – September 2014
 - 2.4. Progress report covering October 2014 – March 2015
 - 2.5. Progress report covering April 2015 – September 2015
 - 2.6. Progress report covering October 2015 – March 2016
 - 2.7. Progress report covering April 2016 – September 2016 (received on 12 December 2016)
 - 2.8. Nepal. Progress report of Management System Certificate division produced by NBSM.
 - 2.9. Nepal. Progress of activities of NBSM under the project, produced by Ms. Romi Manandhar
 - 2.10. Nepal. Progress of activities of DFTQ under the project, produced by Mr. Krishna Raid
 - 2.11. BAFRA progress report
 - 2.12. Maldives. Ministry of Economic Development: presentation SAARC PTB Project
 - For project ID 106034
 - 2.13. Progress report covering April 2015 – September 2015
 - 2.14. Progress report covering October 2015 – March 2016
 - 2.15. Progress report covering April 2016 – September 2016 (received on 12 December 2016)
 - 2.16. Cambodia. Progress report NSL of CRRRI Q3-4 2016

- 2.17. Lao's PDR. Summary Report of 3rd Phase Support from the FDQCC, 2014-2015
- 2.18. Lao's PDR. Summary of UNIDO's support to SDMT, 2011-2016
3. Projects outputs
 - 3.1. Nepal. Market survey and business plan for management system certification services and training in a variety of quality management system. Prepared by Mr. Sapkota, dated August 2014
 - 3.2. Nepal. NBSM copy of ISO 17065:2012 certificate
 - 3.3. Nepal. NBSM copy of ISO 17021:2011 certificate
 - 3.4. Nepal. List of trainings organized/attended under the project, prepared by NBSM
 - 3.5. Nepal. List of applications received for ISO 9001:2015, ISO 14001:2015 and ISO 22000:2005, prepared by NBSM
 - 3.6. Nepal. List of funds used and planned, prepared by NBSM
 - 3.7. Nepal. List of industries with accredited products, prepared by NBSM
 - 3.8. Bhutan. BSB procurement documents (car and thermometer), warranty certificate
 - 3.9. Cambodia. Factsheet promotional material CRRI.
 - 3.10. Cambodia. CRRI. Paper entitled "Processing of Viscosity Stabilized Ribbed Smoked Sheet Natural Rubber (RSS CV60) presented at the International Rubber Conference 2016.
 - 3.11. Lao's PDR. Contract on FDQCC laboratory accreditation assessment against ISO/IEC 17025:2005
 - 3.12. Lao's PDR. Equipment list (SDMT, Metrology Centre, FDQCC, LCA).

4. Other documentation and material

For project ID 106034

- 4.1. Nepal. 13th-National Plan of Government of Nepal (2013/14-2015/16)
- 4.2. Nepal. National Trade Integration Strategy (NTIS 2010 and NTIS 2016)
- 4.3. Nepal. Annual Bulletin, 2014/15, Department of Food Technology and Quality Control (DFTQ)
- 4.4. Nepal. Regulation and Code of Conduct of Collective Trademark of Chyangra Pashmina, Nepal Pashmina Industries Association (NPIA)
- 4.5. Nepal. Promotional brochure Chyangra Pashmina, Nepal Pashmina Industries Association (NPIA).
- 4.6. Cambodia. Inventory Control record. Equipment Phase III
- 4.7. Cambodia. List of Non-conformities issued by JAS-ANZ for ISC

Annex 3: List of organizations met

[in chronological order]

NORAD:

- The Programme Manager provided written comments on 20 April 2017 (no meeting took place)

UNIDO:

- The Office for Independent Evaluation
- The Project Manager
- The Consultant of the SAARC and Mekong Project (Headquarter)
- The Chief Technical Adviser of the SAARC Project
- The Technical Expert of the Mekong Project

Bhutan

- The Bhutan Standards Bureau
- The Bhutan Agriculture & Food Regulatory Authority
- Perfect Thermex TMT, Phuentsholing, Bhutan (Steel Production)
- Karma Feeds, Phuentsholing, Bhutan, (Cattle, poultry, fish and pig feeds)

Cambodia

- The Head of UNIDO Operations, Cambodia
- The National Project Coordinator (UNIDO)
- National Metrology Centre of Cambodia (NMC)
- The Cambodia Chamber of Commerce and Industry
- The Industrial Laboratory Center of Cambodia ILCC
- Cambodian Rubber Research Institute (CRRI)
- Institute of Standards of Cambodia (ISC)
- Ta Ong RSS processing factory in Kampong Cham (Rubber Processor)
- Chup TSR processing factory in Thbong Khmum (Rubber Processor)
- Oum Tech RSS processing factory in Thbong Khmum (Rubber Processor)

Lao PDR

- The Head of UNIDO Operations, Lao PDR
- The National Project Coordinator
- The Department for Standards and Metrology (DSM)
- The State Enterprise for Survey Design and Material Testing (SDMT)
- The Food & Drug Quality Control Center (FDQCC)
- Vientiane Capital Steel Industry Company
- Savankham Food & Beverage Sole Company Ltd. (bottled drinking water)

Maldives

- Ministry of Economic Development (MED)
- Maldives Food and Drug Authority (MFDA)
- Maldives Standard and Metrology Unit (MSMU)

Nepal:

- The Nepal Bureau of Standards and Metrology (NBSM)
- The Department of Food Technology and Quality Control (DFTQC)
- The Pashmina Enhancement and Trade Support (PETS) executed by the ITC in cooperation with the Nepal Pashmina Industry Association.
- The Silk Association of Nepal (SAN)
- The Nepal Pashmina Industry Association (NPIA)
- The Federation of Nepalese Chambers of Commerce & Industry
- United Cement Pvt. Ltd. (benefitting from product certification scheme)
- Pashupati Filter Candle Udhyog (benefitting from product certification scheme)
- CG Foods Company

Annex 4: Terms of reference



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Terms of Reference

Independent Final Evaluation of the UNIDO Project:

UNIDO Project Number: 106034

Market Access and Trade Facilitation Support for South Asian LDCs, through strengthening Institutional and National Capacities related to Standards, Metrology Testing and Quality (SMTQ) – Phase III

NORAD Funding: (excl. psc) EUR 836,000.00

Duration: July 2013 to December 2016

and

UNIDO Project Number: 106078

Trade capacity-building in the Mekong Delta countries of Cambodia and Lao People's Democratic Republic through strengthening institutional and national capacities related to standards, metrology, testing and quality (SMTQ) phase III

NORAD Funding: (excl. psc) EUR 1,230,625.00

Duration: October 2011 to December 2016

September 2016

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I. Introduction and Project background and overview

1. Introduction

This evaluation will assess the performance and results of project number 106034, titled “Market Access and Trade Facilitation Support for South Asian LDCs, through strengthening Institutional and National Capacities related to Standards, Metrology Testing and Quality (SMTQ) – Phase III” (SAARC III) and project number 106078, titled “Trade capacity-building in the Mekong Delta countries of Cambodia and Lao People’s Democratic Republic through strengthening institutional and national capacities related to standards, metrology, testing and quality (SMTQ) phase III” (Mekong III) It is a final evaluation (with field visit expected to be conducted in November and December 2016) of both project phases III which were implemented during July 2013 to December 2016 (SAARC) and October 2011 to December 2016 (Mekong III).

2. Project factsheet

SAARC III

Project Title	Market Access and Trade Facilitation Support for South Asian LDCs, through strengthening Institutional and National Capacities related to Standards, Metrology Testing and Quality (SMTQ) – Phase III.
UNIDO project No. and/or SAP ID	Project No. SAP ID: 106034
Region	SAARC Region
Country(ies)	Nepal, Bhutan, Maldives
Implementing agency(ies)	UNIDO
Executing partner(s)	---
Project size (FSP, MSP, EA)	---
Project implementation start date (First PAD issuance date)	July 2013
Original implementation end date	July 2016
Revised expected implementation end date (if applicable)	Dec 2016
Donor(s):	NORAD
Actual implementation end date	Dec 2016
Project Budget	Euro 1,696,680 (NORAD inputs 836,000)
PA or PPG (if applicable)	
UNIDO co-financing	Cash: 0 In-kind: 0
Total co-financing at design (cash and in-kind)	Cash: 0 In-kind: 0
Materialized co-financing at project completion (cash and in-kind)	EUR 752,000
Mid-term review date	Not foreseen

Planned terminal evaluation date	Nov/Dec 2016
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(Source: Project document)⁵³

Mekong III

Project Title	Trade capacity-building in the Mekong Delta countries of Cambodia and Lao People's Democratic Republic through strengthening institutional and national capacities related to standards, metrology, testing and quality (SMTQ) phase III
UNIDO project No. and/or SAP ID	Project No. SAP ID: 106078
Region	Mekong Region
Country(ies)	Lao PDR, Cambodia
Implementing agency(ies)	UNIDO
Executing partner(s)	
Project size (FSP, MSP, EA)	
Project implementation start date (First PAD issuance date)	October 2011
Original implementation end date	Dec 2014
Revised expected implementation end date (if applicable)	Dec 2015
Donor(s):	NORAD
Actual implementation end date	Dec 2016
Project Budget	Euro 1,390,606
PA or PPG (if applicable)	---
UNIDO co-financing	Cash: 0 In-kind: 0
Total co-financing at design (cash and in-kind)	Cash: 0 In-kind: 0
Materialized co-financing at project completion (cash and in-kind)	In kind contribution by Ministry of Industry, Mines and Energy to provide offices, telephone and internet facilities. Private Sector and counterpart institutions were foreseen to contribute through partnering in implementation of activities (through human resources project offices). In-kind contribution was not defined in financial terms.
Mid-term review date	Not foreseen
Planned terminal evaluation date	Nov/Dec 2016

⁵³ Project information data throughout these TOR are to be verified during the inception phase.

3. Project background and context

Background:

Every country needs to be able to produce tradable goods that are competitive in design, quality and price. Increasing international trade, in an era of liberalised economic context, largely depends on quality standards as well as on credible testing and calibration facilities, which ensure that products comply with the requirements of standards.

Hitherto, a number of duty free and quota free facilities were launched to support developing countries in accessing markets. In spite of this, many developing countries are still unable to enjoy equitable participation in global trade due to challenges of inadequate supply capacity and the lack of quality infrastructure.

As a matter of fact, trade is identified as one of the principal instruments of poverty alleviation. Local and regional trade and export-led growth has resulted in increased household incomes and employment opportunities signifying a positive trade poverty-nexus in development process. Good quality is an essential element for products to integrate into international markets.

Context project 106034 - SAARC:

UNIDO, through funding from Norwegian Agency for Development (NORAD) is providing development assistance to the least developed nations of the South Asian Association for Regional Cooperation (SAARC) - Bangladesh, Bhutan, Maldives, and Nepal since 2003. The project(s) intended to improve Standards, Metrology, Testing, and Quality (SMTQ) through implementation of internationally accepted metrology institutes (both legal and commercial), standards development institutes, food safety testing facilities, and product certification primarily to assist exports certification to Management System Standards (MSS).

Implementation of these measures aims to:

- Ensure mutually accepted trade measurements;
- Provide standards that assist exports and facilitate imports while ensuring appropriate products for the domestic market;
- Enhance the capacity to assess safety of food imported, exported, and domestic, as well as identify food rejected elsewhere;
- Ensure the market (domestic and export) has verified acceptable products;
- Open access to export markets that have sophisticated requirements for safe quality products made with concern for the environment and labour practices;
- Facilitate the introduction of a quality culture in organizational endeavours;
- Position each country to be a strong participant in regional trade under the free trade initiatives in SAARC;

Phases 1 and 2 of the UNIDO SAARC SMTQ project have achieved much progress in having appropriate laws and regulations drafted with some already put into place for metrology and food safety, providing training to key staff, facilitating companies to achieve MSS certification, and acquiring appropriate laboratory equipment. The initiatives for Bangladesh are considered

complete, with additional time needed for Bhutan, Maldives, and Nepal due to delays caused by organizational changes and uncertain political situations.

The overall objective of Phase 3 is to build on the achievements of Phase 2 and the lessons learned to establish the desired SMTQ infrastructure and ensure measures are in place to make the initiatives sustainable using local resources.

The current Phase 3 will contribute towards MDG goal 1 on poverty reduction, MDG goal 3 on gender equality and empowerment of women, and MDG goal 7 on ensuring environmental sustainability through increased export opportunities, economic growth, safe food and employment subsequent to completion of legislative reforms and improvement of the quality infrastructure. This project also corresponds to the aims set out in the MDG goal 8 on instigating a global partnership for development. Recognized transparency, inclusion of women, international credibility, and quality systems are the backbone for the sustainability of the aforementioned goals. The intervention, mainly funded by NORAD was implemented in three phases starting in 2002. Phase I was designed as a regional project for the four countries of Bangladesh, Bhutan, Maldives and Nepal and mainly focussed on mapping of the national SMTQ infrastructures, training, consultancy and planning of further developments. It was evaluated by the UNIDO Evaluation Group in May 2007 with respect to its Relevance, Ownership, Effectiveness, Efficiency, Impact, Sustainability and Horizontal issues⁵⁴. Findings concluded that the project was relevant and UNIDO's implementation has been efficient with outputs related to the National Quality Infrastructure (NQI) being achieved.

There was a general high degree of project ownership, however regional concord was weak based on different national needs. Although the project was seen likely to get a high impact and very good in sustainability aspects, it was stated that regional activities should be replaced by the EU project ESPEC.

Further Recommendations for project design and management included inter alia:

- The objective of the project should be extended to protect the domestic societies against substandard and hazardous products;
- For phase II to describe the roles and authorities of all UNIDO representatives and other stakeholders;
- Review and improve project management set-up and mobilise the national steering committees in the planning and follow-up phase II;

Phase II was consequently launched in September 2007 covering Bangladesh, Bhutan, Maldives and Nepal. It was evaluated by the UNIDO evaluation group in October 2012. Main finding stated that the project has been successfully implemented and delivered significant benefits to the stakeholders of the NQI in all participating countries, reaching about 90% of implementation outcomes in Bhutan and 70% in the Maldives and Nepal. The project was evaluated to have been well managed in an efficient manner and strictly in accordance with UNIDO's rules on financial management while complementing overlapping activities with the EU project in Bangladesh and Nepal.

⁵⁴ For the full report please visit: http://www.unido.org/fileadmin/import/70923_20070505_SAARC_TFRAS03001.pdf

Main recommendations included to adopt a sector or value chain approach in designing SMTQ support programs. While additional TA was recommended in all countries to strengthen the sustainability of the outcomes achieved, UNIDO was recommended to develop a structured and in-depth approach for SMTQ project preparation, including an assessment of demand and supply of SMTQ services and the identification of needs of SMTQ service users, while NORAD should allocate sufficient funds for detailed project formulation.⁵⁵

The third and last phase with a total duration of three years will come to an end in December 2016. Project implementation started in July 2013 and the project completion date was initially planned in July 2016 but was revised to December 2016.

The project document foresees regular monitoring (MTR) and an independent terminal evaluation (TE). Monitoring was conducted through steering committee meetings and telephone conferences (minimum once a year) to monitor and review progress, challenges faced and way forward. In parallel progress reporting on bi-annual basis was provided to the donor.

Context project 106078 - Mekong:

The liberalized global trade regime provides developing countries opportunities for export-driven growth, as well as challenges. In addition, the Mekong countries, i.e. Cambodia, Lao PDR, and Vietnam, have the potential to integrate and benefit from regional trade. NORAD has funded capacity-building interventions in these three countries since 2003. These interventions have been instrumental in setting up and strengthening the legal and regulatory framework relating to TBT/SPS compliance, in particular, national standards, metrology legal framework, product certification, testing and metrology laboratories.

Developing standards and compliance capabilities require significant funding and time. The overall objective of the project phase III is to consolidate the recent achievements in SMTQ infrastructure development, and address the remaining institutional and capacity building gaps. This phase of the NORAD-UNIDO intervention covers Cambodia and Lao PDR, and targets on the following key outputs:

- Enhancing capacity of National Specifications Laboratory (NSL) of Cambodia Rubber Research Institute and promoting CRRI's activities in partnership with the Association for Rubber Development of Cambodia (ARDC);
- Upgrading the chemical testing capacity at Industrial Laboratory Centre of Cambodia;
- Promoting concepts and benefits of National Quality Infrastructure (NQI) in collaboration with the Cambodia Chamber of Commerce;
- Establishment of a facility for testing coffee in collaboration with the Lao Coffee Association;
- Upgrading the Chemical Testing Laboratory at Food & Drug Quality Control Centre (FDQCC); and
- Improvement of testing facilities at the State Enterprise for Survey Design and Materials Testing (SDMT) in Lao PDR;

⁵⁵ For the full report please visit: https://www.unido.org/fileadmin/user_media_upgrade/Resources/Evaluation/E-Book_SAARC_II-2012.pdf

The intervention funded by NORAD was implemented in three phases starting in 2003. Phase I, covering a period of 2 years from 2003 to 2005 and implemented in Lao PDR, Vietnam and Cambodia, aimed at (1) national capacity building related to market access requirements and TBT and identifying manufacturing sub-sectors and export market focus for remedial action in each country and (2) upgrade the required technical infrastructure. Most results (outputs and outcomes) were achieved as planned, except training in the quality area that did not achieve targets. UNIDO policy advice regarding legislation and institutional development has made an impact and is expected to result in new legislation, particularly in Lao PDR and Cambodia. The project was evaluated to address important needs being highly relevant and showing excellent national ownership. The regional approach was questioned whether similar benefits could be obtained by three parallel national projects. A continuation of phase II was recommended with national components to be defined for each of the three countries.⁵⁶

Phase II of the project was consequently developed and implemented during 2006 and 2011 aiming at developing new and strengthening existing conformity infrastructure, developing national capabilities on different standards related to key export industries, ensuring regional and international credibility of the conformity infrastructure, and developing enquiry points for Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary Measures (SPS) in each of the three countries. The project management was flexibly adapting the content to changed needs but day-to-day implementation left room for improvement. The project was highly relevant in terms of international priorities, national policies and demand of beneficiaries. It significantly improved the capacities of most of the targeted laboratories with remarkable achievements such as the international accreditation of ILCC and CRII laboratories in Cambodia.⁵⁷

The third and last phase with a total duration of five years will come to an end in December 2016.

Project implementation started in October 2011 and the project completion date was initially planned in December 2014 but was revised to December 2015 and then to December 2016.

The project document foresees regular monitoring (MTR) and a terminal evaluation (TE).

Monitoring was conducted through steering committee meetings and telephone conferences (bi-annually) to monitor and review progress, challenges faced and way forward. In parallel progress reporting on bi-annual basis was provided to the donor.

4. Project objective and structure

106034 – SAARC III

⁵⁶ For the full evaluation report please visit:

http://www.unido.org/fileadmin/import/39573_FINAL_EVAL_REPORT_2005_07_11_Mekong_Delta_Countries.pdf

⁵⁷ For the full report please visit:

http://www.unido.org/fileadmin/user_media/About_UNIDO/Evaluation/Project_reports/SMTQ%20Mekong%20final_TERAS06001_111123.pdf

The Phase 3 objectives build on the achievements of Phase 2 and the lessons learned to establish the desired SMTQ infrastructure and ensure measures are in place to make the initiatives sustainable using local resources.

Specifically Phase 3 aims to:

Bhutan:

Achieve accreditation of the food-testing laboratory of the Bhutan Agriculture and Food Regulatory Authority (BAFRA) with a full scope of testing, strengthen the metrology and construction products certification schemes of the Bhutan Standards Bureau (BSB) and determine the best approach to encourage the national use of management systems.

Maldives:

Ensure safe food through enactment of laws and regulations verified by an accredited Maldives Food and Drug Authority (MFDA) food safety laboratory with a full range of testing parameters, strengthen the metrology scheme provided by the Polytechnic and the Atolls inspectors, and establish measures to assist the yellowfin tuna industry to retain required management system certifications for exports, and facilitate the dried fish industry to increase exports through effective use of management systems.

Nepal:

Strengthen the food safety system through improvements to the Department of Food Technology and Quality Control (DFTQC) Central Food Laboratory (CFL) operations and scope extension, strengthen the Pashmina industry through improved Nepal Bureau of Standards and Metrology (NBSM) textile testing and certification scheme, improve construction product quality through NBSM certification, and determine the best approach to encourage the national use of different management systems, as well as strengthening training for, and accreditation scope.

The following project components have been developed, in addition to project management, to achieve the project objectives:

Project Component 1: Enhancement of Food Safety system in Bhutan, Nepal and Maldives with respect to (in-country) processed products, domestically produced, imported and exported products. The food safety system will be enhanced by published regulations along with accredited testing capacity to detect residues, additives, pesticides and contaminants.

Project Component 2: Accurate trade quantities for consumers, industry, and exporters supported by a fully functioning internationally accepted metrology system to be supported by measuring instruments used in Bhutan and Maldives being calibrated with international acceptance of calibration certificates.

Project Component 3: Functional 3rd party Conformity Assessment Bodies operating to the benefit of society and facilitating continual improvement.

- Bhutan: An operational BSB Product Certification Body is established with Management systems supporting societal objectives.
- Maldives: Affordable MSS Certification Services for Fish and fish product exporters are available.
- Nepal: Additional product capacity for NBSM Testing Laboratory and accreditation of NBSM as a Product Certification Body to ISO/IEC 17065. NBSM Management Systems Certification Body is augmented in providing both certification and training for a variety of Management System Standards (MSS).

The following are, in brief, some of the expected results of the project/programme:

- Laws addressing SMTQ will be issued and detailed regulations will be in place and accessible through electronic means;
- The food safety system in each country will be comparable to others in the region and capable to identify foods rejected by other countries. Target markets will readily accept foods for export;
- Products in the region will be accepted across borders through agreements for mutual acceptance of product certifications;
- Standards will be based on regional and international needs to the fullest extent possible with national standards for specialty products;
- Organizations will be voluntarily implementing MSS to become more effective, continually improve, and to better access markets;
- Measures will be in place to ensure ongoing MSS certifications are affordable to all organizations;
- Commercial and industrial measuring instruments will be verified accurate, with their accuracy traceable to international prime standards;

Original Objective (2002):

For continuity and to put the Phase 3 objectives in context, the initial overall objective established in 2002, as well as the individual objectives indicated at the start of the project for Bhutan, Maldives, and Nepal were to:

- Facilitate industrial development and export capabilities (and consequently spurring economic growth and employment opportunities) of the assisted countries by reducing technical barriers to trade through the strengthening of standards, metrology, testing, quality and conformity assessment institutional structures and national capacities.
- Bhutan: Strengthen the standards cell in the Standards and Quality Control Authority (SQCA), (renamed the BSB), its metrology laboratory and the food-testing laboratory of BAFRA, and to develop a national capability for training in quality management with a view to developing the quality competence of the nascent industry.
- Maldives: Strengthen the Standards Cell and Legal and Industrial Metrology laboratory of the MSMC and to enhance the capability of the national food-testing laboratory of the MFDA, leading to its accreditation with a view to increasing its fishery exports.
- Nepal: Strengthen the product certification scheme and textile laboratory of the NBSM and the food-testing laboratory of the DFTQC and to develop a national capability for training in quality management with a view to developing the quality competence of industry.

106078 – Mekong III

The main objective of the proposed project is to facilitate the industrial development, consumer protection and enhancement of export capabilities through further strengthening of national quality infrastructure and human capacities related to standards, metrology, testing and quality.

The following **project components** have been developed, in addition to project management, to achieve the project objectives:

Cambodia

Project Component 1: Improvement of product quality products and protection of consumers in respect of safety and health by supporting the Institute of Standards Cambodia (ISC) to approve and publish 40 draft standards developed in Phase II and to attract at least 3 new products and expand accreditation.

Project Component 2: Improvement of measurement accuracy, international traceability and consumer protection by upgrading of the industrial and legal metrology sections of the National Metrology Center (NMC) and provincial legal metrology offices.

Project Component 3: Improved capability of Cambodian exporters to meet international requirement for trade by upgrading the National Specifications Laboratory (NSL) of the Cambodia Rubber Research Institute (CRRI) and non-food chemical testing laboratory of the Industrial Laboratory Center (ILCC).

Project Component 4: In collaboration with Cambodia Chamber of Commerce, awareness on quality among industrialists, consumers and the general population will be increased by creation of a quality award and organization of awareness building seminars.

Lao PDR

Project Component 1: Improvement of quality of products and protection of consumers in respect of safety and health services by: supporting the Division of Standards (DOS) in developing and disseminating standards for key export products; supporting the Quality Center in identifying new product categories and expanding accreditation; and supporting the Information and Training Center to develop a standards library.

Project Component 2: Improvement of measurement accuracy, international traceability and consumer protection by: upgrading the Lao Metrology Center and support for accreditation; support the division of Consumer Protection for legal metrology.

Project Component 3: Improved capability of Lao PDR exporters to meet international requirements for trade by: supporting the Lao Coffee Association (LCA) in the establishment of a coffee testing laboratory; upgrading the food chemistry section of the Food and Drug Control Center (FDQCC); and upgrade the testing capacities of the State Enterprise for Survey Design and Materials Testing (SDMT) for accreditation. The following are, in brief, some of the expected **results** of the project/programme:

Cambodia

Overall the project will contribute towards strengthening the integration of Cambodia into the multilateral trading system, in particular regarding its capacity to comply with international market requirements in the areas of SPS and TBT issues. In addition, indirect intended outcomes are increased exports as well as strengthened consumer protection in the domestic market through the enhanced quality infrastructure recognizing issues of health, safety and environment whilst addressing issue of public and private sector development.

Lao PDR

Overall the project will contribute towards strengthening the integration of Lao PDR into the multilateral trading system, in particular regarding its capacity to comply with international market requirements in the areas of SPS and TBT issues. In addition, indirect intended outcomes are increased exports as well as strengthened consumer protection in the domestic market through the enhanced quality infrastructure recognizing issues of health, safety and environment whilst addressing issue of public and private sector development.

5. Project implementation and execution arrangements

106034 – SAARC III

The project is implemented jointly by UNIDO and the involved organizations/ counterparts in each country through the project management unit. For Bhutan this is the Department of Trade, Ministry of Economic Affairs, Bhutan Standards Bureau (BSB), and Bhutan Agriculture and Food Regulatory Authority (BAFRA); for the Maldives, Ministry of Economic Development, Maldives Standards and Metrology Centre (MSMC), Maldives Food and Drug Authority (MFDA), Maldives Polytechnic, and the Atolls Council; and for Nepal, Ministry of Industry, Nepal Bureau of Standards and Metrology (NBSM), and Department of Food Technology and Quality Control (DFTQC). The National Project Coordinators (NPC), supported by the Chief Technical Advisor (CTA) (homebased) are responsible for organizing and overseeing implementation. International experts are providing technical support for developing advanced testing methodologies and the verification of the same. National expertise is utilized as much as possible alongside the international experts, thereby providing the international experts with much needed local knowledge and at the same time transferring international knowledge to local experts.

Each country has a Steering Committee (SC) that provides for the oversight of project implementation by the ministries involved, the Private Sector and the implementation agency (UNIDO) to oversee the project. This Committee met at the start of the project and biannually. An inception report was tabled at the first biannual meeting of this committee and biannual reports were tabled at each SC meeting. In addition to the bi-annual SC meetings held in each project country, meetings between the donor (NORAD) and UNIDO were held bi-annually in order to report on progress, challenges, risks and mitigating measures based on which the subsequent six-monthly work plans were prepared and tranches of funding approved.

UNIDO:

The daily implementation of the project is managed by the UNIDO project manager from the UNIDO TCB unit in cooperation with the UNIDO New Delhi office (India), the CTA and the National Project Coordinator with administrative support and in very close collaboration with the project counterparts. The UNIDO project manager is monitoring the implementation progress with a results-based management approach. The implementation team for each country is responsible for reviewing and updating work plans and the implementation of the project in accordance with UNIDO rules and procedures.

106078 Mekong III

The Project Steering Committees in Cambodia and Lao PDR are responsible for monitoring and guiding the programme. The project is overseen by the Steering Committee (SC) that has been set up in each beneficiary country. The SC consists of senior officials of the standards body, metrology and testing laboratories, all relevant and counterpart ministries and the private sector. The SC is providing for the oversight of project implementation by the Governments of the beneficiary countries (Cambodia and Lao PDR) and the implementation agency (UNIDO). This Committee was meeting at the commencement of the project and biannually to agree upon work plans, resource allocations and reporting of progress. An inception report was tabled at the first biannual meeting of this committee and biannual reports were tabled at each SC meeting thereafter.

In addition to the bi-annual SC meetings held in each project country, meetings between the donor (NORAD) and UNIDO were held bi-annually in order to report on progress, challenges, risks and mitigating measures based on which the subsequent six-monthly work plans were prepared and tranches of funding approved.

The project counterparts in Cambodia are: Institute of Standards (ISC), Industrial Laboratory Center (ILCC), National Metrology Centre (NMC), Cambodia Rubber Research Institute (CRRI), and Cambodia Chamber of Commerce (CCC).

The project counterparts in Lao PDR are: Department of Standardization and Metrology, Food & Drugs Quality Control Center, Lao National Chamber of Commerce and Industry, Lao Coffee Association, State Enterprise for Survey Design and Materials Testing (SDMT).

The Government counterparts are responsible for working closely with UNIDO in assessing the issues raised at the SC, having a particular bearing on Government commitment, contribution and in particular ways and means to absorb the assistance rendered for national development and make the capacity developed sustainable. If there were any administrative and bureaucratic bottlenecks (modifying legal and institutional framework etc.) from the Government stakeholder side, which may affect the successful completion of the project, the Government in consultation with UNIDO would agree on a mutually acceptable and a feasible solution in order to ensure smooth project implementation and sustainability. The Government is responsible for implementing the relevant decisions and recommendations of the SC.

UNIDO:

The daily implementation of the project is managed by the UNIDO project managers, national technical advisors and the national project coordinators with administrative support and in very close collaboration with the project counterparts. The UNIDO project manager, national coordinators and international technical advisors are monitoring the implementation progress with a results-based management approach. The implementation team is responsible for reviewing and

updating of work plans and implementation of the project in accordance with UNIDO rules and procedures.

UNIDO activities are overseen and coordinated by a headquarters based Project Manager with guidance on technical activities by international experts in the fields the Project supports. The project team comprises of the Project Manager, Heads of UNIDO Operations in Cambodia and Lao PDR, international experts, together with National Technical Advisors and National Project Coordinators in each country (Cambodia and Lao PDR).

6. Relevant project reports/documents

106034 SAARC

During the process of developing the inception report, performance indicators were finalized and project milestones clearly defined. Work plans were defined by the CTA in line with the project agreement and decisions of each country's project SC.

Progress reports were prepared on bi-annual basis relating to each main project objectives and targeted outputs; specifying the results achieved to date, as well as presenting the work plan for the next six-month period and presented to the SC meetings and donor meetings. At each meeting UNIDO presented specific problems encountered and constraints faced in project implementation, and provided technical guidance on how best these challenges can be addressed.

Further details can be obtained from mission reports undertaken by international experts and project management throughout the implementation.

106078 – Mekong

During the process of developing the inception report, performance indicators were finalized and project milestones clearly defined. Work plans were defined by the project Manager in line with the project agreement and decisions of the project SC.

Progress reports were prepared on bi-annual basis relating to each main project objectives and targeted outputs; specifying the results achieved to date, as well as presenting the work plan for the next six-month period and presented to the SC meetings and donor meetings. At each meeting UNIDO presented specific problems encountered and constraints faced in project implementation, and provided technical guidance on how best these challenges can be addressed.

Further details can be obtained from mission report undertaken by international experts and project management throughout the implementation.

7. Budget information

Some financial details are shown below:

106034 SAARC III:

Outputs	NORA D	Co-funding (In-kind)			TOTAL
		Govt.	Para- statal	Private	
Euros (Thousands)					
Output 1 (Bhutan: BAFRA)	85	10	50	0	145
Output 2 (Bhutan: BSB)	138	45	150	10	343
Output 3 (Maldives: MFDA)	85	20	50	0	155
Output 4 (Maldives: Polytech & MSMA)	35	50	50	10	145
Output 5 (Nepal: DFTQC)	85	10	50	0	145
Output 6 (Nepal: NBSM)	88	0	90	10	188
SUBTOTAL TECHNICAL ASSISTANCE	516	135	440	30	1121
Project management	320	15	132	0	467
PROJECT TOTAL BUDGET	836	150	572	30	1588
Support costs	108.68				
GRAND TOTAL	944.68	150	572	30	1696.68
Percentage	55.7	8.8	33.7	1.8	100.0

(Source: Project document)

106078 – Mekong III:

Budget line	Description	Details	w/m	NORAD
EURO				
11-00	Experts	Standards and Metrology//NQI	8	120,000
		Chemicals/Coffee	4	60,000
		Rubber	4	60,000
		National quality scheme	2.5	37,500
	Experts		18.5	277,500
13-00	Support staff	Project secretary and drivers in Cambodia and Lao	144	60,000
15-00	Local travel			4,000
16-00	Mission costs			30,000
17-00	National staff	NPCs and Technical Advisers Cambodia and Lao PDR	108	94,000
17-50	National staff		42	25,125
21-00	Sub contracts	Cambodia		115,000
		Lao PDR		100,000
	Sub contracts			215,000
32-00	Study tours	Cambodia		15,000
		Lao PDR		30,000
	Study tours			45,000

Budget line	Description	Details	w/m	NORAD
33-00	In service training			15,000
45-00	Equipment	Cambodia		115,000
		Lao PDR		300,000
				415,000
51-00	Miscellaneous			10,000
82-00	Evaluation			40,000
	Total			1,230,625
	Support cost (13%)			159,981
	Grand total			1,390,606
	Contingency			43,394
	Total incl. contingency funds			1,434,000

106078 MEKONG III -Country budget by output

CAMBODIA

Outputs	Sub Total	BL11	w/m	BL13	BL15	BL16	BL17	BL21	BL32	BL33	BL45	BL51
C.5.1.1.1 Output 1	27723	7500	0.5	4286	286	2143	8509	0	0	0	0	5000
C.5.1.1.2 Output 2	55223	15000	1	4286	286	2143	8509	25000	0	0	0	0
C.5.1.2.1 Output 3	95223	15000	1	4286	286	2143	8509	35000	0	0	30000	0
C.5.1.2.2 Output 4	47723	7500	0.5	4286	286	2143	8509	0	0	0	25000	0
C.5.1.3.1 Output 5	140223	60000	4	4286	286	2143	8509	35000	0	0	30000	0
C.5.1.3.2 Output 6	77723	22500	1.5	4286	286	2143	8509	0	10000	0	30000	0
C.5.1.4.1 Output 7	83723	37500	2.5	4286	286	2143	8509	20000	5000	8000	0	0
Total	529563	165000	11	30000	2000	15000	59563	115000	15000	8000	115000	5000

C.5.1.1.1 Output 1	ISC is supported for approving and publishing 40 draft standards developed in the Phase II											
C.5.1.1.2 Output 2	ISC is supported in attracting at least 3 new product categories and expanding accreditation											
C.5.1.2.1 Output 3	Industrial metrology laboratory of National Metrology Center is upgraded											
C.5.1.2.2 Output 4	Provincial legal metrology offices are upgraded											
C.5.1.3.1 Output 5	National Specifications Laboratory (NSL) of the Cambodian Rubber Research Institute is upgraded											
C.5.1.3.2 Output 6	ILCC non-food chemical testing laboratory is upgraded											
C.5.1.4.1 Output 7	Assistance is provided for consultancy services for creation of quality awareness and development of quality award,											
	as well as for organization of awareness building seminars											

LAO PDR

Outputs		Sub Total	BL11	w/m	BL13	BL15	BL16	BL17	BL21	BL32	BL33	BL45	BL51
C.5.2.1.1 Output 1	31320	31320	15000	1	3750	250	1875	7445	0	0	0	0	3000
C.5.2.1.2 Output 2	55320	55320	12000	0.8	3750	250	1875	7445	30000	0	0	0	0
C.5.2.1.3 Output 3	28320	28320	3000	0.2	3750	250	1875	7445	0	10000	0	0	2000
C.5.2.2.1 Output 4	88320	88320	15000	1	3750	250	1875	7445	30000	0	0	30000	0
C.5.2.2.2 Output 5	118320	118320	15000	1	3750	250	1875	7445	0	0	0	90000	0
C.5.2.3.1 Output 6	72820	72820	22500	1.5	3750	250	1875	7445	0	0	7000	30000	0
C.5.2.3.2 Output 7	158320	158320	15000	1	3750	250	1875	7445	20000	10000	0	100000	0
C.5.2.3.3 Output 8	108320	108320	15000	1	3750	250	1875	7445	20000	10000	0	50000	0
		661063	112500	7.5	30000	2000	15000	59563	100000	30000	7000	300000	5000

C.5.2.1.1 Output 1	Division of Standards is supported in developing and disseminating standards for key export products												
C.5.2.1.2 Output 2	The Quality Center is supported in identifying new product categories and expanding accreditation												
C.5.2.1.3 Output 3	Information & Training Center is supported to develop standards library												
C.5.2.3.1 Output 4	Lao Metrology Centre is upgraded and supported for accreditation												

C.5.2.3.2 Output 5	Division of Consumer Protection (DCP) is supported						
C.5.2.4.1 Output 6	Lao Coffee Association (LCA) is supported to have a coffee testing laboratory						
C.5.2.4.2 Output 7	Food Chemistry Section of Food & Drug Quality Control Centre (FDQCC) is supported						
C.5.2.4.3 Output 8	Survey Design and Materials Testing (SDMT) is supported						

BL11	International consultants
BL13	Administrative support
BL15	Project travel
BL16	Mission cost
BL17	National consultants
BL21	Sub contracts
BL32	Study tour
BL33	In-service training
BL45	Equipment
BL51	Miscellaneous

II. Scope and purpose of the evaluation

The terminal evaluation (TE) will cover the whole duration of the project from its starting (October 2011) to the estimated completion date in December 2016. It will assess project performance against the evaluation criteria: relevance, effectiveness, efficiency, sustainability and impact.

The TE has an additional purpose of drawing lessons and developing recommendations for UNIDO and the project stakeholders and partners, that may help improving the selection, enhancing the design and implementation of similar future projects and activities in the country and on a global scale upon project completion. The terminal evaluation report should include examples of good practices for other projects in the focal area, country, or region.

The terminal evaluation should provide an analysis of the attainment of the project objective(s) and the corresponding technical components or outputs. Through its assessments, the terminal evaluation should enable the Government, the national counterparts, the donors, UNIDO and other stakeholders and partners to verify prospects for development impact and promoting sustainability, providing an analysis of the attainment project objectives, delivery and completion of project outputs/activities, and outcomes/impacts based on indicators, and management of risks. The assessment includes re-examination of the relevance of the objectives and other elements of project design according to the project evaluation parameters defined in this ToR.

The key questions of the terminal evaluation are whether the project has achieved or is likely to achieve its main objectives and to what extent the net benefits of the project will likely continue beyond the project completion.

III. Evaluation approach and methodology

The terminal evaluation will be conducted in accordance with the UNIDO Evaluation Policy⁵⁸, the UNIDO Guidelines for the Technical Cooperation Programme and Project Cycle⁵⁹.

The evaluation will be conducted by an independent evaluation team, and it will be carried out as an independent in-depth evaluation using a participatory approach whereby all key parties associated with the project are kept informed and regularly consulted throughout the evaluation. The evaluation team will liaise with the UNIDO Independent Evaluation Division (ODG/EVQ/IEV) on the conduct of the evaluation and methodological issues.

The evaluation team will be required to use different methods to ensure that data gathering and analysis deliver evidence-based qualitative and quantitative information, based on diverse sources, as necessary: desk studies and literature review, statistical analysis, individual interviews, focus group meetings, surveys and direct observation. This approach will not only enable the evaluation to assess causality through quantitative means but also to provide reasons for why certain results were achieved or not and to triangulate information for higher reliability of findings. The specific mixed methodological approach will be described in the inception report.

⁵⁸ UNIDO. (2015). Director General's Bulletin: Evaluation Policy (UNIDO/DGB/(M).98/Rev.1)

⁵⁹ UNIDO. (2006). Director-General's Administrative Instruction No. 17/Rev.1: Guidelines for the Technical Cooperation Programme and Project Cycle (DGAI.17/Rev.1, 24 August 2006)

The evaluation team will develop interview guidelines. Field interviews can take place either in the form of focus-group discussions or one-to-one consultations.

The methodology will be based on the following:

1. A desk review of project documents, including, but not limited to:
 - (a) The original project document, monitoring reports (such as progress and financial reports to UNIDO and Donor(s)/Partners, annual Project Implementation Reports (PIRs)), progress reports, mid-term review (MTR) report, output reports (case studies, action plans, sub-regional strategies, etc.), back-to-office mission report(s), end-of-contract report(s) and relevant correspondence.
 - (b) If applicable, notes from the meetings of committees involved in the project (e.g. approval and steering committees).
 - (c) Other project-related material produced by the project.
2. The evaluation team will use available models of (or reconstruct if necessary) theory of change for the different types of intervention (enabling, capacity, investment, demonstration). The validity of the theory of change will be examined through specific questions in interviews and possibly through a survey of stakeholders.
3. Counterfactual information: In those cases where baseline information for relevant indicators is not available, the evaluation team will aim at establishing a proxy-baseline through recall and secondary information.
4. Interviews with project management and technical support including staff and management at UNIDO HQ and in the field and – if necessary - staff associated with the project’s financial administration and procurement.
5. Interviews with project partners and stakeholders, including, among others, government counterparts, project stakeholders, and co-financing partners as shown in the corresponding sections of the project documents.
6. On-site observation of results achieved by demonstration projects, including interviews of actual and potential beneficiaries of improved technologies.
7. Interviews and telephone interviews with intended users for the project outputs and other stakeholders involved in the project. The evaluation team shall determine whether to seek additional information and opinions from representatives of any donor agency(ies) or other organizations.
8. Interviews with the relevant UNIDO Field Office(s) to the extent that it was involved in the project, and the project’s management members and the various national and sub-regional authorities dealing with project activities as necessary.
9. Other interviews, surveys or document reviews as deemed necessary by the evaluation team and/or UNIDO, ODG/EVQ/IEV for triangulation purposes.
10. The inception report will provide details on the methodology used by the evaluation team and include an evaluation matrix.

IV. Project evaluation parameters

The evaluation team will assess the project performance, achievement of outputs, outcome(s) and likelihood of attainment of results (long term outcomes, impact) guided by the parameters and evaluations questions provided in this section.

In addition to the qualitative assessment based on the evidence gathered in the evaluation, the evaluation team will rate the project on the basis of the **rating criteria for the parameters described in the following sub-chapters, A to C.**

Ratings will be presented in the form of tables with each of the criteria / aspects rated separately and with **brief justifications for the rating** based on the findings and the main analyses (see Table 1 to Table 3) in Annex 2.

Table 4 in Annex 2 presents the template for summarizing the overall ratings.

A. Project identification and design

Project identification assessment criteria derived from the logical framework approach (LFA) methodology, establishing the process and set up of steps and analyses required to design a project in a systematic and structured way, e.g. situation, stakeholder, problem and objective analyses. The aspects to be addressed by the evaluation include inter alia the extent to which:

- a) The situation, problem, need / gap was clearly identified, analysed and documented (evidence, references). The project design was based on a needs assessment
- b) Stakeholder analysis was adequate (e.g. clear identification of end-users, beneficiaries, sponsors, partners, and clearly defined roles and responsibilities in the project(s)).
- c) The project took into account and reflects national and local priorities and strategies
- d) ISID-related issues and priorities were considered when designing the project
- e) Relevant country representatives (from government, industries, gender groups, custom officers and civil society - were appropriately involved and participated in the identification of critical problem areas and the development of technical cooperation strategies.
- f) Risk management: Are critical risks related to financial, social-political, institutional, environmental and implementation aspects identified with specific risk ratings? Are their mitigation measures identified? Where possible, are the mitigation measures included in project activities/outputs and monitored under the M&E plan?

Project design quality assessment criteria derive from the logical framework approach (LFA) methodology, leading to the establishment of LogFrame Matrix (LFM) and the main elements of the project, i.e. overall objective, outcomes, outputs, to defining their causal relationship, as well as indicators, their means of verification and the assumptions. The evaluation will examine the extent to which:

- g) The project's design was adequate to address the problems at hand;
- a) The project had a clear thematically focused development objective;
- b) The project outcome was clear, realistic, relevant, addressed the problem identified and provided a clear description of the benefit or improvement that will be achieved after project completion;
- c) Outputs were clear, realistic, adequately leading to the achievement of the outcome;
- d) The attainment of overall development objective, outcome and outputs can be determined by a set of SMART verifiable indicators;
- e) The results hierarchy in the LFM, from activities to outputs, outcome and overall objective, is logical and consistent.
- f) Verification and Assumptions were adequate, identifying important external factors and risks.

B. Implementation Performance

Implementation assessment criteria to be applied are shown below and correspond to DAC criteria, as well as to good programme/project management practices.

a) Relevance and ownership

The evaluation will examine the extent to which the project is relevant to the:

- i. National development and environmental priorities and strategies of the Government and the population, and regional and international agreements. See possible evaluation questions under “Country ownership/drivenness” below.
- ii. Target groups: relevance of the project’s objectives, outcomes and outputs to the different target groups of the interventions (e.g. private-sector companies, civil society, beneficiaries of capacity building and training, etc.). The evaluation would review the effects of the projects on the private sector stakeholders and beneficiaries in the survey and field work, as appropriate.
- iii. Focal areas/operational programme strategies: In retrospect, were the project’s outcomes consistent with the Donor’s programmes/strategies (e.g. focal area(s)/operational program strategies?) Ascertain the likely nature and significance of the contribution of the project outcomes to the specific Donor focal area/programme.
- iv. Does the project remain relevant taking into account the changing environment?
- v. A participatory project identification process and broad consultation including all main stakeholder groups (e.g. the national counterpart and target beneficiaries) was instrumental in selecting problem areas and counterparts requiring technical cooperation support.

b) Effectiveness

The evaluation will assess to what extent results at various levels, including outcomes and outputs, have been achieved. The following issues will be assessed:

- i. Delivery of outputs: How do the stakeholders perceive the quality of outputs? Were the targeted beneficiary groups actually reached?
- ii. Achievement of expected outcomes:
 - To what extent have the expected outcomes, outputs and long-term objectives been achieved or are likely to be achieved?
 - Has the project generated any results that could lead to changes of the assisted institutions?
 - Have there been any unplanned effects?
 - Are the project outcomes commensurate with the original or modified project objectives?
 - If the original or modified expected results were described as merely outputs/inputs, were there any real outcomes of the project and, if so, were these commensurate with realistic expectations from the project?
 - If there was a need to reformulate the project design and the project results framework given changes in the country and operational context, were such modifications properly documented?

- iii. Longer-term impact: What were the actual and/or potential longer-term impacts or at least indicate the steps taken to assess these (see also below “monitoring of long term changes”)? Wherever possible, evaluators should indicate how findings on impacts will be reported in future.
- iv. Catalytic or replication effects: The evaluation will describe any catalytic or replication effect both within and outside the project. If no effects are identified, the evaluation will describe the catalytic or replication actions that the project carried out. No ratings are requested for the project’s catalytic role.

c) Efficiency

The extent to which:

- i. The project cost was effective: Was the project using the most cost-efficient options? Is the project cost-effective compared to similar interventions? Could the project have produced more with the same resources, or the same with less money, or with less delay? Were there other means to achieve the same outcomes?
- ii. Outputs and outcomes: Has the project produced results within the expected time frame? Was project implementation delayed, and, if it was, did that affect cost effectiveness or results? Wherever possible, the evaluator should also compare the costs incurred and the time taken to achieve outcomes with that for similar projects. Were the project’s activities in line with the schedule of activities as defined by the project team and annual work plans? Were the disbursements and project expenditures in line with budgets?
- iii. Have the inputs from the donor, UNIDO and Government/counterpart been provided as planned, and were they adequate to meet the requirements? Was the quality of UNIDO inputs and services as planned and timely?
- iv. Was there coordination with other UNIDO and other donors’ projects, and did possible synergy effects happen?
- v. Were there delays in project implementation and if so, what were their causes?

d) Assessment of risks to sustainability of project outcomes

Sustainability is understood as the likelihood of continued benefits after the project ends. Assessment of sustainability of outcomes will be given special attention but also technical, financial and organization sustainability will be reviewed. This assessment should explain how the risks to project outcomes will affect continuation of benefits after the project ends. It will include both exogenous and endogenous risks. The following four dimensions or aspects of risks to sustainability will be addressed:

- i. **Financial risks.** Are there any financial risks that may jeopardize sustainability of project outcomes? What is the likelihood of financial and economic resources not being available once assistance ends? (Such resources can be from multiple sources, such as the public and private sectors or income-generating activities; these can also include trends that indicate the likelihood that, in future, there will be adequate financial resources for sustaining project outcomes.) Was the project successful in identifying and leveraging co-financing?
- ii. **Sociopolitical risks.** Are there any social or political risks that may jeopardize sustainability of project outcomes? What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? Do the various key stakeholders see that it is in their interest that project benefits continue to flow? Is there sufficient public/stakeholder awareness in support of the project’s long-term objectives?
- iii. **Institutional framework and governance risks.** Do the legal frameworks, policies, and governance structures and processes within which the project operates pose risks that may

- jeopardize sustainability of project benefits? Are requisite systems for accountability and transparency and required technical know-how in place?
- iv. **Environmental risks.** Are there any environmental risks that may jeopardize sustainability of project outcomes? Are there any environmental factors, positive or negative, that can influence the future flow of project benefits? Are there any project outputs or higher-level results that are likely to have adverse environmental impacts, which, in turn, might affect sustainability of project benefits? The evaluation should assess whether certain activities will pose a threat to the sustainability of the project outcomes.

e) Assessment of monitoring and evaluation (M&E) systems

- i. **M&E design.** Did the project have an M&E plan to monitor results and track progress towards achieving project objectives? The evaluation will assess whether the project met the minimum requirements for the application of the Project M&E plan (ref. page 93).
- ii. **M&E plan implementation.** The evaluation should verify that an M&E system was in place and facilitated timely tracking of progress toward project objectives by collecting information on chosen indicators continually throughout the project implementation period; annual project reports were complete and accurate, with well-justified ratings; the information provided by the M&E system was used during the project to improve performance and to adapt to changing needs; and the project had an M&E system in place with proper training for parties responsible for M&E activities to ensure that data will continue to be collected and used after project closure. Was monitoring and self-evaluation carried out effectively, based on indicators for outputs, outcomes and impacts? Are there any annual work plans? Was any steering or advisory mechanism put in place? Did reporting and performance reviews take place regularly? How well have risks outlined the project document and in the logframe been monitored and managed? How often have risks been reviewed and updated? Has a risk management mechanism been put in place?
- iii. **Budgeting and Funding for M&E activities.** In addition to incorporating information on funding for M&E while assessing M&E design, the evaluators will determine whether M&E was sufficiently budgeted for at the project planning stage and whether M&E was adequately funded and in a timely manner during implementation.

f) Assessment of processes affecting achievement of project results

Among other factors, when relevant, the evaluation will consider a number of issues affecting project implementation and attainment of project results. The assessment of these issues can be integrated into the analyses of project design, relevance, effectiveness, efficiency, sustainability and management as the evaluators deem them appropriate (it is not necessary; however, it is possible to have a separate chapter on these aspects in the evaluation report). The evaluation will consider, but need not be limited to, the following issues that may have affected project implementation and achievement of project results:

- i. **Preparation and readiness / Quality at entry.** Were the project's objectives and components clear, practicable, and feasible within its time frame? Were counterpart resources (funding, staff, and facilities), and adequate project management arrangements in place at project entry? Were the capacities of executing institution and counterparts properly considered when the project was designed? Were lessons from other relevant projects properly incorporated in the project design? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project approval?
- ii. **Country ownership / drivenness.** Was the project concept in line with the sectoral and development priorities and plans of the country—or of participating countries, in the case of multi-country projects? Are project outcomes contributing to national development priorities and plans? Were relevant country representatives from government and civil society involved in the project? Did the recipient government

maintain its financial commitment to the project? Has the government—or governments in the case of multi-country projects—approved policies or regulatory frameworks in line with the project’s objectives?

- iii. **Stakeholder involvement and consultation.** Did the project involve the relevant stakeholders through continuous information sharing and consultation? Did the project implement appropriate outreach and public awareness campaigns? Were the relevant vulnerable groups and powerful supporters and opponents of the processes involved in a participatory and consultative manner? Which stakeholders were involved in the project (e.g., NGOs, private sector, other UN Agencies) and what were their immediate tasks? Did the project consult with and make use of the skills, experience, and knowledge of the appropriate government entities, nongovernmental organizations, community groups, private sector entities, local governments, and academic institutions in the design, implementation, and evaluation of project activities? Were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process taken into account while taking decisions?
- iv. **Financial planning.** Did the project have appropriate financial controls, including reporting and planning, that allowed management to make informed decisions regarding the budget and allowed for timely flow of funds? Was there due diligence in the management of funds and financial audits? Did promised co-financing materialize? Specifically, the evaluation should also include a breakdown of final actual project costs by activities compared to budget (variances), financial management (including disbursement issues), and co-financing.
- v. **UNIDO’s supervision and backstopping.** Did UNIDO staff identify problems in a timely fashion and accurately estimate their seriousness? Did UNIDO staff provide quality support and advice to the project, approve modifications in time, and restructure the project when needed? Did UNIDO provide the right staffing levels, continuity, skill mix, and frequency of field visits for the project?
- vi. **Co-financing and project outcomes and sustainability.** Did the project manage to mobilize the co-financing amount expected at the time of design/formulation/approval? If there was a difference in the level of expected co-financing and the co-financing actually mobilized, what were the reasons for the variance? Did the extent of materialization of co-financing affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?
- vii. **Delays and project outcomes and sustainability.** If there were delays in project implementation and completion, what were the reasons? Did the delays affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?
- viii. **Implementation and execution approach.** Is the implementation and execution approach chosen different from other implementation approaches applied by UNIDO and other agencies? Does the approach comply with the principles of the Paris Declaration? Is the implementation and execution approach in line with the relevant UNIDO regulations (DGAI.20 and Procurement Manual)? Does the approach promote local ownership and capacity building? Does the approach involve significant risks? In cases where Execution was done by third parties, i.e. Executing Partners, based on a contractual arrangement with UNIDO was this done in accordance with the contractual arrangement concluded with UNIDO in an effective and efficient manner

g) Project coordination and management

The extent to which:

- i. The national management and overall coordination mechanisms have been efficient and effective? Did each partner have assigned roles and responsibilities from the beginning? Did each partner fulfil its role and responsibilities (e.g. providing strategic support, monitoring and

reviewing performance, allocating funds, providing technical support, following up agreed/corrective actions, managing risks)?

- ii. The UNIDO HQ-based management, coordination, monitoring, quality control and technical inputs have been efficient, timely and effective (e.g. problems identified timely and accurately; quality support provided timely and effectively; right staffing levels, continuity, skill mix and frequency of field visits)?

C. Assessment of gender mainstreaming

The evaluation will consider, but need not be limited to, the following issues that may have affected gender mainstreaming in the project:

- i. Did the project/programme design adequately consider the gender dimensions in its interventions? If so, was gender considered at the level of project outcome, output or activity?
- ii. Was a gender analysis included in a baseline study or needs assessment (if any)? Were there gender-related project indicators?
- iii. How gender-balanced was the composition of the project management team, the Steering Committee, experts and consultants and the beneficiaries?
- iv. Have women and men benefited equally from the project's interventions? Do the results affect women and men differently? If so, why and how? How are the results likely to affect gender relations (e.g., division of labour, decision-making authority)?
- v. Are women/gender-focused groups, associations or gender units in partner organizations consulted/ included in the project?
- vi. To what extent were socioeconomic benefits delivered by the project at the national and local levels, including consideration of gender dimensions?

Further guidance on integrating gender is included in Annex 3.

V. Evaluation team composition

The evaluation team will be composed of one international senior evaluation consultant acting as the team leader, one international junior consultant. The consultants will be contracted by UNIDO. The tasks of each team member are specified in the job descriptions in Annex 5 to these terms of reference.

The evaluation team might be required to provide information relevant for follow-up studies, including terminal evaluation verification on request to donors/partners up to three years after completion of the terminal evaluation.

Members of the evaluation team must not have been directly involved in the design and/or implementation of the projects/programme under evaluation.

The UNIDO project manager and the project teams in the participating country/-ies, Nepal, Bhutan and Maldives for SAARC III, Cambodia and Lao PDR for Mekong III, will support the evaluation team.

VI. Time schedule

The evaluation is scheduled to take place in the last Quarter 2016. An evaluation field mission to the participating countries will be arranged during the evaluation conduct.

At the beginning of the evaluation, the team leader would come to Vienna for briefing with the project manager and the Independent Evaluation Division. At the end of the evaluation field mission, a local debriefing should be conducted inviting local stakeholders (incl. government and parties involved in the evaluation). After the evaluation mission, the international evaluation consultant will come to UNIDO HQ for debriefing and presentation of the preliminary findings of the terminal evaluation. The draft TE report will be submitted 2 to 4 weeks after the end of the mission.

The draft TE report is to be shared with stakeholders (e.g. the UNIDO PM, ODG/EVQ/IEV and other relevant stakeholders). The ET is expected to revise the draft TE report based on the comments received, edit the language and form and submit the final version of the TE report in accordance with UNIDO Evaluation standards.

VII Deliverables and Reporting

Inception report

These terms of reference (TOR) provide some information on the evaluation methodology, but this should not be regarded as exhaustive. After reviewing the project documentation and initial interviews with the project manager, the evaluation team will prepare a short inception report that will operationalize the TOR relating to the evaluation questions and provide information on what type of and how the evidence will be collected (methodology). It will be discussed with and approved by the responsible in the UNIDO Independent Evaluation Division.

The inception report will focus on the following elements: preliminary project theory model(s); elaboration of evaluation methodology including quantitative and qualitative approaches through an evaluation framework (“evaluation matrix”); division of work between the international evaluation consultants; mission plan, including places to be visited, people to be interviewed and possible surveys to be conducted and a debriefing and reporting timetable⁶⁰.

Evaluation report and review procedures

The draft report will be delivered to UNIDO Independent Evaluation Division (the suggested report outline is in Annex 1 and circulated to relevant UNIDO staff and national stakeholders associated with the project for factual validation and comments. Any comments or feedback on any errors of fact to the draft report provided by the stakeholders will be sent to the evaluation team (c.c. ODG/EVQ/IEV) for their consideration and any necessary revisions. On the basis of

⁶⁰ The evaluator will be provided with a Guide on how to prepare an evaluation inception report prepared by the UNIDO Independent Evaluation Division.

this feedback, and taking into consideration the comments received, the evaluation team will prepare the final version of the terminal evaluation report.

The terminal evaluation report should be brief, to the point and easy to understand. It must explain the purpose of the evaluation, exactly what was evaluated, and the methods used. The report must highlight any methodological limitations, identify key concerns and present evidence-based findings, consequent conclusions, recommendations and lessons. The report should provide information on when the evaluation took place, the places visited, who was involved and be presented in a way that makes the information accessible and comprehensible. The report should include an executive summary that encapsulates the essence of the information contained in the report to facilitate dissemination and distillation of lessons.

Findings, conclusions and recommendations should be presented in a complete, logical and balanced manner. The evaluation report shall be written in English and follow the outline given in Annex 1.

Evaluation work plan and deliverables

The “Evaluation Work Plan” includes the following main phases and products/deliverables:

1. Desk review, briefing by project manager and development of methodology: Following the receipt of all relevant documents, and consultation with the Project Manager about the documentation, including reaching an agreement on the methodology, the desk review could be completed.
2. Inception report: At the time of departure to the field mission, all the received material has been reviewed and consolidated into the Inception report.
3. Field mission: The principal responsibility for managing this evaluation lies with UNIDO. It will be responsible for liaising with the project team to set up the stakeholder interviews, arrange the field missions, coordinate with the Government. At the end of each country visit, there will be a presentation (preferably in Power Point slides) of preliminary findings, conclusions and recommendations to the key stakeholders in the country where the project was implemented.
4. Preliminary findings from the field missions: Following the field missions, the key findings, conclusions and recommendations would be prepared (preferably in PowerPoint slides) and presented at UNIDO Headquarters.
5. A draft terminal evaluation report will be submitted electronically to the UNIDO Independent Evaluation Division and circulated to main stakeholders. For feedback and factual validation.
6. Final terminal evaluation report: considering/incorporating comments/feedback received.

Evaluation phases	Deliverables
<p>Desk review</p> <p>Briefing with UNIDO Independent Evaluation Division, Project Managers and other key stakeholders at HQ, and with representatives from NORAD through telephone or skype.</p> <p>Data analysis</p>	<p>Inception evaluation report, including:</p> <ul style="list-style-type: none"> • Development/fine-tuning of methodology approach and evaluation tools • Interview notes, detailed evaluation schedule and list of stakeholders to interview during field mission

Field mission Present preliminary findings and recommendations to key stakeholders in the field	Presentation of key findings to key stakeholders in the field.
Debriefing at UNIDO HQ	Presentation of key preliminary findings and recommendations to the stakeholders at UNIDO HQ (Additional interviews and analysis as needed)
Further Analysis of the data collected and report drafting	Draft terminal evaluation report
Report finalization (on the basis of feedback/comment received from stakeholders, including the NORAD)	Final terminal evaluation report

VIII. Quality assurance

All UNIDO evaluations are subject to quality assessments by the UNIDO Independent Evaluation Division. Quality assurance and control is exercised in different ways throughout the evaluation process (briefing of consultants on methodology and process by the UNIDO, ODG/EVQ/IEV, providing inputs regarding findings, lessons learned and recommendations from other UNIDO evaluations, review of inception report and evaluation report by UNIDO, ODG/EVQ/IEV). The quality of the evaluation report will be assessed and rated against the criteria set forth in the Checklist on evaluation report quality, attached as Annex 3. The applied evaluation quality assessment criteria are used as a tool to provide structured feedback. UNIDO, ODG/EVQ/IEV should ensure that the evaluation report is useful for UNIDO in terms of organizational learning (recommendations and lessons learned) and is compliant with UNIDO's evaluation policy and these terms of reference. The draft and final evaluation report are reviewed by the UNIDO Independent Evaluation Division and circulate it within UNIDO together with a management response sheet.

Annex 1 - Outline of an in-depth project evaluation report

Executive summary

- Must provide a synopsis of the storyline which includes the main evaluation findings and recommendations
- Must present strengths and weaknesses of the project
- Must be self-explanatory and should be maximum 3-4 pages in length

I. Evaluation objectives, methodology and process

- Information on the evaluation: why, when, by whom, etc.
- Scope and objectives of the evaluation, main questions to be addressed
- Information sources and availability of information
- Methodological remarks, limitations encountered and validity of the findings

II. Country and project background

- Brief country context: an overview of the economy, the environment, institutional development, demographic and other data of relevance to the project
- Sector-specific issues of concern to the project⁶¹ and important developments during the project implementation period
- Project summary:
 - Fact sheet of the project: including project objectives and structure, donors and counterparts, project timing and duration, project costs and co-financing
 - Brief description including history and previous cooperation
 - Project implementation arrangements and implementation modalities, institutions involved, major changes to project implementation
 - Positioning of the UNIDO project (other initiatives of Government, other donors, private sector, etc.)
 - Counterpart organization(s)

III. Project assessment

This is the key chapter of the report and should address all evaluation criteria and questions outlined in the TOR (see section VI - Project evaluation parameters). Assessment must be based on factual evidence collected and analyzed from different sources. The evaluators' assessment can be broken into the following sections:

- A. Project identification and formulation
- B. Project design
- C. Implementation performance
 - a) Relevance and ownership (report on the relevance of project towards countries and beneficiaries, country ownership, stakeholder involvement)
 - b) Effectiveness (the extent to which the development intervention's objectives and deliverables were achieved, or are expected to be achieved, taking into account their relative importance)
 - c) Efficiency (report on the overall cost-benefit of the project and partner countries' contribution to the achievement of project objectives)
 - d) Likelihood of sustainability of project outcomes (report on the risks and vulnerability of the project, considering the likely effects of sociopolitical and institutional changes in partner countries, and its impact on continuation of

⁶¹ Explicit and implicit assumptions in the logical framework of the project can provide insights into key-issues of concern (e.g., relevant legislation, enforcement capacities, government initiatives)

benefits after the project ends, specifically the financial, sociopolitical, institutional framework and governance, and environmental risks)

- e) Project coordination and management (Report on the project management conditions and achievements, and partner countries' commitment)
- f) Assessment of monitoring and evaluation systems (report on M&E design, M&E plan implementation, and budgeting and funding for M&E activities)
- g) Monitoring of long-term changes
- h) Assessment of processes affecting achievement of project results (report on preparation and readiness / quality at entry, country ownership, stakeholder involvement, financial planning, UNIDO support, co-financing and project outcomes and sustainability, delays of project outcomes and sustainability, and implementation approach)

D. Gender mainstreaming

At the end of this chapter, an overall project achievement rating should be developed as required in Annex 2. The overall rating table required should be presented here.

IV. Conclusions, recommendations and lessons learned

This chapter can be divided into three sections:

A. Conclusions

This section should include a storyline of the main evaluation conclusions related to the project's achievements and shortfalls. It is important to avoid providing a summary based on each and every evaluation criterion. The main conclusions should be cross-referenced to relevant sections of the evaluation report.

B. Recommendations

This section should be succinct and contain few key recommendations. They should be:

- Based on evaluation findings
- Realistic and feasible within a project context
- Indicating institution(s) responsible for implementation (addressed to a specific officer, group or entity who can act on it) and have a proposed timeline for implementation if possible
- Commensurate with the available capacities of project team and partners
- Taking resource requirements into account.

Recommendations should be structured by addressees:

- UNIDO
- Government and/or counterpart organizations
- Donor

C. Lessons learned

- Lessons learned must be of wider applicability beyond the evaluated project but must be based on findings and conclusions of the evaluation
- For each lesson, the context from which they are derived should be briefly stated

Annexes should include the evaluation TOR, list of interviewees, documents reviewed, a summary of project identification and financial data, including an updated table of expenditures to date, and other detailed quantitative information. Dissident views or management responses to the evaluation findings may later be appended in an annex.

Annex 2 – Rating tables

Ratings will be presented in the form of tables with each of the criteria / aspects rated separately and with **brief justifications for the rating** based on the findings and the main analyses (see Table 1 to Table 3) below. Table 4 presents the template for summarizing the overall ratings.

Table 1. Rating criteria for Quality of project identification and formulation process

Evaluation issue	Evaluator's comments	Ratings
1. Extent to which the situation, problem, need / gap is clearly identified, analysed and documented (evidence, references).		
2. Adequacy and clarity of the stakeholder analysis (clear identification of end-users, beneficiaries, sponsors, partners, and clearly defined roles and responsibilities in the project(s)).		
3. Adequacy of project monitoring and evaluation (M&E) design.		
4. Overall LFA design process.		

Table 2. Quality of project design

Evaluation issue	Evaluator's comments	Rating
1. Clarity and adequacy of outcome (clear, realistic, relevant, addressing the problem identified). Does it provide a clear description of the benefit or improvement that will be achieved after project completion?		
2. Clarity and adequacy of outputs (realistic, measurable, adequate for leading to the achievement of the outcome).		
3. Clarity, consistency and logic of the objective tree , and its reflexion in the LFM results hierarchy from activities to outputs , to outcome and to overall objective .		
4. Indicators are SMART for Outcome and Output levels.		
5. Adequacy of Means of Verification and Assumptions (including important external factors and risks).		
6. Overall LFM design quality.		

Table 3. Quality of project implementation performance

Evaluation criteria	Rating	
<p>7. Ownership and relevance: to national development priorities and Government strategies; to target groups; to UNIDO's mandate and thematic priorities; to Donor's priorities; counterpart(s) were appropriately involved in the identification of critical problem areas and in the development of implementation strategies; supported actively project implementation including through in-kind and cash contributions; and the project(s) / programme are relevant to the ISID agenda).</p>		
<p>8. Effectiveness: objectives and final results at the end of the project (outputs were produced; outcome(s) were achieved or are likely to be achieved through the operation of outputs; and the project/programme contributed to inclusive and sustainable industrial development).</p>		
<p>9. Efficiency (UNIDO, Donors, implementing agencies and counterpart inputs have been provided as planned and were adequate to meet requirements; the quality of UNIDO, Donors, implementing agencies and counterpart inputs and services (expertise, training, methodologies, etc.) was as planned and led to the production of outputs; UNIDO procurement services were provided as planned and were adequate in terms of timing, value, process issues, responsibilities; the project used the most cost-efficient option and was cost-effective etc.).</p>		
<p>10. Impact (which long term developmental changes, e.g. economic, environmental, social and inclusiveness, have occurred or are likely to occur as a result of the intervention).</p>		
<p>11. Likelihood of/ risks to sustainability (results achieved so far are sustainable; the project was replicated/had a multiplying effect; a sustainability strategy was formulated; and what are the prospects/riks for technical, organizational, financial, sociopolitical, institutional framework and governance, and environmental sustainability).</p>		
<p>12. Project management (the national management and overall field coordination mechanisms of the project have been efficient and effective; the UNIDO management, coordination, quality control and technical inputs have been efficient and effective; changes in planning documents during implementation have been approved and documented; and synergy benefits can be found in relation to other UNIDO activities in the country or elsewhere).</p>		
<p>13. M&E (monitoring and self-evaluation was carried out based on indicators for outputs, outcomes and</p>		

Evaluation criteria	Rating	
objectives; M&E activities were documented; and M&E information was used for project steering and adaptive management).		

Table 4. Overall ratings

Criterion	Evaluator's summary comments	Evaluator's rating
Attainment of project objectives and results (overall rating), sub criteria (below)		
Project implementation		
• Effectiveness		
• Relevance		
• Efficiency		
Sustainability of project outcomes (overall rating), sub criteria (below)		
• Financial risks		
• Sociopolitical risks		
• Institutional framework and governance risks		
• Environmental risks		
Monitoring and evaluation (overall rating), sub criteria (below)		
• M&E Design		
• M&E Plan implementation (use for adaptive management)		
• Budgeting and Funding for M&E activities		
Project Formulation		
• LFA (Situation, stakeholder, problem and objective analyses / Preparation and readiness)		
Project Design		

Criterion	Evaluator's summary comments	Evaluator's rating
<ul style="list-style-type: none"> Project Design (LFM, main elements of the project, i.e. overall objective, outcomes, outputs, their causal relationship, indicators, means of verification and assumptions) 		
Project management - UNIDO specific ratings		
<ul style="list-style-type: none"> Implementation approach 		
<ul style="list-style-type: none"> UNIDO Supervision and backstopping 		
Overall Project rating		

RATING OF PROJECT OBJECTIVES AND RESULTS

- Highly satisfactory (HS): The project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Satisfactory (S): The project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Moderately satisfactory (MS): The project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Moderately unsatisfactory (MU): The project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Unsatisfactory (U) The project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Highly unsatisfactory (HU): The project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Please note: Relevance and effectiveness will be considered as critical criteria. The overall rating of the project for achievement of objectives and results **may not be higher** than the lowest rating on either of these two criteria. Thus, to have an overall satisfactory rating for outcomes a project must have at least satisfactory ratings on both relevance and effectiveness.

RATINGS ON SUSTAINABILITY

Sustainability will be understood as the probability of continued long-term outcomes and impacts after the project funding ends. The evaluation will identify and assess the key conditions or factors that are likely to contribute or undermine the persistence of benefits beyond project completion. Some of these factors might be outcomes of the project, i.e. stronger institutional capacities, legal frameworks, socio-economic incentives /or public awareness. Other factors will include contextual circumstances or developments that are not outcomes of the project but that are relevant to the sustainability of outcomes.

Rating system for sustainability sub-criteria

On each of the dimensions of sustainability of the project outcomes will be rated as follows.

- Likely (L): There are no risks affecting this dimension of sustainability.
- Moderately likely (ML). There are moderate risks that affect this dimension of sustainability.
- Moderately unlikely (MU): There are significant risks that affect this dimension of sustainability.
- Unlikely (U): There are severe risks that affect this dimension of sustainability.

All the risk dimensions of sustainability are critical. Therefore, overall rating for sustainability will not be higher than the rating of the dimension with lowest ratings. For example, if a project has an Unlikely rating in either of the dimensions then its overall rating cannot be higher than Unlikely, regardless of whether higher ratings in other dimensions of sustainability produce a higher average.

RATINGS OF PROJECT M&E

Monitoring is a continuing function that uses systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing project with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds. Evaluation is the systematic and objective assessment of an on-going or completed project, its design, implementation and results. Project evaluation may involve the definition of appropriate standards, the examination of performance against those standards, and an assessment of actual and expected results.

The Project M&E system will be rated on M&E design, M&E plan implementation and budgeting and funding for M&E activities as follows:

- Highly satisfactory (HS): There were no shortcomings in the project M&E system.
- Satisfactory(S): There were minor shortcomings in the project M&E system.
- Moderately satisfactory (MS): There were moderate shortcomings in the project M&E system.
- Moderately unsatisfactory (MU): There were significant shortcomings in the project M&E system.
- Unsatisfactory (U): There were major shortcomings in the project M&E system.
- Highly unsatisfactory (HU): The Project had no M&E system.

M&E plan implementation will be considered a critical parameter for the overall assessment of the M&E system. The overall rating for the M&E systems will not be higher than the rating on M&E plan implementation.

All other ratings will be on the following six-point scale:

HS = Highly satisfactory	Excellent
S = Satisfactory	Well above average
MS = Moderately satisfactory	Average
MU = Moderately unsatisfactory	Below average
U = Unsatisfactory	Poor
HU = Highly unsatisfactory	Very poor (appalling)

Annex 3 – Guidance on integrating gender in evaluations of UNIDO projects and programmes

A. Introduction

Gender equality is internationally recognized as a goal of development and is fundamental to sustainable growth and poverty reduction. The UNIDO Policy on gender equality and the empowerment of women and its addendum, issued respectively in April 2009 and May 2010 (UNIDO/DGB(M).110 and UNIDO/DGB(M).110/Add.1), provides the overall guidelines for establishing a gender mainstreaming strategy and action plans to guide the process of addressing gender issues in the Organization's industrial development interventions.

According to the UNIDO Policy on gender equality and the empowerment of women:

Gender equality refers to the equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not suggest that women and men become 'the same' but that women's and men's rights, responsibilities and opportunities do not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups of women and men. It is therefore not a 'women's issues'. On the contrary, it concerns and should fully engage both men and women and is a precondition for, and an indicator of sustainable people-centered development.

Empowerment of women signifies women gaining power and control over their own lives. It involves awareness-raising, building of self-confidence, expansion of choices, increased access to and control over resources and actions to transform the structures and institutions which reinforce and perpetuate gender discriminations and inequality.

Gender parity signifies equal numbers of men and women at all levels of an institution or organization, particularly at senior and decision-making levels.

The UNIDO projects/programmes can be divided into two categories: 1) those where promotion of gender equality is one of the key aspects of the project/programme; and 2) those

where there is limited or no attempted integration of gender. Evaluation managers/evaluators should select relevant questions depending on the type of interventions.

B. Gender responsive evaluation questions

The questions below will help evaluation managers/evaluators to mainstream gender issues in their evaluations.

B.1 Design

- Is the project/programme in line with the UNIDO and national policies on gender equality and the empowerment of women?
- Were gender issues identified at the design stage?
- Did the project/programme design adequately consider the gender dimensions in its interventions? If so, how?
- Were adequate resources (e.g., funds, staff time, methodology, experts) allocated to address gender concerns?
- To what extent were the needs and priorities of women, girls, boys and men reflected in the design?
- Was a gender analysis included in a baseline study or needs assessment (if any)?
- If the project/programme is people-centered, were target beneficiaries clearly identified and disaggregated by sex, age, race, ethnicity and socio-economic group?
- If the project/programme promotes gender equality and/or women's empowerment, was gender equality reflected in its objective/s? To what extent are output/outcome indicators gender disaggregated?

B.2 Implementation management

- Did project monitoring and self-evaluation collect and analyze gender disaggregated data?
- Were decisions and recommendations based on the analyses? If so, how?
- Were gender concerns reflected in the criteria to select beneficiaries? If so, how?
- How gender-balanced was the composition of the project management team, the Steering Committee, experts and consultants and the beneficiaries?
- If the project/programme promotes gender equality and/or women's empowerment, did the project/programme monitor, assess and report on its gender related objective/s?

B.3 Results

- Have women and men benefited equally from the project's interventions? Do the results affect women and men differently? If so, why and how? How are the results likely to affect gender relations (e.g., division of labour, decision making authority)?
- In the case of a project/programme with gender related objective/s, to what extent has the project/programme achieved the objective/s? To what extent has the project/programme reduced gender disparities and enhanced women's empowerment?

Annex 4 – Checklist on terminal evaluation report quality

Independent terminal evaluation of UNIDO project:

Project Title:

UNIDO Project NO:

UNIDO SAP ID:

Evaluation team leader:

Quality review done by:

Date:

CHECKLIST ON EVALUATION REPORT QUALITY

Report quality criteria	UNIDO ODG/EVQ/IEV assessment notes	Rating
A. Was the report well-structured and properly written? (Clear language, correct grammar, clear and logical structure)		
B. Was the evaluation objective clearly stated and the methodology appropriately defined?		
C. Did the report present an assessment of relevant outcomes and achievement of project objectives?		
D. Was the report consistent with the ToR and was the evidence complete and convincing?		
E. Did the report present a sound assessment of sustainability of outcomes or did it explain why this is not (yet) possible? (Including assessment of assumptions, risks and impact drivers)		
F. Did the evidence presented support the lessons and recommendations? Are these directly based on findings?		
G. Did the report include the actual project costs (total, per activity, per source)?		
H. Did the report include an assessment of the quality of both the M&E plan at entry and the system used during the implementation? Was the M&E sufficiently budgeted for during preparation and properly funded during implementation?		
I. Quality of the lessons: were lessons readily applicable in other contexts? Did they suggest prescriptive action?		

Report quality criteria	UNIDO ODG/EVQ/IEV assessment notes	Rating
J. Quality of the recommendations: did recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?'). Can these be immediately implemented with current resources?		
K. Are the main cross-cutting issues, such as gender, human rights and environment, appropriately covered?		
L. Was the report delivered in a timely manner? (Observance of deadlines)		

Rating system for quality of evaluation reports

A number rating 1-6 is used for each criterion: Highly satisfactory = 6, Satisfactory = 5, Moderately satisfactory = 4, Moderately unsatisfactory = 3, Unsatisfactory = 2, Highly unsatisfactory = 1, and unable to assess = 0.

Annex 5 – Job descriptions



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

TERMS OF REFERENCE FOR PERSONNEL UNDER INDIVIDUAL SERVICE AGREEMENT (ISA)

Title:	International evaluation consultant, team leader
Main Duty Station and Location:	Home-based
Missions:	Missions to Vienna, Austria and Nepal, Bhutan, Maldives, Lao PDR, Cambodia
Start of Contract (EOD):	September 29, 2016
End of Contract (COB):	December 31, 2016
Number of Working Days:	70 working days spread over 3 months

ORGANIZATIONAL CONTEXT

The UNIDO Independent Evaluation Division (ODG/EVQ/IEV) is responsible for the independent evaluation function of UNIDO. It supports learning, continuous improvement and accountability, and provides factual information about result and practices that feed into the programmatic and strategic decision-making processes. Evaluation is an assessment, as systematic and impartial as possible, of a programme, a project or a theme. Independent evaluations provide evidence-based information that is credible, reliable and useful, enabling the timely incorporation of findings, recommendations and lessons learned into the decision-making processes at organization-wide, programme and project level. ODG/EVQ/IEV is guided by the UNIDO Evaluation Policy, which is aligned to the norms and standards for evaluation in the UN system.

PROJECT CONTEXT

106034 – SAARC III

UNIDO, through funding from Norwegian Agency for Development (NORAD) is providing development assistance to the least developed nations of the South Asian Association for Regional Cooperation (SAARC) - Bangladesh, Bhutan, Maldives, and Nepal. The project is intended to improve Standards, Metrology, Testing, and Quality (SMTQ) through implementation of internationally accepted Metrology institutes, Standards development institutes, Food safety testing facilities, Product certification, Certification to Management System Standards (MSS).

Phase I and II of the UNIDO SAARC SMTQ project achieved much progress in having

appropriate laws and regulations drafted with some already put into place for metrology and food safety, providing training to key staff, facilitating companies to achieve MSS certification, and acquiring appropriate laboratory equipment. The initiatives for Bangladesh are considered complete, with additional time needed for Bhutan, Maldives, and Nepal due to delays caused by organizational changes and uncertain political situations.

The ongoing Phase III has built on the achievements of Phase II and the lessons learned to establish the desired SMTQ infrastructure and ensure measures are in place to make the initiatives sustainable using local resources.

Detailed background information of the project can be found the terms of reference (TOR) for the terminal evaluation.

106078 – Mekong III

UNIDO is providing technical assistance to overcome market entry barriers by developing country capacities related to standards, metrology, testing, quality and conformity assessment. Based on a trust fund contribution from NORAD, a regional project in this area has been approved for Cambodia, Lao PDR and Vietnam. Phase I of this intervention (\$920,000) and Phase II (approx. US\$ 1.5 MN) were completed in December 2005 and June 2011 respectively.

The Phases I and II of the UNIDO/NORAD initiative (Mekong Phase I and II) focused on establishing a National Quality Infrastructure (NQI) and the setting up of the required legal framework for policy and institutional building related to Standards, Metrology, Testing and Quality (SMTQ). The initiative also assisted the countries to a good extent in facing the key challenges of complying with the WTO Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary (SPS) agreement requirements, which are now global trade embedded market requirements. A well-established NQI also became all the more important with the WTO accession of Cambodia in 2004 and Lao PDR in 2012. Both countries are fully committed to implement the TBT and SPS agreements.

DUTIES AND RESPONSIBILITIES:

MAIN DUTIES	Concrete/ Measurable Outputs to be achieved	Working Days	Location
Review project documentation and relevant country background information (legislative and regulatory framework relevant to project's activities, national policies and strategies, UN strategies and general economic data); determine key data to collect in the field and prepare key assessment instruments (questionnaires, logic models, surveys, samples...) to collect these data through surveys and interviews during and prior to the field mission.	<ul style="list-style-type: none"> • Adjust table of evaluation questions, depending on country specific context; • Draft list of stakeholders to interview during the field missions; 	8 days	Home-based

MAIN DUTIES	Concrete/ Measurable Outputs to be achieved	Working Days	Location
<p>2. Briefing with the UNIDO Independent Evaluation Division, project managers and other key stakeholders at UNIDO HQ.</p> <p>Preparation of the Inception Report.</p>	<ul style="list-style-type: none"> • Detailed evaluation schedule with tentative mission agenda (incl. list of stakeholders to interview and site visits); mission planning; • Division of evaluation tasks with the National Consultant. • Inception Report. 	3 days (2 days in Vienna, 1 day home-based)	Vienna, Austria and home-based
<p>3. Conduct field mission to Nepal, Bhutan, Maldives, Lao PDR, Cambodia in October 2016⁶².</p>	<ul style="list-style-type: none"> • Conduct meetings with relevant project stakeholders, beneficiaries, etc. for the collection of data and clarifications; • Agreement with the National Consultant on the structure and content of the evaluation report and the distribution of writing tasks; • Evaluation presentation of the evaluation's initial findings prepared, draft conclusions and recommendations to stakeholders in the country, at the end of the mission. 	32 days	Nepal, Bhutan, Maldives, Lao PDR, Cambodia
<p>4. Present overall findings and recommendations to the stakeholders at UNIDO HQ.</p>	<p>After field mission(s): Presentation slides, feedback from stakeholders obtained and discussed.</p>	2 days	Vienna, Austria
<p>5. Prepare the evaluation report, with inputs from the National Consultant, according to the TOR;</p> <p>Coordinate the inputs from the National Consultant and combine with her/his own inputs into the draft evaluation report.</p> <p>Share the evaluation report with UNIDO HQ and national stakeholders for feedback and comments.</p>	<ul style="list-style-type: none"> • Draft evaluation reports. 	15 days	Home-based
<p>6. Revise the draft project evaluation report based on comments from UNIDO Independent Evaluation Division and stakeholders and edit the language and form of the final version according to UNIDO</p>	<ul style="list-style-type: none"> • Final evaluation reports for SAARC III and Mekong III. 	5 days	Home-based

⁶² The exact mission dates will be decided in agreement with the Consultant, UNIDO HQ, and the country counterparts.

MAIN DUTIES	Concrete/ Measurable Outputs to be achieved	Working Days	Location
standards.			
<p>1. Prepare, lead and conduct a learning workshop with PTC/TII: Maximizing project performance and results – Lessons and Good Practices from evaluations and reviews of UNIDO Quality Infrastructure projects (to be further defined).</p> <p>Hold a workshop for TII department on lessons learned and findings of several evaluations and reviews to maximize “performance and results of TII projects” through Results-Based Management.</p>	<ul style="list-style-type: none"> • Concept and outline of the learning workshop is developed. • Evaluation findings are summarized into a presentation on lessons, good practices and practical guidance for project manager to improve future projects. The focus is on project design and results-based monitoring and evaluation during implementation. 	5 days (4 days home-based, 1 day in Vienna to be combined with the de-briefing in 4).	Home-based and Vienna
	TOTAL	70 days	

MINIMUM ORGANIZATIONAL REQUIREMENTS

Education:

Advanced degree in science, management, law, development studies or related areas.

Technical and functional experience:

- Minimum of 10 years’ experience in the evaluation of development projects
- Good practical understanding of technical assistance in quality infrastructure development
- Knowledge of UNIDO activities an asset
- Familiarity with multilateral technical cooperation and the UN, international development priorities and frameworks
- Working experience in developing countries

Languages:

Fluency in written and spoken English is required.

Reporting and deliverables:

- 1) At the beginning of the assignment the Consultant will submit a concise Inception Report that will outline the general methodology and presents a concept Table of Contents;
- 2) The country assignment will have the following deliverables:
 - Presentation of initial findings of the mission to key national stakeholders;
 - Draft report;
 - Final report, comprising of executive summary, findings regarding design, implementation and results, conclusions and recommendations.

3) Debriefing at UNIDO HQ:

- Presentation (slides) and discussion of findings;

All reports and related documents must be in English and presented in electronic format.

Absence of conflict of interest:

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract with the UNIDO Independent Evaluation Division.



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

TERMS OF REFERENCE FOR PERSONNEL UNDER INDIVIDUAL SERVICE AGREEMENT (ISA)

Title:	International evaluation consultant
Main Duty Station and Location:	HQ and Home-based
Missions:	Missions to Nepal and Cambodia
Start of Contract (EOD):	September 15, 2016
End of Contract (COB):	December 31, 2016
Number of Working Days:	36 working days spread over 4 months

ORGANIZATIONAL CONTEXT

The UNIDO Independent Evaluation Division (ODG/EVQ/IEV) is responsible for the implementation of independent evaluations of UNIDO. It supports learning, continuous improvement and accountability, and provides factual information about result and practices that feed into the programmatic and strategic decision-making processes. Evaluation is an assessment, as systematic and impartial as possible, of a programme, a project or a theme. Independent evaluations provide evidence-based information that is credible, reliable and useful, enabling the timely incorporation of findings, recommendations and lessons learned into the decision-making processes at organization-wide, programme and project level. ODG/EVQ/IEV is guided by the UNIDO Evaluation Policy, which is aligned to the norms and standards for evaluation in the UN system.

PROJECT CONTEXT

106034 – SAARC III

UNIDO, through funding from Norwegian Agency for Development (NORAD) is providing development assistance to the least developed nations of the South Asian Association for Regional Cooperation (SAARC) - Bangladesh, Bhutan, Maldives, and Nepal. The project is intended to improve Standards, Metrology, Testing, and Quality (SMTQ) through implementation of internationally accepted Metrology institutes, Standards development institutes, Food safety testing facilities, Product certification, Certification to Management System Standards (MSS)

Phase I and II of the UNIDO SAARC SMTQ project achieved much progress in having appropriate laws and regulations drafted with some already put into place for metrology and food safety, providing training to key staff, facilitating companies to achieve MSS certification, and acquiring appropriate laboratory equipment. The initiatives for Bangladesh are considered complete, with additional time needed for Bhutan, Maldives, and Nepal due to delays caused by organizational changes and uncertain political situations.

The ongoing Phase III has built on the achievements of Phase II and the lessons learned to establish the desired SMTQ infrastructure and ensure measures are in place to make the initiatives sustainable using local resources.

Detailed background information of the project can be found the terms of reference (TOR) for the terminal evaluation.

106078 – Mekong III

UNIDO is providing technical assistance to overcome market entry barriers by developing country capacities related to standards, metrology, testing, quality and conformity assessment. Based on a trust fund contribution from NORAD, a regional project in this area has been approved for Cambodia, Lao PDR and Vietnam. Phase I of this intervention (\$920,000) and Phase II (approx. US\$ 1.5 MN) were completed in December 2005 and June 2011 respectively.

The Phases I and II of the UNIDO/NORAD initiative (Mekong Phase I and II) focused on establishing a National Quality Infrastructure (NQI) and the setting up of the required legal framework for policy and institutional building related to Standards, Metrology, Testing and Quality (SMTQ). The initiative also assisted the countries to a good extent in facing the key challenges of complying with the WTO Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary (SPS) agreement requirements, which are now global trade embedded market requirements. A well-established NQI also became all the more important with the WTO accession of Cambodia in 2004 and Lao PDR in 2012. Both countries are fully committed to implement the TBT and SPS agreements.

DUTIES AND RESPONSIBILITIES

Under the supervision and coordination of the Senior International Evaluation Consultant and Team Leader (ETL):

MAIN DUTIES	Concrete/ Measurable Outputs to be achieved	Working Days	Location
<p>1. Review project documentation and relevant country background information (national policies and strategies, UN strategies and general economic data); determine key data to collect in the field and prepare key assessment instruments (questionnaires, logic models, surveys, samples...) to collect these data through surveys and interviews during and prior to the field mission;</p> <p>Assess the adequacy of legislative and regulatory framework relevant to the project's activities and analyze other background info.</p>	<p>Inputs to the ETL on:</p> <ul style="list-style-type: none"> • Adjust table of evaluation questions, depending on country specific context; • Draft list of stakeholders to interview during the field missions; • Brief assessment of the adequacy of the country's legislative and regulatory framework. 	8	Home-based
<p>2. Briefing with the UNIDO Independent Evaluation Division, project managers and other key stakeholders at UNIDO</p>	<p>Inputs to the ETL on:</p> <ul style="list-style-type: none"> • Detailed evaluation 	2	Home-based

MAIN DUTIES	Concrete/ Measurable Outputs to be achieved	Working Days	Location
<p>HQ. (This may be handled through email and skype conferences, depending on final costs)</p> <p>Preparation of the Inception Report, together with the team leader.</p>	<p>schedule with tentative mission agenda (incl. list of stakeholders to interview and site visits); mission planning;</p> <ul style="list-style-type: none"> • Division of evaluation tasks with the team leader. • Inception Report 		
<p>3. Conduct field mission to Cambodia, Bhutan.</p>	<p>Together with the ETL:</p> <ul style="list-style-type: none"> • Conduct meetings with relevant project stakeholders, beneficiaries, etc. for the collection of data and clarifications; • Agreement with the team leader on the structure and content of the evaluation report and the distribution of writing tasks; • Evaluation presentation of the evaluation's initial findings prepared, draft conclusions and recommendations to stakeholders in the country, at the end of the mission. 	14	Nepal, Cambodia
<p>5. Prepare the evaluation report, together with the team leader, according to the TOR;</p> <p>Share the evaluation report with UNIDO HQ and national stakeholders for feedback and comments.</p>	<p>Inputs to the ETL on:</p> <ul style="list-style-type: none"> • Draft evaluation report. 	10	Home-based
<p>6. Revise the draft project evaluation report, together with the team leader, based on comments from UNIDO Independent Evaluation Division and stakeholders and edit the language and form of the final version according to UNIDO standards.</p>	<p>Inputs to the ETL on:</p> <ul style="list-style-type: none"> • Final evaluation report. 	2	Home-based
	TOTAL	36	

MINIMUM ORGANIZATIONAL REQUIREMENTS

Education:

Advanced degree on development studies or related areas

Technical and functional experience:

- Minimum of 5 years' experience in the field of industrial development and evaluation, including experience at the international level involving technical cooperation in developing countries
- Knowledge about multilateral technical cooperation and the UN, international development priorities and frameworks
- Working experience in developing countries

Languages:

Fluency in written and spoken English is required.

Absence of conflict of interest:

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract with the UNIDO Independent Evaluation Division.

Annex 6 – Project results framework

106034 - SAARC III

Bhutan	Baseline	Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
<p>Development goal/impact</p> <p>Improvement of SMTQ infrastructure to: enhance food safety system, support exports, assure fair trade quantities, improve products and operations, and foster a culture of continuous improvement</p>	<p>SMTQ infrastructure has been established and improved through UNIDO projects and other assistance, however, it is not complete and has not yet achieved a sustainable base</p>	<p>To assure safe food for the market</p> <p>To improve export opportunities</p> <p>To improve effectiveness of companies and organizations</p> <p>To support accurate measurements</p> <p>To achieve international credibility and acceptance of claims</p>	<p>Incidents related to food safety</p> <p>Increased exports</p> <p>Take-up of management system standards</p>	<p>Food department records</p> <p>Government reports</p> <p>Company/organization claims</p>	

Bhutan	Baseline	Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
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Bhutan	Baseline	Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
Outcome I Bhutan will have food assessment facilities capable of identifying unsafe and unwanted foods, quantity statements acceptable to all purchasers, certified products freely traded, and a strategy to improve business and government through use of Management System Standards	Basic food safety is assured through new laws, regulations, and an accredited food testing facility (BAFRA)	To ensure unsafe food is not dumped into the country, nor unknowingly produced.	Accreditation to a full set of parameters	Accreditation Body	It is assumed that other countries will continuously improve their assessment capacity of unfit food with the result that non-conforming shipments will be directed at countries with poor laws and inadequate testing ability
	Bhutan has limited metrology capacity in the capital that is recognized only in Bhutan	Ensure fair national trade and foreign acceptance of stated quantities	Inspections in remote regions Accreditation to ISO/IEC 17025	Certification certificates Accreditation Body Records	

Bhutan	Baseline	Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
	Bhutan operates a product listing service specific to Bhutan	Achieve free access to target markets (India) by replacing the product listing service with a product certification scheme backed by international accreditation and negotiate mutual acceptance of certifications by major trading partners	Exports of construction products to India accepted without restriction	Export Records	
	Internationally recognized Management Systems have started to gain recognition in Bhutan with a few enterprises certified. Bhutan's quest for	MSS have the potential to assist enterprise (private and governmental) to become more efficient and effective, with internationally backstopped certification of MSS opening the doors to international trade of high value products.	Access to affordable training Access to affordable certification Use of MSS for private enterprise improvement	National Offerings Accreditation Body or Contract Industry claims	It is assumed that industry associations will support promotion of MSS for both access to export markets and organizational improvement (continual) It is assumed that government will recognize the continuous improvement achieved through the plan-

Bhutan	Baseline	Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
	GNH has many overlaps with established MSS		Use of MSS for government operations and continual improvement	Government requirements and records	do-check-act cycle of MSS as supportive of their aims
Output 1 (BAFRA) Published regulations along with accredited testing capacity to detect residues, additives, pesticides and contaminants	Published regulations available on BAFRA website are dated 2007 Regulation requires BAFRA inspection of food handling facilities	Publish regulations based on Codex Alimentarius Commission requirements and Bhutanese law to provide clarity on requirements for all concerned. Regulations accepting 3 rd party certification to HACCP or ISO 22000 as evidence of compliance to encourage (and reward) voluntary implementation of good food handling practices	Regulations based on CAC standards publicly available	BAFRA website	It is assumed the published regulations will be kept up to date on an ongoing basis and that affected parties (importers, producers, food establishments) are able to access BAFRA website It is assumed that 3 rd party certification services will be available from BSB and overseas providers on a basis that is commercially viable for the certified facility; also, that BAFRA will gain confidence in BSB certifications through provision of experts for BSB

Bhutan	Baseline	Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
	<p>BAFRA has achieved (February, 2013) accreditation to ISO/IEC 17025 for basic food safety (25 parameters).</p> <p>Specialized testing equipment is idle for extended periods due to previously trained equipment operators finding new employment</p>	<p>as an alternative to BAFRA site inspection</p> <p>Augment the food testing capability to be comparable to that of trading partners (existing and potential)</p> <p>Implement policy to ensure continuous availability of trained laboratory equipment operators</p>	<p>Scope of Accreditation</p> <p>Qualified equipment operators available 90% of working schedule for each parameter included in scope of accreditation</p>	<p>Accreditation Body</p> <p>BAFRA records</p>	<p>audits</p> <p>It is assumed that export markets will require increasingly sophisticated verification of food products and that capacity at entry points to identify suspect shipments is also established</p> <p>It is assumed that equipment operators trained elsewhere will be able to train back-up operators</p>
Output 2 (BSB)	BSB Metrology Laboratory is subject to frequent	Move the laboratory to an adjacent facility that does not house	Vibration status of building	BSB records	It is assumed that vibrations from existing building will not transmit to the adjacent

Bhutan	Baseline	Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
Nation-wide, internationally based metrology system, construction products certification scheme for regional market, Use of Management System Standards to support organizational continual improvements of Bhutanese organizations	vibration, affecting testing	vibration inducing equipment			building
	Calibration certificates are accepted in Nepal but not by trading partners	Reduce the cost to export products through affordable calibration services that have international recognition	Accreditation of BSB metrology laboratory to ISO/IEC 17025	Accreditation Body	It is assumed that the price for BSB calibration will be lower than foreign calibration service providers
	Measuring instruments in remote regions have unknown accuracies (not calibrated)	Provide means for metrology inspectors to access remote regions	Status of calibration of measuring instruments	Calibration certificates (seals) attached to instruments BSB calibration records	It is assumed that the ongoing cost associated with a mobile laboratory is less than the business cost to transport measuring equipment to and from a central laboratory along with associated waiting costs
	Testing laboratory in support of product listing scheme has limited product testing	Construction products of defined quality providing assurance to the construction industry in Bhutan and	Certified products Accreditation to	BSB records	It is assumed the construction products industry understands the advantages of certification

Bhutan	Baseline	Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
	capacity, and there is preliminary work on certification capacity	trading partners	ISO/IEC 17065 Product acceptance in Bhutan and by trading partners	Accreditation Body BSB records Agreements with trading partners for mutual acceptance of Certifications	over a listing service
	BSB has staff familiar with MSS, but limited capacity The potential market for MSS training and certification and price/cost parameters are unknown The few	An affordable Certification Body to provide independent credibility to claims of conformance to MSS. Determine the market opportunities for MSS training and certification along with establishing acceptable price levels and costs to operate	Accreditation to ISO/IEC 17021 or contract with a Foreign CB Certified organizations, 5 per year Business case for national training organization	Accreditation Body or Contract BSB website or contracted CB BSB documents	

Bhutan	Baseline	Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
	<p>companies certified to an MSS are satisfied with the results</p> <p>Limited awareness of value of Management System Standards to align organizations with strategic objectives and societal goals as well as ensuring continuous improvement</p>	<p>Bhutan's quest for GNH has many overlaps with established MSS</p> <p>Importers, especially in developed countries prefer products from companies that implement MSS to organize their operations</p>	<p>Use of MSS for government procurement and operations</p> <p>2 departments per year</p> <p>Use of MSS to support Brand Bhutan, Seal of Quality, and Seal of Excellence</p> <p>Promotional brochure based on success stories</p>	<p>Government requirements and records</p> <p>Requirement packages</p> <p>BSB Publications</p>	

Maldives	Baseline	Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
Outcome 2 The Maldives will have food assessment facilities capable of identifying unsafe and unwanted foods, quantity statements acceptable to all purchasers, and a strategy to improve exports of fish through use of Management System Standards	Basic food safety is assured through draft new laws, regulations, and an accredited food testing facility (MFDA)	To ensure unsafe food is not dumped into the country, nor unknowingly produced.	Accreditation to a full set of parameters	Accreditation Body	It is assumed that other countries will continuously improve their assessment capacity of unfit food with the result that non-conforming shipments will be directed at countries with poor laws and inadequate testing ability
	The Maldives have limited metrology capacity in the capital that is recognized only in Bhutan, and are implementing a system of trained inspectors in the regions	Ensure fair national trade and foreign acceptance of stated quantities	Inspections in remote regions Accreditation to ISO/IEC 17025	Certification certificates Accreditation Body Records	

	<p>A lucrative export market of fresh and frozen tuna to Europe has been established; it relies on MSS Certifications</p> <p>The traditional fishery is transitioning to processing the catch in-country into fish products</p>	<p>Affordable MSS certification services will permit potential participants to enter markets and permit existing participants to continue exporting</p>	<p>Certification of Exporters</p>	<p>Certification Body records</p>	<p>It is assumed that opening the fishery to the 200-mile limit will increase the sustainable catch of yellowfin tuna</p> <p>It is assumed the harvest of small fish remains sustainable</p>
<p>Output 3 (MDFA)</p> <p>Published laws and regulations along with accredited testing capacity to detect residues, additives, pesticides and contaminants</p>	<p>A food safety law and accompanying regulations are drafted</p> <p>MFDA is accredited to address basic food safety</p>	<p>Publish laws and regulations based on relevant Codex Alimentarius Commission requirements to provide clarity for all concerned,</p> <p>Augment testing capacity to be comparable to that of trading partners</p>	<p>Law based on CAC standards</p> <p>Publicly available regulations</p> <p>Shipments (export and import) refused due to non-compliance</p> <p>Expanded scope of accreditation of MFDA</p>	<p>Ministry of Health records</p> <p>MFDA website</p> <p>MFDA records</p> <p>Accreditation Body</p>	<p>It is assumed that affected parties (importers, food handling establishments) are able to access the MFDA website</p>
<p>Output 4 (Polytechnic)</p>	<p>Polytechnic assigned to provide metrology lab,</p>	<p>Reduce the cost to export products</p>	<p>Accreditation of Polytechnic metrology</p>	<p>Accreditation Body</p>	<p>It is assumed that trained metrology</p>

<p>and MSMA)</p> <p>Measuring Instruments used in the Maldives calibrated with international acceptance of calibration certificates</p>	<p>most instruments are in place</p> <p>Calibrations of instruments in remote areas to be done by employees of Atolls Councils</p> <p>Calibrations are performed in Male; however, are not traceable</p>	<p>through lower cost calibration services that have international acceptance</p> <p>Provide means for calibration of measuring instruments in remote areas through a policy to ensure continuous availability of metrology inspectors and a training program for them</p>	<p>laboratory to ISO/IEC 17025</p> <p>Status of calibration of measuring instruments</p>	<p>Calibration records of MSMA and Atolls</p>	<p>inspectors will have a continuous presence in each designated Atoll</p>
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Nepal	Baseline	Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
<p>Outcome 3</p> <p>Nepal will have food assessment facilities capable of identifying unsafe and unwanted foods, products supported by test certificates, certified products freely traded, and training and certification capacity to improve business through use of Management System Standards</p>	<p>Basic food safety is assured through laws, draft new regulations, and an accredited food testing facility (DFTQC)</p>	<p>To ensure unsafe food is not dumped into the country, nor unknowingly produced.</p>	<p>Accreditation to a full set of parameters</p>	<p>Accreditation Body</p>	<p>It is assumed that other countries will continuously improve their assessment capacity of unfit food with the result that non-conforming shipments will be directed at countries with poor laws and inadequate testing ability</p>
	<p>NBSM Testing Laboratory is well on the way to international recognition with specialty in Pashmina testing</p>	<p>To support development of Pashmina (and other) industry through testing in support of exports, product development, and certification</p>	<p>Accreditation</p>	<p>Accreditation Body</p>	

	NBSM Product Certification Accreditation is in progress	Achieve free access to target markets (India) with a product certification scheme backed by international accreditation and a bilateral agreement Support nationally produced products for both export and national use	Exports of construction products to India accepted without restriction	Export Records	It is assumed that product certification will be affordable
	NBSM now certifies to ISO 9001 (February 2013) and is considering other MSS The market potential is not clearly understood	MSS have the potential to assist enterprise to become more efficient and effective, with internationally backstopped certification of MSS opening the doors to international trade of high value products	Access to affordable training Access to affordable certification Use of MSS for private enterprise improvement	National Offerings Accreditation Body or Contract Industry claims	It is assumed that industry associations will support promotion of MSS for both access to export markets and organizational improvement (continual)
Output 5 (DFTQC) Published regulations along with accredited testing capacity to detect residues, additives, pesticides and	Draft regulations are in progress. Improvements have been made to food safety testing and assessment capacity	Publish regulations based on Codex Alimentarius Commission requirements to provide clarity for all concerned Regulations accepting 3 rd	Regulations based on CAC standards publicly available	DFTQC website	It is assumed that affected parties (importers, producers, food establishments) are able to access the DFTQC website

contaminants	<p>to test for basic food safety parameters</p> <p>Excessive turnover of trained laboratory equipment operators</p>	<p>party certification to HACCP or ISO 22000 as evidence of compliance to encourage (and reward) voluntary implementation of good food handling practices</p> <p>Augment testing capacity to be comparable to that of trading partners</p> <p>Implement policy to ensure continuous availability of trained laboratory equipment operators</p>	<p>Food establishments certified to HACCP and ISO 22000</p> <p>Scope of Accreditation</p> <p>Equipment list indicating trained operators</p>	<p>NBSM records</p> <p>Accreditation Body</p> <p>DFTQC records</p>	<p>It is assumed that 3rd party certification services will be available from NBSM and foreign CBs on a basis that is commercially viable for the certified facilities</p> <p>It is assumed that export markets will require increasingly sophisticated verification of food products</p> <p>It is assumed that laboratory equipment operators trained elsewhere will be able to train backup operators</p>
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Output 6 (NBSM) Improved training and conformance capacity for: - product testing - product certification - Management Systems	Laboratory is in process of acquiring ISO/IEC 17025 accreditation with scope for textile testing Improvements required in some areas	Internationally recognized laboratory (ISO/IEC 17025 accredited) to issue credible certificates in support of exports, to assist product development, and to assess products for certification To fully support Pashmina industry through testing services	Scope of Accreditation	Accreditation Body	It is assumed that the Pashmina industry will continue its good relationship with NBSM
	Accreditation for Product Certification is in process	Internationally recognized body (ISO/IEC 17065 accredited to certify nationally produced products for both export and national use To support exports of construction products and acceptance in national market through scope extension	Scope of Accreditation Pashmina exports (certified and non-certified) Value of exports supported by Nepalese issued certificates/certification Products certified	Accreditation Body Industry association records NBSM records Government export records NBSM records	It is assumed that products for use in Nepal will be certified to requirements equivalent to those of its trading partners
	NBSM has achieved accreditation to ISO/IEC 17021	To improve operations of Nepalese companies/organizations	Use of MSS (certified and non-certified)	NBSM records	It is assumed that the price for certification

	<p>(Management Systems) to certify organizations to ISO 9001 (February 2013) and is looking to expand to other MSS</p> <p>Preparations have started through personnel training and research</p> <p>Market potential is not clearly understood</p>	<p>through training for MSS and certification</p> <p>To support exports of food products through MSS certifications</p> <p>Training program to facilitate uptake of MSS to improve operational effectiveness and efficiency of Nepalese organizations</p>	<p>Value of food exports (certified and non-certified)</p> <p>Scope of Accreditation</p>	<p>Company Claims</p> <p>Government export records</p> <p>Accreditation Body</p>	<p>will be affordable</p>
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106078 - Mekong III

Mekong Lao PDR

	Objective Verifiable Indicators	Baseline Indicators	Sources and Means of Verification	Risks and Assumptions
To facilitate the industrial development, consumer protection and enhancement of export capabilities through further strengthening of national quality infrastructure and human capacities related to standards, metrology, testing and quality	<p>The increased number of internationally accredited laboratories</p> <p>The decreased number of export rejection in the targeted commodities under the project</p> <p>Number of national standards developed and published</p>	Note: Baseline indicator data and the actual export figures will be defined at the start of the project.	<p>Issued certificate of accreditation</p> <p>EU/USA Japan database on export rejection</p>	
<p>Outcome 1</p> <p>Improvement of quality of products and protection of consumers in respect of safety and health services.</p>	<p>5 new Lao standards formulated and 18 standards developed in Phase II approved</p>	<p>10 standards have been approved so far</p>	<p>Annual report of Dept. of Standards (DOS)</p> <p>Certificates of accreditation</p> <p>Project progress report</p>	<p>It is assumed that Dept. of Standards (DOS) and Quality Center (QC) are committed to take all the necessary actions in time to implement the planned project activities</p>

	Objective Verifiable Indicators	Baseline Indicators	Sources and Means of Verification	Risks and Assumptions
	<p>Product certification scheme expanded by 3 product categories.</p> <p>20 ISO/IEC standards obtained</p>	<p>QC product certification scheme has not been accredited yet against ISO Guide 65.</p>		
<p>Output 1 Division of Standards (DOS) is supported in developing and disseminating standards for key export products</p>	<p>At least 10 standards supplied</p> <p>10 products tested</p> <p>5 new Lao standards formulated and 18 standards developed in the Phase II approved</p>	<p>20 standards have been formulated and 10 standards have been approved</p>	<p>Project progress report</p>	<p>Inadequate number of staff at DOS Non- availability of translators</p>
<p>Output 2 Quality Centre (QC) is supported in identifying new product categories and expanding accreditation</p>	<p>At least 3 product categories identified for product certification.</p> <p>Assessment for accreditation conducted</p>	<p>The product certification scheme of the Quality Centre has not been accredited against ISO Guide 65.</p>	<p>Project progress report</p> <p>Accreditation certificate</p>	<p>It is assumed that there is growing demand for product certification for the 3 product categories to be selected.</p>

	Objective Verifiable Indicators	Baseline Indicators	Sources and Means of Verification	Risks and Assumptions
Output 3 Information and Training Centre (ITC) is supported to develop standards library	At least 20 documents supplied At least 3 ITC staff members trained.	The ITC standards library which belonged to the DSQ earlier consists of approximately 100 foreign national standards and sixty ISO standards	Project progress report Annual report of ITC	Availability of staff for training
Outcome 2 Improvement of measurement accuracy, international traceability and consumer protection	Industrial metrology laboratory at Metrology Centre enhanced and accredited in mass and temperature fields. Legal metrology services of the Division of Consumer Protection (DCP) strengthened with equipment and 20 staff trained	Metrology Centre has not been accredited yet Metrology law has been promulgated. Provincial metrology offices do not have equipment and trained staff.	Annual reports of Metrology Center and Dept. of Metrology. Certificate of accreditation Project progress report	It is assumed that the metrology center and DM are committed to implement the planned project activities in time
Output 4 Metrology Centre is supported for accreditation	Equipment for electrical lab in place	Electrical lab possesses only minimal equipment.	Project progress report	There is a risk that trained personnel may leave MC after receiving training. It is assumed that efforts will

	Objective Verifiable Indicators	Baseline Indicators	Sources and Means of Verification	Risks and Assumptions
	5 MC staff members trained Assessment for accreditation conducted	MC staff have been trained for electrical meter testing only. Metrology Centre has not been accredited yet	NTA report	be made to retain the personnel by discussing possible incentive measures with the MC management.
Output 5 Division of Consumer Protection (DCP) is supported	Equipment for provincial metrology offices (at least 10) in place At least 20 DCP staff members trained.	Although the Metrology Law has been promulgated, the provincial metrology offices do not possess equipment and trained staff for its enforcement.	Project progress report NTA report	It is assumed that adequate personnel will be deployed for legal metrology services.
Outcome 4 Improved capability of Lao PDR exporters to meet international requirements for trade	Facility for testing of coffee developed. Chemical laboratory at Food & Drug Quality Control Centre (FDQCC) enhanced and accredited in 2 scopes of testing. SDMT upgraded with equipment and accredited in two scopes of testing.	At present, no facility for coffee testing is available. Chemical laboratory of FDQCC has not been accredited yet SDMT has not been accredited yet	Annual report of FDQCC Certificate of accreditation Project progress report	It is assumed that FDQCC and SDMT are committed to implement the planned project activities in time

	Objective Verifiable Indicators	Baseline Indicators	Sources and Means of Verification	Risks and Assumptions
<p>Output 6</p> <p>Lao Coffee Association (LCA) is supported for establishment of a coffee testing laboratory</p>	<p>Consultancy service provided to set up a coffee testing laboratory</p> <p>Test equipment are installed and commissioned</p>	<p>Presently there is no testing facility for coffee testing in the main coffee growing areas (Pakse province)</p>	<p>Project progress report</p> <p>NTA report</p>	<p>Commitment of LCA to provide a building to house the test facility.</p> <p>Non-availability of suitably qualified personnel to manage and engage in testing</p>
<p>Output 7</p> <p>Food Chemistry Section of Food & Drug Quality Control Centre (FDQCC) is supported</p>	<p>Equipment for chemicals testing in place</p> <p>At least 5 staff members of FDQCC trained</p> <p>Assessment of FDQCC for accreditation is conducted.</p>	<p>Advanced chemical test equipment is not available at FDQCC.</p> <p>Staff trained in advanced techniques not available.</p> <p>Chemical laboratory of FDQCC has not been accredited yet</p>	<p>Project progress report</p> <p>NTA report</p>	<p>There is a risk that trained personnel may leave the laboratory after receiving training. It is assumed that efforts will be made to retain the personnel by discussing possible incentive measures with the laboratory management.</p>

	Objective Verifiable Indicators	Baseline Indicators	Sources and Means of Verification	Risks and Assumptions
<p>Output 8</p> <p>Survey Design and Materials Testing (SDMT) is supported for accreditation</p>	<p>At least 5 staff members of SDMT trained</p> <p>SDMT participated in an inter laboratory comparison program</p> <p>Assessment of SDMT for accreditation conducted.</p>	<p>Present SDMT staff have mainly received on the job training.</p> <p>SDMT has not participated in an international inter laboratory comparison program.</p> <p>SDMT has not been accredited against ISO/IEC 17025.</p>	<p>Project progress report</p> <p>Accreditation certificate</p> <p>NTA report</p>	<p>There is a risk that trained personnel may leave SDMT after receiving training. It is assumed that efforts will be made to retain the personnel by discussing possible incentive measures with the SDMT management.</p>

Objective/ Impact	Objective Verifiable Indicators	Baseline Indicators	Sources and Means of Verification	Risks and Assumptions
To facilitate the industrial development, consumer protection and enhancement of export capabilities through further strengthening of national quality infrastructure and human capacities related to standards, metrology, testing and quality	<p>The increased number of internationally accredited test parameters.</p> <p>The decreased number of export rejection in the targeted commodities under the project.</p>	Note: Baseline indicator data and the actual export figures will be defined at the start of the project.	<p>Issued certificates of accreditation</p> <p>EU/USA/Japan database on export rejection</p>	
<p>Outcome 1</p> <p>Improvement of quality of products and protection of consumers in respect of safety and health</p>	<p>40 standards published</p> <p>3 product categories accredited against ISO/IEC Guide 65</p>	Currently only 7 standards published and 3 product categories accredited against ISO/IEC Guide 65	<p>Annual report of ISC</p> <p>Certificates of accreditation</p> <p>Project progress report</p>	It is assumed that ISC is committed to take all the necessary actions in time to implement the planned project activities
<p>Output 1</p> <p>ISC is supported for approving and publishing 40 draft standards developed in the Phase II</p>	40 standards translated & printed	Currently only 7 standards published	Project progress report ISC record	Irregular organization of technical committee to review standards at the government level. The project can request ISC to organize ad hoc technical committee meetings to accelerate the process of standards approval.

Objective/ Impact	Objective Verifiable Indicators	Baseline Indicators	Sources and Means of Verification	Risks and Assumptions
<p>Output 2</p> <p>ISC is supported in attracting at least 3 new product categories and expanding accreditation</p>	<p>Number of product categories increased at least 3 through a promotional campaign</p> <p>At least 3 ISC staff trained for product certification inspectors</p> <p>At least 5 awareness seminars conducted</p>	<p>Currently 3 product categories accredited</p> <p>No staff has been trained for the new product categories</p> <p>No awareness seminars conducted</p>	<p>Project progress report</p> <p>ISC record</p>	<p>It is assumed that there is a growing demand for product certification for the 3 product categories to be selected.</p>
<p>Outcome 2</p> <p>Improvement of measurement accuracy, international traceability and consumer protection</p>	<p>Industrial Metrology Laboratory of National Metrology Center (NMC) enhanced and accredited</p>	<p>NMC has not been accredited yet.</p>	<p>Annual report of NMC</p> <p>Certificate of accreditation</p> <p>Project progress report</p>	<p>It is assumed that the new building of NMC is to be completed as planned by the end of 2011</p>

Objective/ Impact	Objective Verifiable Indicators	Baseline Indicators	Sources and Means of Verification	Risks and Assumptions
<p>Output 3</p> <p>Industrial and legal metrology sections of National Metrology Centre (NMC) upgraded and 2 scopes accredited</p>	<p>Equipment for electrical and water meter testing labs in place</p> <p>5 NMC staff members trained in electrical and water meter testing</p> <p>Quality system documentation developed to meet ISO/IEC 17025 standard requirements</p> <p>Assessment for accreditation conducted</p>	<p>No NMC staff has been trained for electrical and water meter testing.</p> <p>Quality system documentation has not been developed yet</p> <p>NMC has not been accredited yet</p>	<p>Project progress report</p> <p>NTA report</p> <p>Accreditation certificate</p>	<p>It is assumed that there are sufficient staff to be trained.</p>
<p>Output 4</p> <p>Provincial legal metrology offices are upgraded</p>	<p>Equipment for mass and volume metrology in place at least 6 provincial legal metrology offices</p> <p>At least 100 staff members of the provincial legal metrology offices trained.</p>	<p>Mass and volume equipment were provided to 20 provincial legal metrology offices. Six more provincial offices have to be supplied with equipment.</p> <p>Considerable number of provincial staff have been trained during Phase 1 and II. However, further training is required, due to staff turnover.</p>	<p>Project progress report</p> <p>NTA report</p>	<p>It is assumed that the Government will provide full backing for enforcement of regulations and availability of qualified personnel for training in legal metrology</p>

Objective/ Impact	Objective Verifiable Indicators	Baseline Indicators	Sources and Means of Verification	Risks and Assumptions
<p>Outcome 3</p> <p>Improved capability of Cambodian exporters to meet international requirement for trade</p>	<p>CRRI upgraded with additional equipment and its scope of accreditation expanded.</p> <p>ILCC chemical testing laboratory upgraded with equipment and accredited in the areas related to chemical testing (EU REACH or pesticide residues)</p>	<p>Currently the scope “Chemical Tests for Block Rubber” accredited</p> <p>ILCC chemical testing laboratory has not been accredited yet</p>	<p>Annual reports of CRRI and ILCC</p> <p>Certificates of accreditation</p> <p>Project progress report</p>	<p>It is assumed that CRRI and ILCC are committed to take all the necessary actions in time to implement the planned project activities</p>
<p>Output 5</p> <p>National Specification Laboratory of CRRI is upgraded</p>	<p>Equipment for block rubber testing in place</p> <p>Staff members (at least 5) of National Specifications Laboratory (NSL) trained</p> <p>Assessment for expanded accreditation conducted</p>	<p>Some of the equipment available for testing block rubber are old and needs replacement.</p> <p>No NSL staff has been trained for the planned expanded accreditation scope.</p> <p>“Chemical Tests for Block Rubber” accredited so far</p>	<p>Progress report</p> <p>NTA report</p> <p>CRRI record</p>	<p>There is a risk that trained personnel may leave the laboratory after receiving training. It is assumed that efforts will be made to retain the personnel by discussing possible incentive measures with the laboratory management.</p>

Objective/ Impact	Objective Verifiable Indicators	Baseline Indicators	Sources and Means of Verification	Risks and Assumptions
<p>Output 6</p> <p>ILCC non-food chemical testing laboratory is upgraded</p>	<p>Equipment for chemicals and/or pesticide residue testing in place</p> <p>Staff members (at least 5) of ILCC trained</p> <p>Assessment for accreditation conducted</p>	<p>Equipment for chemicals and/or pesticide residue testing has not been procured</p> <p>No ILCC staff has been trained in non-food chemical testing field</p> <p>ILCC non-food chemical testing laboratory has not been accredited</p>	<p>Progress report</p> <p>NTA report</p> <p>ILCC record</p>	<p>There is a risk that trained personnel may leave the laboratory after receiving training. It is assumed that efforts will be made to retain the personnel by discussing possible incentive measures with the laboratory management.</p>
<p>Outcome 4</p> <p>In collaboration with Cambodia Chamber of Commerce, awareness on quality among industrialists, consumers and the general population created</p>	<p>Concepts and benefits of NQI established and 50 people participated in the awareness seminars</p>	<p>No activity has been undertaken to promote concepts and benefits of NQI with private sector participation</p>	<p>Annual report of CCC</p> <p>Project progress report</p>	<p>There are concerns about the quality of products among population in Cambodia</p>

Objective/ Impact	Objective Verifiable Indicators	Baseline Indicators	Sources and Means of Verification	Risks and Assumptions
<p>Output 7</p> <p>Assistance is provided for consultancy services for creation of quality awareness and development of quality award, as well as for organization of awareness building seminars</p>	<p>Documentation of Quality Award scheme available for use</p> <p>At least 2 awareness building seminars held</p>	<p>“Quality Award” has not been introduced yet</p>	<p>Progress report NTA report</p>	<p>Cambodia Chamber of Commerce (CCC) continues support for promotion of concepts and benefits of NQI.</p>