Independent Evaluation

Bangladesh, Maldives, Nepal, Sri Lanka

Strengthening Institutional and National Capacities Related to Standards, Metrology, Testing and Quality (SMTQ) – Phase II



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO EVALUATION GROUP

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Notes

Mention of company names and commercial products does not imply the endorsement of UNIDO.

The views and opinions of the team do not necessarily reflect the views of the participating Governments, of the donor and of UNIDO.

Abbreviations and acronyms

BAB	Bangladesh Accreditation Board
BAFRA	Bhutan Agriculture and Food Regulatory Authority
BCCI	Bhutan Chamber of Commerce and Industry
BEST	Better Work and Standards, Bangladesh
BQSP	Bangladesh Quality Support Programme
BSTI	Bangladesh Standards and Testing Institution
BSO	Backstopping Officer
CODEX	Codex Alimentarius of WHO and FAO
CTA	Chief Technical Advisor
DFTQC	Department of Food Technology and Quality Control
DG SANCO	EC General Directorate for Health and Consumer Protection
EC	European Commission
EU	European Union
FAO	Food and Agricultural Organisation of the United Nations
FNCCI	Federation of Nepalese Chambers of Commerce and Industry
GHP	Good Hygiene Practices
GoB	Government of Bangladesh
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
HACCP	Hazard Analysis and Critical Control Points
HPLC	High Performance Liquid Chromatography
HRM	Human resources management
ILO	International Labour Organization

ISO	International Standards Organization
ITI	Industrial Technology Institute of Sri Lanka
LDC	Least Developed Country
MED	Ministry of Economic Development
MFDA	Maldives Food and Drugs Authority
MOA	Ministry of Agriculture
MOFA	Ministry of Fisheries and Agriculture
MRA	Mutual Recognition Agreement
MSMU	Maldives Standards and Measurements Unit
NBSM	Nepal Bureau of Standards and Metrology
NORAD	Norwegian Agency for Development Cooperation
NS	Nepal Standard Product Certification Mark
OHSAS	Occupational Health and Safety Assessment Series
OVIs	Objectively Verifiable Indicators
PE	Polyethylene
PPP	Public-Private Partnership
PTB	Physikalisch Technische Bundesanstalt
QM	Quality Manual
QMS	Quality Management System
RIM	Royal Institute of Management
RGoB	Royal Government of Bhutan
SAARC	South Asian Association for Regional Cooperation
SAFTA	South Asian Free Trade Area
SEDF	South Asia Enterprise Development Facility

SMTQ	Standards, Metrology, Testing and Quality
SOP	Standard Operating Procedures
SPS	Sanitary and Phytosanitary Measures
SQCA	Standards and Quality Control Authority, Ministry of Works & Human Settlement
SPS	Sanitary and Phytosanitary
TA	Technical Advisor
TBT	Technical Barriers to Trade
TORs	Terms of Reference
UN	United Nations
UNIDO	United Nations Industrial Development Organization
W&M	Weights and Measures
WHO	World Health Organisation
WRAP	Waste & Resource Action Programme
WTO	World Trade Organisation

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

This independent mid-term evaluation was requested by the donor (NORAD) and UNIDO. It concerns the second Phase of the project, which started in 2007 and is due to finish in 2010 (Phase I was from 2003-2007). The evaluation has been of particular importance with a view to feeding lessons of wider application into a parallel "thematic" evaluation, which cuts across a considerable number of UNIDO projects in the thematic area of standards, metrology, testing, quality (SMTQ). To this end, chapter VI dealing with "Conclusions and lessons learnt" has been given particular emphasis and attention. The evaluation was conducted in April 2009 by Ben Bennett, Principal Economist at the Natural Resources Institute (UK) and Peter Loewe, Senior Evaluation Officer at the UNIDO Evaluation Group.

The project covers Bangladesh, Bhutan, Maldives and Nepal and aims to improve export capabilities and facilitate industrial development through the strengthening of national SMTQ capacities. The second Phase also included the protection of domestic society against substandard and hazardous products imports as a complementary aim.

All four target countries are Least Developed Countries (LDCs) and suffer from a range of developmental constraints. Nepal and Maldives are in the middle of disruptive political change; Bhutan is under-going a process of economic 'opening'. In all the countries the main counterparts were the relevant Sanitary and Phytosanitary (SPS) and Technical Barrier to Trade (TBT) authorities with the exception of Bhutan who are currently negotiating World Trade Organisation (WTO) membership.

Project preparation and planning

Phase II was built on the recommendations of an evaluation of Phase I. Reflecting the relatively limited budget (2 million Euro for all four countries) the project design focussed on the strengthening and accreditation of the various partner institutions rather than adopting a holistic approach to developing the National Quality System.

Stakeholder and needs analysis of the target groups and their beneficiaries in the wider economy was not done ex ante or up to the point of the evaluation mission. The project document includes a detailed logical framework matrix, but this was not familiar to the stakeholders. Outcomes and outputs are often confused in the intervention theory; most indicators are not time-bound and some of them not quantifiable. The assumptions are considered by the evaluation team to be of little practical value.

In Bangladesh and Nepal the project is related to much larger UNIDO projects funded by the EU but there are no overarching SMTQ or TBT development plans. In Bhutan the intervention logic seemed appropriate, but ambitious. For the Maldives the recommendation from Phase I for a more needs driven supply chain approach was partially adopted.

Project implementation

As of May 2009 the project has expended Euro 767,629 (38.38%) of its budget. Financial progress is variable (between 58.12% in Bangladesh and 27.56% in Bhutan). The project was managed by the BSO at UNIDO H.Q., a Delhi based part-time Chief Technical Advisor (CTA) and national coordinators delegated by counterparts. In Nepal, the national coordinator of the EU project looks also after the NORAD project but without an official mandate. Technical inputs were provided by short-term experts.

Progress toward achieving the planned project outputs is mixed. In Bangladesh, progress is acceptable. In Bhutan, all outputs are on track except 2.7 (training on quality improvement) which should now be reconsidered. The weak absorption capacity of the Bhutanese counterpart institutions might have suggested less ambitious targets or some adjustment of ambition during implementation. In Maldives and Nepal reasonable progress has been achieved under all sub-components.

All national projects had steering committees, some more effective than others. The committee in Bangladesh only met once. Membership of these steering committees is dominated by public officials.

Relevance

In all four countries the evaluators consider the project objectives to be highly relevant. Only the balance in emphasis between components might be questioned.

Ownership

Ownership varied from very weak in Bangladesh to acceptable in Bhutan, mixed in Nepal and good in Maldives. In Bangladesh the climate for ownership is not conducive; there are many competing and larger donor activities in the same technical area. In Bhutan, weak ownership seems to be a factor of stakeholders not understanding their rights and responsibilities with respect to donor projects and this could easily be addressed. In Maldives ownership needs to be re-stimulated. In Nepal ownership varies between the counterpart institutions. The relatively strong ownership of private sector beneficiaries, in particular in Nepal and Maldives, is notable.

Efficiency

The project seems to be implemented reasonably efficiently considering its complexity, breadth and various domestic political issues that have threatened it. Where problems have occurred, management has taken corrective action although a more frequent and pro-active follow-up of country progress by the CTA would have been beneficial. At the time of the evaluation some activities had not started for various reasons and recommendations on these are included in the report. The evaluation team identified opportunities for improved country coordination between UNIDO projects (Bangladesh) and inter UN agency (Nepal and Maldives) that could enhance efficiency.
Counterpart contributions have not always been as expected. Commitment to upgrading buildings for textile testing laboratories in Bangladesh is a positive example. In the case of the textile laboratory in Nepal, the responsibility for

upgrading the building was not clarified in the project document, leading to lengthy negotiations.

Effectiveness

In Bangladesh, effectiveness is constrained by the institutional make-up of the BSTI which makes outcomes dependent upon institutional change un-obtainable. Internationally accredited product certificates are an example. This situation is very similar at the NBSM in Nepal.

Laboratory accreditation is a planned outcome in all countries. Achieving this outcome within a three year time frame is very challenging and likely to be impossible in all but exceptional cases.

Auditor training for management standards can only achieve the proposed outcome if the staff become fully accredited and then apply the learning. For most government officials this has not been the case. In the private sector, application of such training seems to be more likely and have a greater immediate result.

Management certification was focussed on government institutions and the issue of who might be the most efficient supplier of this service to the private sector was not considered. A discussion on the relative merits of locating management certification capacity in either the public or private sector is needed to advise future project design.

First steps towards establishing metrology laboratories have been made in Maldives and Bhutan. However, the Bhutanese officials are far from being ready to implement a national metrology law should it be passed, mostly due to lack of confidence. The Maldives metrology laboratory is still some way from being internationally accredited, mainly because of lack of qualified staff. The Bangladesh and Nepal metrology laboratories were not included in the project design but they are covered by the EU funded UNIDO projects in these countries.

The capacity to run a WTO Inquiry point for TBT was successfully achieved in Bhutan, but does not seem to have worked in Maldives. In all four countries the project has contributed to building awareness about the need for control of substandard and hazardous imported products. The training component on quality improvement tools has not yet started and prospects for effective implementation are considered to be low.

Impact

The measurement of impact during this evaluation was not possible. Many activities had only recently commenced and some had yet to start. For all countries, the evaluation team is concerned that the data being gathered (or not gathered) will make future impact assessment difficult.

In many components accreditation to international standards is considered the most important key for impact but this underlying hypothesis is unproven (and un-provable with current monitoring and evaluation data).

Issues identified during the evaluation which may constrain impact include weak stakeholder and needs assessment, the absence of baseline information, changes in

framework conditions that are not reflected in the project logic, and many outcomes being too ambitious within the developmental context and the timeframe of the project.

The evaluation team concludes that, under the present project Phase, the likelihood of achieving the objective *"to improve export capabilities and facilitate industrial development through the strengthening of national SMTQ capacities"* is limited.

Sustainability

The picture for sustainability is mixed. All project partners are governmental institutions which have major constraints for absorbing support due to a variety of reasons, such as:

- Poor human resources management resulting in high staff turn-over, weak staff retention, and, in some cases, key positions remaining unfilled
- Weak or non-existence in-service training and re-training of staff to reflect recent significant changes in international SMTQ systems
- Inadequate or counter-productive staff incentive systems to promote efficiency and reward competence
- In some cases, inadequate planning and budgeting for maintenance of physical infrastructure, particularly with respect to housing and replacing important testing equipment
- In some cases there are staff shortages due to no-growth recruitment with a view to containing government staff expenses (e.g. Maldives)
- In some cases buildings and equipment are not properly maintained because of lacking budgetary resources

The mandatory preparation of "sustainability plans" by all participating laboratories has been a step into the right direction but the evaluation team considers that further fundamental institutional and sometimes legal changes will be necessary, although to variable degrees, in all countries.
Government commitment in Maldives leads the evaluators to believe that sustainability is possible, although the availability of highly qualified staff in this country remains a challenge. In Nepal, sustainability is more likely to be achievable in the SPS related parts of the project.

Summary of recommendations

The evaluation team drew up a list of country specific recommendations that is included in Section VIII of the report. Only the most important and general recommendations to UNIDO and the donor are summarised below:

- Revisit some of the country specific objectives and approaches in the light of country priorities (metrology and weights and measures in Maldives); adjust some project outputs/outcomes to make them realistically attainable within the remaining project period (accreditations); consider cancelling the quality

management training components in Bhutan and Nepal and extending the project implementation period by 6-12 months;

- Consider increasing the involvement of private SMTQ service providers (twinning of national and international certification consultants for the ISO 22000 pilot companies) and of private users of laboratory services (pashmina association in Nepal);

- Adopt a more evidence based and management-oriented format of sustainability plans and accompany the development and implementation of these plans more proactively;

- Reconsider the log frame to facilitate future evaluation; specifically, the OVI's, sources of verification, risks and assumptions need to be amended; review the assumptions and risks and adjust/remove them

- Further integrate implementation mechanisms on the ground in Bangladesh and Nepal; clarify the terms of reference of the CTA and consider whether there is scope for shifting from the concept of an 'honorary' CTA to a more hands-on management approach

Main Lessons Learned

Being part of the thematic evaluation of UNIDO SMTQ projects, the evaluation focussed on producing 'lessons learned' of wider applicability to other and future SMTQ projects. These 'lessons learned' are presented in chapter VI of this report ("Conclusions and lessons learnt"). The main 'lessons learnt' are:

- **Long-term planning.** To have impact and sustainability longer-term projects are needed. Individual SMTQ projects should be part of a national strategy or a "master plan" for SMTQ development

- **Public-private balance.** SMTQ project strategies should be based on systematic, progressive and holistic development of National Quality Systems with an appropriate and non-distorting balance between public and private service provision within an enabling legal and policy environment

- **Sustainable institution building.** Make sustainability plans a rule. However, progressive institutional change and structured capacity building with milestones need to be incorporated in the sustainability plans as well as means to bench-mark and measure progress towards sustainability

- **Log frame.** Ensure the clarity and cohesion of the causal chain by a more systematic approach to formulating SMTQ log frames. Use the log frame as a tool for monitoring and management by all stakeholders

- **Procurement.** Involve beneficiaries systematically in procurement decisions and adopt a life-cycle approach to procurement that includes maintenance and running cost in procurement decisions

- **Sequencing of metrology interventions.** Poor consumers cannot wait for a national metrology system to be in place before they are allowed to benefit from field calibration of measuring instruments. In some cases, there may be merit in implementing some legal metrology before setting up scientific and industrial metrology

- **Auditor training.** More effort is needed to 'finish' lead auditors courses and deal with the post-training expenses of maintaining lead auditor status. More twinning between international auditors and local consultants should be considered

- **Protection from sub-standard imports.** This project highlights the merits (and challenges) of work in this area and this may have merit for the design of future SMTQ programmes. Further research and pilot projects are needed

- **Building a quality consensus.** Engagement of civil society in quality conformity is an emerging theme in SMTQ evaluations. Addressing changes in laws and seeking investment in quality might be easier if it was better understood within society as a whole. The example of a National Quality Forum in Nepal is one method of addressing this issue that could be replicated. More research and pilot initiatives are needed in this area

1

Introduction and background

A. Project background

The UNIDO/NORAD programme *"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"* covers Bangladesh, Bhutan, Maldives and Nepal and has been structured into Phase 1 (2003 – 2007) and Phase 2 (2007 – 2010). Phase 2 was designed on the basis of an independent evaluation of Phase 1 carried out in 2007 (for the recommendations from this evaluation see chapter III of this report).

According to the project document, the programme aims *"to facilitate the industrial development and export capabilities and spur the economic growth in the four SAARC countries Bangladesh, Bhutan, Nepal and Maldives by reducing technical barriers to trade through the strengthening of institutional structures and national capacities in standards, metrology, testing, quality and conformity assessment"*. Under Phase 2 the export oriented objective of the programme has been extended towards *"protecting domestic society against substandard and hazardous product imports"*.

The approach in the four target countries varies, taking into account the diversity of socioeconomic conditions and specific SMTQ needs.

The project document describes the expected outcomes as follows:

i. Product certification marks accepted internationally.
ii. Technical constraints on exports from beneficiary countries reduced.
iii. Awareness created of quality management techniques among industrial managers of beneficiary countries.
iv. Plan developed to strengthen import quality control procedures.
v. Improved awareness of ISO 22000, WRAP, SA 8000 and OHSAS 18000 standards among industrial managers.
vi. Cost reduction of the quality management system certificate and an increase in the number of companies with QMS certificates.

Administratively, the project is structured into four country specific projects and one overarching project on coordination and management. Table 1.1 shows the allocated funds and expenditures for each of these projects.

Table 1.1: Project budget and expenditures in Euro

Project No.	Project	Total project budget[1]	Total allotment	Total expenditure		Unapproved obligations	Funds available
					in %		
TE/RAS/07/001	COORDINATION	**280,000**	**139,620**	123,990	44.28	0.00	**15,630**
TE/RAS/07/A01	BANGLADESH	**358,000**	**265,000**	208,056	58.12	20,000	**36,944**
TE/RAS/07/B01	BHUTAN	**510,000**	**284,500**	140,553	27.56	25,000	**118,947**
TE/RAS/07/C01	MALDIVES	**417,000**	**250,000**	141,160	33.85	20,000	**88,840**
TE/RAS/07/D01	NEPAL	**435,000**	**256,000**	153,870	35.37	20,000	**82,130**
		2,000,000	**1,195,120**	767,629	38.38	85,000	**342,491**

Source: UNIDO Infobase (May 2009)

B. Purpose and methodology of this evaluation

This independent mid-term evaluation of Phase II of the project was carried out on request of the donor (NORAD) to account to the donor, governments and national stakeholders.

The main purposes of this specific mid-term evaluation were to allow the various beneficiary governments, stakeholders, UNIDO and NORAD:

- To assess the relevance and needs orientation of the project;
- To assess the ownership of stakeholders;
- To assess the outputs produced and outcomes achieved as compared to those planned and to verify prospects for development impact;
- To assess the efficiency of implementation: quantity, quality, cost and timeliness of UNIDO and counterpart inputs and activities;
- To provide an analytical basis and recommendations for the remainder of the programme.

The evaluation has been of particular importance with a view to feeding lessons of wider application into a thematic evaluation that cuts across a considerable number of UNIDO projects in the thematic area of SMTQ. In this regard chapter VI. Dealing with "Conclusions and lessons learnt" has been given particular emphasis and attention.

The evaluation was based on the Terms of Reference (enclosed in Annex A), the United Nations (UN) evaluation Norms and Standards[2] and the UNIDO Evaluation Policy and Technical Cooperation Guidelines (UNIDO, August 2006). The evaluators received a briefing on the project from the UNIDO project manager and Director of the Trade

[1] Total planned budget as per project document, excluding 13% support cost.
[2] United Nations Evaluation Group (UNEG), Norms and Standards for Evaluations in the UN System, April 29, 2005

Capacity Building Branch. The evaluation team used an interactive, participatory approach based on meetings and interviews with key stakeholders and project beneficiaries.

Field visits to Bangladesh, Bhutan, Maldives and Nepal were carried out between 16 and 30 March 2009. Meetings were conducted with stakeholders, beneficiaries and enterprises. Where possible, equipment provided was inspected in situ. A comprehensive list of persons met and programme of field visits is provided at Annex B. A number of background documents and papers were reviewed. A bibliography is given at Annex C.

The interim results of the evaluation were presented to and validated by stakeholders in two ways: by individual presentations to groups of stakeholders in-country at the end of each evaluation mission in Dhaka, Male, Kathmandu and Thimphu and by presentation to a workshop in Vienna on the 21st April 2009 to an audience that included UNIDO and NORAD representation.

Limitations to this evaluation include:

Many of the field activities have only recently begun or have not yet started, so evaluation is not possible.

The time available to the evaluators in-country for in-depth interviews was limited to about 5 days per country. It was not possible to interview all beneficiaries or, in some cases such as Bangladesh, to talk to relevant donors of other projects during this time. The evaluators have endeavoured to ameliorate this problem by sampling.

Notwithstanding these limitations, the evaluators consider the information obtained sufficient for an objective opinion to be formed on the issues addressed in the Terms of Reference.

The evaluation was conducted by Ben Bennett, Principal Economist at the Natural Resources Institute (UK) and Peter Loewe, Senior Evaluation Officer at the UNIDO Evaluation Group. Neither of the evaluators was in anyway involved in the design or implementation of the project.

The evaluators express their gratitude to all interlocutors in partner countries and in UNIDO for the time spent for discussions and interviews.

2

Country and project context

Bangladesh

The economy of Bangladesh is characterised by poverty and over-population. The Gross Domestic Product in 2008 was US$ 83.04 billion representing an annual growth of 5.9%. However, this growth is insufficient if Bangladesh is to meet its Millennium Development Goal of halving the number of people in poverty by 2015. The population in 2009 is estimated at 156 million with a growth rate of 1.29%. Despite relatively rapid industrialisation and urbanisation in recent years, the economy is still highly dependent upon agriculture and remittances from overseas workers. Bangladesh remains one of the least developed World Trade Organisation Members with 36% of the population living below the poverty line income of US$1 per day (WTO 2006).

Bangladesh has seen a certain amount of political dislocation in recent years with a military-backed caretaker regime during 2007/08 that has now been replaced by a newly elected government. This period of political instability has not promoted reform in the way the economy is managed.

The Bangladesh business climate is particularly poor. Bangladesh ranks 134/175 in the 'Trading Across Borders' measure of the International Finance Corporation Doing Business Report and in the lowest third of the Kaufmann indices of correction, regulatory authority, rule of law, government effectiveness and political stability (Kauffman, 2004).

The Bangladesh economy remains highly distorted and regulated with many sectors of the economy still owned and managed by government. In terms of trade and competitiveness, Bangladesh still struggles, falling to overall 110th position (from 104) in the recent World Bank Doing-Business indices (World Bank, 2009).

Trade is increasingly important to the Bangladesh economy with clothing and textiles dominating (great than 85% in 2005). A high proportion of this trade goes to the European Union (58%) and the United States of America (27%).

Quality infrastructure in Bangladesh is centred on the Bangladesh Standards and Testing Institute (BSTI), a quasi-autonomous government agency responsible for enforcement of 145 mandatory standards and 2000+ general standards and technical regulations.

Bangladesh does not have international traceability of its calibration laboratories, though recent investment by various donors, particularly the European Commission with is Bangladesh Quality Support Programme (BQSP) is working toward accreditation of these facilities. This absence of credible calibration threatens the upgrading of product testing laboratories such as the food and textile laboratories at BSTI.

The process of establishing a national accreditation body continues in Bangladesh. The Bangladesh Accreditation Board (BAB) Act was passed in 2006, but physical and administrative separation of BAB from the BSTI has yet to be achieved.

The EC will continue support for the Bangladesh quality infrastructure after the end of BQSP through the Better Work and Standards (BEST) project. This project will continue the gains made in BQSP and in addition place greater emphasis on social compliance standards in the textile sector. This project is expected to start in 2009 and run for five years.

Bhutan

Bhutan is a small land-locked and mountainous enclave strongly tied to the Indian economy. In 2005 the population was 672,425. In 2006 per capita income was US$1,321. The economy is predominantly agricultural based on subsistence farming. Recent GDP growth has come from sale of electricity from hydroelectric schemes.

Bhutan has only recently decided to embark on an export led growth strategy and this policy is currently before the newly elected (2008) democratic government for consideration. Membership of the WTO is under negotiation.

After hydro-power and tourism, Bhutan's important exports are all agricultural including apples, cardamom, timber and red rice. The most important trading partners are India and Bangladesh.

The development and business climate in Bhutan is hard to judge against other countries with similar levels of economic development. Whilst per capita income is low, the government claims "happiness" is high. Buddhist concepts pervade all levels of society and business, so ideas of regulation and dishonesty in transactions are not well understood.

The nascent Bhutanese formal economy is still highly distorted, with many major business activities begin government owned or controlled.

Bhutan's quality infrastructure is somewhat bifurcated. The nominal locus is the Standards and Quality Control Authority (SQCA) in the Ministry of Works and Human Settlement. This location reflects the original purpose of the SQCA which was to test building material for public works. As a result, all the current staff have engineering backgrounds. The SQCA has no formal mandate for national standards[3]. A Standards Act that will give authority to the SQCA and create it as an independent institution is under consideration by parliament but was not available to the evaluation team. A Consumer Protection Act is also being mooted, but under the auspices of the Ministry of Economic Affairs. Food standards and regulation comes under the Bhutan Agriculture and Food Regulatory Authority (BAFRA) a branch of the Ministry of Agriculture.

Bhutan currently has no national standards, legal metrology, industrial metrology or food safety system. Donor intervention is limited to date. Some assistance has been provided to BAFRA in the form of equipment. The Asian Development Bank plan to include a component called "Planning and Organizing for the Establishment of Product Standards

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[3] Nb: The SQCA does have authority under judicial law to apply rules, but this mechanism has never been used.

and Capacity Building for Regulating and Implementing Agencies" with a number of full time technical assistants in its project to support Small and Medium Enterprises.

Maldives

The Maldives is a huge archipelago of approximately 1,190 low-lying coral islands grouped into 26 natural atolls, stretching over an area of 90,000 square kilometers of the Indian Ocean, and surrounded by an Exclusive Economic Zone (EEZ) covering 859,000 square kilometers. Approximately 200 islands are inhabited and about one third of the entire population of 298,968 lives in the capital Male'.

Maldives became an independent republic in 1968, three years after independence from Britain. The former president dominated the country for 30 years by a single party system. In 2005 Maldives was declared a multi party democracy and in June 2008 a constituent assembly finalized a new constitution. Democratic elections in October 2008 led to a change in Government. Strengthening democracy, decentralization of power and combating poverty have become the overarching policy objectives of the new Government.

The largest industry of the Maldives is tourism, accounting for 28% of GDP and more than 60% of foreign exchange. Most of the tourism is in up-market luxury resorts but most of the tourist dollar is not retained in the country because much of the inputs are imported. Fishery is the second largest economic sector with agriculture and manufacturing playing only a marginal role. During the nineties Maldives ventured into textile and apparel manufacturing, taking advantage from the quota system under the Multifibre Agreement (MFA). However, none of the textile companies survived the end of the MFA. Diversifying beyond tourism, increasing productive employment and containing public spending on subsidies and civil servant salaries are major Government challenges.

External trade of the Maldives is dominated by fish exports, composed primarily of canned, frozen and chilled tuna. While the bulk of the canned and frozen products are exported to Asian countries, most of the fresh chilled tuna goes to the European Union. This product is of very high value and particularly appreciated in the European market because of the sustainable harvesting techniques applied by the fishing industry of the Maldives.

The climate for doing business in the Maldives is remarkably positive as demonstrated by its position of 69 on the World Bank ranking (World Bank 2009). However, foreign investment is concentrated almost exclusively in the tourism and fishery sectors.

The quality infrastructure of the Maldives is still in its infancy. A National Standards Body exists only in an embryonic stage under the form of the Maldives Standards and Metrology Unit (MSMU), which was created under Phase I of the UNIDO project as part of the Ministry of Economic Development and Trade. The MSMU is also hosting the legal metrology function of the country. However, the development of the national metrology laboratory is still in its very early stages with the Maldivian industry seeking traceability abroad. It should be mentioned here that the metrology laboratory of the Industrial Technology Institute of Sri Lanka (ITI) that has been accredited under a UNIDO project is one of the major sources of calibration for the Maldivian economy.

The organization of the National Quality System with the relatively strongest organizational capacity is the Maldives Food and Drug Authority (MFDA). MFDA hosts the leading chemical and microbiological laboratories of the country but their professional staffs also includes food inspectors. MFDA is of strategic importance for the economy

because of its function as the “competent authority” that assures the application of EU standards in the fish export industry.

Nepal

Nepal is a landlocked country surrounded by India and China. Nepal's population is 29 million growing 2% p.a. while GDP is US$ 457 with a growth rate of 2.3%. The human poverty index puts Nepal 84th among 108 developing countries. It ranks 143rd out of 177 countries in Human Development Report 2008. Agriculture provides a livelihood for three-fourths of the population and accounts for 38% of GDP. The World Food Program has identified Nepal as a potential "hunger hotspot" as 42 out of 75 districts are food deficient, while over one-third of districts fall below the minimum food security supplies.

Following a long lasting civil war and a peace agreement, democratic elections took place on 10 April 2008 with substantive representation of women, ethnic and indigenous groups. The CPN (Maoist) won the election but falls short of a two-third majority to form a single party government. The new parliament abolished the monarchy and declared the country a federal democratic republic on 28 May 2008. On 11 June 2008, King Gyanendra vacated the Royal Palace to respect the parliament verdict. However, there are many signs that the revolutionary situation is still ongoing.

Industrial strikes, power cuts for sometimes more than 12 hours a day and security concerns relating to political activities have led to a decrease in industrial production. Prospects for foreign investment except in hydropower and tourism sectors remain poor. Due to the peace accord, the tourism sector has shown slight improvements. Inflow of remittance from Nepali workers stands over $ 1.5b which has been the main driver to reduce poverty from 42% in 1996 to 31% in 2007. In 2008 the inflation rate reached 14.5 %. The World Bank’s “Doing Business” report of 2009 ranks Nepal 121 out of 181 economies (down from 111 in 2008).

Nepal’s integration into the global economy is constantly increasing and trade accounts for about 40% of the GDP. India is by far Nepal’s biggest trading partner, accounting for 71% of total exports and 59% of total imports. Other major trading partners are USA, Germany, UK, France and China. However, the country’s trade capacity of manufactured goods is limited leading to a constantly growing gap in the national trade balance. Between the fiscal years 2003/2004 and 2007/2008 alone, the trade deficit increased from 82 billion RS to 181 billion RS.[4] Table 2.1 shows the available time series of exports (excluding to India) for a number of key commodities.

[4] A Glimpse of Nepal’s Foreign Trade; Trade Promotion Centre; November 2008

Table 2.1: Nepal: Export of Major Commodities to Other Countries

	2002/03	2003/04	2004/05	2005/06	2006/07
Pulses	215	281	107	192	488
Large cardamom	125	231	205	109	130
Medicinal herbs	33	48	55	19	40
Paper products	262	280	240	257	191
Hides & Skins	227	309	236	310	276
Carpets	5.320	5.678	5.869	5.839	5.600
Garments	11.890	9.550	6.125	6.204	5.206
Handicrafts	352	626	644	431	196
Ornaments	348	369	363	282	325
Pashmina	1.158	1.064	1.050	1.578	931
Others	3.570	4.698	4.896	4.298	5.540
Total	**23.501**	**23.134**	**19.789**	**19.519**	**18.921**

Source: Nepal Rastra Bank

The Nepal Bureau of Standards and Metrology (NBSM) is the key institution of Nepal's National Quality Infrastructure. NBSM was established in 1984 and strengthened by UNIDO support between 1986 and 1992. NBSM is supposed to provide legal and industrial calibration to the country although its metrology laboratories are not internationally accredited.

Nepal's product certification scheme is run by NBSM but this scheme is not internationally accredited according to ISO Guide 65. This leads to a situation by which, in practice, India's internationally recognized product certification scheme is being used as a mandatory requirement for Nepal's bilateral trade with India.

NBSM acts as secretariat of the national laboratory accreditation scheme NEPLAS. However, this scheme in itself is not internationally recognized. None of the laboratories in the country is internationally accredited yet.

The ISO 9000; ISO 14000 and ISO 22000 management standards as well as HACCP are increasingly applied by Nepalese industry, although from a comparatively low level. ISO certification is provided by subsidiaries of internationally active, mostly India based, certification bodies.

The SPS related part of the Nepalese NQS is built around the Department of Food Technology and Quality Control (DFTQC). Similar to Maldives and other countries, this institution seems to be better staffed and equipped than its industry related counterpart NBSM. It should also be noted that DFTQC entered the project under evaluation only under Phase 2 and was not formally involved under Phase 1.

3
Project planning

A. General considerations

Project planning seems to have progressed fairly logically from Phase I and the evaluation of this Phase (Foss, 2007). However, not all of the main recommendations from the evaluation of Phase I have been taken on board. For instance, recommendation 1 has been included

> *"The objective of the project should be extended to protect the domestic societies against substandard and hazardous products. Include product safety legislation, including food legislation, and enforcement – border control, market surveillance, product certification etc. Project funding may limit the efforts in Phase II, but the objective should nevertheless be included."*

On the other hand, recommendation 2 is not well reflected in the design of Phase II:

> *"For Phase II, describe the roles and authorities of all UNIDO representatives and other stakeholders in the implementation of the project. Emphasise the two dimensions of the project: (1) Development of the national quality infrastructure; (2) Development of quality awareness and management systems, and improvement in industry."*

The concept of "National Quality Infrastructure" and its development are virtually absent from the project document as well as the recommended focus on "improvement in industry". Instead, the project document has been built around the key concepts of strengthening and accrediting of SMTQ partner institutions.

Recommendation 5 from the evaluation of Phase I have been partly covered under the EU funded UNIDO projects in Bangladesh and Nepal:

> *"Promote consumer organisations and make them aware of quality and product safety issues. Consider membership on the Steering Committees."*

In none of the four countries, there was evidence of detailed stakeholder analysis and needs analysis of the target groups. The link between the outputs and outcomes of Phases I and II is not explicit in the project document, so a direct continuum of relationships between activities and outcomes over the two Phases is hard to ascertain.

The question "what is the market for this service" was, by and large, not answerable, meaning that this crucial question was not addressed in Phase I and not included in the logic of Phase II. The textile laboratory in Bangladesh is the only one for which a "marketing plan" is foreseen. However, preparing this plan is the last and not the first out of the 10 activities related to this output. No "marketing plan" is foreseen for the other four textile and food laboratories to be "strengthened" under the project.

The project document (UNIDO, 2008) is well formulated, at least as compared to other UNIDO projects in- or outside the SMTQ area. The document contains a 'log frame matrix', although the engagement of stakeholders in developing this logic seems to have been limited. None of the stakeholders interviewed during the mission were aware of the Log Frame Matrix or its role in project cycle management. Most direct beneficiaries were, however, knowledgeable about the "activities" of the project.

The underlying "causal chain" or "intervention theory" in the project document is sometimes twisted and there is confusion between 'outcomes' and 'outputs'. For example, "Food and textile testing laboratories of BSTI accredited" looks more like an output, whereas the intended outcome might have been "importers accept BSTI test reports" or even, one level higher, "exports of food and textile products increased". Similarly, "plan developed to strengthen import control procedures" is presented as an outcome, at the same level as, for instance, "technical constraints on exports reduced".

Furthermore, there is a lack of consistency between the outputs, outcomes and immediate objectives presented in different parts of the project document. The "immediate objectives" in section C1.1 are different from those in section C.5 and the "expected outcomes" in section C.4 are different from the "outcomes" in the Log Frame Matrix in chapter C.6.1.

The indicators provided are neither time-bound nor quantifiable. For example, "number of mutual acceptance agreements signed", should have been "x [number] mutual acceptance agreements signed by y [date]". An additional "baseline" column is included in the logical framework, however, there are no figures in any of the boxes so, with the exception of where the starting point is zero, measurement of progress is not possible.

The inclusion of assumptions and risks is worthy of note (log frames in UNIDO product documents often do not include these elements). However, the practical value of many of the assumptions is limited because almost all of them are within the control of the project and so should have been activities. For example, "it is assumed that trained faculty is retained in the institutes, and training courses are conducted for industry personnel" or "it is assumed that a campaign will be organized by SQCA to make industry aware of the easy availability of standards and regulations and the benefits of their application" are not risks but rather factors within the control of the project and its partners that could have been mitigated by appropriate activities.

B. Bangladesh

The blend of activities for Bangladesh seems appropriate and to be genuinely founded on perceptions of gaps gleaned at the time of project preparation. However, there is a sense that many of these activities are located 'around' the much larger European Union supported Bangladesh Quality Support Programme (BQSP). The Chief Technical Advisor (CTA) of BQSP complained that he was not involved in the development of the "Market Access Phase II" project and has not been consulted during its implementation leading him to believe that some potential for overlap was possible. The repetition of ISO Guide 65 activities already completed by BQSP (in the food quality area) was seen as an example of this.

C. Bhutan

The range of outputs in the project seems appropriate if ambitious in the context of Bhutan. The Bhutanese themselves are uncertain why a component for awareness of social and occupational health standards was included in the project given the low level of industrial development in the country.

Outcomes and outputs are confused. For example, availability of standards (Outcome No.1) is an output, the outcome of which might be increased exports of compliant products. Similarly, Outcome No.3, "Food Laboratory of BARFA accredited" is an output. The outcome is not stated in this case and it is not clear what particular food safety problem the output is meant to address.

OVI's are neither quantifiable nor time-bound. For example, the OVI's for "availability of standards…" is "increase in exports". The amount of increase and timing is not suggested. Interviews with SQCA suggest that their records are inadequate to verify whether a) this indicator has been achieved and b) whether causality can be assured.

D. Maldives

In the case of the Maldives the evaluator of Phase I recommended to

> *"Develop a broader project component for the fish harvesting industry in the Maldives in cooperation with other UNIDO branches. In addition to quality issues this industry needs support in developing the business model. A supply chain component is needed to tackle problems such as large variations in catch, cheating with licences, poor respect for agreements, poor quality consciousness but also poor reward for high quality."*

This recommendation towards adopting a more needs driven supply chain approach was taken on board for Phase II. Although the formulation of the recommendation was rather open and perhaps not entirely clear, it produced positive results, opened new routes for the project and increased project ownership, as will be explained under Chapter V.

The assumption under the metrology component that *"It is assumed that adequate personnel will be deployed for verification of weights & measures"* is a good example how assumptions should be used to anticipate external risks, which are not under UNIDO's control. However, this assumption did not materialize (see below under Chapter V) but without leading to remedial management action, which is a case in point demonstrating that introducing assumptions and risks into the project planning is only meaningful, if corrective management action is also included alongside the assumption.

E. Nepal

Similar to fish in the Maldives, the evaluator of Phase I had recommended the adoption of a supply chain approach for honey in Nepal. This was included in the planning:

> *'Follow up the* National Pesticide Residue Monitoring Plan *and the associated testing requirements for honey export from Nepal"*

The upgrading of the textile laboratory of NBSM (output 4.3) is one of the most prominent outcomes of the project. However, this outcome is totally absent from the Log Frame Matrix. This oversight is unfortunate in so far as refurbishing the building

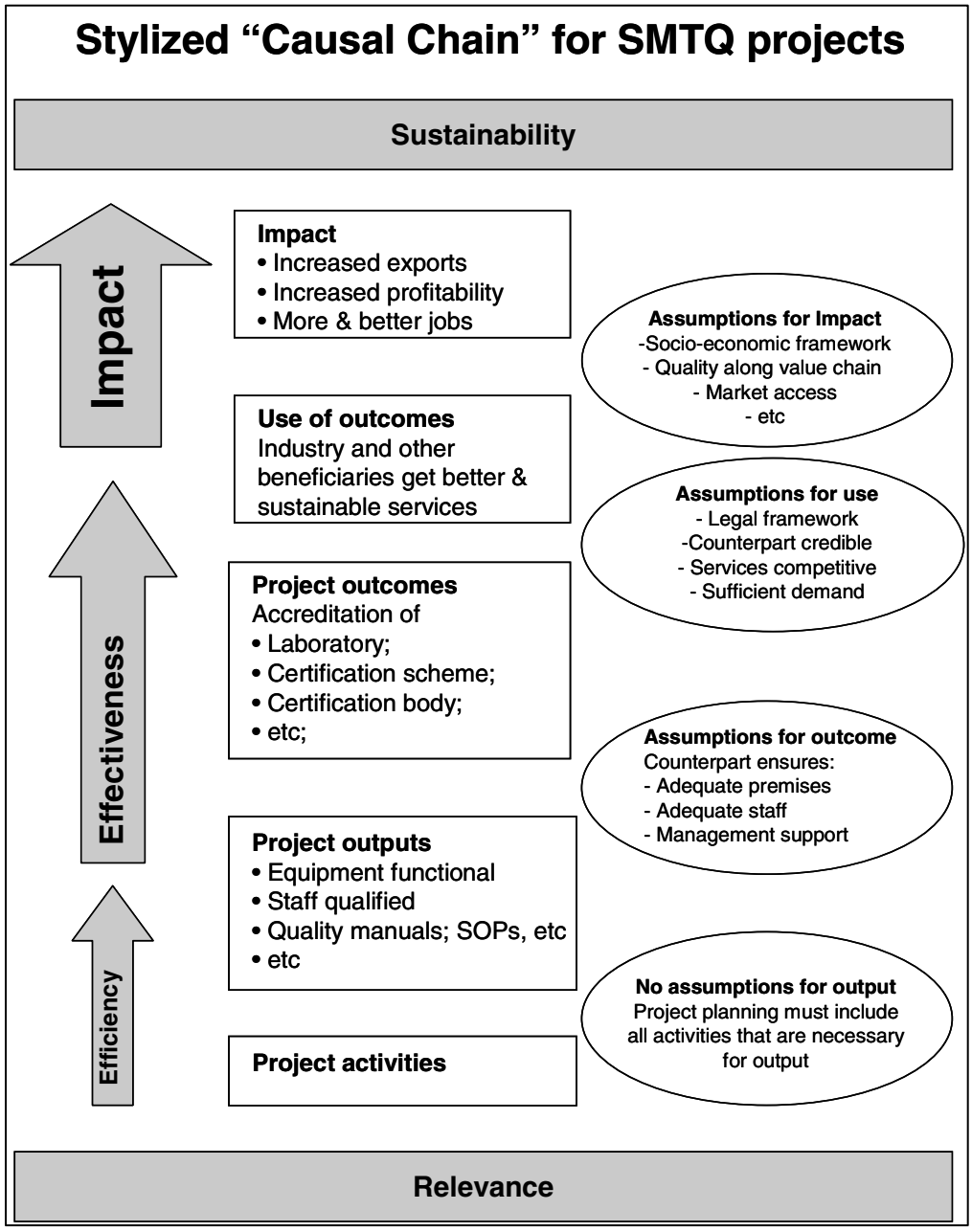
infrastructure had been identified as a crucial condition under Phase I but without being introduced as an important assumption into the planning of Phase II. As will be discussed under Chapter V, the lack of reference to the necessary refurbishment of the building infrastructure has led to considerable delay.

F. Stylized "causal chain"

Based on the analysis of the planning in the project document and the stakeholder interviews the Evaluation Team has produced the "stylized causal chain" shown in Figure 3.1.

The ex-post development of this stylized causal chain by the evaluators was necessary in order to overcome the confusing use of the "output" and "outcome" concepts in the project document. The causal chain will serve as a reference framework for assessing "efficiency", "effectiveness" and "impact" under Chapter V below.

Figure 3.1: Stylized "causal chain" for SMTQ projects



4
Project implementation

This chapter considers describes the implementation of the project including the management methods and status of outputs in each of the target countries (for financial detail see table 1.1).

A. Bangladesh

Management of the project was done through a combination of UNIDO HQ staff, local (unpaid) Project Coordination (from BSTI) and a Delhi based Chief Technical Advisor (CTA). No problems with this arrangement arose during the interviews, though the role and responsibilities of the CTA (Major General Lal) was hard to ascertain. Having said this, his technical inputs into the project have been much appreciated.

Outputs achieved to date by the project are summarised in table 4.1below.

Table 4.1: Bangladesh project outputs achieved by mid-term evaluation

Output No.	Component title	Selected outputs to date
1.1	Product certification of BSTI complies with ISO 65 Guide and internationally accredited	• ISO Guide 65 manual and documents prepared
1.2	Plan developed to control substandard and hazardous imported products	• Expert report completed (Dauthy, 2008) – no action on this as yet
1.3	Textiles laboratories of BSTI	• Equipment being procured and buildings in process of renovation
1.4	Between 15 and 20 auditors trained for ISO 22000 Food Safety Management System and two food-processing companies certified; awareness created among 200 industry personnel about Worldwide Responsible Apparel Production standard and OHSAS 18000	• Lead Auditor and awareness training courses for ISO22000 completed • Two companies completed Phase I of certification process
1.5	Management System Certification Body of Bangladesh accredited	• Study tour to SIRIM, Malaysia and manuals prepared
1.6	About 50 managers from industry trained in quality improvement tools and techniques	• Course content agreed

Source: Interviews and UNIDO (2009)

A number of activities have suffered from delays and had not yet started at the time of the evaluation. The status of the various output components is as follows. Output 1.1 has been re-scheduled due to difficulties locating the appropriate expert. Output 1.2 occurred later than planned, but the expert has now been fielded. Equipment for Output 1.3 has been procured, but cannot be fully used until the new laboratory has been renovated. Output 1.4 has been implemented as planned. Output 1.5 is proceeding as planned. Output 1.6 has not yet started. Given the specialist nature of the work in hand, the absorption capacity of BSTI and the difficulties associated with operating in Bangladesh, progress is acceptable. Supervision of activities and timeliness of delivery has been good and no severe problems reported.

B. Bhutan

The project in Bhutan was done through UNIDO HQ staff, a local (unpaid) project focal points in BAFRA and SQCA, and the Delhi based CTA. This arrangement seems to have worked well and stakeholders were happy with it. The recent change of focal point in BAFRA has resulted in a loss of institutional memory about the earlier Phase of the project, but this does not threaten any outcomes. The role of the CTA was unclear, but all stakeholders were happy with his contributions.

Many of the activities in Bhutan started later than planned and this means that, for some, they will not complete within the project timeframe. This applies to Outputs 2.2 (delayed, but will complete in time), 2.4, 2.5 (delayed, but should complete in time) and 2.7.

Considering the challenges faced and technical specialisation of the tasks in hand these delays are not exceptional. However, as we shall see below, some consideration of the absorption capacity of the Bhutanese institutions involved might have led to a less ambitious plan or a longer implementation period.

Selected outputs achieved to date by the project are summarised in table 4.2 below.

Table 4.2: Bhutan project outputs achieved by mid-term evaluation

Output No.	Component title	Selected outputs to date
2.1	Capability created in standards cell for adoption of standards, and WTO TBT inquiry point/standards information centre strengthened	• Study tour completed • Library staff trained • Consultancy (Bahl, 2008) • Various awareness seminars conducted
2.2	Plan developed to control substandard and hazardous imported products	Dauthy report completed (Dauthy, 2008b)
2.3	Legal and industrial metrology laboratory established	• Consultancy and training (Jenkins, 2008 and Vellingiri, 2009) • Equipment purchased for temperature, mass, volume, length
2.4	Food testing laboratory of BAFRA strengthened and accredited	• HPLC procured and commissioned
2.5	Fifteen auditors trained on ISO 22000 and enhanced HACCP and ISO 22000 auditing capacity through certification of two food processing units for each of the above standards	• Awareness course for 53 • Lead auditor training: 14/20 passed • One company identified for ISO 22000 certification to date
2.6	Awareness created about SA 8000 and OHSAS 18000 standards	• Two seminars conducted (Thorpe, 2008)
2.7	About 20-30 managers from industry trained in quality improvement tools and techniques	• No outputs yet

Source: Interviews and UNIDO (2009)

C. Maldives

The sub-project in Maldives is being implemented by a national project coordinator (Government official from the Ministry of Industry) and the UNIDO project manager from HQ. Unlike in Nepal and Bangladesh UNIDO did not contract a national project manager or similar. The Delhi based CTA visited Maldives only once at the end of 2007, together with the project manager.

A Steering committee with representation from all relevant stakeholders, including the Chamber of Commerce and Industry, has been set up soon after project start.

Table 4.3: Status of Maldives project outputs by mid-term evaluation

Output No	Component Title	Selected outputs to date
3.1	Capability built in the standards cell for adoption of standards and WO TBT Enquiry Point/Standards Information Centre strengthened	UNIDO expert mission from 21 to 30 April 2008 to: • Assess status of TBT Enquiry Point, IT infrastructure and standards, library printing and dissemination system • Conduct training workshops for MSMU staff • Assist with establishing an effective TBT Inquiry Point
3.2	Plan developed to control substandard and hazardous imported products	UNIDO expert mission from 13 July to 8 August 2008 to • study existing practices for quality control of imported products • Discuss with various regulatory bodies possible improvements to check substandard or unsafe products at import entry points • Develop a plan for verification of different types of unsafe products by the relevant regulatory authorities and organize a consumer awareness seminar
3.3	Legal and industrial metrology laboratory established	Legal Metrology expert mission from 13 June to 6 July 2008 to: • Train staff in operation of measuring instruments and calibration of weights & measures and accompany them on the ground • Identify additional equipment needs MSMU submitted sustainability plan but much of the data seems to be lacking or unrealistic. Information not supported by market survey

Source: Interviews and UNIDO (2009)

Output No	Component Title	Selected outputs to date
3.4	National food testing laboratory of MFDA strengthened and accredited	Equipment delivered under Phase 2: • Real Time PCR Unit; • OMNI PCR Workstation; • Mercury Analyzer MFDA submitted a request for additional equipment (2 Fume Hood - Ductless Fume Hood with moving table; 2 Vertical Laminar Flow Cabinet with moving table) A Sustainability Plan has been submitted; figures not supported by market survey or other evidence; prospective annual deficit of about 500,000 USD UNIDO laboratory expert conducted mission from 9 to 15 November 2008 to • assess laboratory status; • carry out training (proficiency tests and uncertainty measurement); • prepare accreditation Next mission of laboratory expert planned for April/May 2009
3.5	Awareness created among personnel involved in fish harvesting about Good Hygiene Practices (GHP), and quality of fish products improved in the supply chain, and a report produced on the new business model, taking into account the varying fish harvesting seasons	UNIDO fishery expert carried out mission between 11 and 27 January 2009 to • conduct training of trainers on best practices in fish harvesting; • conduct 2 seminars on EU requirements for fish and fishery products (for industry and officials); • identify gaps within MFDA control system for fish exports; • assess fish export facilities and procedures at Male airport Trainings provided, gap analysis conducted and awareness rose among officials and the larger public. Thanks to the initiative of project counterparts this UNIDO mission was largely publicised by printed media and TV

Source: Interviews and UNIDO (2009)

Output No	Component Title	Selected outputs to date
3.6	Fifteen auditors trained on ISO 22000 and capacity built for certification and two fish processing units certified	UNIDO experts from FICCI (India) conducted • ISO 22000 FSMS Awareness Seminar at MFDA from 17 to 18 June; • Auditor/Lead Auditor training from 3- 7 August 2008
3.7	Awareness created about OHSAS 18000 standard	Planned to be conducted during 1st quarter of 2009. The Steering Committee decided to carry out the OHSAS 18000 training in cooperation with three trade associations: Fisheries, Tourism and Construction

Source: Interviews and UNIDO (2009)

D. Nepal

The sub-project in Nepal is implemented by the UNIDO project manager from HQ together with a national officer appointed by the Director General of NBSM. During the first months of the project, UNIDO contracted, on a part-time basis, also a national coordinator. As a former Secretary of the Ministry of Agriculture and Cooperatives, former DG of NBSM and former Senior Officer of DFTQC, this person enjoys a very high reputation in the country in all SMTQ matters. From the end of 2008 onwards, UNIDO contracted him as a national coordinator of the bigger EU-funded UNIDO project, with an informal arrangement to also have an eye on the project under evaluation.

Table 4.4: Status of Nepal project outputs by mid-term evaluation

Output No	Component title	Selected outputs to date
4.1	Product certification system of NBSM complies with ISO Guide 65 and is accredited internationally	Quality Manual prepared under Phase 1 with assistance of international expert (Mr Sohraab); no implementation activities yet under Phase 2
4.2	Plan for quality control of imported goods developed	• DFTQC opted for initial study by national expert • National expert (Dr. Karki; former DG of DFTQC and member of SMTQ Forum) contracted for analysis
4.3	Textile laboratory of NBSM strengthened and accredited	Laboratory included in report on Nepalese laboratory infrastructure prepared by international laboratory expert (M. Alan Rowley) under Phase 1. No implementation activities under Phase 2 yet • National Programme Co-ordinator is currently preparing specifications for refurbishment of laboratory; • UNIDO had identified international experts for textile in 2008 (Mr. Subramanium; Mr. Hirschler) but not clear why none of them was fielded; • In August 2008 UNIDO expert under the EU project (Mr Velingiri) covered also textile laboratory in his report but not in-depth

Source: Interviews and UNIDO (2009)

Output No	Component title	Selected outputs to date
4.4	Food laboratory of the Department of Food Technology and Quality Control (DFTQC) strengthened and accredited	Laboratory included in report on Nepalese laboratory infrastructure prepared by international laboratory expert (M. Alan Rowley under Phase 1. Under Phase 2: • Mission of international expert (Mr Saxena) in February 2009: o Training on laboratory accreditation o Preparation of Quality Manual and quality procedures o Definition of accreditation scope • Microbiological laboratory: Mission of international expert (Mr Upali) under the EU-Nepal WTO Programme • Study tour to WIMTA planned for Quality Manager and 1 staff each from chemical and microbiological laboratory • UNIDO equipment delivered: o Stombacher Lab Blender (19/12/08) o Elisa Reader (05/01/09) o Atomic Absorption Spectrometer (March 2009) • Fully Automated Colony Counter with PC and software still to be delivered: o Other recently installed hi-tech equipment (under JICA funding): GCMS and HPLC

Source: Interviews and UNIDO (2009)

Output No	Component title	Selected outputs to date
4.5	Between 15 and 20 auditors trained for ISO 22000 Food Safety Management System and two companies certified	• ISO 22000 awareness seminar and Auditor/Lead Auditor training conducted by FICCI; o Awareness seminar for 43 participants (5/6 September '08) o Auditor/Lead Auditor training at DFTQC (September 2008) • In October 2009 DFTQC identified two pilot companies for ISO 22000 certification: • Narayani Oil Refinary Udhog Pvt. Ltd., Birganj, Nepal. (Manufacturer of refined edible oil and vegetable ghee; used local consultant QEMS to obtain ISO 9000 certificate by DNV,) CG Foods (Nepal) Pvt. Ltd. Lalitpur, Nepal. (Manufacturer of instant noodles; used local consultant QEMS to obtain ISO 9000 certificate by ICS)
4.6	Management System Certification Body of Nepal accredited	Two missions of international expert in Management System Certification (Mr Sylvain Monnerau) in August 2008 and February 2009. The expert • Assisted NBSM in developing documents required for accreditation; • Conducted pre-audits at Dugar Group (Baby Food) and Vikash Flour for certification against ISO 9000 and ISO 14000
4.7	Awareness created about SA 8000 and OHSAS 18000 standards	• Two SA 8000 awareness seminars conducted in Kathmandu and Biratnagar from 24 - 28 of November 2008 (Mr. Vic Thorpe) • OHSAS 18000 planned to be conducted during 1st quarter of 2009
4.8	About 25 managers from industry trained in quality improvement tools and techniques	Course content of elementary and advanced courses on quality control techniques has been agreed between NSBM and CTA

Source: Interviews and UNIDO (2009)

5
Assessment

The assessment is based on the descriptive analysis carried out in chapters II, III and IV and adopts the five standard evaluation criteria defined by the DAC: Relevance, Ownership, Efficiency, Effectiveness and Sustainability (definitions of these criteria are in the glossary at the beginning of this report).

A. Relevance

Bangladesh

The stated project development and immediate objectives remain highly relevant to Bangladesh despite the legion of structural problems within the domestic economy (WTO, 2006).

Bhutan

The project development objective and immediate objectives remain most relevant for Bhutan and will become more relevant as a domestic economic policy moves to a more outward orientated economy in the near future.

The development and immediate objectives for Bhutan are rather vague and their relationship with national policy unclear. As national policies emerge, these objectives should be revisited and aligned appropriately.

Maldives

The overall project development and immediate objectives are highly relevant to the Maldives. A more developed SMTQ infrastructure will be an indispensable stepping stone for the country in making further progress from its current status of an LDC towards a middle-income country. However, the relevance of the different project components is somewhat unequal, as will be discussed below.

Nepal

Nepal is a country that is highly dependant on exports but constrained by its still very limited SMTQ infrastructure. Thus, the project is clearly relevant for strengthening Nepal's export capacity. However, in the present situation of political and socio-economic unrest and infrastructure problems (electricity cuts), the levels of industrial production and exports are constrained by a host of limiting factors other than SMTQ. Improvements of the SMTQ infrastructure will therefore not automatically lead to improved exports.

Similar to the Maldives, the relevance of the different project components in Nepal is unequal. As discussed below, a more thorough application of the "lead export products"

philosophy and a stronger involvement of private sector providers of SMTQ services could have improved project relevance.

B. Ownership

Bangladesh

Ownership of the project by its beneficiaries is rather hard to measure. There has been a steering committee meeting (Unknown, 2008) but the actual participants seem to have differed from those invited. No private sector participants attended this meeting and, as far as the evaluation team can assess, the meeting was mainly used to discuss internal BSTI issues.

The scale of benefits received from the project seems insufficient to motivate a high level of ownership and participation in Bangladesh. This is a reflection on the aid-weariness of Bangladesh rather than inadequacies on the part of the implementer. Many of those interviewed struggled to locate Market Access Phase II among the range of other donor project activities in the past or on-going. In particular, in BSTI, the distinction between what UNIDO/BQSP and UNIDO/NORAD are funding is not always clear to the beneficiaries. While this distinction is not always essential, it does make it difficult to connect activities with outcomes.

The evaluation team conclude that ownership of Market Access Phase II in Bangladesh is rather weak.

Bhutan

Ownership of the project and its outcomes at the level of individual institutions in Bhutan is quite strong. This is reflected in the fact that two well attended steering committees have already been conducted (SQCA, 2008 and unknown, 2009). Some internal confusion about who was nominally "in-charge" of the project between BAFRA and SQCA was neatly resolved by the Ministry of Economic Affairs taking over the project coordination function, thus demonstrating a degree of institutional flexibility among stakeholders.

Individual stakeholders seem poorly informed about their rights with respect to the project. This to some extent reflects the lack of experience with donor assisted programmes in Bhutan. More effort is needed to encourage stakeholders to make changes to the project logic and activities during project implementation in response to evolving circumstances and needs.

To date, there has been limited involvement of the private sector in the governance of the project. The evaluation team recommends a more active role for stakeholders in project implementation (e.g. deciding on changes in project budgets) and the encouragement of more involvement of the private sector in project governance.

In order to achieve the projects development objective there will be a need for much greater political engagement by the institutions and private sector in Bhutan to promote the issue of national quality infrastructure up the already full Royal Government of Bhutan legislative agenda.

It is noticeable that the stakeholders always refer to "UNIDO's" rather than "Bhutan's" project (see for example the minutes of the Project Steering Committee op cit). This

suggests that the project is perceived at delivering benefits rather than a shared effort to attain a specific goal. The evaluation team conclude that the mode of delivery (e.g. agency execution) is less conducive to ownership than implementation by the stakeholders themselves (e.g. national execution).

Maldives

From the beginning, political ownership of the project in the Maldives has been quite high and improved even further with the recent change of Government. The new Government gives high priority to promoting and securing fish exports to the EU as well as to consumer protection, two core areas of the project. Strengthening consumer awareness and consumer voice has become a top priority of new Government who conducted media campaigns and celebrated, for the first time ever in the Maldives, the International Consumers Day on 15 March 2009.

However, taking the frequency of project Steering Committee meetings as a proxy for ownership, the commitment seems to have somewhat decreased since the middle of 2008.

The de-facto ownership of the project is also weakened by the recent administrative changes at the MSMU. Without a significant increase in personnel, an effective project ownership will be virtually impossible.

Beneficiary companies (which are all from the fishery sector) seem to be strongly committed and recognize that the project is vital for them to secure and increase exports to the EU.

Nepal

Project ownership in Nepal seems to be mixed. Although laboratory accreditation is a declared priority of political decision makers this does not necessarily lead to a robust commitment for driving the necessary organizational change at NBSM and other Government institutions.

The envisaged strengthening of the public SMTQ infrastructure, in particular at the NBSM, will not be possible without more visible signs of ownership and commitment at the level of political decision makers and at the level of NBSM management. The non-availability of national funds for the limited yet absolutely necessary improvements of the textile laboratory premises can be seen as a sign of limited project ownership.

The ownership situation is more promising at the DFTQC, which also enjoys a stronger support by other donors.

There are strong signs of project ownership at the level of private companies that are direct beneficiaries of the project. However, the number of these direct industry beneficiaries is limited and there is no evidence for significant outreach and thus ownership by the private sector at large. The Chamber of Commerce and Industry and the Agro Enterprise Centre that is linked to it had been actively involved in the project under Phase 1. However, under Phase 2 their contribution to the project has been reduced to a representational role in the project steering committee.

C. Efficiency

Bangladesh

Implementation in Bangladesh seems to have been fairly efficient. Delays in starting certain components (e.g., product certification 1.1) mean that for these outputs there is not much activity to evaluate so an assessment of the relative efficiency of conversion of activities into outputs is premature. There is evidence that where delays have occurred, remedial action has been taken.

To date most of the activities and inputs have been delivered by the project, rather than the development partners. This will be tested by the Government of Bangladesh's commitment to re-develop the textiles laboratory (output 1.3). There is every sign that this will be completed as planned.

There has been one case of duplication of expert input explained by UNIDO management as a need to "triangulate". This was the two consultancies on equipment and design for the textiles laboratory (output 1.3) by Subramanian (2008) and Rowley (2008). The evaluation team conclude that the second expert consultation was warranted given the importance of making the right investment decisions on laboratory design and equipment procurement. On the whole, however, and with the benefit of hind-sight, the practice of getting second opinions should be avoided.

The cost effectiveness of utilising the services of the CTA is questioned. Although the evaluation team accepts that there was limited cost involved, the roles and responsibilities of the CTA in Bangladesh were not clear to the beneficiaries. In reality, the position of the CTA seems to have been honorary and the daily management and technical advice provided through the Project Manager in UNIDO HQ.

There has been some variance between actual and planned implementation. In most cases this has been addressed by project management and solutions are in place. However, in short projects, delays can lead to chronic implementation problems. In particular, the evaluation team is concerned that Outputs 1.1, 1.2, 1.3, 1.4 and 1.5 will not meet their objectives during the remaining project period because accreditation is required. This finding will be explained further below.

Expenditure of budget at the time of the evaluation seems to be on-track and as planned. Equipment has been procured and delivered, but not yet commissioned. Beneficiaries are happy with the efficiency of delivery of consultancies, study visits and equipment to date.

Commitment from the GoB has been as planned so far. Tendering for renovation of the textiles laboratory is underway giving some hope that the laboratory will be fully commissioned within the scope of the existing project, though attainment of accreditation for this laboratory within the existing time frame is doubted by the evaluation team.

Two other projects related to the project under evaluation are the EU funded Better Work and Standards project (BEST) and the proposed SAARC Regional Standards Institute. BEST will support quality infrastructure and conformity assessment in general through upgrading BSTI. Market Access Phase II is complementary to the objectives of BEST. The SAARC Regional Standards Institute project aims to harmonize quality and conformity norms within the region. This project is unlikely to impact on the present Phase of the project under evaluation.

Project coordination and management

No problems were encountered with the UNIDO functions in the project. Funds were applied in a timely fashion and UNIDO internal systems seem to have worked well.

The mode of cooperation (e.g. HQ management and regional CTA) seems to have worked reasonably well in respect to Bangladesh.

Real-time monitoring and evaluation was conducted through supervision missions and a single annotated progress report. Poor OVIs means that measurement of progress towards goals is not really possible through this mechanism.

Synergy between this project and other donor activities in the area of standards and quality are difficult to assess. There does not seem to have been any serious overlap, for example, between the activities of the EU BQSP and Market Access II, but the CTA of the BQSP complained that no formal coordination exists.

Bhutan

Implementation in Bhutan has been reasonably efficient though some components have had delayed starts (2.2, 2.4, and 2.5) or have not started (aspects of 2.1 and 2.7). In components where limited or no activity has occurred, efficiency cannot be measured. Where delays have occurred efforts have been made to correct them. Variance between planned and actual implementation leads the evaluation team to have some concerns about whether the project will attain its targets. In particular, where accreditation is a project output (2.3 and 2.4) it is felt that this is unlikely to happen within the existing project time frame.

Expenditure of budget is a little behind expectation. Some equipment delivered is not working due to faults (e.g. the pressure testing machine) or training inputs have not yet been delivered at the time of the evaluation (e.g. the HPLC at BARFA). The quality of consultancies and study visits seems to match expectations to date.

RGoB commitments to the project were entirely in kind and have been delivered as expected. SQCA has already responded to the recommendations of the weights and measures consultant (Jenkins, 2008) be relocating heavy machinery away from the metrology laboratory indicating a willingness to respond to advice.

There is very little donor activity in Bhutan. However, some overlap exists between the project under evaluation and proposals for future support to standards and testing from the Asian Development Bank. BAFRA has received support in its food laboratory from FAO, but this does not seem to be in conflict with the current project.

Project coordination and management

No difficulties were encountered with the UNIDO functions of the project. Despite some delays in locating and fielding suitable experts, this process seems to now be on-track. Equipment procurement and delivery has gone smoothly with the limited exceptions mentioned above.

The mode of cooperation (e.g., agency implementation from UNIDO HQ plus a regional CTA) seems to have worked reasonably well, though stakeholders were uncertain about the roles and responsibilities of the CTA.

Monitoring and evaluation has been conducted through supervision missions by the CTA and UNIDO Project Coordinator. One progress report exists. The evaluation team found no mission reports from the CTA.

Weak OVIs and the absence of a formal system of collecting monitoring and evaluation data means that progress report information is not particularly valid as an evaluation tool.

Maldives

Inevitably, implementation efficiency in the Maldives has been negatively affected by the extended election period and intense campaigning between August and December 2009. Throughout this entire period political mobilization at all levels has been very high. Furthermore, the subsequent change of Government and the rather profound reorganization of the national administration also had a significant influence on project implementation.

The consequences of this political change process on project efficiency are shown quite clearly by the activity level of the project steering committee, which met regularly during the period between the start of the project and the beginning of the election campaign but whose activity has come almost to a stand-still since.

Implementation efficiency in the Maldives benefits, in principle, from strong ownership by the newly elected Government. However, the commitment of the new Government not to take on new Government staff tends to aggravate the already existing staff shortages, which, together with high staff mobility, affects efficiency. The metrology component is a case in point: the metrology engineer trained under the project has left the administration and has not been replaced since months.

Another area of intervention suffering from staff shortages but also from diffuse organizational responsibilities due to reorganization of the Ministry has been the TBT Enquiry Point, which is still not fully operational.

From the above, the evaluation team concludes that, in order not to compromise efficiency, a stricter focussing of the project may be necessary.

There are signs that certain gains in implementation efficiency (and visibility) may be possible through better coordination between UN agencies. As regards the project component at MFDA there is some overlap between UNIDO activities at the chemical laboratory and the inspection services and related WHO interventions. Some of the laboratory equipment (PCR unit) is currently located at the microbiological laboratory, which is also supported by WHO. Furthermore, MFDA would like to use the same accreditation body for both laboratories. Last but not least, the discussion of the Evaluation Team with UNDP indicated that UNDP was not fully aware of UNIDO interventions and would be interested in sounding out opportunities for future cooperation.

Nepal

In Nepal, public and economic life is profoundly affected by the revolutionary process the country undergoes since a number of years. Although this process has slowed down since the change of government, it is still ongoing and affects project efficiency indirectly and directly, e.g. by extended power cuts.

The implementation of the project in Nepal has been suffering from significant delays of some of the project outputs, in particular those related to NBSM. For some of the major project outputs implementation activities are yet to be started.

The project management structure is relatively well established and efficient because the local project coordinator in charge of the larger EU funded project is also intervening in the day-to-day management of the project under evaluation. However, this arrangement is informal and the project coordinator is lacking formal empowerment.

There seems to be some scope for improving implementation efficiency through cooperation between UN Agencies, in particular in the area of SA 8000 and OHSAS, where ILO has a mandate and seems to be relatively active. While UNIDO's recent move into the borderline area of social standards is relevant and justified, implementation efficiency in this area does depend on good coordination with other UN Agencies, in particular ILO.

The contribution of the Delhi based CTA to project management has been relatively modest. He visited the project twice, both times together with the UNIDO project manager from HQ. Intermittent visits of the CTA and the project manager would have increased the frequency of visits and it is not clear why such an approach has not been adopted. It appears that the contribution of the CTA has been more of a conceptually and advisory nature, while the project would have benefitted, not only in Nepal, from a more hands-on approach of the CTA to project management and monitoring.

D. Effectiveness

1. Bangladesh

The effectiveness of each individual project outcome is considered below.

1.1 Product certification complies with ISO Guide 65 and is internationally accredited

BSTI issues 12,000 product certificates as officially licensed products and 152 mandatory product certificates. There are a number of structural and political problems with the current product certification system that need to be addressed. For example:

There is confusion between the application of voluntary and mandatory product certification with a high potential for conflicts of interest in the existing system.

- Audit of certification is only conducted internally. International best practice requires external audit.
- There are no technical committees to validate the certificates issued. This means that technical regulations are enforced rather than voluntary standards implemented.
- The current laws for product certification do not include using external auditors or the mandate to promote standards.
- The Certification Mark Wing of BSTI has no guidance documents or internal rules on how to implement the existing product certification system. This leads to confusion between voluntary and mandatory certification.
- The existing legal environment for product standards is in contravention of the TBT Agreement by mixing voluntary standards with mandatory technical regulations.

In practice, this means that BSTI is a regulatory agency that sells standard certificates and fines those that are non-compliant, and not a conformity assessment body. The net effect of this is that BSTI regulates approximately 6 million Small and Medium Enterprises and 2,000 large enterprises. Currently, product certification earns BSTI approximately USD2.8 million a year (BSTI, 2007:39), of which 40% is distributed to BSTI staff as a bonus payment, a disincentive to reform. Many license fees are collected as royalties effectively taxing private enterprise for market access. Surveillance for the 12,000 existing product certificates should be twice a year, but this is almost impossible with only 17 current inspectors.

Box 1: The mathematics of product surveillance – Bangladesh white bread standards

Bangladesh currently has 12,000 licensed white bread producers who have purchased a product certificate from BSTI. Each certificate is guaranteed to be given to a new baker within four days. There are presently 17 inspectors responsible for issuing and surveying these licences throughout Bangladesh. In reality, licenses are issued and renewed almost entirely without surveillance.

Source: Interviews

Given these structural problems with the Bangladesh product certification system, it is not very surprising that other countries do not recognise Bangladeshi product certificates. These issues should have been discovered during project design and Phase I. Achievement of the outcome for this component (e.g. Accreditation of BSTI product certificates) will, in the view of the evaluation team, not be possible without reform.

1.2 Plan developed to control substandard and hazardous imported products

Recent food (melamine in baby formula) and feed (anti-biotics in shrimp feed) scares have highlighted the importance of this component of the project. The area is not covered by any other existing or proposed donor support project.

Progress to date has been acceptable: the expert has been fielded and has developed a cost proposal for further investment (Dauthy, 2008a). However, there is no clear plan from GoB how they will go about implementing the Dauthy recommendations. A key threat to work in this field is the weakness of the existing surveillance system for substandard and hazardous imports. This will need to be strengthened and placed in an appropriate policy and legal framework before further investment.

This finding suggests that there is a need for further support in the area of substandard and hazardous products, but this should only be done if GoB is committed to implementing a proper surveillance system.

1.3 Textile laboratory accredited to ISO 17025

This activity seems to be on track. The equipment needs have been identified and procurement undertaken or underway. The equipment cannot be commissioned until BSTI have renovated the proposed textile testing laboratory to the necessary standards as per Rowley (2008). The tender specifications have been amended for the renovation and for the crucial climate control infrastructure. The evaluation team were assured by GoB that these activities would be completed in 2009. However, the evaluation team were informed by other sources that the tender process for renovating the laboratories is in trouble and that two tenders to date have failed to find a suitable supplier. Delay in completion of the renovation may cause the component to fail.

The customer base for a textile testing laboratory in Bangladesh is about 5,000 clothing and textile companies. There are already two private testing laboratories servicing these companies. Many firms have in-house testing or use foreign testing facilities.

The strategic purpose of the national textiles testing laboratory at BSTI is unclear to the evaluation team. BSTI were unable to explain how the laboratory would complement (as opposed to replace) private sector textile testing, except to provide the same service at a lower cost. Given the inherent incentive in the BSTI's present structure for earning income from mandatory testing, the evaluation team are concerned that, once commissioned, the textile testing laboratory might become a *de-facto* monopoly and barrier to trade, rather than a support as proposed. Undertaking the needs/market assessment after the investment is, in the view of the evaluation team, sequentially wrong as it risks providing services that are not needed or encouraging mandatory tests just because the capacity is present.

With respect to accreditation of the laboratory to ISO 17025, the evaluation team notes that a) this is not currently possible because there is no traceability to suitable sources for the calibration of any of the existing or proposed measuring devices in the laboratory because the Industrial Metrology Laboratory is itself not accredited; and b) given the need for mutual recognition in ISO 17025 the time span from commissioning of the laboratory until the end of the project is probably insufficient.

Whilst GoB has full confidence in the ability of UNIDO to procure the correct specialist equipment for them, there has not been any involvement of the local staff in the selection and procurement process. The evaluation team recognises that this is difficult to achieve, but also would like to see equipment procurement as a mechanism to encourage greater involvement of GoB staff in the maintenance of its equipment ex post.

BSTI has no central maintenance cell for its specialist equipment, so effectively all staff must to be instrument technicians. This means that there is no coherence across the institution in procurement policies (e.g. everybody gets machines that have common spares suppliers), commissioning, maintenance plans, warrantee management or even keeping centralised copies of manuals.

1.4 Between 15 and 20 auditors trained for ISO 22000 and two companies certified; 200 companies aware of WRAP and OHSAS 18000

To date 60 individuals have been made aware of ISO 22000 and 19 given stage one ISO 22000 auditor training, of which 10 passed (an acceptable ratio).

The market for ISO 22000 certification is unknown. There are currently 90+ firms producing and exporting frozen food in Bangladesh, but the total potential market is likely to be much larger.

Several BSTI staff from different technical wings such as metrology, certification and standards, seem to have attended more than one of these awareness training activities and ISO courses. Indeed, the project has trained Ministry of Industry officials as ISO 22000 auditors. The evaluation team question the benefits from training officials who are not directly involved in the technical area of the training. There seems to be no central mechanism in Bangladesh for recording which officials have received which training. This leads to duplication.

The evaluation team recommends that BSTI should keep a central record of training received by each staff member and make this available to donors.

Companies visited who are receiving support to achieve ISO certification were clear that attaining this level would enhance the potential for market access. However, there are currently no plans in place for the auditors trained to be raised to lead auditor status by attending five audits as an assistant auditor[5]. Until this is achieved the outcome will not be attained.

The evaluation team note that more care needs to be taken to ensure that those receiving training are those that will apply it and recommend, during the remaining project period the auditors already trained be raised to lead auditor status. However, this should be dependent on GoB undertaking to maintain the lead auditor status of these staff *ex post*.

The Bangladeshi's elected not to have the OHSAS 18000 awareness training (occupational health) as this is considered un-necessary for smaller companies to attain market access.

World Wide Responsible Apparel Production (WRAP) awareness training has been conducted in Chittagong and Dhaka (a total of 135 participants). The market for WRAP certification is unknown. Bangladesh has 4 million garment workers who might be possible beneficiaries of compliance with private social standards of buyers.

1.5 Management System Certification Body Accredited

This component started late but several missions have already been completed (Sohrab, 2008). Action plans and manuals have been developed. A study tour to SIRIM, Malaysia has been completed but the evaluation team struggled to understand what the staff involved had really learned from this mission, particularly as both staff members seemed unaware that for firms to achieve ISO 9000 traceable calibration of instruments would be necessary and this is currently not possible in Bangladesh[6].

The general view of the private sector representatives in Bangladesh interviewed during this evaluation was that management certification would be better done by the private sector and BSTI should avoid it because its income earning potential will distract resources from areas of need. The failure of BSTI to apply ISO 9000 principles to its own management structure is a concern to the evaluation team and begs the question how can BSTI certify private companies management standards when it does not apply these to itself.

In order to accredit management system certificates, BSTI needs legal authority and the Bangladesh Accreditation Board (BAB) has to be set up as a fully independent legal entity. This is not currently the case, so certificates from this body would not be recognised internationally.

The evaluation team are concerned that BSTI might take the opportunity presented by ISO 9000 certification to control this potentially lucrative activity for itself. A monopoly for

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[5] Achieving full Lead Auditor status requires several stages (see http://www.irca.org/certification/certification_1_1.html) and a commitment to maintenance of the status through continued audit experience and payment of annual fees.

[6] Nb: It is the view of the GoB that full instrument traceability for calibration is not necessary because their near neighbour, India, allegedly achieved accreditation without it.

BSTI in ISO 9000 certification would not be in the interests of the Bangladesh private sector and should be avoided.

There are currently 15 multi-national companies based in Bangladesh supplying management certification. The project has not conducted any survey of the existing supply and demand for management certification services.

Other donors are also active in this area. See for example training courses provided to the private sector by the SouthAsia Enterprise Development Facility (SEDF, 2009).

In the view of the evaluation team, it is highly unlikely that the BSTI will achieve accreditation for Management System Certificates by the end of the project.

1.6 About 50 managers from industry trained in quality improvement tools and techniques

This component proposes to raise awareness among the private sector of modern quality improvement tools by setting up a short-course in an established in-service learning institute. The activity has not yet started, but a suitable institute to host the course, the Bangladesh Institute of Engineers Engineering Staff College, has been identified.

Industry in Bangladesh definitely needs to use modern quality improvement techniques to remain competitive and this has been recognised by other donors (SEDF, 2009). The institute identified seems appropriate. The demand for quality improvement tools, however, has not been quantified.

Other suppliers of these services located by the evaluation team include: 'DNV limited', 'Bureau Veritas' and 'TUV Limited'. The team were informed that several other quality institutions and forums are present in Bangladesh. Some quantification of the demand for quality improvement tools by focus industry is needed to ensure the sustainability of the curriculum and courses developed.

2. Bhutan

The likelihood of effectively achieving project outcomes is considered below.

2.1 Capability built in the standards cell for adoption of standards and WTO TBT Inquire Point/Standards Information Centre strengthened

In order for producers in Bhutan to meet the standards of third countries they need to a) know what those standards are; and b) have local standards that are accepted internationally. This component responds to the absence of this facility in Bhutan.

It is the view of the senior management of SQCA that several conditions need to be met for the outcome of 2.1 to be achieved. Firstly, they wish to have a clear legal mandate to set and apply standards. This will not be possible until the standards bill passes parliament. The evaluation team were unable to get a hard-and-fast timetable for this and are concerned that in the heavy legislative programme that faces the new Bhutanese government it might be severely delayed. The act is being promulgated by the Ministry of Works and proposes an independent standards institute under its remit. I would be better if Bhutan's standards institute came under the Ministry responsible for industrial and trade policy. Progress on setting and applying standards will not be made until this condition is met.

A second condition is that Bhutan joins the WTO and therefore uses its TBT Inquiry point. The evaluation team was impressed by the enthusiasm of the staff involved with this activity that are well prepared to undertake it if and when Bhutan becomes a WTO member.

The evaluation team recommends that the assumptions of this component should be adjusted to include the current promotional assumption as an activity and development of legal and institutional frameworks as a risk.

The TBT Inquiry Point has yet to be interrogated by the public. More needs to be done to make firms aware that the service is available.

2.2 Plan developed to control substandard and hazardous imported products

The consultancy in this area has highlighted Bhutan's lack of preparedness for managing imports of substandard and hazardous products (Dauthy, 2009b). The report contains an elaborate plan for developing a system to protect Bhutan. However, nobody in RGoB seems to know what to do next.

The evaluation team recommends that the Dauthy plan for managing substandard and hazardous imports be developed into a funding proposal for either RGoB or a suitable donor.

Other stakeholders in the project (SQCA) complained that they had not seen the Dauthy report and this raises the issue of sharing technical information within the project. It is recommended that in future all project partners should receive all expert reports.

2.3 Legal and industrial metrology laboratory established

The evaluation team could not find any evidence of comprehensive needs assessment for metrology against which impact might be measured in future. For example, an inventory of laboratories needing calibration services, list of firms with weighing scales and list of government measuring devices might have been useful.

ISO 17025 accreditation for various metrology scopes requires annual audit. SQCA are not informed about the likely cost implications of having many scopes that need regular audit and expensive calibration of equipment.

SQCA have assigned staff and renovated a suitable space for a metrology laboratory. Equipment for calibration of length, temperature, volume, mass, pressure and eveness has been procured and commissioned. The five staff members of the nascent metrology cell have received expert training in how to use the equipment provided.

Notwithstanding, it is the view of the evaluation team that SQCA are still far from achieving the target of ISO 17025 accreditation and undertaking field validation and surveillance. The management of SQCA is reluctant to undertake any field work until the legal status of metrology is properly defined. At present, in order to undertake field inspection activities, SQCA staff must be accompanied by inspectors from the Ministry of Economic Affairs.

As mentioned above, SQCA have some concerns about some of the equipment. The pressure testing device does not work. Mr Vellingiri has informed them verbally that the volume measures lack internal scales and are therefore not usable, but this is not

mentioned in his report (Vellingiri, 2009). The staff do not know what the purpose of the "flatness" measure is. Several of the machines do not have warrantees (e.g. the temperature device), or if they do, SQCA do not have copies. A number of the calibration certificates for the equipment provided are already out of date and SQCA are uncertain how to get them renewed. In some cases the calibration instruments were purchased without calibration certificates (see Vellingiri, 2009, Annex 3).

The real problem that needs to be overcome is persuading SQCA staff to open up their services to the market. They seem very nervous to do this and are requesting that they have hands-on training in a working metrology laboratory before they start to practice in Bhutan.

The evaluation team consider it highly unlikely that a credible, functioning legal and industrial metrology laboratory will be established, accredited and operational by the end of the project. Part of the problem is absorption and the time it will take to put in place the institutional and legal changes necessary. Practically, even if the proposed schedule is adhered to and other legal and institutional problems are overcome, laboratory inter-comparisons will not be complete by the schedule project end date.

SQCA have requested a consultant to assist them with developing the proposed Weights and Measures Act that will enable legal metrology in the domestic market.

2.4 Food testing laboratory of BAFRA strengthened and accredited

An HPLC machine has been procured and commissioned for the BAFRA food laboratory. It is not particularly obvious what export food safety issue this machine is meant to address (pesticide residue issues are assumed). This machine and various other equipment was procured on the basis of Saxena (2004) who recommended a capacity be developed for testing for food additives on the basis of visits to a number of laboratories.

BAFRA have developed a maintenance plan for the HPLC. They have also included an item in their recurrent budget for consumables. The warranty on the machine, however, is only for one year. BAFRA would have liked to have paid themselves to extend this, but were not given the opportunity by the UNIDO procurement system.

The evaluation team recommends that UNIDO should give stakeholders the option to extend their warranties if they so wish.

Box 2 indicates the number of existing High Performance Liquid Chromatography (HPLC) machines in Bhutan identified during the evaluation mission and their current status.

Box 2: Rapid survey of existing HPLC's in Bhutan

Location	Status
BAFRA (FAO)	Working
BAFRA (UNIDO)	Working
National Environment Commission	Still in box
Institute of Traditional Medicine	Working
Ministry of Health	Working

Source: Interview with BAFRA staff

Since Saxena (2004) clearly surveyed existing laboratory services in Bhutan before the decision was made to purchase an additional HPLC for BAFRA it has to be assumed that the other machines have been supplied subsequent to that mission. The Saxena report makes no assessment of the number of samples required per year by government or private sector in order to achieve market access and pays only cursory attention to the size of the market to be addressed with the service. It also fails to mention any aspect of sustainability of the equipment once purchased.

The evaluation team were informed that the current market (customer base) in Bhutan for food testing services is two companies; 'Agro Industries' and 'Bhutan Foods'.

The staff of BAFRA (like the staff of SQCA), complain that they are unsure what the day to day duties of a food safety laboratory are. They would like to spend some time embedded into a working national food safety laboratory to get some ideas about what they do.

2.5 Fifteen auditors trained on ISO 22000, and enhanced HACCP and ISO 22000 auditing capacity through certification of two food processing units for each of the above standards

ISO 22000 awareness training (53 participants) and lead auditor training (20 participants – 14 passes) has been conducted. Since there are no existing lead auditors in Bhutan, the mandatory five audits required by a trained auditor to achieve lead auditor status will have to be conducted in a third country. Presently there is no plan to do this.

So far two companies in Bhutan have achieved HACCP certification (under Phase I of the project). Only one of these companies is interested in ISO 22000. The other company, Agro Industries, observes that their customers do not require it.

A survey of the food safety certification needs of industry in Bhutan might have been usefully done at the beginning of this project to assess the scale of demand for this service.

2.6 Awareness created about SA 8000 and OHSAS 18000 standards

So far two awareness training sessions for SA 8000 (social accountability standards) have been conducted. This activity was identified by UNIDO and was considered "not particularly useful" by both government and private sector participants interviewed by the evaluation team. This reflects the very low level of industrialisation and export in Bhutan. The stakeholders are not particularly interested in OHSAS 18000 (occupational health and safety) and would rather reallocate the resources to something else.

The evaluation team recommends that remaining activity 2.6.2 should be cancelled and the resources reallocated elsewhere.

2.7 About 20 to 30 managers from industry trained in quality improvement tools and techniques

The purpose of this activity is to develop a capacity within Bhutan to provide industry with short-courses on modern quality management tools and methods. The plan is to do this through the Royal Institute of Management (RIM), the in-service training college of RGoB. At the time of the evaluation mission, this component was still under negotiation. The Director of RIM is particularly unhappy that UNIDO have negotiated an outline agreement for them to deliver the training without consulting him. The evaluation team accepts that UNIDO acted in good faith and that this is an internal RIM issue that will resolve itself in

time. However, it does raise the problem of how training establishments are approached and encouraged to provide technical courses in support of quality projects. For example, it cannot be assumed that all training institutes will accept new short-courses as part of their training offer, especially when the subject is new and not clearly aligned to existing courses. Some element of market research is needed before offering new courses to industry and this was missing from this component.

Where UNIDO wish to develop training capacity in-country a pro forma memorandum of agreement should be established to clarify roles and responsibilities for future delivery of the training. A training needs assessment should have been included as an element of this activity to assess the likely demand for training.

3. Maldives

The likelihood of effectively achieving the intended project outcomes is considered below.

3.1 Capability built in the standards cell for adoption of standards and WTO TBT Enquiry Point/Standards Information Centre strengthened

Due to staff shortage at the MSMU, the action plan developed by the international project expert has not yet been implemented. The Government has not yet notified the TBT Enquiry point to the WTO. Thus, formally speaking, the Maldives do not yet have a functional TBT Enquiry Point. However, it seems that enquiries have been dealt with on an ad-hoc basis at the International Trade Policy Division of the Ministry. More recently, it has been decided to transfer the responsibility for the TBT Enquiry Point to the MSMU but this decision remains to be implemented.
The merger of the TBT Enquiry Point with the one-stop-information point for Maldivian companies has merits. However, there is evidence that Maldivian companies do not make significant use of this information unit.

3.2 Plan developed to control substandard and hazardous imported products

The mission of the international expert dealing with better control of substandard products was visible and contributed to building awareness of the shortcomings of the current control system. The Steering Committee appointed MFDA for follow-up of the action plan developed by the international expert but there are no signs that this action plan is implemented in a structured manner. A status report on implementation progress is not available.

In the UN system, food import control comes largely under the responsibility of WHO, which also provided assistance to the Maldives in this area. For example, the food law is currently being drafted in cooperation with WHO. In the absence of such a law, effective food import control is difficult, although the consumer protection law and/or the import/export law could be used as a legal basis. Better coordination of this component with WHO would have been an advantage.

3.3 Legal and industrial metrology laboratory established

The legal and industrial metrology labs set up under the UNIDO project are both located in one room at the Ministry. This room is air-conditioned and suitable as an ad-hoc solution. Equipment for length, weight and volume are functional. Other equipment (for pressure and temperature) is not yet functional. The laboratory is staffed by 3 W&M inspectors from the former Eights and Measures service who have been in this job since

more than 20 years. The only person with a higher qualification suitable for a national metrology laboratory has been a young metrology officer who was trained by the UNIDO expert. However, this person left the Ministry some months ago.
Accreditation of the laboratory is envisaged. However, accreditation is not explicitly mentioned in the project document and no agreement exists yet on the scope of accreditation. An analysis of metrology needs has not been carried out and statistics on provided calibration services are not available. MSMU submitted a sustainability plan but much of the data seems to be lacking or unrealistic.

It appears that, in the Maldives, an effective legal metrology and Weight and Measures service is virtually non-existing. Moreover, services seem to have gradually deteriorated over the years. Reportedly, there were 10 inspectors for 500 shops 30 years ago. Today there are 3 inspectors for 3000 shops. In practice the Maldives do not have an operational Weight and Measures system. There is no verification but only on-demand calibration.
The new Minister declared consumer protection and legal metrology a priority and plans to establish decentralized services in seven provinces. It is questionable whether, under these conditions, accrediting the metrology laboratory is a political priority. Sri Lanka could be quoted as a country with a much more advanced NQS than Maldives although its national metrology laboratory is still not internationally accredited.

3.4 National food testing laboratory of MFDA strengthened and accredited

The national food testing laboratory consists of a micro-biology and a chemical laboratory. With some initial assistance by WHO the former has already achieved accreditation by the National Accreditation Body of Thailand and MFDA is highly interested to use the same Accreditation Body for accrediting the chemical laboratory, which is being supported under the UNIDO project. There is at least some scope for further coordination between WHO and UNIDO.

The quality system of the chemical laboratory is under development. Quality Manuals are available, validation procedures are underway and the accreditation scope of the chemical laboratory has been agreed. An internal information system that would allow monitoring cost coverage of testing services is not yet in place.

Many but not all laboratory testing services for fish products required by the EU are available. The laboratory covers 32 of the 42 parameters that are required by parts B and C of Directive 98/83/EC of the EU regulating water testing for fish production. The remaining tests have to be carried out abroad (e.g. at the ITI in Sri Lanka).
Despite the obvious shortage of experienced laboratory staff and significant turnover of staff at technical and middle management level it is not unrealistic that the accreditation of the food laboratory will be reached during the duration of the project.

3.5 Awareness created among personnel involved in fish harvesting about Good Hygiene Practices (GHP) and quality of fish products improved in the supply chain

The mission of the UNIDO fishery expert produced considerable awareness at policy level. Although the expert did not conduct a full-fledged organizational audit of the MFDA the report highlighted deficits with regard to staffing level, training and organizational structure. The expert report makes detailed recommendations for improvements and includes an ad-hoc action plan with milestones elaborated by the expert in collaboration with MFDA; MOFA and MED. However, there is no evidence yet of a regular follow-up of this plan. The key message from the report is that *"the poor level of official food control*

activities and procedures represent the single greatest threat to the health of the fish export industry and consequently the industry as a whole." The State Minister of MOFA is determined to implement, wherever possible, the main recommendations of the report by the end of 2009.

The expert carried out a training-of-trainers seminar and some training activities among fishermen seem to have started already. However, ice distribution for fishermen, promotion of cooling systems for fishing vessels and improving the cooling facilities at the airport are major issues that are highly relevant for improving the quality of fish product in the supply chain but beyond the outreach of the project in its current definition.
The expert report recommends that UNIDO considers providing further TA to the Maldives authorities under the following two objectives:

Proper establishment of a fully functional and competent MFDA;

- Strengthen the Maldives Seafood Processors and Exporters Association so that it can sustainably address seafood business and market issues and opportunities independently

- While it is not clear whether the MFDA management buys into these recommendations, the Maldives Seafood Processors and Exporters Association seems to be actively promoting the recommendations of the report

According to the discussions of the evaluator with the WHO representative some overlap exists between UNIDO and WHO activities (WHO supports MFDA with developing its inspection and certification service).

3.6 Fifteen auditors trained on ISO 22000 and capacity built for certification and two fish processing units certified

Under Phase I six fish processing companies were certified (2 in ISO 9000; 2 in ISO 14000; 2 in HACCP). They seem to be satisfied with the results and most of them continue to carry out compliance audits at their own cost. However, there has been no replication of ISO certification by other companies.

A total of 52 participants (the majority from the fishery industry) attended the 2-day awareness seminar on ISO 22000. Positive assessments by participants. Suggestions for possible improvements: Less packed curriculum; longer duration; visiting real case; better focus on fishery industry). 20 participants attended the 5-day ISO 22.000 auditors training course (most of them had already attended the awareness seminar in June) and 17 participants passed the exam.
The interest in ISO 22.000 certification is unexpectedly high. 8 fishery companies are committed to participate in ISO 22.000 certification activity of the project at their own cost. All of them are fish exporters. MED attempts to also motivate companies from the domestic food sector were not yet successful. The initial project target of certifying 2 fish processing units only will have to be revised.

3.7 Awareness created about OHSAS 18000 standard

Three OHSAS 18001 Awareness Seminars are planned to be conducted during 2nd/3rd quarter of 2009. Under the new Government, adoption and reinforcement of ILO Health and Safety regulations has been given political priority. The Maldives have joined ILO only recently and an exposure to OHSAS appears to be appropriate and timely.

4. Nepal

The likelihood of effectively achieving the planned project outcomes in Nepal is considered below.

4.1 Product certification system of NBSM complies with the ISO Guide 65 and is accredited internationally

The NS product certification scheme covers 55 different types of products. To date, NS product certificates have been granted to 126 companies. The annual fee amounts to 16.000 NRs for medium/large and to 6000 NRs for small companies. While the product certificate is in general voluntary, it is mandatory for construction material such as cement; steel bars; corrugated sheet metal and galvanized iron wire as well as for dry cells and batteries and LPG gas filling stations. Licensing of food products and food companies comes under the food agency DFTQC but, in principle, NS certificates can also be granted for food products.

The NS product certificate seems to be credible on the national market. Companies interviewed by the evaluation team reported that the certificate is becoming more and more a sales argument, in particular for quality conscious middle-class consumers. There is some anecdotal evidence that the credibility of the mark on the national market could be strengthened but the main problem seems to be that the NS certificate is not recognized abroad. MRAs with India and China exist but with reservations. NBSM is alerted by the fact that, in recent years, the Indian Standards Institute is penetrating the Nepalese market with its own product certificate (e.g. for PE pipes; wood panels; corrugated sheet metal sheets).

Under Phase I first steps towards accreditation were made. A UNIDO consultant prepared, together with NBSM staff, a Quality Manual, guidelines and SOPs. However, three years after the production of the QM, no further steps towards accreditation have been made. None of the necessary committees were set up and an authorized signatory for the product certification scheme has not yet been appointed. The NBSM director under whom the first steps towards accreditation of the product certification scheme were made retired in fall 2008.

The list of activities for this output in the project document is confusing and quite some time has been lost with finding an agreement on the international expert to be contracted under Phase II for supporting NBSM with the accreditation of the product certification scheme. The position of the current manager of the product certification scheme seems to be that implementing the already existing QM would not be a problem and that NBSM should start such implementation first and then proceed by launching an internal audit with the assistance of an international expert to be provided by UNIDO.
Overall, the effectiveness of this component is rather low. The evaluation team found that substantial organizational development efforts on the side of NBSM will be necessary to assure compliance with ISO guide 65 and ultimately reach the accreditation objective.

4.2 Plan for quality control of imported goods developed

Assessing the effectiveness of this component is not yet possible because work has only just started.

4.3 Textile laboratory of NBSM strengthened and accredited

The objective of accrediting the NBSM textile laboratory will face a number of challenges:

Upgrading the textile laboratory will require refurbishing; partitioning; air conditioning; etc. The project document does not mention these requirements and, after lengthy discussions, UNIDO accepted financing this part of the work in fall 2008. The problems with country-wide power cuts remain and should be taken into account when planning the equipment.

Laboratory staffing is challenging because the only textile engineer at NBSM left the institute in 2008. Assuming that accreditation of a textile laboratory will require the availability of at least one textile specialist, hiring a textile engineer by NBSM is a prerequisite for accreditation. NBSM management seems to be sceptical whether this will be possible because young qualified professionals in Nepal do not seem to perceive NBSM as an attractive employer.

Because the textile laboratory depends on the chemical laboratory for certain critical tests (e.g. fibre composition; dye testing) the accreditation of the textile laboratory alone would not solve all pressing problems. The accreditation scope is still to be defined.
Given the non-availability of statistics, the reliability of the "sustainability plan" seems to be questionable (see below under "impact"). NBSM in general and the textile laboratory more specifically did not yet engage in developing a business plan or funding model similar to DFTQC (see below under outcome 4.4).

4.4 Food laboratory of the Department of Food Technology and Quality Control (DFTQC) strengthened and accredited

In February 2009, the DFTQC laboratories moved to the new laboratory building that is also equipped with a 50 kVA diesel generator. At the moment of the evaluation, the laboratories and the generator were not yet operational. Construction works are still underway; floors, partitioning, water taps, air conditioning, etc are to be redone. There is an urgent need for securing good working conditions of the newly delivered laboratory equipment, which may be at risk due to ongoing construction works.

The accreditations of the chemical and the microbiological laboratory come under two different projects. Accreditation of the latter is covered by the EU-Nepal WTO Programme and is still in its initial stage. The chemical laboratory comes under the project under evaluation and is more advanced.

The Quality Manual prepared under Phase 1 is being implemented and a Quality Manager has been appointed. 13 to 15 parameters are envisaged for accreditation (accreditation of contamination tests are envisaged for later stage). Prospects for successful maintenance are relatively good because UNIDO and DFTQC deliberately opted for equipment from a locally represented manufacturer.

Sustainability prospects are further improved by the laboratory business plan that DFTQC submitted to the Ministry, which will involve the creation of a fund allowing DFTQC to withhold 60% of income from laboratory and quality certification services. It is planned to offer regular and fast track services at different fee rates. Detailed annual reports with laboratory testing data are available.

Box 3: Honey exports from Nepal: SMTQ and Value Chain

The adoption of a National Residue Monitoring Plan for honey has been on Nepal's national policy agenda for quite some time. A significant step forwards was made in March 2009 under a project that is jointly implemented by GTZ and PTB. A seminar organized by an international expert for honey quality from the leading German honey laboratory *Quality Services International* enabled DFTQC to submit a draft plan to the EU Commission with the aim of being recognized as "competent authority" for honey. A DG SANCO inspection mission is expected before the end of 2009. Prospects that the National Residue Monitoring Plan for honey can be achieved are bolstered by the development interventions of the GTZ/PTB project along the value chain for honey and a programme with WHO aiming at strengthening DFTQC inspection services and strengthening QMS in various food industries. It should be underlined that UNIDO is widely recognized for its competence in cluster and value chain projects but has been unable to mobilize this experience and know-how under the SMTQ project in Nepal.

Source: Interviews with DFTQC and GTZ

4.5 Between 15 and 20 auditors trained for ISO 22000 Food Safety Management System and two companies certified

17 out of 20 participants passed the final exam, corresponding to a 85% success rate. The training was limited to DFTQC, NBSM and industry staff. Private consultants providing support to Nepalese industry with implementing QMS were not admitted.
DFTQC selected two pilot companies for ISO 22000 certification on the basis of UNIDO criteria (previous QMS experience; export potential; ability and commitment to invest). Unlike Phase I, business representatives (FNCCI; Agro Enterprise Centre) were not involved in the identification of these pilot companies and the selection process was not entirely open and transparent (no public call in the national press).

The Evaluation Team visited the selected pilot companies. Both seem to belong to the very top level of Nepalese industry and are highly motivated. Prospects that certification can be reached during the duration of the project are good. However, a certain number of questions arise with regard to broadening the dissemination of the experience towards a larger number of more "average" Nepalese companies (see below under impact).

4.6 Management System Certification Body of Nepal accredited

NBSM acts simultaneously as the secretary of the national accreditation body NEPLAS, as the NS product certification scheme and as a QMS certification body. This accumulation of functions constitutes a conflict of interest, which remains to be solved by implementing the new Accreditation Act. The Management System Regulation under the NBSM Act remains also to be implemented.

The NBSM Quality Manual and procedure manual are available and NBSM has developed an action plan, together with the international expert. However, various necessary committees remain to be appointed. No market analysis has been carried out to date and no promotion or marketing plan has been developed yet.

As long as the potential for conflict of interest is not clarified and resolved, the prospects for achieving the accreditation objective are mitigated. Furthermore, there are questions with regard to the potential impact of this outcome on the National Quality System and on Industry (see below under impact).

4.7 Awareness created about SA 8000 and OHSAS 18000 standards

Awareness about the Social Accountability standard SA 8000 has been created by two seminars. The seminar on the Health & Safety standard OHSAS 18000 is planned for 2009. There is no evidence for outcome or impact beyond awareness creation.

4.8 About 25 managers from industry trained in quality improvement tools and techniques

NBSM proposed the Lalitpur Valley College of Tribhuvan University in Kopundole as counterpart organization for the organization of the training courses in quality improvement and techniques. UNIDO is to come up with MOA and TORs for the envisaged Japanese partner organization.

E. Impact

Bangladesh

Given that many of the components in Bangladesh have only started in 2008 it is not yet possible to quantify impact. The evaluation team judge that significant impact is possible in Bangladesh, but far from assured, given some of the strategic and structural issues outlined above. Moreover, the means to verify impact is not currently in place. For example, how will impact be measured for ISO 22000 training for food companies if no data is available to ascribe market access to achieving market standards and subsequently to value that impact in real terms.

For several of the components in Bangladesh, accreditation is the key to impact. The evaluation team agrees that targeting accreditation and suitable certification of conformity is likely to result in significant impact in terms of saving market access, gaining competitiveness or reaching markets through compliance. However, more baseline data would be needed to draw a direct link between project activities and success in attaining the project development objective for Bangladesh.

UNIDO has prepared an action plan for the remainder of the project (Padickakudi, 2009), a laudable initiative. However, as explained above, there are a number of structural changes needed in BSTI if accreditation and certification is to be credible. The evaluation team are concerned that some of the outputs (e.g. 1.1, 1.2, 1.3, 1.4 and 1.5) might lead to rent seeking and monopoly activity by BSTI under its current legal status and management regime.

Bhutan

Many of the components of the Bhutanese project were late starters making impact difficult to assess. It is the view of the evaluation team that several components will not achieve their targets within the existing project time frame and resources (2.1, 2.2, 2.3, 2.4, and 2.5). This is due both to issues outside the projects direct control (legal and institutional change) and the limited absorption capacity of beneficiaries, particularly when it comes to attaining laboratory accreditation for certain scopes.

In the absence of needs assessment and baseline information in Bhutan, impact cannot be assessed. However, there is no doubt in the mind of the evaluator that many of the project components will have important economic consequences should Bhutan continue opening its economy. Simply calibrating the country's tyre pressure gauges and persuading road

users to regularly check tyre pressure (for example) could significantly reduce the national fuel import deficit. At the moment, there are no tyre pressure gauges in Bhutan's garages and nobody is aware of the relationship between optimal tyre pressure and fuel efficiency. Credible legal and industrial metrology should be a national priority.

Nepal

The current socio-economic framework conditions in Nepal are not very conducive to achieving the expected impact "to facilitate the industrial development and export capabilities of Nepal".

Textile testing

The potential impact of the potential accreditation of the NBSM textile laboratory should be seen in the context of the decline of the Nepalese textile sector since a number of years. Exports of readymade garments have come down from 12 billion Rs in 2002 to 3 billion Rs in 2008, woollen carpets from 10 billion Rs in 2000 to 6 billion Rs in 2008 and "pashmina" (cashmere) products from 4 billion Rs in 2000 to 1.3 billion Rs in 2008.

Box 4: The limitations of a quality centred approach to export promotion

The decline of Nepal's textile exports seems to result from a combination of different external factors such as political conflict, end of the Multifibre Agreement and difficulties coping with counterfeit and changing fashion trends in the carpet sector. Quality related issues may also have played a role but there is no evidence that these reasons were decisive. The decline of carpet exports occurred despite the apparently successful upgrading of the carpet-related testing capacities (azo-dye testing) at the NBSM textile institute under a development project supported by Finland between 2002 and 2005. It appears that counterfeiting of Nepalese carpet designs abroad and inability of the Nepalese carpet industry to cope with changing market trends have been the prime causes behind the decline of Nepalese carpet exports. The case of Nepalese carpet exports could be considered anecdotal evidence for the limitations of a "conformity" centred approach to export promotion.

In the case of "Pashmina" (cashmere) products, the relevant trade association seems to have drawn lessons from the carpets case. Mandated by its 160 members and supported by the Government this association has engaged in a multi-facetted promotion approach combining quality, marketing and Intellectual Property Rights (IPR) protection. Assistance from an international IPR lawyer has been instrumental who supported the association, on an honorary not-for-profit basis, with establishing a code of conduct and applying internationally for a trademark.

The association is also aware of the importance of quality issues. Together with the NBSM textile laboratory the association has identified challenges related to "Pashmina" quality, certification and testing specifically. However, these efforts seem to be lacking proper follow-up from the side of NBSM but also from the UNIDO project. Both do not seem to be fully aware of the importance of such a holistic approach. It appears that "Pashmina" could be an ideal "lead export product" for developing not only the testing capacities of the textile laboratory but also QMS certification of "Pashmina" producers.

Source: Interviews with Association of Pashmina Exporters

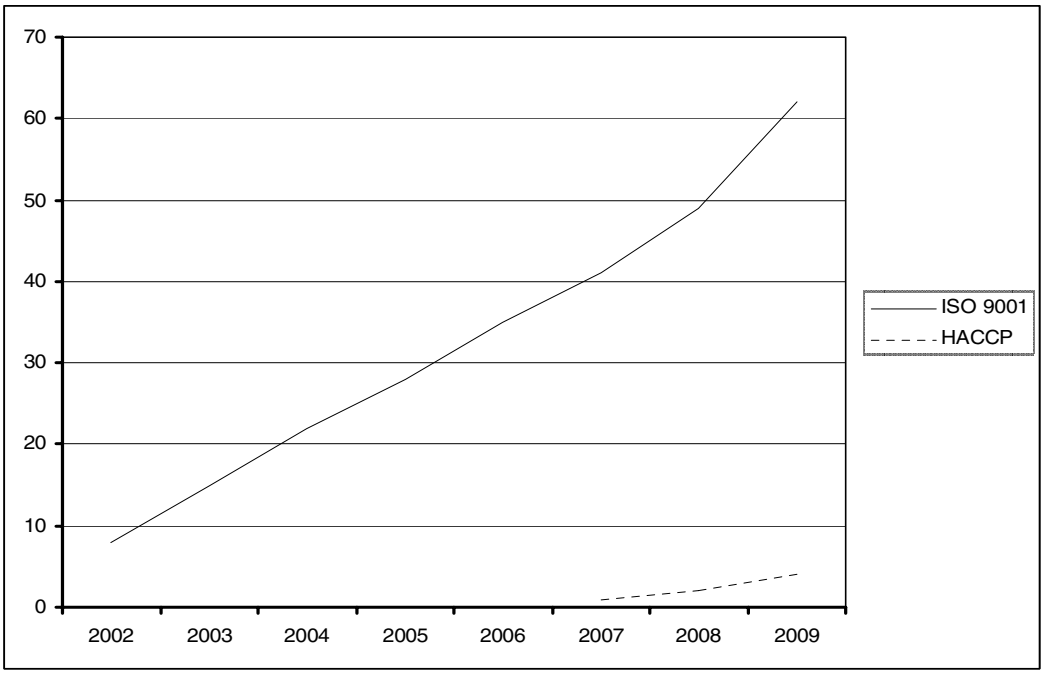
It appears that, to date, the project did not yet analyze the client and service structure of the NBSM textile laboratory. Official statistics or annual reports with data on types of tests, samples, clients and throughput are not available. Upon request of the evaluation team,

the laboratory staff produced a list of testing services delivered in 2007 and 2008. From the analysis of these lists by the evaluation team it appears that about 90 testing jobs were performed in 2007 and about 120 in 2008. However, more than 90% of these testing jobs were not carried out on behalf of industry but on behalf of public institutions and administrations such as the police, military and post office as part of their public procurement processes. In one or two cases, the customs office requested verification of samples of textile goods for import to establish import taxes. In 2007 one test was performed for the carpet industry and two for the "pashmina" industry. In 2008 there were five tests for "pashmina" and about 10 for tour operators. It seems that the evaluators' tentative analysis of the demand for textile testing services was the first attempt of this kind since the beginning of Phase I of the project.

Promotion of Quality Management in Nepalese industry

In order to have a better understanding of the National Quality System in Nepal and the conditions for impact from the project under evaluation, the evaluation team interviewed a number of private sector players involved in QMS certification. Reportedly, 200 Nepalese companies are certified in ISO 9000; 15 in ISO 14000; 5 in HACCP. About 15 international certification bodies are active in Nepal, most of them through their India offices. About four local consultant companies seem to provide certification support to companies. Figure 5.1 shows the number of companies supported for ISO 9000 and HACCP certification by a leading Nepalese QMS consultancy firm.

Figure 5.1 Number of Nepalese companies supported by one local QMS consulting company for ISO 9000 and HACCP certification.



Source: Data collected by Evaluators

Several areas of activity under Phase II of the Nepal project are related to quality management: ISO 22000 awareness seminars; ISO 22000 auditor training; ISO 22000 certification of two pilot companies; accreditation of NBSM as "the Management System Certification Body of Nepal". Together, these expected outputs and outcomes have the potential of producing impact on the National Quality System as a whole and the availability of quality related services for Nepalese industry. However, at the present state of play, the potential for impact on quality seems to be limited by a number of design decisions:

- The project does not address the needs of QMS service providers from the private sector. Private consultants providing support to Nepalese industry with implementing QMS were not admitted to the training courses.
- Under Phase I the project promoted HACCP and it is likely that it made contributions to the increased food safety awareness that can be observed among companies and (educated) consumers. However, the shift from HACCP to ISO 22000 under Phase II has negatively affected this dissemination momentum because ISO 22000 is not accessible to the "average" Nepalese company.
- The planned ISO 22000 accreditation of two pilot companies is more or less a stand-alone activity that will be primarily carried out by international consultants and an international certification body. Whereas UNIDO projects in other countries decided to involve local consultants into such pilot exercises (twinning of local consultants with international consultants) no such involvement of local QSM consultants from the private sector is foreseen in Nepal.

F. Sustainability

Bangladesh

The sustainability of the Bangladesh component of this project is not fully assured. UNIDO has developed a sustainability plan for Bangladesh (Padickakudi, 2009a), an initiative applauded by the evaluation team. The evaluation team have some concerns about the sustainability plan including: a) how it relates to the overall policy and business plan of BSTI; and, b) the risk mentioned above that sustainability might be confused with monopolising aspects of the market for testing services. The promotion of mandatory product certification as a key source of BSTI income given the current staff bonus regime raises concerns about the role of the BSTI in a free market economy that should be addressed.

BSTI as an institution remains intensely hierarchical and resistant to change. This evaluation highlights several areas where change is needed for the Bangladesh National Quality System to have credibility and match international norms. There are key changes needed to the mandate of BSTI allied to functional separation of technical regulation from conformity assessment. Previous assessments and evaluations have highlighted this problem (Bennett, 2008).

Bhutan

The sustainability plan for Bhutan developed by UNIDO (Padickakudi, 2009) needs further and deeper consideration. For SQCA the level of charges and subsumed costs are not given. BAFRA have managed to set an income suspiciously identical to their recurrent costs. In the absence of more elaborate business plans for these institutions this is a useful

starting point, but more analysis is needed. The evaluation team would like to see sustainability plans built up on clear and recent assessment of demand for services. The risk of crowding out private service providers is high in this technical area, so analysis of relative costs between public and private sectors is needed. The estimated cost of BAFTA testing (US$73.99 per sample) is a third of the private sector cost for the same service.

Currently both BAFRA and SQCA are unable to operationalise the sustainability plan because all income has to be returned to the Ministry of Finance. In effect, sustainability of these institutions is assured by the acceptance by parliament of their annual budgets, and not by the balance of income against expenditure.

Maldives

Relatively speaking, the conditions to achieve sustainable project results in the Maldives are more positive than in the other countries covered by this project. This rather positive outlook is mainly due to strong government commitment and availability of government funding.

However, the scarcity and mobility of young qualified staff seems to be a major sustainability threat. This is particularly true for the metrology lab and the standards cell at the Ministry of Industry.

Sustainability of results at the MFDA is probably assured, at least financially, because the Government is fully aware of the crucial position of this institution in the National Quality System. Thus, Government funding is likely to be available.

The evaluation team has doubts about the robustness of the figures in the MFDA sustainability plan. Upon request, the MFDA management was unable to produce consistent income and expenditure figures for the MFDA laboratories. The evaluation team has also certain doubts as regards the organizational structure (e.g. absence of a dedicated human resources management department) and management leadership at MFDA.

Nepal

Similar to the Maldives, the prospects for sustainability in Nepal seem to be better at the food agency DFTQC as compared to the standards cell. DFTQC appears to be benefiting from strong leadership. The DFTQC management has submitted a new organizational model to the Government that would allow the DFTQC laboratories to retain part of their income for replacing investments and staff incentives. The figures in the DFTQC sustainability plan appear to be rather reliable.

The situation is substantially different at NBSM. The institution seems to be suffering from lack of Government funding and poor working conditions, leading to significant difficulties in attracting and retaining qualified staff. Unlike DFTQC, the NBSM management does not believe in alternative organizational models and incentive schemes. Some of the laboratories seem to be suffering from low demand for testing services, a structural twist that, according to the NBSM management, makes the introduction of an output based staff incentive scheme impossible. Overall, the evaluation team could not sense a great deal of vision and service culture at NBSM.

6
Conclusions and Lessons Learned

The following conclusions are developed from the findings of the four individual country evaluations above. They are drawn together into nine generic themes covering groups of lessons learned which are, in the view of the evaluation team, key to the success of SMTQ projects. These lessons learned are of a more general nature and particularly relevant for the ongoing thematic evaluation of SMTQ projects and for the identification and design of future SMTQ projects. However, the evaluation team suggests that UNIDO should also consider these lessons, wherever practical, for the continuous improvement of ongoing projects, such as the one under evaluation.

Chapter VII below presents recommendations for direct implementation under the ongoing project.

Definition of project strategy ("scoping")

Under Phase 2 the scope of the project has widened from a rather narrow "SMTQ for export promotion" perspective to a more comprehensive approach including domestic consumer protection and elements of a value chain approach (e.g. exploration of a "new business model" for fish production in Maldives). Quite clearly, this positive development towards a more comprehensive approach has been initiated by taking on board the recommendations of the evaluation of Phase 1. However, a systematic analysis of the "National Quality System" (NQS) including the role of private sector providers of SMTQ services has not yet been applied. For example, national consultants, who in many countries play an eminent role in promoting QMS among industry, were not included in the strategy of this project, whereas UNIDO projects in other countries (e.g. Egypt; Tunisia) did include private QMS consultants as major players. Similarly, with regard to strengthening QMS certification bodies, the strategy of this project is still limited to government institutions, while creating and strengthening Public Private Partnerships has already entered into UNIDO strategy in other countries (e.g. Sri Lanka). Furthermore, the project strategy did not include elements of building and strengthening structures for improved private sector representation and "NQS Governance".

(L1) UNIDO should develop a systemic approach to defining the strategy of SMTQ projects. The objective of strengthening "National Quality Systems" (NQS) requires systematic mapping of all existing players, identifying systemic gaps and weaknesses, defining capacity building needs of the relevant players, quantifying the size of the market for SMTQ services, etc.

(L2) It is recommended that where government services to the private sector are upgraded UNIDO need to ensure that policies and practices are in place to prevent *de facto* government monopolies being promoted that can lead to the

crowding-out of private sector service providers and disincentives to private investment in SMTQ. The upgrading of the Bangladesh textile testing laboratory is one example of the potential for this effect.

(L3) The systemic assessment of the NQS should also include the policy dimension because the effectiveness of any SMTQ intervention is conditioned by the existence of an appropriate legal and policy frameworks.

(L4) Ultimately, UNIDO could develop the systemic assessment of NQS into a tool for comparing and benchmarking NQS at different stages of development. This could become an excellent example of UNIDO playing its role as a "Global Forum" for industrial development.

SMTQ requires long-term efforts

While other donors (e.g. PTB; GTZ) conduct SMTQ development by multi-annual and multi-Phase programmes, UNIDO seems still to adhere to a rather short-term project approach. This can also be due to donor policies and requirements. It is fully recognized that the project under evaluation has been conceived as a two-Phase exercise with considerable continuity, but there is still room for improvement.

(L5) Where projects go to second Phases it would be useful to have a standard method for indicating the logical connection between the Phases in the project document and to indicate the expected cumulative progress towards development goals.

Sustainable capacity building

The development of "sustainability plans" for every SMTQ institution supported by the project has been a significant move towards a less technical and more managerial approach to institution building. However, in their present form, these sustainability plans are not yet grounded in reliable data gathering and analysis. Moreover, the existence of an organizational development plan and its vigorous implementation is the first and foremost precondition for sustainable capacity building. As demonstrated by the case of BSTI, national SMTQ institutions can be considerably resistant to change and overcoming such resistance may require coordinated donor efforts. Although the application of a systematic approach to sustainable capacity building in the SMTQ area is still in its infancy there are also good practice cases of UNIDO partner institutions, such as ITI in Sri Lanka, that have made significant progress towards applying a rigorous approach to structured capacity building.

(L6) Whilst the evaluation team commend the initiative to have sustainability plans for every SMTQ organization supported under this project, it is recommended that further elaboration should be applied to ensure that these are robust and useful.

(L7) The evaluation team observe that stakeholders are often unaware of the annual cost implications of maintaining accreditation. It is recommended that these obligations are clearly spelt out to stakeholders at the outset and plans

made to include a mechanism to pay these costs developed in the project proposal.

(L8) UNIDO should design a standard methodology for assessing the development stage and organizational capacity of SMTQ institutions by objectively verifiable indicators and for elaborating organizational development plans for such institutions. The approach applied by ITI may be a good starting point.

Use of log frame

Use of the log frame has improved marginally in comparison to earlier UNIDO projects. Baselines, indicators, sources of verification, risks and assumptions are provided, however, not always in the necessary quality. Generally, there are still gaps and logical flaws in the "causal chain" from activities to impact, in particular confusion between outputs and outcomes.

(L9) UNIDO should develop standard "causal chains" and log frames for the different modules of SMTQ projects. However, these "models" must be used carefully and creatively to avoid "one-size-fits-all" project designs.

Monitoring and Evaluation (M&E) and continuous updating of initial planning

Progress reports focus on activities but do not make use of the indicators and sources of verification mentioned in the log frame. There is no systematic M&E data collection.

(L10) A monitoring and evaluation plan indicating who will be responsible for collecting the necessary data to verify attainment of outputs and outcomes should be a normal part of the inception Phase of this kind of project.

Project management

The follow-up of project activities and progress on the ground by the 'honorary' CTA of this project has been rather light and his role has not always been clear. Some countries were not visited by the CTA for more than a year. Information in the project progress reports is sometimes not complete and in some cases overoptimistic. There is some evidence that the delay of certain project activities could have been avoided by a more stringent monitoring and follow-up. In the case of Nepal the national project coordinator of another UNIDO project under EU funding also plays the role as an 'honorary' coordinator of the project under evaluation. In Bangladesh, a full time UNIDO CTA for SMTQ is present for another project, but claimed to be unaware of SAARC activities, which seems a wasted opportunity for coordination.

(L11) It is recommended that where CTA's are 'honorary' and their inputs limited, clear terms of reference and modus operandi should be developed so that everybody in the project knows what is expected.

Procurement

Recognizing the challenges faced by procurement of complex technical equipment, the evaluation team acknowledges that, in Nepal and Maldives, the project included the availability of local maintenance and repair services as selection criteria in the bidding process. The application of such a life-cycle approach to procurement demonstrates that such an approach is possible under the UNIDO procurement system. However, this approach was apparently not applied in Bangladesh and Bhutan.

(L12) It is recommend reaping sustainability advantages by involving beneficiaries more fully in making decisions, particularly when it comes to after sales service provision. Assessing procurement cost by including the availability of local maintenance and repair services as selection criteria in the bidding process should be promoted as good practice across UNIDO.

(L13) It is recommended that UNIDO should give stakeholders the option to extend their warrantees on procured equipment at their own expense if they so wish.

Training

Seminars, on-the-job training and study tours are typical ingredients of a capacity building project like the one under evaluation. Overall, these HRM instruments have been employed in a professional manner, taking into account their well-known double function as training and incentive tools. However, the evaluation team submits a number of lessons for further improvement:

(L14) The evaluation team question the advisability of training large numbers of lead auditors who cannot then practice because they have not completed the practical Phases of the lead auditor requirements. Those who passed the lead auditor training course should be given the opportunity to become full lead auditors by undertaking five audits.

(L15) International consultants contracted by the project to prepare pilot companies for ISO certification should provide such services always in a twinning arrangement together with a local consultant. Such arrangements provide very valuable on-the-job training opportunities.

(L16) When developing the capacity of laboratories and service providers a balance is needed between short-term TA inputs and longer-term job placements of staff in well functioning similar institutions in third countries. This recommendation responds to the desire by laboratory staff to know what their jobs might entail on a day to day basis. Given the sensitivity of reaching agreement on hosting short-courses within the existing curricula of learning institutions, it is recommended that where UNIDO wish to develop training capacity in-country a pro forma memorandum of agreement should be established to clarify roles and responsibilities for future delivery of the training. It is also recommended that the likely demand for training be quantified before institutions are encouraged to invest in providing training services.

Legal metrology

Projects that support the upgrading of SMTQ commonly include aspects of metrology as keystone to National Quality Infrastructure. Conventional wisdom says that the sequencing of metrology development should follow the continuum "scientific metrology" – "industrial metrology" – "legal metrology". This is based upon the sound principal that good legal metrology is built upon a foundation of a national metrology laboratory with traceability of its key measurement scopes to external, assured sources. The evaluation team do not dispute this norm, but question why legal metrology or "weights and measures" activities which have the potential for great impact on the poor has to wait for highly accurate measurements to become available. Surely, significant developmental impact would result from greater discipline in legal metrology without extremely highly tolerances given the complete absence of testing of measuring devices prior to the implementation of legal metrology.

(L17) The lengthy development of national metrology laboratories to international standards should not necessarily delay the initiation of weights and measures activities with potential for high poverty impact.

Substandard and hazardous product imports

The element of protection against the importation of sub-standard and hazardous products is either weak or missing in all the National Quality Systems evaluated. It seems to the evaluation team that this element will have particularly strong poverty implications as it is the poor that tend to resort to cheap, unbranded and counterfeit products as this is all that they can afford.

(L18) The evaluation team note that there is a need for further support in the area of substandard and hazardous product imports in all SAARC countries beyond the scope of the current project Phase and recommend that UNIDO/NORAD consider funding/supporting this work.

Project governance

The quality and quantity of project governance was to some extent found wanting in all project countries. The importance of promoting ownership and a national/multi-sectoral approach to governance of quality systems is an emerging theme in SMTQ evaluations. The development of a nascent national quality forum in Nepal is possibly an example of emerging best practice which should be encouraged and replicated.

(L19) UNIDO should promote a more active role for stakeholders in project implementation (e.g. deciding on changes in project budgets). Moreover, greater involvement of the private sector in project governance promoted should be encouraged. Future projects should consider promotion of national quality fora.

Building a quality 'consensus'

An issue that emerges from this evaluation of particular relevance for countries which are starting to develop National Quality Systems (NQS) is the importance of gaining the support of a quality constituency including, government, non-government, consumer and political interests. Getting new laws and policies and encouraging investment in quality infrastructure is, to some extent, dependent upon successfully engaging with this quality constituency to promote a quality consensus.

(L20) The evaluation team note that, in countries where the need for quality infrastructure is not well known or understood, the importance of promoting such an understanding among key officials and decision makers (and, potentially, the general public) should be a normal part of project design. UNIDO should consider including constituency building elements into its projects (cf. the SMTQ Forum in Nepal). UNIDO should also explore the potential for using its cluster methodology for sector specific NQS development.

7
Recommendations

Unlike the lessons learned under chapter 6, which are of more general nature and primarily relevant for the identification and design of future projects, the following recommendations are made with a view to adapt and further improve the course of the ongoing project. Recommendations (1) to (7) concern the project as a whole, while recommendations (8) to (33) are country specific.

(1) Given the ambition of outcomes of this project (mainly accreditation of testing scopes to ISO 17025) and the length of time that this is likely to take, it is recommended that the project implementation period be extended by at least 6-12 months to allow all the activities to take place.

[Donor]

(2) The evaluation team notes that there is a need for further support in the area of substandard and hazardous product imports in all SAARC countries beyond the scope of the current project Phase and recommends that UNIDO/NORAD consider funding/supporting this work.

[UNIDO and Donor]

(3) Where UNIDO has supported plans to control substandard and hazardous imports it is recommended that these are adopted by the relevant authorities.

[Government]

(4) The log frame of the project should be reconsidered to facilitate future evaluation. Specifically, the OVI's, sources of verification, risks and assumptions need to be amended. The current assumptions and risks should be critically reviewed and adjusted to make them reasonable or removed. Some project outputs/outcomes should be adjusted to make them realistically attainable within the remaining project period.

[UNIDO]

(5) It is recommended that the project consider assisting at least some of those trainees who passed the lead auditor training course to become full lead auditors by undertaking five audits if funds are available in the remaining project period.

[UNIDO]

(6) It is recommended that institutions such as BSTI and NBSM should demonstrate their ability to apply ISO 9000 themselves as a condition for receiving support to become management system certifiers.

[UNIDO]

Adopt a more evidence based and management-oriented format of sustainability plans and accompany the development and implementation of these plans more proactively by inputs from the CTA and/or international experts

[UNIDO]

(7) The project would benefit from a CTA with a more pro-active role. It is recommended that UNIDO redefines and clarifies the terms of reference and that UNIDO and the donor should consider whether there is scope for shifting from the concept of a 'honorary' CTA to a more hands-on management approach.

[UNIDO]

Bangladesh

(8) To improve ownership it is recommended that the project hold more frequent Steering Committee meetings and that some private sector involvement should be encouraged. Combining Steering Committee meetings with the governance activities of BQSP and its follow-up project BEST should be considered.

[UNIDO and Government]

(9) UNIDO should consider using the CTA of the EU funded project as a coordinator of all UNIDO SMTQ activities in the country;

[UNIDO]

(10) Fundamental changes in the quality laws of Bangladesh will be needed to reach accreditation of the product certification scheme. The respective outcome should be adjusted to reflect a more realistic output such as identifying areas for reform and initiating a programme of change that will create the conditions for accreditation in the future.

[UNIDO]

(11) BSTI need institutional change plans to guide their senior management through the process of reform and this should form part of future support proposals.

[UNIDO and Government]

(12) UNIDO and NORAD should support the on-going efforts of the EC to promote reform in BSTI.

[UNIDO and Donor]

(13) The portfolio of testing equipment at BSTI is now substantial and it is recommended that the institution develop a maintenance and replacement plan for all equipment supplied by the project.

[Government]

(14) Despite every effort by UNIDO to ensure that the appropriate individuals attend training courses and study tours, the evaluation team still found cases of BSTI sending individuals on training courses where they are not appropriately placed within the structure of the organisation to apply the learning (notably in ISO 22000 auditor training). It is recommended that more care needs to be taken to ensure that those receiving training are those that will apply it. [Government]

Bhutan

(15) In the light of the fluid macro-economic policy situation in Bhutan, the project objectives should be reconsidered once the new national economic policy is agreed.

[UNIDO and Government]

(16) The proposed study visits from SQCA metrology and BAFRA staff should be replaced with in-service placements in suitable working laboratories to gain hands-on experience. This recommendation responds to the desire by laboratory staff to know what their jobs might entail on a day to day basis.

[UNIDO]

(17) SQCA should develop a communication plan to make the public aware of the services that it provides.

[Government]

(18) The project should consider discontinuing the quality systems awareness training component and using the funds released for other activities.

[UNIDO and Government]

Maldives

(19) The Government might want to consider a two-level structure of the Steering Committee (strategic level and technical level) and include the Ministry of Health with a view to better covering MFDA and future widening of the project scope towards food safety; the Government commitment not to expand public administration is laudable but understaffing of SMTQ bodies is a major bottleneck and should be addressed;

[Government]

(20) Metrology: Provide metrology training only once qualified metrology officers have been appointed; clarify with MED its priorities in the area of Metrology and Weights and Measures before purchasing further metrology equipment; given the political priorities of the new Government it might be an option to reorient the current project planning from international accreditation of the national metrology laboratory towards assisting the Government with the development of a functional and decentralized Weights & Measures service; consider assisting the Government with developing a development plan in the area of Metrology and Weights and Measures, should this be requested by the government;

[UNIDO and Donor]

(21) Accreditation of MFDA chemical laboratory: Coordinate the support more closely with WHO; consider using the same accreditation body (Thailand) for the chemical laboratory that has been introduced by WHO for the accreditation of the microbiological laboratory;

[UNIDO]

(22) QMS: Consider QMS awareness building activities, in particular launching the National Quality Award; ISO 22000: Carry out a pre-audit of the 8 companies who applied for ISO 22000, decide which companies are most advanced and select those two companies that should benefit from subsidized ISO 22000 certification under the UNIDO project; select the ISO 22000 certification body bearing in mind the focus of the exercise on fish processing; allow for a better integration of local consultants into QMS promotion (twinning of international and local consultants)

[UNIDO]

(23) OHSAS: Implement the OHSAS training as suggested by MED in cooperation with the trade associations of the fish, tourism and construction industries.

[UNIDO]

Nepal

(24) The national project coordinator should be given an official status with clear management prerogatives.

[UNIDO]

(25) Product certification scheme: A new activity plan with milestones should be developed and agreed upon; NBSM should implement the Quality Manual in one pilot industry and set up the necessary committees; a firm deadline should be fixed by when NBSM will be ready to receive international assistance for an internal audit (pre-audit) of the product certification scheme.

[UNIDO and Government]

(26) Textile laboratory: NBSM should ensure preconditions for sustainable accreditation (ensure reliable electricity supply; appoint textile engineer; adopt business model similar to DFTQC that allows withholding part of the income at NBSM).

[Government]

(27) Textile laboratory: Develop the textile laboratory with a clear focus on industry needs and "lead export products" and in close partnership with the respective industry (pashmina may be such a product).

[UNIDO]

(28) Food laboratory: There is an urgent need for good housekeeping because the newly delivered laboratory equipment may be at risk due to construction works.

[Government]

(29) Food laboratory: DFTQC and UNIDO should develop the food laboratory with a clear focus on industry needs and "lead export products" such as honey, tea, medicinal herbs and other food products for export.

[UNIDO and Government]

(30) QMS certification: NBSM and UNIDO should carry out a survey of the QMS certification market in Nepal, explore client preferences and priorities and develop the future QMS certification function of NBSM without crowding out private providers of QMS support and certification services.

[UNIDO]

(31) ISO 22000: DFTQC and UNIDO should allow for a better integration of local consultants into QMS promotion (twinning of international and local consultants) when implementing ISO 22000 at the two pilot companies and accompany the process by a publicity and awareness campaign.

[UNIDO]

(32) Quality training: Given the limited ownership for this activity UNIDO and the donor should consider using these funds for supporting private QMS service providers (see 23 and 24).

[UNIDO and Donor]

(33) OHSAS: In preparation of the OHSAS 18000 seminar NBSM and UNIDO should identify those government institutions, NGOs, companies and consultants who have been involved in OHSAS 18000 related issues in the past and organize the OHSAS 18000 seminar in close cooperation with them and with ILO.

[UNIDO and Government]

Annex A: Terms of Reference

Terms of Reference

Independent Mid-Term Evaluation of the UNIDO Project:

TE/RAS/07/001

"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"

I. BACKGROUND

The UNIDO/NORAD SMTQ programme in SAARC countries has been structured into Phase 1 (2003 – 2007) and Phase 2 (2007 – 2010). Phase 2 has been designed on the basis of an independent evaluation of Phase 1 carried out in 2007.

The programme aims *to facilitate the industrial development and export capabilities and spur the economic growth in the four SAARC countries Bangladesh, Bhutan, Nepal and Maldives by reducing technical barriers to trade through the strengthening of institutional structures and national capacities in standards, metrology, testing, quality and conformity assessment*. Under Phase 2 the export oriented objective of the programme has been extended towards *protecting domestic society against substandard and hazardous product imports*.

The approach in the four target countries varies taking into account the diversity of socioeconomic conditions and specific SMTQ needs.

The project document describes the expected outcomes as follows:

vii. Product certification marks accepted internationally.
viii. Technical constraints on exports from beneficiary countries reduced.
ix. Awareness created of quality management techniques among industrial managers of beneficiary countries.
x. Plan developed to strengthen import quality control procedures.
xi. Improved awareness of ISO 22000, WRAP, SA 8000 and OHSAS 18000 standards among industrial managers.
xii. Cost reduction of the quality management system certificate and an increase in the number of companies with QMS certificates.

II. BUDGET INFORMATION

Project No.	Project	Total project budget[7]	Total allotment	Total expenditure		Unapproved obligations	Funds available
					in %		
TE/RAS/07/001	COORDINATION	**280,000**	**139,620**	123,990	88,81	0	**15,630**
TE/RAS/07/A01	BANGLADESH	**358,000**	**265,000**	208,056	78.51	20,000	**36,944**
TE/RAS/07/B01	BHUTAN	**510,000**	**284,500**	140,553	49.40	25,000	**118,947**
TE/RAS/07/C01	MALDIVES	**417,000**	**250,000**	141,160	56.46	20,000	**88,840**
TE/RAS/07/D01	NEPAL	**435,000**	**256,000**	153,870	60.11	20,000	**82,130**
		2,000,000	**1,195,120**	767,629	64.23	85,000	**342,491**

Source and date of information: UNIDO INFOBASE as of 6 May 2008

III. PURPOSE OF THE EVALUATION

This mid-term evaluation covers the first 18 months of Phase 2 and builds upon the independent evaluation of Phase 1. The project document of Phase 2 foresees that this mid-term evaluation will be carried out on the basis of a detailed sustainability plan to be submitted by month 16. Subject to the findings and recommendations of this mid-term review, NORAD will decide on the release of the remaining budget for the last 18 months of operation.

At the moment of the mid-term evaluation the overall duration of the programme (including Phase 1) will be almost 5 years. This enables, in addition to the immediate evaluation purpose, also a wider evaluation perspective looking at the emergence of outcomes and the likelihood of the programme to achieve the envisaged ultimate impact, bearing in mind the long-term nature of SMTQ development in LDCs.

Furthermore, the evaluation will feed into the thematic evaluation of SMTQ projects that is carried out by the UNIDO Evaluation Group throughout 2009 with financial support from NORAD and SECO. This thematic evaluation aims to derive "Key Success Factors" of SMTQ interventions from the analysis of more than 20 UNIDO projects in this thematic area. This mid-term evaluation will, therefore, be carried out in line with the methodology applied under the thematic evaluation.

The purpose of this mid-term evaluation is four threefold:

- Assess the implementation of recommendations made under the evaluation of Phase 1
- Support decision making by NORAD on the continuation of Phase 2
- Assess the emergence of envisaged outcomes and the likelihood to achieve the envisaged impact of Phase 1 and Phase 2
- Feed into the ongoing thematic evaluation of UNIDO SMTQ projects

[7] Total planned budget as per project document, excluding 13% support cost.

IV. METHODOLOGY

The evaluation will be conducted in compliance with UNIDO evaluation policy and the Technical Cooperation Guidelines and attempts to determine, as systematically and objectively as possible, the relevance, efficiency, effectiveness impact and sustainability of the project. The evaluation will apply a two-pronged approach:

- Assess the achieved outputs against the planning in the project document;
- Examine the "intervention theories" from outputs to expected outcomes and impact taking into account (explicit and implicit) assumptions on external factors and assess the likelihood to achieve these outcomes and impact in the light of the "Key Success Factors" identified under the thematic SMTQ evaluation

The evaluation will be carried out through analyses of various sources of information including desk analysis, survey data, and interviews with stakeholders such as Government counterparts, staff members of the supported organizations, UNIDO staff members and beneficiary companies and through the cross-validation of data. While maintaining independence, the evaluation will be carried out based on a participatory approach, which seeks the views and assessments of all parties.

The evaluation will apply the DAC evaluation criteria as follows:

Ownership and relevance

The extent to which:

(i) The project is in line with the priorities and policies of the respective Governments and the institutional context;

(ii) The services of the counterpart organizations are perceived as relevant by the public and private sector

Efficiency of implementation

The extent to which:

(i) UNIDO and Government/counterpart inputs have been provided as planned and were adequate to meet requirements

(ii) The quality of UNIDO inputs and services was as planned and timely

(iii) The least costly resources and processes were used in order to achieve the objectives

(iv) There was coordination with other projects and possible synergy effects

Effectiveness and institutional sustainability

The extent to which:

(i) The expected outcomes were achieved or are likely to be achieved.

(ii) The sustainability plans are accurate and realistic.

Impact

(i) Establishing the "intervention theories" from outputs to expected impacts at company level and beyond
(ii) Identification of assumptions on external factors and "impact drivers" that are considered necessary to achieve impact
(iii) Assessment of the plausibility of the intervention theories

Project coordination and management

The extent to which:

(i) The national management and overall coordination mechanisms have been efficient and effective
(ii) The UNIDO HQ based management, coordination, quality control and technical inputs have been efficient and effective
(iii) Monitoring and self-evaluation were carried out effectively, based on indicators for outputs and objectives
(iv) Coordination envisaged with UNIDO networking tools such as UNIDO "Exchange" has been realized and benefits achieved
(v) Synergy benefits can be found in relation to other UNIDO projects in the same countries and in relation to activities of other donors

The mid-term evaluation will apply the "Key Success Factors" (KSF) developed under the thematic evaluation, validate the practicality of the KSF, determine their applicability scope and feed the evaluation results into the thematic evaluation.

Examples of KSFs emerging from the thematic evaluation include: the wider context and enabling environment; cooperation modalities; institutional context of the beneficiary organization(s); practical implementation issues; project design and management issues; technical aspects of National Quality Infrastructure; sustainability issues and some further factors not yet classified according to these headings.

At the country level, the evaluation will address the following country specific evaluation questions:

Bangladesh

- Product certification scheme: Current scope, use and credibility of the scheme; benefits expected from accrediting the scheme
- Textile laboratory: Positioning vis-à-vis other providers of textile testing services; current and expected customer base; expected customer benefits
- ISO 22000: Positioning vis-à-vis other providers; expected customer base
- WRAP: Outcome of seminar (135 participants); prospects of WRAP application
- "National" Management systems certification body: Positioning vis-à-vis other certification bodies; credibility issues; expected customer base; private sector crowding-out issues
- Quality training: Positioning of such training against similar existing training offers; has the niche for such training been defined based on a market survey and is the balance between private and public sector training provision suitable?
- Sustainability: Assessment of sustainability prospects of the supported organizations on the basis of sustainability plans
- Protection against substandard and hazardous products: Assessment of the study prepared on the current system and the recommended plan of action

Bhutan

- Inquiry point: Evidence of use and assessment of company benefits arising from the existence of this inquiry point
- Metrology: Prospects to establish metrology lab corresponding to international standards; plans to develop awareness and demand for metrology services in the country; quality of the assessment of demand for metrology services.
- Food testing: Expected customer base and benefits
- ISO 22000: Expected customer base and benefits
- Quality training: Expected customer base and benefits
- Sustainability: Assessment of sustainability prospects of the supported organizations on the basis of sustainability plans
- Protection against substandard and hazardous products: Assessment of the study prepared on the current system and the recommended plan of action

Maldives

- Inquiry point: Company benefits arising from the existence of this inquiry point
- Metrology: Benefits arising from building the capacity of the metrology laboratory; improvements of legal metrology through weights and measures inspections
- ISO 22000: Expected benefits of the pilot fish producers; likelihood that these benefits will be achieved
- Company benefits expected from the "new business model"
- Occupational Health and Safety Assessment Series 18000: Expected customer base and benefits
- Sustainability: Assessment of sustainability prospects of the supported organizations on the basis of sustainability plans
- Protection against substandard and hazardous products: Assessment of the study prepared on the current system and the recommended plan of action

Nepal

- Product certification scheme: Current scope and use of the scheme; what benefits are expected from accrediting the scheme?
- Food testing: Expected primary customer base and benefits (honey producers); other beneficiaries
- Textile laboratory: Positioning vis-à-vis other providers of textile testing services; current and expected customer base; expected customer benefits.
- ISO 22000: Data on expected customer base; expected benefits of pilot companies
- "National" Management systems certification body: Positioning vis-à-vis other certification bodies; credibility issues; expected customer base
- Quality training: Positioning of such training against similar existing training offers; has the niche for such training been defined based on a market survey?
- Sustainability: Assessment of sustainability prospects of the supported organizations on the basis of sustainability plans
- Protection against substandard and hazardous products: Assessment of the study prepared on the current system and the recommended plan of action

V. EVALUATION TEAM

The evaluation team will be composed of the following:

- Representative of the UNIDO Evaluation Group (Senior Evaluation Expert);
- An independent international evaluation consultant participating in the thematic SMTQ evaluation

The members of the evaluation team will be selected jointly by NORAD and UNIDO and contracted by UNIDO. The four country visits will be split among the members of the evaluation team. Members of the evaluation team should not have been involved in the design and/or implementation of the project.

The UNIDO Evaluation Group will be responsible for the quality control of the evaluation process and of the report. The UNIDO Regional Office for South Asia based in New Delhi will provide support to the evaluation team.

VI. TIMING

The evaluation is scheduled to take place in the period between 15 March and 15 June 2009. A briefing session by the CTA and the project officer is planned in Colombo for mid-March.

The final report will be prepared within six weeks of completion of the field mission and will be submitted to UNIDO, NORAD and the respective Governments.

VII. REPORTING

The evaluators will present their preliminary findings to the respective Governments and take into account their feed-back. The UNIDO Evaluation Group will consolidate the four country reports into a consolidated draft report that will be presented by the evaluation team to NORAD and UNIDO representatives. On the basis of comments received the evaluation team will prepare the final report and integrate the findings into the thematic evaluation report. The reporting language will be English.

Quality Assessment of the Evaluation Report: All UNIDO evaluations are subject to quality assessments by UNIDO Evaluation Group. These apply evaluation quality assessment criteria and are used as a tool for providing structured feedback. The quality of the evaluation report will be assessed and rated against the criteria set forth in the Checklist on evaluation report quality (Annex 1).

Annex B: List of persons met

Bangladesh

Organization/person met
Bangladesh Standards and Testing Institute Md. Liaquat Ali, Director, Admin Lutfar Rahman Khan, Director (CM) Abdur Rashid, Assistant Director
Bangladesh Quality Support Programme David Holbourne, Chief Technical Adviser
Bangladesh Quality Support Programme Mostafa Anwar, National Project Coordinator Rajinder Raj Sud, UNIDO consultant
Bangladesh Standards and Testing Institute Md. Akhtaruzzaman, Director Standards Mr. Reazul Karim, Deputy Director Abdur Rashid, Assistant Director
Panna Battery Syed Mahmud Jobair, CEO Shazia Shashid, Sr. Officer (Admin)
Bangladesh Standards and Testing Institute Lutfar Rahman Khan, Director (CM) Selim Reza, Assistant Director Nurul Amin, Assistant Director
Pran Group **Agriculutural Marketing Co. Ltd** Md. Noor Ferdous, General Manager Md. Ariful Islam, AGM (PD)
Planning Cell, Ministry of Industries Khandaker Nuruzzaman, Joint-Chief Dr. Md. Akhteruzzaman, Deputy Chief
Engineering Staff College, Bangladesh (ESCB) Professor M.A. Hannan, Rector, (ESCB) Khondoker Liaquat Ali, (ESCB)
Bangladesh Standards and Testing Institute Dr. Syed Humayun Kabir, Director(Physical) Mr. Motiur Rahman, Assistant Director Ms. Shamim Ara, Assistant Director

Bangladesh Standards and Testing Institute Md. Liaquat Ali, Director, Admin Professor M.A. Hannan, Rector, (ESCB) Md. Reazul Karim, Deputy Director Md. Anwar Hossain Molla, Deputy Director Md. Abdul Matin, Deputy Director Selim Reza, Assistant Director Abdur Rashid, Assistant Director Md. Golam Azam, Assistant Director Md. Humayun Kabir, Chemist, BFFEA Ripon Chowdhury, QC, New Olympia Biscuit Factory Nazrul Islam, QC, AST Bevarage Ltd. Md. Shaifur Rahman, QC, Danish Food Ltd. Md. Khaled Hossen, Sr. Executive, SGS

Bhutan

Organization/person met
Ministry of Economic Affairs Rinchem Lhazom, Foreign Trade Officer
Standards and Quality Control Authority Taskin Wangchuk, Director D R Chhetri, Head SDD Rinchen Ihazom, Foreign Trade Officer Chewang Rinzin, TBT Focal Person Ms Chenzom, Engineer Leki Choden, Engineer
Ministry of Economic Affairs Sonam Tshering, Secretary
Standards and Quality Control Authority Laboratory visits and interviews
MRTA, Standards and Quality Control Authority Taskin Wangchuk, Director D R Chhetri, Head SDD Rinchen Ihazom, Foreign Trade Officer Chewang Rinzin, TBT Focal Person Ms Chenzom, Engineer Leki Choden, Engineer
Ministry of Economic Affairs Sherab Tenzin, Joint Director, Department of Trade, Ministry of Economic Affairs
Bhutan Chamber of Commerce and Industry Phub Tshering,Director
Bhutan Agro Industries Gyem Dorji, Managing Director

Organization/person met
Royal Institute of Management Karma Tshering, Director Dhanapati Mishra, Head of Department, Department of Management Development
Bhutan Agriculture and Food Regulatory Authority Tenzin, RQI Food Sangay Tenzin, Laboratory Analyst Reteka Mehra, Laboratory Analyst Tshering Yangzom, RQI Food Karma Yanyzom, RQI Food Tshering Wangchuk, Laboratory Technician Dr Chador Wangdi, Regulatory and Quarantine Officer

Maldives

Organization/person met
Ministry of Economy and Trade Mohamed Rasheed, Minister Yusuf Riza, Permanent Secretary Ahmed Wafir, Director Trade Policy Solih Hussain, Director Trade Regulations Ahmed Mumthaz, Assistant Director Fair Trade Riyaz Mansoor, Assistant Director, Admin. Section Sinanath, Officer MSMU Sauma, Secretary MSMU
MFDA Moussa Anwar, DG Mariam Rizna, Scientific Officer Fathmath Safoora, Scientific Officer Aishath Mohamed, Laboratory Quality Control Aminath Hussain, Technologist - Food Safety
Chamber of Commerce and Industry Ibrahim Riyaz, Vice President Ahmed Adheeb Abdul Gafoor, Treasurer
Ministry of Health Ahmed Fayaz Hassas, State Minister Sheena Moussa, Permanent Secretary Ibrahim Yassir, DG Health Service Shanufa Manike, Quality Control Massan Mohamed, International relations Samya Hassan, Policy Projects Hassan Mohamed, Deputy Director

Organization/person met
Ministry of Fisheries Hussain Rasheed Hassan, State Minister Abdulla Naseer, Permanent Secretary and FAO Focal Point Adam Manuk, Director
Maldives Seafood Processors & Exporters Association/ ECO Fisheries Int. Ibrahim Sodhooq, Secretary General/ General Manager
MIFCO – Kandu Oiy Giri Fish Village Abbas Ibrahim, General Manager
HMS Abdul Raheem, Manager
UN Organizations Aishath Raniya Sobir, Assistant Resident Representative – UNDP

Nepal

Organization/Person Met
Ministry of Industry Surya P. Silwal, Joint Secretary and Chairman of the Project Steering Committee Krishna Prasad Kharel, Director (Tech.)
Ministry of Commerce and Supplies Bimal K. Nepal, Director Shiv Raj Bhatta, National Programme Manager and Trade Policy Analyst
Federation of Nepalese Chambers of Commerce and Industry Dr. Deva Bhakta Shakya, Executive Director
Nepal Bureau of Standards & Metrology Dr. Sita Ram Joshi, Director General Minesh Prasad Shrestha, Director and TBT Focal Point Gazendra Kumar Paudyal, Under Secretary (Tech.) Indu Bikram Joshi, Chemist
Ministry of Agriculture & Cooperatives / Dept. of Food Tech. & Quality Control Uttam K. Bhattarai, Director General
Department of Cottage and Small Industry Krishna Prasad Kharal, Director (Tech.)
Pashmina Industries Association Shanker Pandey, President Pushpaman Shrestha, Vice President Vijoy Kumar Dugar, Secretary

Sawtee – South Asia Watch on Trade, Economics & Environment Posh Raj Pandey, President Dhrubesh C. Regmi, Programme Director
Sagarmatha Silks Shanker Pandeya, Proprietor
GTZ – German Technical Cooperation Surendra Raj Joshi, Regional Team Leader Horst Ammann, Programme Manager
Quality & Environmental Management Service Pom Raj Bhandari, Programme Manager Hari Prasad Subedi, Technical Manager
Dairy Development Corporation Krishna Gopal Shrestha, Manager Ram Bahadur Thapa, General Manager Bhairad Prasad Manandhar, Manager – Tech. Dept.
K.L. Dugar Group Naresh Dugar, Vice Chairman P. K. Sharma, Production Manager
Chachan Group P. L. Agrawal, CEO & MD
EC-Nepal WTO Assistance Programme Poorna Prasad Manandhar, Nat. Prog. Cooordinator
Industrial Environment Management Project Uttam Kunwar, Project Manager
CG Foods Soban Shrestha, General Manager
SN Power Hilde Bekier-Larssen, Business Controller
Food Research Consulting Services Dr. Tika Karki, Director
Trishakti Group Gopal Kumar Mainali, Senior Admin. Officer Er. Gyanendra Lal Pradhan T. P. Khanal, Factory Manager
UN Organizations Dr. G. M. S. de Silva, Chief Technical Advisor, Standardization & Metrology (UNDP) Pradeep man Tulachan, Economic Advisor (Royal Norwegian Embassy)

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