Independent Evaluation Report

Post WTO Accession Support to Viet Nam: TBT/SPS Compliance Capacity Development related to Key Export Sectors

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UNIDO EVALUATION GROUP

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Post WTO Accession Support to Viet Nam: TBT/SPS Compliance Capacity Development related to Key Export Sectors

UNIDO Project US/VIE/08/004

Funded by the

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We hope that the proposed recommendations will contribute to the continuous improvement of similar projects in other countries and to the mobilization of funds for a possible new project.

Abbreviations and Acronyms

AFD	Agence Française du Développement
ASEAN	Association of South East Asian Nations
BOA	Bureau of Accreditation (Viet Nam)
CE Marking	Mandatory conformance mark on many products placed on the market in the European Economic Area (EEA)
CIDA	Canadian International Development Agency
CIEM	Central Institute for Economic Management (Viet Nam)
CIPM	Comité international des poids et mesures
CPSC	US Consumer Product Safety Commission
CTA	Chief Technical Adviser
DANIDA	Danish International Development Agency
EMC	Electromagnetic compatibility
FAO	United Nations Food and Agricultural Organization
GLOBALGAP	Standard for Good Agricultural Practices
GMO	Genetically modified organisms
GoV	Government of Viet Nam
HACCP	Hazard Analysis and Critical Control Points
IEC	International Electrotechnical Commission
IFC	International Finance Corporation (under World Bank)
JICA	Japan International Cooperation Agency
ISO 9001	Norm for Quality Management System
ISO 14001	Norm for Environmental Management System
ISO/IEC17025	Quality norm for the competence of testing and calibration laboratories
ISO22001	Norm for Food Safety Management System
ITC	International Trade Center
MARD	Ministry of Agriculture and Rural Development (Viet Nam)
MDG	Millennium Development Goal
MOST	Ministry of Science and Technology (line ministry of STAMEQ)
MPDF	Mekong Project Development Facility (IFC Advisory Services)
MRA	Mutual Recognition Agreement

MUTRAP	Multilateral Trade Policy Assistance Project funded by the EU
NAFIQAD	National Agro-Forestry-Fisheries Quality Assurance Department
NORAD	Norwegian Agency for Development Cooperation
NPC	National Project Coordinator
OHSAS 18000	Occupational Health and Safety Management System norm
QUACERT	Viet Nam Quality Certification Center
QUATEST	Quality Testing Center (under STAMEQ)
QMS	Quality Management Systems
REACH	EC Regulation on Registration, Evaluation, Authorization of Chemicals
RIA	Regulatory Impact Assessment
RoHS	EU Directive on Restriction of Hazardous Substances
RRIC	REACH and RoHS Information Center (VINACHEMIA)
SECO	The Swiss State Secretariat for Economic Affairs
SMTQ	Standards, Metrology, Testing and Quality
SPS	Sanitary and Phytosanitary Measures
STAMEQ	General Directorate of Standards, Metrology and Quality (Viet Nam)
STAR	Support for Trade Acceleration Project (project funded by USAID)
TBT	Technical Barriers to Trade
TCB	Trade Capacity Building
TRTA	Trade Related Technical Assistance
UNEG	United Nations Evaluation Group
UNIDO	The United Nations Industrial Development Organization
UNDP	United Nations Development Programme
UNCTAD	United Nations Conference for Trade and Development
USAID	United States Agency for International Development
VINACHEMIA	Viet Nam Chemical Agency (under Ministry of Trade and Industry)
VMC	Viet Nam Metrology Center
WTO	World Trade Organization

Glossary of Evaluation Related Terms

Term	Definition
Conclusions	Conclusions point out the factors of success and failure of the evaluated intervention, with special attention paid to the intended and unintended results and impacts, and more generally to any other strength or weakness. A conclusion draws on data collection and analyses undertaken, through a transparent chain of arguments.
Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved, taking into account their relative importance.
Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results.
Impacts	Positive and negative, primary and secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended.
Indicator	Quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect the changes connected to an intervention, or to help assess the performance of a development actor.
Institutional development impact	The extent to which an intervention improves or weakens the ability of a country or region to make more efficient, equitable, and sustainable use of its human, financial, and natural resources, for example through: (a) better definition, stability, transparency, enforceability and predictability of institutional arrangements and/or (b) better alignment of the mission and capacity of an organization with its mandate, which derives from these institutional arrangements. Such impacts can include intended and unintended effects of an action.
Lessons learned	Generalizations based on evaluation experiences with projects, programs, or policies that abstract from the specific circumstances to broader situations. Frequently, lessons highlight strengths or weaknesses in preparation, design, and implementation that affect performance, outcome, and impact.
Logframe	Management tool used to improve the design of interventions, most often at the project level. It involves identifying strategic elements (inputs, outputs, outcomes, impact) and their causal relationships, indicators, and the assumptions or risks that may influence success and failure. It thus facilitates planning, execution and evaluation of a development intervention. Related term: results based management.

Outcome	The likely or achieved short-term and medium-term effects of an intervention's outputs. Related terms: result, outputs, impacts, effect.
Outputs	The products, capital goods and services which result from a development intervention; may also include changes resulting from the intervention which are relevant to the achievement of outcomes.
Recommendations	Proposals aimed at enhancing the effectiveness, quality, or efficiency of a development intervention; at redesigning the objectives; and/or at the reallocation of resources. Recommendations should be linked to conclusions.
Relevance	The extent to which the objectives of a development intervention are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donors' policies. Note: Retrospectively, the question of relevance often becomes a question as to whether the objectives of an intervention or its design are still appropriate given changed circumstances.
Results	The output, outcome or impact (intended or unintended, positive and/or negative) of a development intervention. Related terms: outcome, effect, impacts.
Sustainability	The continuation of benefits from a development intervention after major development assistance has been completed. The probability of continued long term benefits. The resilience to risk of the net benefit flows over time.

Executive Summary

I. Scope, methodology and limitations to this evaluation

This independent final evaluation covers the Project "Post WTO accession support to Viet Nam - Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary (SPS) compliance capacity development related to key export sectors" (UNIDO project US/VIE/08/004) funded by the Swiss State Secretariat for Economic Affairs (SECO). The evaluation work was carried out on request of the donor and UNIDO, based on Terms of Reference (ToRs) enclosed in Annex A and the UNEG evaluation norms and standards.

It aimed at the following four main purposes: (a) an assessment of the project, (b) validation of the findings and recommendations derived form the thematic evaluation of UNIDO's approach to Standards, Metrology, Testing and Quality (SMTQ) development, (c) draw lessons learned and provide recommendations for the continuous improvement of UNIDO's SMTQ projects and (d) contribute to the planned evaluation of UNIDO's country programme in Viet Nam. The evaluation was lead by the Senior Evaluation Officer of the UNIDO Evaluation Group and included an international evaluator appointed by UNIDO.

A combination of desk studies, literature review, statistical analysis, individual interviews, surveys and direct observation provided a sound basis for an evidence-based qualitative and quantitative assessment, including an insight into reasons why certain results were achieved or not. Main steps included (a) initial desk study of documents, (b) a mapping of STMQ service providers, (c) a comprehensive survey of beneficiary laboratories, (d) an in-depth enterprise survey by an independent Vietnamese research institute (CIEM) as well as visits to all project sites with interviews of a broad range of stakeholders during a two-week field mission.

Overall, evaluation findings are comprehensive, consistent and clear. Main limitations were that the project was still under implementation, inconsistencies/gaps in laboratory data, and the relative small sample of companies covered by the enterprise survey.

II. Project description

The project under evaluation was designed as a follow-up to "Market Access Support through the Strengthening of Capacities related to Standards, Testing and Conformity" (2004 – 2007), which was also funded by SECO. Its development objective was to "reduce technical barriers to trade for Viet Nam's exports in order to enhance access to global markets". The specific purpose of the project was firstly to support Viet Nam in meeting WTO TBT/SPS requirements related to metrology (through upgrading metrology laboratories in Hanoi, Ho Chi Minh City and Da Nang) and secondly to further develop/strengthen testing, certification and food traceability capabilities at the national level. The expected long-term impact of the project is a lower rejection rate of Vietnamese export products.

Main outputs produced included: (a) An upgrading of legal and industrial metrology; (b) Support to the development of two technical regulations, two for coffee and one for electromagnetic compatibility (EMC) including a regulatory impact assessment; (c) upgrading of testing laboratories relevant to key export sectors (d) building awareness and expertise for GLOBALGAP and OHSAS 18000 (e) preparation work for establishing a traceability system for a number of coffee processors, (f) building awareness and expertise on RoHS/REACH regulations of the European Union.

The project started in July 2008 for an expected duration of three years. An extension phase of the project by six months until December 2011 in order to complete remaining activities is currently under implementation. 78% of the project budget of 2.42 million USD has been committed and/or spent by the end of June 2012.

III. Main findings and conclusions

Project preparation benefitted from UNIDO's long-standing cooperation with STAMEQ and NAFIQAD. Design was based on a careful technical assessment of beneficiary institutions. At the outset of the project, a user survey among laboratory users was conducted as a basis to decide on specific testing/metrology capacities to be strengthened. The overall supply of testing/calibration services in Viet Nam was however not assessed and taken into consideration. The project document includes standard planning tools (logical framework), yet not a result-based budget. While the management structure defined in the project document was rudimentary, the more elaborated structure approved by the first Steering Committee Meeting meets good practices and worked well during implementation. In Viet Nam's more advanced development context, the type of "mixed project execution" used by UNIDO lead to a good balance between ensuring aid effectiveness and ownership of beneficiary governments.

Project management: Governance and day-to-day management worked generally well in practice. UNIDO selected the right CTA and NPC for a project in a more advanced development context. The CTA's background combined technical experience with practical management experience, which was a valuable asset for the project. The NPC's long experience in the field, her strong management/organizational skills, and her extensive network was the right match for a relatively complex project, working with different partners in the still challenging context of Viet Nam. Financial reporting to the Steering Committee and partners was rudimentary and not result-based.

Project relevance: The project was highly relevant and fully in line with the strategies, plans and policies of the GoV, objectives and priorities of the main counterparts, and the target groups. Relevance is not limited to the GoV's export-related policies, but includes consumer and environmental protection aspects. It is well aligned to international priorities, including the MDGs and UNIDO's core mandate and competencies. The project is one of SECO's well coordinated trade-related measures that aim to enhance competitiveness and value added of Vietnamese exports. Support provided to metrology and testing laboratories responded well to the needs of enterprises. Testing services are an important element for meeting buyer requirements, ensuring product quality, and meeting standards of importing countries. A strong and recognized compliance infrastructure scores high as an important factor relative to other elements of an enabling business environment. This perception is equally shared by exporters and non-exporters and is essentially also valid for metrology services. Availability of information to enterprises on RoHS and REACH is important, yet alone not sufficient, as confirmed by buyers and sector associations. Support of establishing traceability systems within the coffee industry is of relevance for complying with industry-specific standards. A comprehensive, holistic approach to strengthening coffee value chains would however better meet the needs of beneficiary companies. Their main concern is to achieve higher prices through better quality. Such a holistic support would require more funding. While GLOBALGAP and OHSAS18001 help companies to meet buyers' requirements, they are not really new in Viet Nam. The added value of organizing awareness raising events under the project is quite limited, because the necessary capacities to do this are already available.

Efficiency: A lack of a result-based financial reporting system makes an assessment of efficiency of fund use impossible. Efficiency of implementation is mixed. Good coordination with other donors contributed to efficiency. On the other hand, the project is considerably delayed, which is at least partially due to coordination problems and slow response of UNIDO to partners' requests. Another reason for delays is inappropriate sequencing of activities, notably the procurement of equipment. Strengthening of some testing capacities that were already available to the export sector before the project started also reduced efficiency.

Effectiveness: Planned outputs have so far only partially been achieved. An extension of the project by at least 12 months would allow completing the outstanding activities (support to laboratories, traceability systems for coffee producers). Even if this extension is granted, bringing the laboratories up to the level of being "capable" for international accreditation would still not resolve the problem of actually funding the accreditation. The evaluators are also concerned that support to the RRIC alone will not address the challenges of enterprises in complying with RoHS and REACH standards. For implementing RoHS in the electronic sector for instance, companies will have to introduce major changes in their production processes to comply. It seems quite unlikely that VINACHEMIA has the necessary expertise and capacity to provide the necessary assistance to them. A key problem is also whether the companies have the necessary financial resources to fund upgrading of their technology. The evaluators also wonder to what degree QUATEST 3 is able to meet RoHS/REACH testing requirements, as reported. REACH alone covers more than 3000 substances. The focus seems to have been placed on strengthening the capacities in the product sectors for which there was already an identified need from QUATEST 3 clients. Good cooperation with counterparts, the high quality of expertise provided and the selection of the right type of laboratory equipment contributed to effectiveness of implementation. UNIDO selected the right type of activities, which directly benefitted stakeholders. Increasing the use of local expertise by "pairing" international with national experts would be a way to improve know-how transfer. It would also allow a regular follow-up on international expert visits.

Impact: As many of the key outputs have just recently been completed, it is rather early to asses the impact level at this stage. Combining the results from the laboratory and enterprise survey indicates a positive impact on competitiveness of companies using testing and calibration services from STAMEQ and NAFIQAD. Quantifying benefits for companies in economic terms is not possible. Capacity building provided by the project contributed furthermore to the accreditation of QUACERT as a GLOBALGAP certification body in June 2010. It is too early to draw any conclusions on company-level impact of the six certifications that have been granted by QUACERT since. Last but not least, there is evidence for spill-over effects from capacity building provided by STAMEQ to Lao PDR and Cambodia and the role of QUATEST 3 as an ASEAN reference lab for microbiology.

Sustainability: Expertise built within the laboratories seems to be sustainable, with insignificant risk to be lost through staff turnover. Without further donor support however, most laboratories are unlikely to maintain expensive international accreditation. Laboratories do have or are able to obtain a budget for repairing, maintaining and replacing equipment. It is too early to assess the sustainability of the planned pilot traceability systems in companies. However, company interviews revealed that they are only willing to use a system, if they can reap an economic benefit from it.

IV. Main Recommendations

To SECO:

- Approve an extension phase until end of 2012 with additional funding, subject to a clear, detailed proposal by UNIDO. Work should focus on achieving existing objectives, while selectively complementing or deepening support to existing institutions, where there is clear evidence that this contributes to a better achievement of the overall objectives. After the extension phase, close the project.
- Provide the necessary funding to UNIDO to develop a detailed proposal for future support to trade capacity building in Viet Nam. Future SMTQ support should be integrated with the other projects of the upcoming UN/UNIDO programme in Viet Nam.

Recommendations to the UNIDO TCB branch on the project under evaluation:

- Provided SECO agrees in principle, submit a proposal for funding of an extension phase until December 2012 to SECO and STAMEQ to the next Steering Committee Meeting. During extension, all planned activities should be completed. Additional support to existing beneficiaries may be provided, where this contributes to the current objectives.
- Prepare a proposal how to integrate SMTQ into next Viet Nam country programme (e.g. cleaner production; energy efficiency; CSR/private standards; explore RoHS/REACH needs; strengthening national accreditation).
- Formally close the project at the end of 2012.

General recommendations to the UNIDO TCB branch on SMTQ projects:

- The UNIDO TCB Branch should continue implementing the recommendations of the thematic evaluation of SMTQ activities into new projects and monitor the status of their implementation for all ongoing projects.
- At the identification stage, conduct a comprehensive assessment of the existing supply of SMTQ services relevant key sectors targeted by the project. Based on this, prioritize those services that would have the most significant impact and then identify possible institutions to be strengthened. Assess existing capacities and select those institutions, where building the necessary additional service capacities can be achieved with the least additional investment possible. Establish a specific action plan that outlines in details what additional equipment, training and credentials (accreditation) would be needed to meet the priority needs of companies identified.
- Equipment procurement and related training should be sequenced at an earlier project stage in order to allow for proper training and time for preparing accreditation, where planned. Communicate procurement and training plans to partners as early as possible.
- Longer exposure of key laboratory staff to good practices (attachment trainings) instead of short study visit would further increase the effectiveness of trainings.
- Support to universities in integrating “quality management” into their curricula would allow for systematically strengthening the pool of local expertise.

General recommendations to UNIDO

- Ideally, plan projects within the UNIDO country programme as synergetic from the outset, rather than identifying and establishing links between different projects ex post. Consider the option of calling for co-funding, where several UNIDO project funded by different donors cover the same areas with the same counterparts as opposed to

implement several coordinated projects in parallel. This would allow a reduction of overhead cost and further facilitate coordination.

- Formalize specific cooperation among projects through agreements and include a clear coordination mechanism.
- In line with UNIDO's change management programme, the UNIDO representative or head of operations should be given responsibility for day-to-day project management. This requires strengthening project governance structures.
- Wherever practical, UNIDO should contribute to building human capacity by twinning international experts with local experts. Local experts present in the country could also bridge gaps between international expert missions.
- The Procurement Unit should together with the UNIDO Country Director and the TCB Branch analyze the problems that occurred (what were the reasons for problems encountered with customs clearance and how to prevent them in the future).
- Make result-based financial reporting mandatory for all projects. Data could be used to systematically benchmark projects and made available within UNIDO for the planning of new projects.

Figure 1: Main strengths and weaknesses of the project

Main Strengths	Main Weaknesses
1. **Project Document:** Significant improvement in applying standard project management tools (logical framework). 2. **High relevance for all beneficiaries** (government institutions, laboratories, enterprises using services from STAMEQ and NAFIQAD). 3. **Right choice of project personnel** (CTA and NPC). 4. **Good management and governance** (with some exceptions, e.g. sequencing of and communication with beneficiaries on equipment procurement). 5. **Flexibility of management** to respond to changed needs. 6. **Logical framework updated** to reflect changes made by the Steering Committee. 7. **Detailed, result-based and accurate operational reporting.** 8. **Right type and high quality of expert input**, including attachment trainings. 9. **Coordination with other SMTQ-related projects** (although not formalized).	1. **Needs assessment during implementation** included a survey of companies, yet not an overall analysis of supply and demand of SMTQ services. 2. **Consequently, a certain bias towards satisfying needs of government testing/calibration providers** rather than filling gaps (SMTQ services not available in the country). 3. **Effectiveness of traceability systems rather questionable**, if not integrated into a more comprehensive approach to strengthen value chains. 4. **Missed opportunities to capitalize on synergies within the UNIDO Country Programme** (beyond SMTQ). 5. **Financial planning and reporting** are not result-based; no detailed assumptions are included into the budget. 6. **Procurement:** Sequencing and planning in practice, insufficient communication with partners (who will receive what type of service by when). 7. **Little local expertise used** – no systematic approach yet to pair national with international experts. 8. **Quantity of support to laboratories** (frequency of expert visits too low for the less advanced laboratories).

I

Background, methodology and process of this evaluation

A. Scope and objectives

This independent final evaluation covers the Project "Post WTO accession support to Viet Nam - Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary (SPS) compliance capacity development related to key export sectors" (UNIDO project US/VIE/08/004) funded by the Swiss State Secretariat for Economic Affairs (SECO). The evaluation was carried out on request of the donor and UNIDO, based on Terms of Reference (ToRs) enclosed in Annex A, the UNIDO Evaluation Policy and the UNEG evaluation norms and standards[1]. Key purposes of this evaluation were the following:

- Assessment of the project's relevance, effectiveness, efficiency, sustainability and impact;
- Examine and validate the findings and recommendations of the thematic evaluation of UNIDO's approach to Standards, Metrology, Testing and Quality (SMTQ) development[2], which was conducted in 2009 and 2010;
- Develop lessons and recommendations for the continuous improvement of future SMTQ projects in Viet Nam and elsewhere;
- Contribute to the planned country evaluation of UNIDO's presence in Viet Nam in 2011.

The evaluation team was composed of the Senior Evaluation Officer of the UNIDO Evaluation Group, Mr. Peter Loewe (team leader)[3] and an international evaluator[4] appointed by UNIDO, Mr. Daniel Keller. Both evaluators were not involved in the preparation and/or implementation of the project[5]. The international evaluator was the team leader for the final evaluation of the predecessor project (US/VIE/03/083 "Market access support through the strengthening of capacities related to Standards, Metrology, Testing and Quality" funded by SECO).

The final evaluation of Project TE/RAS/06/001 "Trade Capacity Building in the Mekong Delta Countries of Cambodia, Lao PDR and Viet Nam through Strengthening Institutional and

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[1] United Nations Evaluation Group (UNEG), Norms for Evaluations in the UN System, April 29, 2005
[2] Thematic Evaluation of UNIDO activities in the area of Standards, Metrology, Testing and Quality (SMTQ), co-funded by the Swiss State Secretariat for Economic Affairs (SECO), Final Report, Volume 1, April 2010 (based on the work of BENNET, Ben; LOEWE, Peter; KELLER Daniel).
[3] Peter Loewe, Senior Evaluator, UNIDO Evaluation Group
[4] Daniel P. Keller, Director, Swiss Consulting Co. Ltd., Hanoi - Viet Nam
[5] This principle is underlined in the UNIDO Evaluation Policy: "For independent evaluations, the members of an evaluation team must not have been directly responsible for the policy-setting, design or overall management of the subject of evaluation (nor expect to be so in the near future)".

National Capacities related to Standards, Metrology, Testing and Quality (SMTQ) – Phase II" was conducted in parallel by the same evaluators.

B. Project overview

The project under evaluation was designed as a follow-up to a predecessor intervention "Market Access Support through the Strengthening of Capacities related to Standards, Testing and Conformity" (2004 – 2007).

It is part of UNIDO's long-term collaboration with the Directorate for Standards, Metrology and Quality (STAMEQ) in the area of Standards, Metrology, Testing and Quality (SMTQ). Support to STAMEQ started in 2002 through phase I of a regional project funded by the Norwegian Agency for Development Cooperation (NORAD), under the abbreviated project title *Mekong I*[6]. The second phase of this regional project *(Mekong II)*[7] was implemented in parallel with the two SECO-funded projects. It is also a component of UNIDO's Integrated Programme in Viet Nam (IP 2006 – 2010)[8] and embedded into the "Joint UN Programme for Trade Development in Viet Nam". The latest updated version of the project document dates from July 13, 2009[9]. During implementation, the logical framework was amended several times to reflect changes made by the Steering Committee, most recently in May 2010[10].

The overall development objective of the project remained to "reduce technical barriers to trade for Viet Nam's exports in order to enhance access to global markets". The project started in July 2008 for an expected duration of three years. UNIDO and SECO agreed to extend the project by six months until December 2011.

Its major purpose was two-fold: Firstly to support Viet Nam in meeting WTO TBT/SPS requirements related to metrology through upgrading metrology laboratories in Hanoi, Ho Chi Minh City and Da Nang and secondly to further develop/strengthen testing, certification and food traceability capabilities at the national level. The expected long-term impact of the project is a lower rejection rate of Vietnamese export products.

The following briefly summarizes the work undertaken by the project:

- **Upgrading of legal and industrial metrology:** The Viet Nam Metrology Institute (VMI) received equipment and support to meet the requirements of CIPM[11] Mutual Recognition Agreement (MRA) membership for selected areas of metrology (time and frequency, diameter standards, mass, laser radiations, line standards and gauge blocks). The Quality Testing Centre 3 (QUATEST 3) under STAMEQ received support for maintaining international accreditation of its mass and temperature laboratories.
- **Support to the development of two technical regulations,** two for coffee (Ministry of Agriculture and Rural Development, MARD) and one for electromagnetic compatibility

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[6] TF/RAS/02/003 entitled "Market access and trade facilitation support for Mekong Delta Countries" covering Cambodia, Lao People's Democratic Republic (PDR) and Viet Nam, evaluated in 2005.
[7] "Trade Capacity Building in the Mekong Delta Countries of Cambodia, Lao PDR and Viet Nam, through Strengthening Institutional and National Capacities Related to Standards, Metrology, Testing and Quality (SMTQ) – Phase II (TE/RAS/06/001), evaluated in 2011.
[8] UNIDO, Integrated Programme of Technical Cooperation with the Socialist Republic of Viet Nam, February 2006, page 9 (under Component 1: "SME Institutions")
[9] See Interoffice Memorandum dated 13 July 2009 regarding amendments to the original Project Document (signed on 29 July 2008) based on decision by the Steering Committee meeting on 6 October 2008.
[10] Revised at the Steering Committee Meeting on June 2010 (outputs 1.2 and 2.2), endorsed by UNIDO Programme Approval Committee. The budget remained unchanged.
[11] Comité international des poids et mesures

(EMC) (Ministry of Science and Technology, MOST). Furthermore, the project piloted a Regulatory Impact Assessment (RIA) for Electromagnetic Compliance (EMC) on air conditioners and refrigerators and also evaluated the effects of one of the two coffee regulations on a pilot group of 5 coffee producers.

- **Upgrading of testing laboratories relevant for key export sectors:** The project provided funding to the food testing laboratories at QUATEST 3 and NAFIQAD (National Agro Forestry Fisheries Quality Assurance Department) to *maintain* their international accreditation. QUATEST 1 (textile and food microbiology), QUATEST 2 (food microbiology), QUATEST 3 (food microbiology and genetically modified organisms, GMO, REACH/RoHS – see below) and NAFIQAD 1 (food microbiology) received equipment and assistance to *prepare* for accreditation. QUATEST 3 received support to *prepare* for accreditation as a proficiency testing provider for food.
- **Raise awareness and strengthen expertise for GLOBALGAP, OHSAS 18000:** Together with QUACERT, two awareness courses on OHSAS 18001, three awareness courses and one lead auditor course on GLOBALGAP were conducted. .
- **Traceability for coffee producers:** The project supported a study visit for six experts involved into the drafting of technical regulations on food traceability to the traceability center in Egypt. 10 coffee producers for piloting traceability schemes were identified. It is planned to pilot a bar coding system for traceability in three of these companies.
- **RoHS/REACH:** The project provided assistance to the Chemical Agency (VINACHEMIA) under the Ministry of Industry and Trade (MoIT) to set up a REACH/RoHS information centre (RRIC), including delivery of computers for the new office, "mentoring", and a study visit to existing information centres in Thailand. It also assisted QUATEST 3 to prepare for its accreditation in RoHS/REACH testing through awareness raising, training of experts and procurement of testing equipment.

The total budget of the project (including support costs) is USD 2.42 million, 78% of which has been committed and/or spent by June 2011.

Figure 3: Structure of Expenditures according to main UN-budget lines

Expenditures by budget lines/type of input		Allotment	Total as at 30.06.11 in US$	Balance	% of actual expenditure (rounded)	% of budget spent (rounded)
11-00	International Experts	661,000	567,370	93,630	35%	86%
13-00	Support Staff	36,500	36,314	186	2%	99%
15-00	Local Travel	18,000	17,537	463	1%	97%
16-00	Other Personnel Costs	35,700	28,556	7,144	2%	80%
17-00	National Experts	104,000	82,146	21,855	5%	79%
21-00	Sub-contract	336,000	223,781	112,219	14%	67%
32-00	Study Tours	0	0	0	0%	0%
33-00	In-Service Training	73,500	64,450	9,050	4%	88%
34-00	Non-UNDP Group Training	23,500	21,245	2,255	1%	90%
49-00	Equipment	766,720	567,125	199,595	35%	74%
51-00	Miscellaneous/Sundries	39,000	30,153	8,847	2%	77%
99-99	**Total**	**2,093,920**	**1,638,677**	**455,243**	**100%**	**78%**

Source: Project Manager, September 2011

In February/March 2011 the Project Manager and the CTA conducted an identification mission for a possible follow-up project. This resulted in a preliminary outline of a follow-up phase, which was shared with the evaluation team.

C. Main evaluation steps and methodology

The evaluation combined desk studies, literature review, statistical analysis, individual interviews, direct observation and a company survey. Together, these tools provided a sound basis for an evidence-based qualitative and quantitative assessment. The main steps undertaken included:

Briefing and initial desk study: At the outset of the mission, the team received a briefing by the Project Manager at UNIDO Headquarters and the Chief Technical Adviser (CTA) by phone. The evaluators further reviewed a number of background papers and reports (see Annex C), which were subsequently validated through interviews and qualitative assessments.

Mapping of providers of laboratory testing and metrology services: To contextualize the project and assess its relevance and impact, the team identified and mapped all public and private laboratories (testing, metrology) that are officially accredited by the Vietnamese Laboratory Accreditation System (VILAS)[12]

Survey among beneficiary laboratories: In order to allow for the preparation of statistical data and other information, the laboratories received questionnaires for the interviews prior to the visit of the evaluator(s) (Annex E). The survey also incorporated questions to validate the sustainability criteria at laboratory level identified in the thematic evaluation.

In-depth enterprise survey: As reflected by the ToRs, the evaluation emphasized on assessing relevance of and impact on "key export sectors" targeted by the project. To this end, the UNIDO Evaluation Group contracted the Central Institute for Economic Management (CIEM)[13] for an in-depth survey among clients of beneficiary laboratories and a control group. The survey was conducted under methodological guidance of the evaluators and covered a sample of 30 companies, 21 of which were selected from customer lists of beneficiary laboratories provided by the project and 9 as a control group from CIEM's company database. Companies from both groups were first categorized according to geographic locations, ownership and industry sectors (see table 1). Among those groups, the sample to be interviewed was randomly selected. 15 enterprises who did not reply were replaced with other 15 companies from the same categories. A copy of the survey questionnaire established by the evaluation team is included in Annex E. CIEM delivered a comprehensive analytical report, which was used as an input to assess relevance and impact of the project at the enterprise level.

[12] Database of the Viet Nam Laboratory Accreditation System (VILAS)
[13] The survey was lead by Dr. Nguyen Thi Tue Anh, Vice-Director.

Figure 4: Initial selection of companies for the survey

	Client list of project (9)			CIEM (10)			Total
Calibration/Verification	**North**	**Center**	**South**				
Mass	1		1				2
Length			1				1
Temperature	1						1
Pressure			1				1
Mechanical			1				1
Electrical			1				1
Physio-Chemistry			1				1
Volume/flow	1						1
Total	**3**	**-**	**6**				**9**
Laboratories	North	Center	South	North	Center	South	
Food/Beverages (excl. Fisheries Products)	1	1	1	1	1	1	6
Fisheries Products	1	1	1	1		1	5
Furniture/wooden products			1	1		1	3
Garments	1		1	1		1	4
Electrical/Electronic			1	1		1	3
Total	**3**	**2**	**5**	**5**	**1**	**5**	**21**

Enterprise associations, selected beneficiary companies and international buyers were interviewed for an additional validation of the survey results.

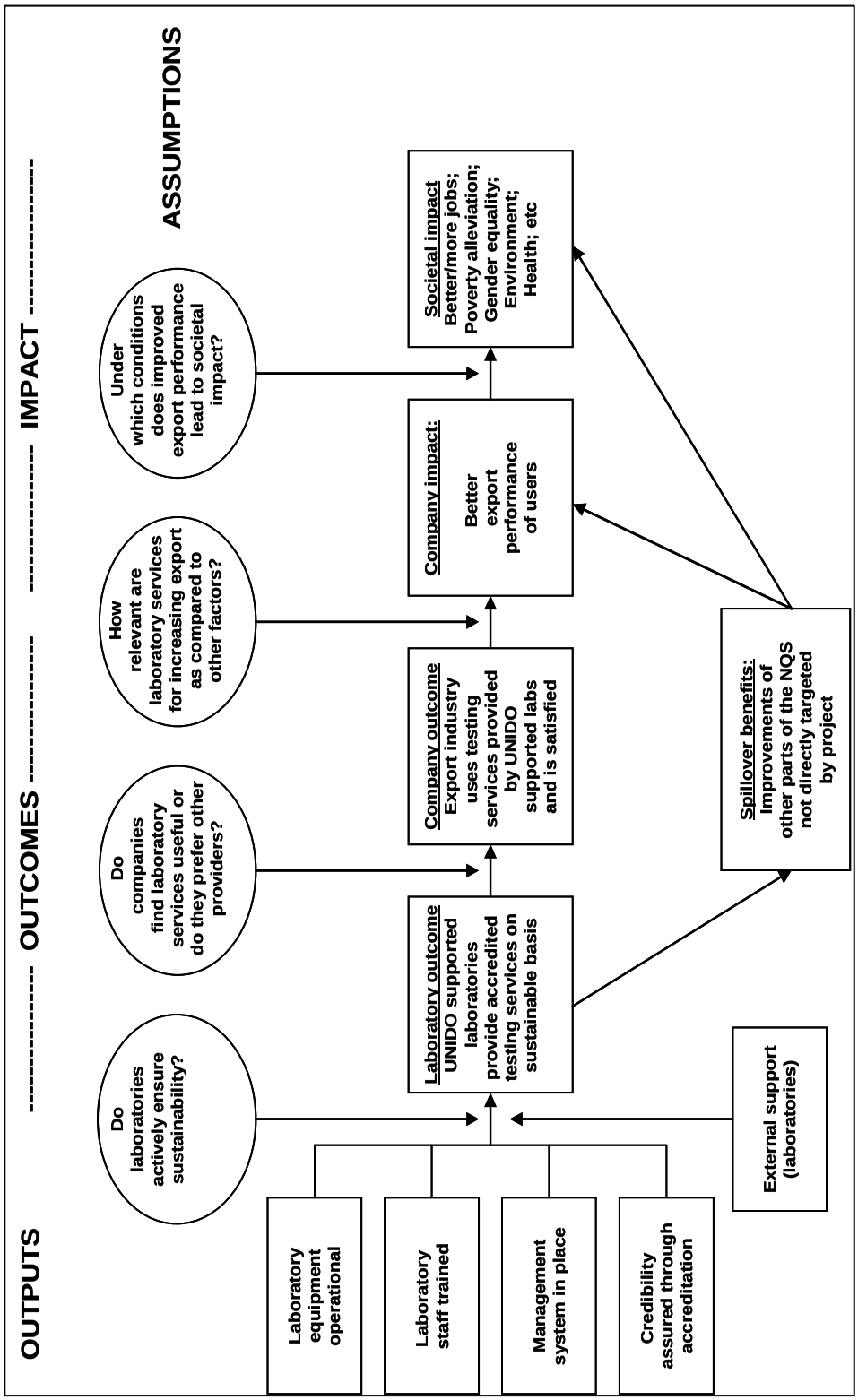
Stakeholder interviews and direct observation during field mission: During a three-week mission covering all project sites, the team conducted extensive interviews with counterparts, other projects, direct beneficiaries, consultants, enterprises (including foreign buyers), and the UNIDO Country Director in Hanoi. A detailed list of persons met is included in Annex B. The team applied an interactive, participatory evaluation approach. Discussions with stakeholders during the field visits were open and constructive. Direct observation at beneficiary institutions and selected enterprises further validated the findings and conclusions.

De-briefing: A first draft report was circulated to the TCB Branch, the CTA and STAMEQ for factual verification. The evaluators also discussed the findings, conclusions and recommendations with the UNIDO Trade Capacity Building (TCB) Branch in more detail. Feed-back received was subsequently integrated into a final version of the report.

Availability of information: The UNIDO project management provided the evaluators with a complete set of project documentations, including a comprehensive, well-written interim progress report. All stakeholders were willing to share information, also on sensitive issues. Overall, the information obtained has been comprehensive, consistent and clear.

Intervention logic: As far as the interventions at the level of testing and calibration laboratories are concerned, Figure 2 shows the stylized underlying intervention logic of UNIDO projects, which is derived from the thematic evaluation.

Figure 2: Generic intervention logic of UNIDO's SMTQ projects



D. Limitations

Main limitations of this evaluation were the following:

Project still under implementation: At the time of the evaluation, certain major outputs of the project were not yet completed. For these, the evaluators attempted to draw intermediate conclusions, including an assessment of likelihood that objectives will realistically be achieved until the end of the project.

Financial reporting is not result-based: The financial reporting of the project does not deliver data on type of expenditures by outputs. Although in line with current UNIDO reporting standards, this is not compliant with good practice in Results Based Management. As expenditures by outputs are not transparent, a detailed assessment of project efficiency is not possible.

Statistical data retrieved through laboratory survey incomplete: Laboratory data reported in the interim report is incomplete and partially inconsistent with the data of the laboratory survey. Part of it is due to the fact that the different fields of metrology and testing supported by the project are not individually accounted for, because laboratories also provide other services. The evaluators also faced challenges to identify the users of the services. Good laboratory practices require that the origin of samples remains anonymous to ensure impartiality. For small providers with only one laboratory (e.g. QUATEST 2 and NAFIQAD), the data provided by the administration departments allows some conclusions on users. For larger institutions, it is not possible to trace specific data ex post, although a rough estimate remains possible.

Limitations of the enterprise survey: The purpose of the survey was an assessment of relevance and impact of laboratory services strengthened under the project at the company level. Including a control group allowed to validate findings derived from the interview of STAMEQ's and NAFIQAD's clients. The purpose was not to obtain statistically relevant data beyond the project. For this, the sample size would have been too small. Initially, the enterprise survey was designed for 30 enterprises and a representative sample of that size was defined. However, as it turned out during the survey, 15 of the selected enterprises refused to participate. Enterprises in Viet Nam feel overwhelmed by too many surveys and are increasingly reluctant to participate in surveys.

Limitations of the mapping of laboratories: In order to avoid overstating supply by counting service agents with no own infrastructure, the choice was made to map only the laboratories accredited according to the VILAS into the mapping. Another reason was the lack of reliable information on unaccredited laboratories, most of which are based at research institutes, universities or internal laboratories of companies that provide services to outside clients "informally". Most of those are not directly competing with STAMEQ and NAFIQAD. On the other hand, it should be noted that accreditation of a laboratory does not mean that it provides laboratory services to outside clients. Anecdotic evidence shows that internal company laboratories may or may not offer their services in the testing market. The same applies to laboratories in government institutions, some of which merely serve the purpose of government management, education or research. Last but not least, accreditation only gives information about testing/calibration methods available, but not about the actual testing volume and the products tested. Thus, while the mapping provides a quite comprehensive picture of the supply in different testing/calibration fields, it does not allow drawing conclusions on market shares of STAMEQ and NAFIQAD.

II

Country context

A. General context

After years of war followed by the legacy of a centrally planned economy, the ruling Communist Party embarked on a comprehensive social and economic reform agenda in Viet Nam. The “Doi Moi” or renewal policy launched in 1986 resulted in a gradual transition towards a market economy with socialist orientation in combination with economic liberalization and integration into the global economy.

Since then, the deregulation of domestic markets, the liberalization of trade and an enabling framework for domestic and foreign investments have successfully transformed the economy. The end of the US embargo in 1994, Viet Nam’s accession to the Association of South East Asian Nations (ASEAN) in 1995 and to the World Trade Organization (WTO) in 2007 further accelerated and deepened reforms. Meanwhile, the private sector has become an important engine for growth and job creation. Today, Viet Nam stands out as one of the fastest growing economies with an unprecedented record in poverty alleviation. Between 1993 and 2010, the poverty rate declined from 58% to less than 17%. Viet Nam is on track to achieve most Millennium Development Goals ahead of schedule and reached middle-income status in 2010.

Agriculture's share of economic output has continued to shrink from about 25% in 2000 to about 20% in 2010, while still employing 53.9% of the population. Industry's share increased from 36% to 41% in the same period. Services employ 25.8% of the population (2009) and contribute 38.3% to the GDP. Viet Nam’s key export commodities are clothes, shoes, marine products, crude oil, electronics, wooden products, rice, and machinery.

Viet Nam’s key export markets are the US 20%, Japan 10.7%, China 9.8%, and South Korea 4.3%. The global recession has hurt Viet Nam's export-oriented economy, with GDP in 2009-10 growing less than the 7% per annum average achieved during the last decade.[14]

Export growth, foreign investment and the strong development of the private sector are the key drivers of Viet Nam’s economic growth. Nevertheless, in order to reach its target to become an industrialized country by 2020, the Government needs to address important challenges. Sustainable growth requires firstly that the structural reform agenda is completed. This includes improvements in the regulatory framework, better macro-economic management, reform of state-owned enterprises (SOEs), strengthening of financial services and more effective management of natural resources. Secondly, public administration reforms towards efficiency, accountability and transparency needs to be accelerated. While Viet Nam's

[14] Retrieved from CIA World Fact Book www.cia.gov on 30 June 2011

economy remains dominated by SOEs, which still produce about 40% of GDP, Vietnamese authorities have reaffirmed their commitment to economic liberalization and international integration.

More recently, the strong growth-oriented policies combined with an increasing trade deficit resulted in pressure on the Vietnamese currency. Inflation might considerably exceed the 11.8% recorded in 2010. This has caused the government to impose a number of stringent measures, including non-tariff trade barriers and a strong control of the foreign exchange-rate market, to control inflation and narrow the trade gap.

The Government increasingly emphasizes *quality* rather than the *quantity* of growth. A key element is to shift from exporting raw commodities to more internationally competitive, value added products and services.

B. Mapping of laboratories

The following mapping includes all testing and metrology *laboratories* in Viet Nam that are accredited according to VILAS.[15] In other words, it is a mapping of infrastructure and not of service providers (some of which are merely agents without own testing facilities). This choice was made to avoid overstating supply by counting laboratories twice (once as a direct service provider, once as a subcontractor).

As mentioned under "limitations" in section I.C above, many non-accredited small laboratories in research institutes, universities, government management agencies provide testing/calibration services to generate additional revenues for their non-profitable core activities (e.g. research). Although their quality is not comparable with STAMEQ and NAFIQAD, these services are still used, because of lower prices and because clients are not familiar with accreditation. Due to the lack of data and the fact that they are not really of use to exporters, they were not included into the mapping.

Because information on the products tested in each laboratory is not available, the mapping is structured according to the *testing fields the laboratories are accredited for*. Mapping according to *products* would also have the significant shortcoming that laboratories testing multiple products would be included several times. Also not possible was to identify which of the accredited laboratories provided what volume and type of services to outside clients. With the aim to provide a comprehensive picture, *all* testing fields VILAS provides accreditation for are included rather than only those areas covered by the project.

In order to obtain an idea of *regional coverage and involvement of the business sector*, the evaluators analyzed the number of accredited testing/calibration laboratories per field and region (north, centre, and south) and categorized them into those operated by public service providers (institutions, government offices) and by companies.

Public service providers include all laboratories *except* those operated by businesses.[16]

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[15] Directory of Accredited Bodies, Bureau of Accreditation, 2010

[16] Regardless on ownership (private, state-owned, foreign-invested or mixed) - information on ownership of businesses is not published – thus businesses include also state-owned companies).

Figure 5: Number of accredited testing laboratories

	North			Center			South			Total Viet Nam		
Field of testing	Private	Public	Total	Private	Public	Total	Private	Public	Total	Private	Public	**Total**
Mechanical Field	21	13	34	0	0	0	18	7	25	39	20	**59**
Electrical – electronic Field	12	13	25	2	1	3	12	7	19	26	21	**47**
Chemical Field	29	51	80	11	20	31	52	40	92	92	111	**203**
Non-Destructive Testing Field	1	4	5	0	0	0	2	0	2	3	4	**7**
Biological Field	5	10	15	3	13	16	21	17	38	29	40	**69**
Civil Engineering Field	11	9	20	7	6	13	15	8	23	33	23	**56**
Pharmaceutical Field	0	3	3	0	1	1	6	7	13	6	11	**17**
Medical Testing Field	0	1	1	0	0	0	0	2	2	0	3	**3**
Bio Safety Level 3 Testing Field	0	1	1	0	0	0	0	0	0	0	1	**1**
Total	**79**	**105**	**184**	**23**	**41**	**64**	**126**	**88**	**214**	**228**	**234**	**462**

Figure 6: Number of accredited calibration laboratories (by VILAS)

	North			Center			South			Total Viet Nam		
Measurement and Calibration	Private	Public	Total	Private	Public	Total	Private	Public	Total	Private	Public	**Total**
Mass	0	3	3	0	0	0	0	3	3	0	6	**6**
Force/Hardness	1	4	5	0	2	2	2	1	3	3	7	**10**
Length	0	1	1	0	0	0	0	1	1	0	2	**2**
Temperature	0	5	5	0	2	2	8	5	13	8	12	**20**
Pressure	2	3	5	0	0	0	9	6	15	11	9	**20**
Mechanical	0	0	0	0	0	0	0	0	0	0	0	**0**
Electrical	3	6	9	1	2	3	5	3	8	9	11	**20**
Physical-Chemistry	0	2	2	0	0	0	0	1	1	0	3	**3**
Volume/flow	0	1	1	0	0	0	0	1	1	0	2	**2**
Other	2	10	12	0	0	0	3	5	8	5	15	**20**
Total	**8**	**35**	**43**	**1**	**6**	**7**	**27**	**26**	**53**	**36**	**67**	**103**

Professional Associations (testing)

VINALAB[17] (based in Hanoi, established on 17 July 2003 – currently 115 members) and VINATEST (based in HCMC, established in 2002) are the two professional associations for testing services providers in Viet Nam. Both associations aim at providing a forum to share experience, organize training events and occasional exhibitions (laboratory equipment).

[17] See webpage http://www.vinalab.org.vn - only in Vietnamese. The association also publishes a newsletter ("Testing today")

Conclusions:

- The mapping shows that the nationally accredited laboratory infrastructure in Viet Nam is well developed. It is operated by a multitude of institutions, including both the public and private sector. This observation is in particular true for Ho Chi Minh City and Hanoi, where STAMEQ competes with a multitude of private testing providers. The number of accredited testing laboratories versus laboratories in measurement and calibration indicates that competition in testing services is much higher than in the field of metrology services.
- Most laboratories are however highly specialized on a number of key products and are only accredited for a few parameters. Currently, no other service provider in Viet Nam is able to cover the same broad range of testing and metrology services as STAMEQ. This confirms anecdotic information that the scope of services of all key competitors mentioned by STAMEQ and companies surveyed[18] is quite narrow and they do not compete in all fields. Some of them also subcontract services. This also applies to some of the foreign-invested laboratories (e.g. TUV and BUREAU VERITAS are clients of QUATEST 3).
- Although the scope of this evaluation did not allow a detailed mapping of individual testing *services* available in the market, it indicates that the project supported at least partially the development of testing capacities that are already offered by other service providers in the market, including private companies. Since STAMEQ charges more or less market rates for testing, the "public service" argument, e.g. affordability of testing services for SMEs is not valid. All laboratories under STAMEQ have the status of "Independent Scientific-Technological Institutions" and must be financially self sustaining as such.
- Using donor support to develop profitable services in order to cross-subsidize other services that are *essential* but not lucrative enough for private testing suppliers could be a justification. But there is no evidence that this is the case, except for certain fields of metrology. Another reason could be to strengthen competition in order to decrease testing prices in the market, but again, this does not seem to be the case in Viet Nam.

[18] For example QUATEST 3: TUV, SGS, BUREAU VERITAS, two private companies (Hoan Vu, Hai Dang), NAFIQAD 4, Institute of Public Health.

III

Project preparation, management and implementation

A. Project preparation

While there was not specific planning phase, identification and formulation benefitted from UNIDO's experience gained through the long-standing cooperation with STAMEQ/NAFIQAD in general as well as from the predecessor projects (NORAD-funded regional project, SECO-funded stand-alone project) in particular.

Within the broader field of trade-relevant areas of SMTQ, the project specifically addresses challenges related to Technical Barriers to Trade (TBT), and partly Sanitary and Phytosanitary Measures (SPS Agreement under WTO). The emphasis was on "comply" aspects, with a clear focus on strengthening the compliance infrastructure (RRIC). The project combined capacity building testing and metrology laboratories with selective strengthening of the "demand side", for instance through awareness-raising on REACH/RoHS, OHSAS 18000, and GLOBALGAP.

Capacity building and awareness-raising were provided through institutions, with the exception of support to the piloting of a traceability system in a group of selected coffee companies, which is directly delivered through UNIDO experts. Still lacking is an institutionalized, systematic approach to build a local pool of high-quality expertise in the field of SMTQ, e.g. through offering specialized courses at the university level. There is currently no specialized course for practitioners (e.g. quality managers in companies) at the graduate or post-graduate level.

The project matches perfectly the operational mandate and the core competencies of UNIDO[19], which is to alleviate poverty and promote social advance, by supporting developing and transition countries to participate in the world production system, to raise productivity and to develop competitive economies.

On the side of the donor, enhancing trade infrastructure, the reduction of trade barriers, measures to increase competitiveness of products, promoting standards and quality labels are among the core areas of SECO's support to developing and transition countries.[20]

The needs assessment included an assessment of services provided by beneficiary institutions against demand of their clients, but not against supply available in the country in general. An analysis of SPS/TBT challenges relevant to key export sectors/countries provided the basis for identifying key areas of intervention. The gap analysis of the compliance infrastructure (supply

[19] UNIDO in brief, June 2005
[20] See country strategy outlined in SECO's factsheets for Viet Nam, May 2011.

side) however focused on the predefined beneficiary institutions rather than on the entire system of SMTQ service providers in Viet Nam. Surveys among industry users of metrology/testing services about their exact needs were part of project activities at the beginning of implementation but not at the *design* stage. Results of client surveys were used for fine-tuning the scope of specific areas to be strengthened and expanded.

Building the project on an assessment of industry needs is a clear improvement, as compared to earlier UNIDO projects but it still treats STAMEQ and NAFIQAD as if they were monopoly providers of testing/calibration services and not two out of many (see mapping of service providers in section II.B above). The risk of not conducting an overall assessment of supply at the country level is that the project might lead to duplications instead of filling gaps of essential testing/calibration parameters not available in the country. It also implies a risk of distorting the market unintentionally for services that are also provided by private sector testing/calibration providers.

The donor environment was carefully taken into consideration

The project was designed as a complementary measure to the following TBT/SPS interventions[21]: The EU Technical Assistance Programme for Viet Nam (ETV 2, 2005 – 2009, component 6 – quality control); some elements of the ASEAN-EU Programme for Regional Integration Support (phase II, component 1, covering standards and conformity – excluding coffee and EMC, 2006 – 2009); AFD (2006 – 2010, covering organizational aspects of STAMEQ – separation of administrative from commercial activities), JICA (covering standards and conformity in the field of EEE, 2009 – 2013), USAID (STAR phase II 2005 - 2009, providing some input to WTO-compliance of SMTQ-relevant legislation); CIDA (support to SPS-related laboratories, including QUATEST 2 and 3, 2008 - 2013); DANIDA (Business Support Programme, support to STAMEQ's certification capacities for GLOBALGAP, 2005 - 2010), FAO: improvement of coffee quality (implemented with MARD – also part of One UN-Programme in Viet Nam).

Selection of beneficiary institutions

With the exception of VINACHEMIA, which was selected as the newly established government-mandated REACH/RoHS information center, the direct beneficiaries of the project were determined to complement/expand the support to the same institutions under phase I, rather than by defining priorities based on a new, comprehensive "gap analysis" (see also comments to needs assessment above).

Standard planning tools properly used

The project was designed using the logical framework approach. The vertical and horizontal logic of the logframe are consistent, with exception of output 1.2 (piloting the formulation of standards using regulatory impact assessment), which is not linked to objective 1 (strengthening metrology in order to meet WTO TBT/SPS requirements). It includes performance indicators, the baseline, means of verification and assumptions. Duration and budget of the project are commensurate with the planned scope. Most of the recommendations made in the final evaluation of the predecessor project were taken up and the use of standard planning tools has been significantly improved. Some further improvements would be possible by specifying risks and the way to address them at the level of outputs.

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[21] Source: Donor mapping conducted by UNIDO on request of SECO, selectively validated by the evaluators, included in interim Progress Report March 2011.

The budget is still not results-based and does not allocate expenditures to individual outputs. Apparently, a first attempt was made to establish an output-based budget by defining subaccounts for each budget. This would technically be the right way to do generate result-based budgets and reports within the existing UNIDO accounting system. Furthermore, assumptions relating to the cost estimates in the budget are quite rudimentary.

Governance/management structure and execution modalities appropriate

The management structure and responsibilities are only marginally outlined in the Project Document. In consultation with SECO and prior to the first Steering Committee Meeting, the Project Manager developed, however, a refined organizational set-up. The structure approved by the Steering Committee includes specific responsibilities/competencies to decide. The fact that the organizational setting worked well shows that the right choice was made.

The project design followed the traditional "agency execution mode", but during implementation it adapted to the advanced development context of Viet Nam with a shift towards "joint-execution" or "mixed execution" involving partners closely in strategic and operational management decisions. UNIDO remained however fully responsible for financial management as well as sourcing equipment and expertise. This implementation mode was in general considered as an advantage by partners. Directly commissioning the highly qualified international experts and sophisticated equipment in a technically complex field would place a significant burden on partners. Overall, agency execution paired with a participatory approach in decision making is a suitable organizational set-up for a project of this nature. This form of "mixed-execution" is a good response to balancing requirements of aid effectiveness with those of increased ownership of beneficiary governments enshrined in the Paris Declaration on Aid Effectiveness in Viet Nam's more advanced development context.

Conclusions: Project preparation benefitted from UNIDO's experience during a long-standing cooperation with STAMEQ and NAFIQAD. Design was based on a careful technical assessment of needs of beneficiary institutions. At the outset of the project, a user survey was conducted as a basis to decide on the specific testing/metrology capacities to be strengthened. The overall availability of testing/calibration services in Viet Nam was however not assessed and taken into consideration. The project document includes standard planning tools (logical framework) but not a results-based budget. While the management structure in the project document was rudimentary, the more elaborated structure approved by the first Steering Committee Meeting meets good practices and worked well during implementation. In Viet Nam's more advanced development context, the type of "mixed project execution" used by UNIDO struck a good balance between ensuring aid effectiveness and increased ownership of beneficiary governments.

B. Project management

Overall, the project was well managed. Key management strengths included:

- **A well functioning governance structure:** The Steering Committee fulfilled its role of supervision and decision making at the strategic level. As reflected in the meeting minutes, discussions were meaningful and to the point. We found evidence that Steering Committee requests were followed-up on and translated into operational plans.

- **Effective day-to-day coordination:** Practical day-to-day coordination worked well, which is mainly a merit of an active and knowledgeable National Project Coordinator (NPC) and the CTA. Partners furthermore appreciated that the UNIDO Office in Hanoi was always available when needed, without placing a burden on the project through direct interference. The UNIDO Country Director identified and applied the right mix of political and practical support.

- **Choice of the right CTA for a more advanced development context:** Counterparts were highly satisfied with the quality and degree of support received by the CTA. UNIDO made the right choice in selecting an expert with combined technical and management expertise. While it took the CTA some time get familiarized with UNIDO's practices, partners highlighted that he was able to bring-in a wealth of practical experience and fresh ideas. Both SECO and the UNIDO Country Office align with this finding.

- **Selection of an NPC with top-qualifications:** The NPC was a considerable asset to the project. She combined practical experience in the field, strong management/organizational skills with an extensive network among the different stakeholders. Her profile was the right match for a relatively complex project, working with different partners in the still challenging context of Viet Nam. UNIDO made good use of her potential by providing her with an appropriate level of autonomy.

- **The pro-active attitude of the Vietnamese counterparts**, for example by organizing missions and seminars independently and professionally, contributed significantly to the successful implementation of the project. This is a step in the right direction to fulfill the spirit of the Hanoi Core Statement on Aid Effectiveness. It takes into account international trends towards an increased role of local counterparts in managing projects, while at the same time complying with compulsory UNIDO procedures.

- **UNIDO took action to remediate coordination problems/miscommunications identified by the evaluation of the predecessor project.** Day-to-day coordination has improved significantly. With the exception of procurement lists, clear and updated operational work plans are available, which are appropriately communicated to all persons involved. We also found that management defined clear actions to address implementation challenges and subsequently followed-up on them.

- **Regularly result-based budgets were established** (see for instance report 27 May 2009, page 39), which is excellent. Financial *planning during implementation (but not reporting)* meets good practices, with the exception that the assumptions defined are not very detailed – i.e. the parameters used are not clear (e.g. number of work months/rates of experts, list/estimated costs of equipment to be procured).

- **Flexibility - UNIDO was responsive to changing demands.** Project management showed flexibility in adapting to new requirements and STAMEQ took an active role in suggesting them. This included the cancellation or amendments of outputs that lost relevance. Reason for changes were clearly explained and endorsed by counterparts.

The following areas leave room for improvements:

- **Procurement plans not communicated in time:** For beneficiary laboratories, timely information on the equipment they will receive from UNIDO is important. Without a clear

plan, they are unable to include equipment and operating costs into their yearly procurement plans/budgets submitted to the government and/or to call on other donors for support. If they still do so, there is a risk of duplication and waste of funds. QUATEST 2 for instance submitted a list of proposed equipment to the project office at the end of 2010 and has so far not received a reaction from UNIDO. Detailed planning of equipment procurement at the inception stage would help UNIDO and partners to better coordinate resources and also to eliminate one cause of delays.

- **Equipment delivered rather late within the project cycle[22]:** If equipment arrives at the end of the project (during the extension period), proper training, and follow-up will not be possible anymore. Some of it was apparently partially due to late counterpart inputs, (e.g. in the case of QUATEST 2, the submission of its equipment procurement proposal at the end of 2010 only, late commitments of some laboratories to proceed with international accreditation, etc.). Procedural reasons lead to problems with customs clearance of equipment for NAFIQAD 1 and VMI, which also contributed to delays in delivering equipment.

- **Financial *reporting* (not budgeting) does not provide a transparent picture on fund use**. Without a result-based reporting, counterparts and the donor[23] are unable to assess value for money. Also, an assessment of efficiency of fund use is only marginally possible. The same shortcomings of the budgeting and reporting system were already highlighted by the evaluation report of the predecessor project, but have so far not been improved. For UNIDO, the lack of a detailed financial analysis is a missed opportunity for systematically using past financial data for the purpose of more accurately budgeting of new projects and to use them as benchmarks across UNIDO's programme. For counterparts, the lack of demonstrating good practices in financial planning and reporting is a missed opportunity of capacity building. While the evaluators recognize the constraints of the UN-financial management system, a simple Excel table would be sufficient to manually allocate expenditures to different outputs.

Conclusions: Overall, the project was well managed. Governance and day-to-day management worked well in practice. UNIDO selected the right CTA and NPC for a project in a more advanced development context. The CTA's background combined technical experience with practical management experience, which was a valuable asset for the project. The NPC's long experience in the field, her strong management/organizational skills, and her an extensive network among the different stakeholders was the right match for a relatively complex project, working with different partners in the still challenging context of Viet Nam. Procurement of equipment was planned rather late and not timely communicated to partners. Financial reporting to the Steering Committee and partners was rudimentary and not result-based.

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[22] The Steering Committee Meeting on 18 June 2010 also raised this point and requested action to be taken.
[23] According to the minutes of the Steering Committee Meeting on June 18, 2011, SECO explicitly commended the financial transparency. The report however only includes a budget – thus this comment is likely to refer to financial planning, not reporting.

C. Project implementation

The following paragraph compares planned and achieved outputs based on a validation of progress reports.[24]

Figure 9: Overview status of project implementation

Planned	Realized
Objective 1: WTO TBT/SPS requirements related to metrology met by the Vietnamese government (i.e. calibration services by metrology laboratories in Hanoi, Ho Chi Minh City and Danang).	
Output 1.1 Enhanced and strengthened metrology capacity in selected laboratories, providing precise and recognized calibration services to the industry **Output indicator:** at least 3 laboratories provide extended calibration services by 2011, capable of recognition by international accreditation (for VMI: under CIPM MRA). ***Comment evaluators:*** *Output is likely to be achieved for VMI and QUATEST 3; QUATEST 1 and 2 decided not to apply for international accreditation, due to the lack of demand from customers and high cost to maintain the accreditation.* *Appropriate facilities for some calibration equipment purchased for QUATEST 1 (volume) are not yet available. Furthermore, this equipment does not serve the purpose to meet WTO TBT/SPS requirements, but is expected to be used for the inspection of petrol stations.* *VMI already received recognition under CIPM MRA for time, frequency, mass, laser radiation, gauge blocks, line standards and diameter standards. VMI confirms that support from the previous SECO-funded project was instrumental.*	
• Assessing demand for various calibration services through user survey; • Conducting an assessment of the target metrology laboratories' capacity and development needs; • Provision of required equipment and training; • When justified, extension of assistance in preparation for international accreditation for prioritized calibration services.	• User survey completed and data on use of calibration services compiled (2006 – 2010). • Capacity assessment of 4 laboratories (VMI, QUATEST 1, QUATEST 2, QUATEST 3). • Equipment and training needs identified (only VMI and QUATEST 3 were willing to meet international accreditation or CIPM MRA membership. • QUATEST 3 received support to and successfully maintained accreditation (mass and temperature). • VMI in the final stage of preparing for CIPM MRA for volume, flow and pressure (they expect recognition within 2011). • Installation of new equipment is ongoing (delay of delivery of equipment for VMI due to problems with customs clearance). **Pending:** • Installation of remaining equipment and training (VMI) expected within June 2011 • Expert mission to support VMI planned for June 2011.

[24] Interim Progress Report dated March 2011 drafted by the CTA.

Planned	Realized
Output 1.2 *Pilot technical regulations formulated for implementation of Law on Standards and Technical Regulations (No. 68/2006/QH11).* ***Output indicator:*** *two technical regulations formulated and submitted to relevant ministries.* ***Comment evaluators:*** *Output 1.2 is not logically linked to objective 1 (formulating standard does not contribute strengthening the metrology to meet SPS/TBT requirements). As a result of the regulatory impact assessment, the regulations on Electromagnetic Compatibility (EMC) were not promulgated. This is evidence that the assessment of impact of regulations on the industry was meaningful.*	
• Selection of 2 technical areas • Preparatory workshops • Conduct regulatory impact assessment • Provide training to ministries of drafting technical regulations • Expert support to draft technical regulations • Submit technical regulations to ministries for final approval.	• Case study by corporate volunteer (KRAFT) on possible traceability norms concluded that norm should either cover coffee or cashew nuts (no cost to the project). • Project identified EMC and coffee • 3 Workshops with industry representatives for EMC and one workshop in DAKLAK with stakeholders from the coffee sector. • Regulatory impact assessment conducted (for EMC impact on air conditioners and refrigerators). • 2 coffee regulations promulgated. • EMC regulation not promulgated, following conclusion of regulatory impact assessment that regulation would have a negative impact on the industry (lack of testing capacities to check compliance was the main reason).
Objective 2: Testing, certification and food traceability capacities developed and strengthened at the national level (i.e. testing laboratories in Hanoi, Danang and Ho Chi Minh City)	
Output 2.1: "Testing capacity enhanced and strengthened in selected testing laboratories, providing testing services to the country's growing export sectors (textile/apparel, footwear, electrical products, agro-products, etc.) in focal growth areas (Hanoi, Ho Chi Minh City, Danang)" **Output indicator:** at least 3 laboratories can provide extended testing services by 2011, capable of recognition by international accreditation. ***Comment evaluators:*** *Output not yet completed. Project selected food microbiology (NAFIQAD 1, QUATEST 1, QUATEST 2), textiles (QUATEST 1) and food chemistry (QUATEST 2, QUATEST 3 – on Genetically Modified Organisms), and REACH/RoHS compliance testing (QUATEST 3) as focal areas.* *QUATEST 1 decided not to further pursue accreditation for its textile laboratory, mainly due to a lack of demand for testing services and because of competition from the Viet Nam Textile Institute. Funding for the necessary initial assessment for international accreditation is not available. Without this assessment, laboratories are not "capable of recognition by international accreditation".*	
• Assessing demand for various calibration services through user survey; • Conducting an assessment of the target metrology laboratories' capacity and development needs; • Provision of required equipment and training;	• User survey completed and data on use of calibration services compiled (2006 – 2010). The survey also identified key relevant testing services available. • Capacity assessments of focus laboratories • Funding support to surveillance assessment by Norwegian Accreditation to maintain

Planned	Realized
• When justified, extension of assistance in preparation for international accreditation for prioritized testing services.	existing accreditations of QUATEST 3/NAFIQAD 1. • Equipment identified (food testing, all laboratories – except chemical equipment for food testing in QUATEST 2 - REACH/RoHS equipment for QUATEST 3). • Review of progress towards accreditation. **Pending:** • Additional expert missions for preparation of international accreditation. • Delivery and installation of equipment (expected by July 2011)
Output 2.2: "Awareness of GLOBALGAP compliance developed for selected food sectors and awareness of OHSAS 18000 more broadly extended while supporting the certification capacity for both GLOBALGAP and OHSAS 18000 certification systems". **Output indicator:** Conduct 3 GLOBALGAP training courses, 2 training courses on OHSAS 18000 with 50 participants and one lead auditor course (20 participants). ***Comment evaluators:*** *Amended by Steering Committee Meeting 6 October 2008 – originally, it was planned to strengthen HACCP/ISO22:000 and OHSAS certification capacities, including pilot implementation in selected enterprises). Expected output achieved.*	
• See output indicator	• 1 GLOBALGAP Crop base course and examination for 20 participants (19 passed) • 1 GLOBALGAP Crop base course and examination (31 of 32 participants passed) • 1 general awareness course in HCMC City. • 1 course on GLOBALGAP Aquaculture in Ho Chi Minh City (50 of 55 participants passed) • 1 course on GLOBALGAP Livestock (36 out of 38 participants received the certificate) • 1 GLOBALGAP Crop base course (58 out of 64 participants received a certificate). • 1 lead auditor training course on OHSAS (21 participants). • 2 courses on OHSAS 18001 conducted in Hanoi and HCMC (50/80 participants).
Output 2.3: "Food traceability systems implemented in a group of pilot enterprises to comply with the requirements of the EU Regulation of Food Law (EC) No. 178/2002" **Output indicator:** Traceability systems implemented and operational in up to 10 producers by 2011; traceability manual approved and complying with international standards by 2011. ***Comment evaluators:*** *An assessment of 10 coffee companies has been completed (report was not yet available to evaluators by June 2011). 2 of the 3 companies interviewed by the evaluators have already traceability systems in place – it was not possible to assess whether those comply with the above-mentioned EU-norm.*	
• Analysis of potential food sectors conducted by national and international expert • Selection of pilot enterprises	• Coffee identified as a sector focus • National consultants trained (25 participants in DAKLAK, 47 in Ho Chi Minh City)

Planned	Realized
• Evaluation of existing traceability systems and manuals abroad • Assessment of existing technologies for implementing traceability and apply in pilot enterprises.	• Training included on-site evaluation of 7 companies. • Study visit to Egypt (E-trace) for 4 experts and 2 experts from MARD involved in preparation on technical regulation on food traceability in Viet Nam. • Protocol for use in development of traceability systems prepared. • Initial assessment of 9 companies conducted. **Pending:** • Pilot implementation of traceability. • Trial of a bar coding system in 3 companies.
Output 2.4: "Strengthen capacity of selected laboratories to comply with RoHS EU directive requirements in the electrical and electronics industry." **Success indicators:** At least 100 participants attended awareness raising seminars in Ho Chi Minh City and Hanoi, 10 consultants trained, at least 1 laboratory has developed capacity to test for RoHS requirements at a level for potential recognition through international accreditation. *Comments evaluators: Output achieved, yet unclear how many of the substances covered by RoHS could be tested.*	
• Conduct awareness raising seminars on RoHS • Train RoHS consultants • Assess laboratories capacity to test for RoHS compliance.	• 138 participants attended awareness raising seminars in Hanoi and Ho Chi Minh City • 49 consultants trained • QUATEST 3 developed capacities to test for some RoHS requirements (accreditation is pending, reported under output 2.1).
Output 2.5: "Strengthen capacity of selected chemical testing laboratories to comply with REACH (Registration, Evaluation and Authorization of Chemicals) EU regulation requirements." **Success indicators:** At least 100 manufacturers/exporters attended REACH awareness raising seminars in Ho Chi Minh City and Hanoi, Information Center for REACH (and RoHS) established by 2011 (fully functional by 2013); at least 1 laboratory has developed capacity to test for REACH requirements at a level for potential recognition through international accreditation. *Comments evaluators: Output achieved (too early to assess whether the RRIC will be "fully functional by 2013 – this would rather be an outcome). Not clear to what degree the laboratory would be able to test for REACH requirements (covers over 3'000 substances).*	
• Conduct REACH awareness raising seminars • Assist laboratories to prepare for accreditation. • Establishment of an information centre (or resource) for REACH and RoHS.	• 190 participants attended awareness raising seminars in Hanoi and Ho Chi Minh City • Study visit for 4 national experts involved into development of RRIC to Thailand. • Computers and hand-on support provided for office of RRIC at VINACHEM. • QUATEST 3 had developed capacity to test for *some* REACH requirements (accreditation is pending, reported under output 2.1).

Conclusions:

Most planned activities have been or will be implemented by June 2011, except the following:

- **Laboratories:** Most laboratories received equipment and – to a different degree - training, yet preparations for achieving international accreditation is unlikely to be completed on time. Equipment procurement for QUATEST 2 is still pending. Some laboratories will need sustained additional support. Furthermore, the funding of accreditation cost is not secured. An extension phase until the end of 2012 with additional funding would be needed to provide the necessary assistance to achieve the expected outcome (accreditation) for those laboratories that are committed (excluding QUATEST 1's textile and chemistry laboratory).
- **Traceability systems in companies**: As even the *assessment* has not yet been completed by June 2011, the *implementation* of the traceability system would need at least another 6 – 12 months to be properly completed, which would require a project extension.

IV
Assessment of project results

A. Relevance

This chapter assesses the relevance of the project objectives for target beneficiaries and vis-à-vis international priorities, the UN-Joint Programme in Viet Nam, the policies of the GoV, UNIDO's approach to trade capacity building, SECO's country strategy for Viet Nam.

Relevance to international priorities

Project objectives are well aligned to the priorities of the internationally agreed framework of Trade Related Technical Assistance (TRTA) and of the UNIDO-WTO framework, which aims at enabling beneficiary countries to comply with WTO TBT/SPS requirements, in order to successfully participate in international trade. In order to benefit from open markets, Vietnamese exporters must meet the standards set by importing countries. One element that needs to be in place is access to a well functioning, credible SMTQ infrastructure – the main area addressed by the project. The project focused specifically on strengthening Viet Nam's ability to implement WTO rules, in particular the TBT and SPS agreements.

The overall objectives of the project potentially contributes to the achievement of the Millennium Development Goal (MDG) 1 (Eradicate extreme poverty and hunger) by creating more jobs through facilitating export-oriented industrial development.

The integration of developing countries into the international trade system also relates to MDG 8 (Partnership for Development). In a more indirect way, a functioning testing infrastructure also contributes to MDG 7 (environmental sustainability), because an important function of laboratories under STAMEQ is to conduct environmental tests (waste water) and drinking water. Compliance with RoHS (and the corresponding Vietnamese national standard) would contribute to reducing environmental impact through e-waste. The same is true for the use of hazardous chemicals (REACH). Enforcement of both requires expertise and testing capacities.

Relevance to the Joint UN Programme for Trade Development in Viet Nam

The project is integrated in the Joint UN Programme for Trade Development[25], which was initiated in collaboration with FAO, ITC, UNCTAD, UNIDO and the Vietnamese partners under the One UN Plan for Viet Nam. This three-year Joint Programme implemented since 2008 aims to enhance

[25] See „One Plan" for 2006 – 2010, in particular

the value added and coherence of interventions, decreasing transaction costs for all parties involved, maximizing the benefits of WTO accession and minimizing any adverse effects.

More specifically, the project contributes to programmatic component IV (international trade policy) under outcome 1 of the One Plan: "*Support to improve food safety compliance, enforcement and export potential of food products; promote increased export opportunities for agricultural and industrial products through an upgraded conformity assessment, infrastructure and an improved investment environment"*. In a broader sense, project objectives are relevant to improve the business environment, which links into programmatic component III (employment and enterprise development). Moreover, the project has also been a component of the UNIDO Integrated Programme (IP 2006 – 2010).[26]

Relevance to policies and priorities of the Vietnamese Government

The project is well aligned to the GoV's efforts to promote exports in order to spur economic development, create new jobs and improve the living standards of the population. The GoV sees boosting exports as key for tackling the increasing trade deficit.

The Five-Year Socio-Economic Development Plan (SEDP) 2006 - 2010 approved by the National Assembly in 2006 aims to accelerate the international integration of the Vietnamese economy into the world economy, to increase the competitiveness of products and services of Vietnamese enterprises and to create favorable conditions for promoting exports.

Project objectives are fully consistent with the GoV's "National Productivity and Quality Program" (No. 712/QD-TTg, approved by the Government on May 21, 2010), which outlines the needs for further development of standards and conformity assessment activities in Viet Nam in the post-WTO accession period. Major objectives of this program are to "improve the productivity and quality of products and goods through implementation of solutions provided by advanced management systems; applications of productivity and quality tools; and use of scientific and technical breakthroughs and technological innovations."

Competitiveness of products is a growing concern of the GoV but not directly addressed by the project. This is reflected in the draft of the new SEDP (2011 – 2016), which emphasizes that Viet Nam's competitiveness and ability to continue rapid growth will depend on the *quality* of its products rather than quantity of output.

Furthermore, the project has the potential to contribute to the GoV's aim to enhance consumer protection and improve the protection of the environment.

- **Relevance to consumer protection:** Viet Nam continues to suffer from a circulation of substandard products, many of which are imported illegally. Although not a project objective, a well functioning metrology and testing infrastructure is an essential prerequisite for preventing market fraud and to protect public health, safety and welfare of the population. Besides the threat of hazards, low quality products also punctuate the limited purchasing power of poor consumers.
- **Relevance to environmental protection:** The laboratory survey revealed that chemical and micro-biology laboratories under STAMEQ are also used to test waste water (e.g. from factories in industrial zones). Such laboratory capacities are important to detect environmental hazards and potential threats to the environment. Testing capacities are also needed to enforce the RoHS standard of the EU, which Viet Nam has translated into a national standard. Besides

[26] UNIDO, Integrated Programme of Technical Cooperation with the Socialist Republic of Viet Nam, February 2006, page 9 (under Component 1: "SME Institutions")

the aspect of compliance with requirements for electronic exports to the EU, the RoHS standard is also relevant for reducing hazardous e-waste within Viet Nam.

Relevance for institutions targeted by the project

Assistance was mainly tailored to the needs of the two main direct beneficiary institutions (STAMEQ and NAFIQAD), which led to a high degree of relevance for them. This was also confirmed by the top management of STAMEQ and NAFIQAD.

Project support matches the priorities of the "Development Strategy of STAMEQ in the Field of Standardization - Metrology - Quality until 2015" and "Orientation, Objectives, Missions of the STAMEQ 5-Year Plan 2006 – 2010", particularly in regards to STAMEQ's role in supporting the export industry.

Support to VINACHEM was consistent with the GoV's decision to establish a RoHS/REACH information center at VINACHEM.

Relevance for companies

(a) Testing services strengthened under the project

The enterprise survey covered 25 companies and was instrumental to assess the relevance of the project for companies. Together with additional interviews with sector associations and representatives of foreign buyers it led to the following conclusions:

- **High relevance of testing services for all companies – but in particular for the food and electronic sector:** Most companies across different sectors are well aware of the importance of testing and calibration. 92% of the companies surveyed use external testing services to this effect. For 40%, the availability of testing services is crucial for their competitiveness, for 60% it is important. None of the survey's participants considered testing services as unimportant, which is remarkable.
- **Testing services seem to be accessible and affordable:** Almost all companies found that all necessary testing services are available in Viet Nam and only 57% consider the price of testing as an important factor. Five companies stated that tests required by them were not available in Viet Nam. Three of those send products overseas for testing, while the remaining two refrained from conducting the required tests but this did not lead to the loss of customers. The three companies commissioning tests overseas contend that the lack of the necessary testing services in Viet Nam has a negative influence on their business due to high costs and loss of time.
- **Testing services are equally relevant for exporters and non-exporters:** However, the share of responses claiming "crucial relevance" of testing is higher in non-state enterprises and in food and electrical/electronic industries. This indicates that the focus of the project on food testing and the inclusion of RoHS were appropriate.
- **Relevance of external testing services for compliance with buyer requirements.** Compliance with quality standards of clients scored highest among all external factors with a very important impact on company development. This indicates that recognition of tests by clients is crucial. Some international buyers impose specific testing providers. Project support towards building accredited testing/calibration capacities is therefore highly relevant for companies. Depending on the sector, buyers also require compliance with other standards, e.g. social/environmental norms, quality management systems, some of which were also covered by the project (GLOBALGAP, OHSAS 18001).

- **Relevance of the availability of testing services on business development.** All respondents confirm the positive impact of the availability of testing services on gaining new domestic customers and developing new export markets. 36 percent strongly agree, 52 percent "agree" and 12 percent don't agree that the availability of testing services would lead to an increase in sales to their existing customers. In contrast, nearly 50 percent don't believe that the availability of testing services would allow them to increase the selling price and lower production costs. This rate is higher in exporting companies than in non-exporting firms. This would confirm the influence of the availability of testing services on product quality, which was mentioned by several companies as a reason for using external testing services. Another possible explanation is that the availability of a test certificate for products is a comparative advantage (selling point) and plays a role in buyers' decisions for a particular supplier.

Box 10: Why are testing services important for companies?

Satisfying regulatory requirements:

- High safety standards are required to avoid negative impact on users' health.
- The company has to get a certificate from Department of Health.
- The products have to be certified as clean (hygiene) and nutritious and this should be certified by STAMEQ.
- The company would like to ensure product quality and meet the state regulation and client requirement on hygiene security.
- The company has to get customs clearance for exported products.
- Aquatic export company is required to conduct chemical testing and this can be only tested by NAFIQAD as the competent authority.
- In-house laboratories cannot conduct some specific tests required by customers.

Use of testing services to increase competitiveness:

- Increasing pressure on product quality improvement.
- Meeting product quality required in order to be able to participate in international bidding.
- External testing increases confidence of clients in company products.
- For non-state domestic companies, testing is important because:
- It allows controlling product quality with parameters within permitted ranges.
- The company do not have equipment to conduct the tests required.

Source: Enterprise survey, summarized from responses of companies to the open question: "Why is the availability of testing services important for you?"

- **Proximity of testing services is considered as important, in particular for the food sector.** The survey indicates that, in a large country such as Viet Nam, the market for food testing is "regional". The availability of local testing capacities (e.g. for QUATEST 2 in central Viet Nam) is relevant, even if similar laboratories are available in other regions. For example, a top laboratory in Ho Chi Minh City is not relevant for seafood exporters in Haiphong. This also applies to metrology services that need to be provided on-site.

- **External testing is also relevant for companies with in-house testing:** 80% of all companies have in-house laboratories for product testing, of which 60% are accredited either under ISO/IEC17025 or by clients. But only in 75% of the cases customers recognize in-house tests. The situation is more advanced for foreign-owned companies, all of which have accredited in-house laboratories and all of their in-house tests are recognized by their customers. Because accreditation of in-house laboratories is a cost-factor, an affordable and internationally recognized accreditation system (including the availability of proficiency testing services within Viet Nam) is important. This would justify a further strengthening of the national accreditation system (aspects of it were supported under SECO I). Furthermore, it shows that the availability of well-trained laboratory staff is not only important for testing service providers, but also to those companies with internal laboratories. This indicates the importance of formal training for quality specialists.[27]

(b) Relevance of industrial metrology for companies

The conclusions for industrial metrology (verification and calibration) are similar to testing. However, because of the limited number of industrial metrology service providers, the position of STAMEQ is stronger for metrology than it is for testing. None of the companies seems to face challenges due to a lack of calibration/verification services or their price.

Box 11: Why are calibration services important for companies?

- To eliminate possible errors of machineries and equipments caused during production and control product quality.
- To verify measurement and testing equipments.
- To meet technical requirements of clients, establish confidence and avoid losing prestige.
- To reduce costs for buying sample equipment.
- To avoid risks associated with incorrect parameters such as high pressure etc.
- To meet the state inspection and ensure required level of quality and technical standards.
- To get ISO 17025 certified by STAMEQ to calibrate equipments (this company provides external calibration services).

Source: Enterprise survey, open question: "Why are calibration services important to you?"

(c) High relevance of compliance infrastructure for an enabling business environment

For 24 among 25 companies in the survey, compliance with quality standards of clients is the most important factor for company development. In order to ensure this, the availability of external testing and calibration services is considered as crucial. The second most important factor is costs of bank loans, and the third factor is access to capital.

[27] STAMEQ is currently exploring the possibility to develop a specialized course at technical universities.

Figure 12: Impact of external factors on company development

External factors	Positive impact		External Factors	Negative impact	
	Number of responses	Average score (1 highest, 4 lowest)		Number of responses	Average score (1 highest, 4 lowest)
Compliance with clients' quality standards	24	1.46	Cost of bank loans	23	1.70
Availability of testing services	25	1.84	Access to capital (bank loans)	23	1.78
Availability of calibration services	25	1.84	Cost of raw material	24	1.92
Compliance with social/environmental standards of clients	24	1.92	Exchange rate fluctuation	24	1.96
Compliance with social/environmental standards	24	2.00	Transportation cost	24	1.96
Availability of qualified labor	24	2.00	Taxes/Tax procedures	24	2.38
Government incentives	24	2.25	Customs procedures	24	2.46
Availability of land	25	2.92	Other administrative government procedures	24	2.50
			Corruption	24	2.96
			Competition from other countries	24	3.04

Source: Enterprise survey - no significant difference between exporters/non-exporters.

Results of the survey further indicate that the existence of a well functioning compliance infrastructure is an important factor for an enabling business environment in general – not only for the competitiveness of the export sector and for access to foreign markets. More research would be needed to draw conclusions of wider applicability[28].

A comprehensive study by CIEM on challenges for exporting companies identified barriers of trade as prominent challenges for exporters, confirming the findings above.[29] The study highlights for instance the difficulties of companies to comply with the new *Consumer Product Safety Improvement Act*, applicable to all imports into the US from January 2011, which imposes strict

[28] The key findings and conclusions above are in their essence validated through initial results of an investor survey conducted by UNIDO in 2011 among 1'500 companies (not yet published).
[29] CIEM: Research Report on the Competitiveness of Exporting Firms in Viet Nam: Evidence from the Garment, Seafood and Electronic Industries; supervised by Dr. Nguyen Dinh Cung and prepared by Nguyen Thi Tue Anh, Luu Minh Duc, Nguyen Minh Thao, Le Phan, Hanoi, May 2011.

safety requirements on a number of Vietnamese key exports (e.g. footwear, leather, garment, textile, toys, furniture, shrimp and fish), including a stringent limitation on hazardous substances. In order to proof conformity, Viet Nam will need to quickly establish testing capacities approved by the US Consumer Product Safety Commission (CPSC), or otherwise obtain recognized testing certificates in Hong Kong or Singapore. This would result in higher cost, loss of time and thus weaker competitiveness of Vietnamese firms. The report also stresses the importance of building a system of technical standards and regulations in accordance with the legislation on technical standards and regulations, and international practices.

(d) Relevance of supporting the RRIC

Availability of *information* on the EU's RoHS standard is important for enterprises in the electronics sector, as confirmed by the sector association. The same applies to REACH, which in Viet Nam is for example relevant to the wood processing sector (food, toys etc.). The importance of REACH compliance was also confirmed by two international buyers. They include the use of REACH compliant material (glue, paint, chemicals to treat leather) into their product specifications and commission external tests of product samples to verify conformity. The relevance of including testing against RoHS/REACH standards into the scope of activities to be provided by RRIC – as planned - is questionable. More effective and efficient would be to expand the scope of existing laboratories in order to meet the requirements of RoHS/REACH testing. The project has so far followed this approach, by supporting QUATEST 3 to expand the range of testing fields and prepare for accreditation.

(e) Relevance of GLOBALGAP and OHAS 18000 to companies

These two standards are relevant to exporters but UNIDO's support is of rather limited relevance to companies. GLOBALGAP and OHAS 18000 are not new to Viet Nam and several certification bodies and consultants exist who are able to assist companies with those standards are available.

(f) Relevance of traceability in the coffee sector[30]

Coffee companies interviewed confirmed the relevance of traceability, but as one element of the sector-specific international sustainability standards (e.g. 4C, UTZ, Rainforest Alliance) rather than as a general requirement for complying with national or EU standards. They also stressed that compliance with those sustainability standards was not a guarantee to receive sufficiently higher prices to offset certification cost (ca. USD 4,500) as well as significant investments into warehouse space and increased production cost. All three coffee companies interviewed were neither aware of the EU-regulation on traceability, nor of the (new) national coffee standard that has been created with support from the project. While none of the companies has problems to export coffee, their challenge is to obtain a higher price. Their key impediment for achieving higher prices is not fulfilling traceability requirements, but to ensure coffee quality in general.

Relevance to UNIDO's TCB Approach

The project matches UNIDO's TCB mandate, core competencies, expertise and experience. It is particularly relevant to UNIDO's three-pronged approach "Three-C-Approach" that aims to strengthen the "compete, conform and connect aspects" of TCB in parallel.

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[30] 90% of coffee in Viet Nam is produced by smallholders with a cultivation area of 2ha or less. Nearly 150 companies export coffee through about 20 foreign traders with representative offices in Viet Nam, which sell coffee to just eight roasters. Branding of Vietnamese coffee is weak; there are just three major brands (VINACAFE, NESTLE CAFE VIET and TRUNG NGUYEN). Profit mainly lies in roasting and processing coffee. Import duties imposed on processed coffee are high (e.g. Japan: 15%; Germany: 2EURO/kilo). Source: interview with Mr. Luong Van Tu, Chairman of the Viet Nam Coffee and Cocoa Association, published in Viet Nam News on 11 August 2011.

- **The "compete" element** means strengthening company competitiveness, removing supply side constraints and increasing value addition with the aim to make the industrial sector more competitive.
- **The "conform" element** relates to the ability of exporters to prove the compliance of their products with market requirements. Strengthening the National Quality Infrastructure (standards, technical regulations and conformity assessment procedures) enables exporters to meet market requirements and to overcome technical barriers to trade.
- **The "connect" element** enables sellers to be connected with the market and to foster their integration into multinational supply chains.

Of those three elements, the project focused on the "conform" element, but it was also relevant to strengthening competitiveness. The company survey showed a close connection between the availability of testing/metrology services and product quality. Furthermore, it allows companies to meet buyer requirements and to build customer confidence. In other words, testing certificates and (to a lesser degree) evidence of proper calibration of equipment are also a "selling point".

Future relevance for companies would be further enhanced through *a more holistic approach to strengthening value added of Vietnamese exports in key sectors*, which is also a key priority of the Government[31].

Relevance to the donor

Enhanced trade infrastructure, reduced trade barriers, more competitive products, standards and quality labels are among SECO's priorities of support to developing and transition countries to better integrate into the world economy**.**

The project is also well aligned to the SECO country strategy for Viet Nam. The overall objective of SECO's cooperation programme in Viet Nam is to contribute to poverty reduction through sustainable economic growth. SECO's support focuses on the promotion of stable macroeconomic conditions, an enabling business environment, private sector development, sustainable trade policies and the improvement of basic infrastructure. The project is one of SECO's well coordinated measures to increase the competitiveness and value added of Vietnamese exports.

Conclusion

The project was highly relevant and fully in line with the strategies, plans and policies of the Government, as well objectives and priorities of the main counterparts, and the target groups. Objectives are also highly relevant in terms of international priorities, including the MDGs. Objectives are well aligned to UNIDO's core mandates and competencies.

- Relevance is not limited to the GoV's export-related policies, but includes consumer and environmental protection aspects.
- The project is embedded into the Joint UN Programme for Trade Development, which was initiated in collaboration with FAO, ITC, UNCTAD, UNIDO and the GoV under the One UN Plan for Viet Nam. It is fully furthermore fully aligned with the UN Country Programme and UNIDO's core competencies. The project is one of several of SECO's *well coordinated* trade-related measures that aim to enhance competitiveness and value added of Vietnamese exports.

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[31] A shift to a more comprehensive, sector-specific approach would also respond to objective 2 of the GoV's "National Productivity and Quality Program", which calls for „*significant enhancements in activities supporting productivity and quality of potential (key) products and goods*, and *improvement of the competitiveness capability of affected enterprises to contribute actively to the socio-economic development of the country*." UNIDO would be well positioned to demonstrate an effective way to enhance support to key sectors through its 3-C Approach.

- Support provided to metrology and testing laboratories responded well to the needs of enterprises. Testing services are an important element for meeting buyer requirements, ensuring product quality, and meeting standards of importing countries. A strong and recognized compliance infrastructure scores high as an important factor relative to other elements of an enabling business environment. This perception is equally shared by exporters and non-exporters and is essentially also valid for metrology services.
- Availability of information to enterprises on RoHS and REACH is important, as confirmed by the sector association. The relevance of including *testing services* to enterprises (as planned) into the scope of activities of the RRIS is rather questionable, unless they cover new areas the already existing RoHS/REACH testing laboratories in the country are unable to satisfy.
- Support to piloting traceability systems within selected companies in coffee industry is of relevance for complying with industry-specific standards. In a sector such as coffee there is often a series of separate enterprises from farm to import receiver. Accordingly, the scope of the traceability component of the project focused on the what the project considered the most pivotal link in the chain, namely coffee producers. A comprehensive, holistic approach to strengthening coffee value chains would however better meet the needs of beneficiary companies, for which the main concern is to achieve higher prices through better quality.
- GLOBALGAP and OHSAS18001 are relevant but not new in Viet Nam. The added value of organizing awareness raising events under the project is quite limited, because the necessary capacities are already available in the country (i.e. at QUACERT and a number of other certification providers).

B. Ownership

Ownership of direct beneficiaries and counterparts was generally high as evidenced by the following findings:

- **Personal motivation of counterparts and direct beneficiaries**. Even the top management of counterparts (level of Director General) was well informed about project activities and provided valuable suggestions on how to move forward. This also reflected in the minutes of Steering Committee meetings. STAMEQ's active role in coordinating UNIDO inputs with various interventions of other donors is also a positive sign of ownership.
- **Significant national inputs into infrastructure and facilities** where the equipment procured by the project has been installed. Since the last evaluation, beneficiary laboratories made significant investments into further upgrading their buildings.
- **Significant efforts of laboratories to improve marketing and customer service**. This improvement is particularly striking in QUATEST 3. The results of efforts are confirmed by the enterprise survey, which however highlighted that there is still room to increase speed of service and improve responsiveness to clients needs.
- **Proactive participation of staff in project activities**, such as the preparation of manuals and documentation for international accreditation and careful selection of training participants.

Conclusion

Ownership of counterparts and beneficiaries was high as reflected by significant staff input to project activities, important investments in building infrastructure and active participation in

decision making. Customer orientation has significantly improved in all institutions, showing that laboratories increasingly care about company needs. The active role in coordinating donor input by STAMEQ is also a good sign of ownership.

C. Effectiveness

Outcome indicators in the project document relate to the status expected by 2013 or 2015. It is therefore too early to assess outcomes based on these indicators. In the impact section V.E below, the evaluators attempt to make a preliminary assessment of progress towards achieving these outcomes objectives (including unplanned effects).

The following chapter assesses achievements at the output level by using the output indicators included in the logical framework. The evaluators explored also the underlying reasons why objectives were achieved or not.

Objective 1: WTO TBT/SPS requirements related to metrology met by the GoV (i.e. calibration services by metrology laboratories in Hanoi, Ho Chi Minh City and Danang)

Output 1.1 Enhanced and strengthened metrology capacity in selected laboratories, providing precise and recognized calibration services to the industry

Output indicator: At least 3 laboratories provide extended calibration services by 2011, capable of recognition by international accreditation (for VMI: under CIPM MRA).

Assessment of outputs: Partially achieved (one instead of three laboratories provide extended calibration services). QUATEST 3 received support to and successfully maintained accreditation (mass and temperature). VMI is in the final stage of preparing for CIPM MRA for volume, flow and pressure. Installation of new equipment and expert support is ongoing. Recognition is expected to be achieved before the end of 2011. QUATEST 1 and QUATEST 2 decided not to pursue international accreditation for their metrology laboratories, allegedly because their customers do not require it. Some of the metrology equipment procured for QUATEST 1 is delivered, but not yet in use (facilities under renovation). Furthermore, this metrology equipment is planned to be used for inspection of petrol stations, which is not related to objective 1. Overall, it is expected to achieve the planned output in regards to VMI until the end of 2011. For QUATEST 1 and 2, the expected output is not achieved. QUATEST 3 had already obtained international accreditation prior to the project. The existing accreditation has been maintained and extended to some new fields, e.g. temperature measurements, with financial support of the project.

Output 1.2: Pilot technical regulations formulated for implementation of Law on Standards and Technical Regulations (No. 68/2006/QH11).

Output indicator: 2 technical regulations in selected sectors formulated and submitted to relevant ministries.

Assessment: Output achieved. 2 coffee regulations and 1 draft regulation on EMC were formulated and submitted to MARD and MOST. Taking into account the result of the regulatory impact assessment, the EMC regulation was not promulgated. This is evidence that the potential impact of regulations on the industry (RIAS) was carefully assessed ex-ante.

Objective 2: Testing, certification and food traceability capacities developed and strengthened at the national level

Output 2.1: Testing capacity enhanced and strengthened in selected testing laboratories, providing testing services to the country's growing export sectors (textile/apparel, footwear, electrical products, agro-products, etc.) in focal growth areas (Hanoi, Ho Chi Minh City, Danang)

Output indicator: at least three laboratories can provide extended testing services by 2011, capable of recognition by international accreditation.

Assessment: Output partially achieved. The project selected food microbiology (NAFIQAD 1, QUATEST 1, QUATEST 2), textiles (QUATEST 1) and Food Chemistry (QUATEST 2, QUATEST 3 – on Genetically Modified Organisms), and REACH/RoHS compliance testing (QUATEST 3) as focal areas. Only NAFIQAD 1 is currently accredited for the selected testing fields. QUATEST 3's microbiology is already internationally accredited. Expert input was provided in the view of extending the scope of this accreditation.

In May 2011, QUATEST 1 decided to not further pursue accreditation for its textile and food chemistry laboratories, mainly due to a lack of demand for testing services.

Considering the current status, it is unlikely that the expected output will be achieved in 2011 because the available funding is not sufficient to cover the cost of the initial assessments for international accreditation and for the accreditation itself. While lack of funding for international accreditation was identified as a risk, a formal commitment on who will subsequently cover the cost of international accreditation was not obtained prior to commencing support. Preparing for international accreditation would possibly need additional expert support over a period of at least 12 months with additional funding.

Covering accreditation cost by the project was not foreseen except for renewing the accreditations for QUATEST 3 and NAFIQAD 1. The output "capable of recognition by international accreditation" only contributes to the objective, if international accreditation can subsequently be achieved (for which the availability of funding is key).

Output 2.2: "Awareness of GLOBALGAP compliance developed for selected food sectors and awareness of OHSAS 18000 be more broadly extended while supporting the certification capacity for both GLOBALGAP and OHSAS 18000 certification systems".

Output indicator: Conduct 3 GLOBALGAP training courses, 2 training courses on OHSAS 18000 with 50 participants and one lead auditor course (20 participants).

Assessment: output achieved – number of participants significantly exceeded the targets set by the project (see figure 9 above).

Output 2.3: "Food traceability systems implemented in a group of pilot enterprises to comply with the requirements of the EU Regulation of Food Law (EC) No. 178/2002"

Output indicator: Traceability systems implemented and operational at up to 10 producers by 2011; traceability manual approved and complying with international standards by 2011.

Assessment: Output not achieved. An assessment of 9 companies has been completed. The report was not yet available to evaluators by June 2011 but, from a sample of three companies interviewed, two had already a traceability system in place. Completing the required output at least in some companies who do not yet apply traceability would need at least an additional 9 months (estimate of the evaluators, considering the pace of progress so far).

Output 2.4: "Strengthen capacity of selected laboratories to comply with RoHS EU directive requirements in the electrical and electronics industry."

Success indicators: At least 100 participants attended awareness raising seminars in Ho Chi Minh City and Hanoi, 10 consultants trained, at least 1 laboratory has developed capacity to test for RoHS requirements at a level for potential recognition through international accreditation.

Assessment: Output partially achieved. The number of participants who attended the trainings was significantly higher (see figure 9 above). QUATEST 3 is able to provide testing services for *some* tests required by RoHS, preparation for accreditation are however not yet finalized (this output is already included under 2.1 - laboratory upgrading).

Output 2.5: "Strengthen capacity of selected chemical testing laboratories to comply with REACH (Registration, Evaluation and Authorization of Chemicals) EU regulation requirements."

Success indicators: At least 100 manufacturers/exporters attended REACH awareness raising seminars in Ho Chi Minh City and Hanoi, Information Center for REACH (and RoHS) established by 2011 (fully functional by 2013); at least one laboratory has developed capacity to test for REACH requirements at a level for potential recognition through international accreditation.

Assessment: Partially achieved. Output of awareness raising seminars achieved (too early to assess whether the RRIC will be "fully functional by 2013" – this would rather be an outcome). The RRIC is formally established, but has not yet started providing information services, i.e. the equipment purchased is not yet used for the benefit of potential clients of VINACHEM seeking information. QUATEST 3 is technically able to provide testing services for *some* substances, but an initial assessment for international accreditation and the accreditation itself is outstanding. Accreditation is unlikely to be completed without an extension of the project by at least 12 months.

Comments on effectiveness of support provided in the field of RoHS/REACH compliance (outputs 2.4 and 2.5): RoHS and REACH are entirely different areas and both of them are vast and complex. To achieve RoHS compliance, electronic companies will have to introduce major changes in their production processes and it is unlikely that VINACHEMIA has the expertise and capacity to provide the necessary assistance. A key problem is also whether companies have the financial resources that are necessary for technology upgrading. The evaluators also wonder *to what degree* QUATEST 3 is able to meet RoHS/REACH testing requirements, as reported. REACH alone covers more than 3000 substances. It seems rather unlikely that QUATEST 3 will be able to perform all tests needed to comply with REACH and RoHS requirements by the end of the project.

General factors contributing to effectiveness included:

- **Generally, right tight type of support:** A significant amount of funds were channeled into well-targeted, praxis-oriented activities that directly benefited stakeholders.
- **A good cooperation with counterparts and beneficiaries:** Advice has been followed-up to a high degree in beneficiary institutions. The laboratory equipment provided seems to be well maintained and is working properly after some initial problems, which counterparts resolved themselves directly with the agents of manufacturers in Viet Nam.
- **Equipment used effectively:** Statistics of laboratories indicate that most of the equipment is used effectively and serves the needs of clients for testing and metrology services. UNIDO and SECO support made a real difference in all visited institutions and companies and the

evaluation team collected very positive feed-back. All beneficiaries are eager to continue the cooperation.

- **Quality and quantity of expert support:** Technical input was well coordinated. UNIDO selected the right experts who were able to provide the appropriate type of hands-on support to beneficiaries. Trainers were enthusiastic, experienced and able to convey their knowledge. Trainings provided the right mix of theory and practice. The *quantity* of expert support was generally appropriate, however clearly too limited for the less advanced laboratories in QUATEST 2. Achieving international accreditation of QUATEST 2 would require sustained support in the critical final phase. Longer exposure of *key* laboratory staff to good practices (attachment trainings) instead of short study visit would further increase the effectiveness of trainings. The same applies to the support to establishing traceability systems in coffee companies in the Daklak province.
- **Combination of local with international expertise:** For some of the activities, UNIDO combined successfully the use of local and international expertise, e.g. for the RIA (standard formulation) and in the area of traceability. There is however room for further strengthening know-how transfer by systematically twinning local and international experts. Specifically, QUATEST 3 experts could complement international expertise for assisting the remaining laboratories to prepare for international accreditation. This would also allow for more frequent expert visits and lower cost.
- **UNIDO selected the right type of equipment.** Laboratories were actively involved in identifying equipment needs and drafting technical specifications. However, effectiveness of technical upgrading was reduced by failure to communicate a clear procurement plan to beneficiaries (what equipment will be purchased by when). Also, procuring equipment at an earlier stage of the project would have been more appropriate. Laboratories highlighted that procuring equipment through local agents would facilitate installation and continuous technical support.

Box 13: Promoting international accreditation versus strengthening national accreditation systems – what is more effective? [32]

While the evaluation team is not able to give an answer to this question, it might be worthwhile to rethink the (costly) approach to promote international accreditation by an European Accreditation Body versus using the existing evaluation system or look into the option of identifying cheaper solutions (e.g. accreditation by one of the leading regional bodies).

Advocating international accreditation might undermine the credibility of the existing local system (VILAS). This has to be looked into on a case-to-case basis. For the laboratories, accreditation was also considered as a capacity building process and an incentive to bring their facilities up to the highest standards.

A concern is certainly that most laboratories (maybe with the exception of QUATEST 3) depend on donor support to maintain or even expand the scope of their accreditation (see also section V.F below). One question for those laboratories that are required to be financially self-sustaining is the bottom line: are the incremental revenues (higher price and volume of testing services) generated because of an international accreditation sufficient to cover the higher costs? Accreditation by a reputable body is an important, but not the only "selling point".

Laboratories however stressed the high value of obtaining international accreditation as a benchmark for implementing best practices and in one case (NAFIQAD 1) to obtain recognition as a competent authority by the EU.

Conclusions: Good cooperation with counterparts, high quality of expertise and the selection of the right type of laboratory equipment contributed to effectiveness of implementation. However, to date, the planned outputs are only partially achieved. An extension of the project by at least 12 months is necessary to complete the outstanding activities (support to laboratories, traceability systems for coffee producers), which would increase the chances to achieve the remaining outputs. However, even if such an extension was granted and the laboratories became "capable" for international accreditation, the funding problem for the accreditation would continue. Gradually increasing the use of local expertise by "pairing" international with national experts would be a way to improve know-how transfer.

D. Efficiency

Data for a detailed efficiency assessment of project inputs against outputs is not available because UNIDO does not apply results based financial reporting. More broadly, the evaluators assess efficiency as follows:

- **The project was generally well coordinated with non-UNIDO activities**[33] STAMEQ and NAFIQAD played an essential coordination role in synchronizing input from various donors with their own training and upgrading plans. Good coordination was also achieved with FAO in the coffee sector. Awareness raising for REACH/RoHS complemented the efforts of the Multilateral Trade Policy Assistance Project (MUTRAP III) funded by the EU in conjunction with EUROCHAM. Support to OHSAS 18000 and GLOBALGAP built upon and deepened support by DANIDA.
- **No evidence however for cooperation with other UNIDO projects in Viet Nam:** Synergies could for example have been exploited with the UNIDO project in the field of Corporate Social Responsibility (CSR), which supports industry associations and companies in three sectors: textile, leather and electronics. Safety and security at the workplace (OHSAS 18000) is a common area of intervention of both projects but the representatives of STAMEQ and the NPC were even not aware of the CSR project. Conversely, the representatives of the electronics industry association with whom the CSR project collaborates have a strong interest in RoHS but were not aware of the SMTQ project. The UNIDO project promoting SME clustering in the textile, leather and furniture sectors is another project with potential synergies. All three sectors, and in particular furniture, have an interest in REACH. To be fair, it should also be said that the evaluation did not find evidence of duplication of efforts between UNIDO projects.
- **Good informal coordination with Mekong II (NORAD):** The two UNIDO SMTQ projects implemented in parallel with the same counterparts in Viet Nam were informally coordinated, mainly by the NPC and to some degree by the Project Manager. This good informal coordination was however less a result of the project design than a merit of STAMEQ's and NAFIQAD's efforts to synchronize donor assistance with their own upgrading plans. The evaluators raise the question whether it is effective to conduct two SMTQ projects separately in the same country with two different CTAs. Calling on co-funding of the two donors for one

[33] See detailed list of all relating donor- and government-funded interventions annexed to the Interim Progress Report as per March 2011.

project in Viet Nam would facilitate coordination work and reduce the management input needed. Practical constraints and "historical" factors might have been the reason for not selecting a co-funding approach.

- **Management problems continued to negatively affect efficiency of implementation:** Although UNIDO did address some of the management-related problems identified by the evaluation of phase I, procurement delays continued to affect the efficiency of implementation (see the analysis in section III.B above). While some delays were a result of external factors (e.g. problems with custom procedures), others were caused by weak coordination (e.g. poor sequencing of activities, slow response from UNIDO to partner requests).

Conclusion: A lack of a result-based financial reporting system makes an assessment of efficiency of fund use impossible. Good coordination with other donors and generally the right type of activities that directly benefitted stakeholders contributed to efficiency. Efficiency was reduced by weak coordination with other UNIDO projects and delays in procurement.

E. Impact

As many outputs have been completed only recently, it is too early to assess company impact. However, the laboratory survey shows positive trends for the delivery of testing and calibration services by beneficiary laboratories.

1. Significant increase of testing services

During the project period, the delivery of testing services by beneficiary laboratories, both accredited and non-accredited, has increased[34]. Growth of testing services was mainly driven by company clients. Table 14 shows the total number of tests delivered by beneficiary laboratories.

Table 14 total number of tests conducted in selected laboratories[35]

Laboratory	2004	2005	2006	2007	2008	2009	2010
NAFIQAD 1 FM	8100	9350	15959	19250	22990	21300	30000
QUATEST 1 FM	N.A	N.A	18823	24720	32830	N.A	N.A
QUATEST 1 Textile	N.A.	N.A.	1998	1817	3069	2954	3475
QUATEST 2 FC/FM	1221	1371	1685	6236	3364	4460	6211
QUATEST 3 FC/FM	118104	164403	203713	187813	205895	236615	262317

Although these increases cannot be exclusively *attributed* to the project, there is significant evidence for a direct and significant *contribution*. As shown in table 15, international accreditation

[34] NAFIQAD 1: food microbiology, QUATEST 1: food microbiology, QUATEST 2: food microbiology and food chemistry, QUATEST 3: food microbiology, food chemistry, REACH and RoHS compliance.
[35] Source: Laboratory survey conducted by evaluators. Notes: FM = food microbiology, FC = food chemistry. For 2009 – 2010, the FM laboratory of QUATEST 1 reported only the number of samples, not tests conducted (2008: 1860 samples, 2009: 2080 samples and 2010: 2837 samples). This indicates that the number of tests also increased. Data reported by the project differs significantly from the data retrieved directly through the laboratory survey.

of NAFIQAD's micro-biology laboratory in 2007 coincided with a significant leap of the number of tests provided to company customers (from 4000 in 2006 to 8000 in 2007). Upgrading of the laboratory (new equipment) was also an important factor, because NAFIQAD was able to expand the scope of its services and handle more samples. Testing reported under "company clients" does not include tests provided as a subcontractor to other testing providers (e.g. SGS and VINACONTROL). Therefore, the impact of NAFIQAD's testing services on private sector companies might be even higher.

Table 15: Detailed statistics for NAFIQAD 1[36]

NAFIQAD 1 (FM)	2004	2005	2006	2007	2008	2009	2010
Number of clients	**34**	**40**	**49**	**53**	**49**	**68**	**67**
Government offices	11	17	23	27	29	34	27
Businesses	16	20	18	21	16	37	31
Others	7	3	5	5	4	7	9
Number of tests	**8100**	**9350**	**15959**	**19250**	**22990**	**21300**	**30000**
Government offices	6100	5000	11500	11000	12100	17300	19400
Businesses	2000	4350	4000	*8000*	*10700*	*14500*	*9500*
Others	0	0	450	250	290	500	2100
Number of tests by product	**8100**	**9350**	**15959**	**19250**	**22990**	**21300**	**30000**
Fish, shrimp, squid	6800	8000	13500	17000	19300	19700	26800
Meat	0	0	0	0	1000	400	1050
Animal feed	1000	1350	1500	1600	1400	450	900
Water	200	0	450	250	590	400	550
Hygiene	100	0	500	400	700	350	700

QUATEST 2 recorded a doubling of its tests provided to the business sector. However, this growth was mainly driven by a comprehensive technical upgrading project funded by CIDA, with some complementary procurement funded under the UNIDO project. It is not unimportant to put on record that this increase occurred even without an accreditation of QUATEST 2, which is still outstanding.

[36] Source: Laboratory survey conducted by evaluators. Water testing mainly relates to water used for production (e.g. ice for seafood processors). Animal feed: both domestically manufactured and imported products, no exports.

Table 16 Detailed statistics for QUATEST 2

QUATEST 2 (Food chemistry + food microbiology)	2004	2005	2006	2007	2008	2009	2010
Number of clients	**150**	**175**	**195**	**201**	**215**	**268**	**318**
Government offices	25	35	40	45	45	47	55
Businesses	95	129	125	131	140	170	195
Others	30	20	30	25	30	51	68
Number of tests	**1221**	**1371**	**1685**	**6236**	**3364**	**4460**	**6211**
Government offices	450	540	720	4720	2018	2676	3860
Businesses	650	600	680	1100	1177	1561	2110
Others	121	231	285	396	169	223	241
Number of tests by product (in %)							
Agricultural products	23%	24%	25%	53%	38%	35%	35%
Beverages	47%	27%	28%	27%	32%	30%	30%
Milk, meat, fish	12%	31%	35%	12%	21%	26%	28%
Other (environment)	18%	18%	12%	8%	10%	9%	7%

For QUATEST 3, the available statistics do not reveal the type of client, but this laboratory estimates that around 90% of its clients are companies (including sub-contracts with other testing providers, e.g. TÜV). The growth of testing services following international accreditation in 2007 (funded by the project) is not as significant as in NAFIQAD. Growth was mainly driven by the demand of the business sector.

QUATEST 1 is not yet accredited and the data from this organization is fragmented. Between 2008 and 2010, the number of clients increased from 420 to 620 (mainly due to companies using the service). Management does not have any information on the share of company clients.

Assessment: A combination of the findings of the laboratory survey (increased use of testing services, more company clients) with those of the enterprise survey (highlighting the importance of testing for meeting customer requirements and enhancing product quality) provides some evidence that the outcomes of the project will contribute to positive impact at the company level. The statistics of NAFIQAD 1 and QUATEST 2 do not indicate a significant difference in the potential impact on exporters and non-exporters.

2. Positive trend for metrology services

Table 17 shows that the number of calibration/verification services is substantial and has further increased, although less than for testing services.

The breakdown by customer categories, which is only available for QUATEST 2, shows that between 2004 and 2010, about 70% of physical-mechanical calibration/verification services were provided to companies. Management of QUATEST 3 estimates that, for their laboratories, the share of company clients is even higher.

VMI provides calibration services at high-level standards. While the direct industry demand for such services is relatively low (except high precision manufacturing), VMI's high-level standard services are an important reference for other providers of industrial metrology services.

Table 17: Number of calibrations provided[37]

Laboratory	Field of service	2006	2007	2008	2009	2010
QUATEST 1	Electrical	2100	2500	2700	N.A	N.A
QUATEST 2	Electrical (amended)	570	970	950	990	1050
QUATEST 3	Electrical	4245	3628	3799	5225	5386
QUATEST 1	Mass/Volume/Flow	63	150	300	N.A.	N.A.
QUATEST 3	Volume/Flow	57957	37617	44765	51589	54051
QUATEST 3	Mass	13400	15758	14270	14701	16753
VMI	Mass/Volume/Flow	3260	3420	5180	1282	1184
QUATEST 3	Physicochemical (inc. grain moisture)	2319	2945	4297	5412	6369
QUATEST 1	Pressure/Force/Length	1550	2350	3140	N.A.	N.A
QUATEST 3	Pressure/Force/Length	22182	19892	23071	24308	20984
VMI	Pressure/Force/Length	1179	1234	1345	1031	1448
QUATEST 1	Temperature	720	843	1230	N.A.	N.A.
QUATEST 2	Temperature	155	307	504	N.A.	N.A
QUATEST 3	Temperature	5390	4319	6519	7630	9156
VMI	Temperature	N.A.	N.A.	900	966	1458

Source: Project interim report, laboratory survey by evaluators

The above data shows the increased direct use of calibration services by companies. These figures do however clearly understate the cumulative impact on companies because the metrology labs under STAMEQ also calibrate the metrology equipment of the provincial branches of STAMEQ, which in turn provide calibration services to companies. For instance all three coffee producers interviewed use the services of STAMEQ's branch ("Chi Cuc") in the Daklak province.

As for testing, combining the findings of the lab survey with those of the enterprise survey indicates a significant positive impact at the enterprise level (product quality, meeting customer requirements, stability/efficiency of production). While it is not possible to quantify the economic benefits of calibration, there might be other company benefits the survey did not capture. For instance, calibration is a requirement to obtain ISO certification of quality management systems.

[37] Data for electrical metrology QUATEST 2: amended according to survey (figures in report: 1'300 – data 2009/2010 not reported.

3. Improved service quality both for testing and metrology services

The company survey showed that customers are overall satisfied with the service quality of STAMEQ laboratories. There is however still significant room for increasing the speed of delivery, the convenience of access and (partially) the attitude towards customers. Significant differences within STAMEQ, with a clear lead of QUATEST 3, became evident.

Direct observation showed significant efforts of NAFIQAD to improve customer service (convenience of reception and return of samples, transparent price lists, etc.).

Box 18: Strengths and weakness of STAMEQ?

Assessment of STAMEQ's service quality by client companies:

More than 63% of responses contend that testing results from STAMEQ are recognized by customers at the level "high". Only 31.6% of respondents rated their degree of satisfaction with the service quality as "high", compared with 68.4 percent as "medium". Speed of service delivery and convenience of access was the biggest concern. Although the service price is less important for most companies when selecting provider, many of them (56.3%) still complained that prices offered by STAMEQ satisfy only at medium level compared with other providers.

Source: Enterprise survey

4. Capacity building in OHSAS 18000 and GLOBALGAP resulted in certifications

In the area of GLOBALGAP, UNIDO followed-up on initial assistance provided by DANIDA. As a result, QUACERT 6 farms (vegetable, fruit and tea) for GLOBALGAP (status March 2011). Furthermore, QUACERT reported extensive own awareness raising activities: 21 agriculture farms received support to implement GLOBALGAP, 81 consultants, 26 auditors and one trainer were trained and received certificates, 17 awareness seminars were organized in 9 provinces with a total of 877 participants, 3 awareness training were conducted in the University of Agriculture with 162 participants. This shows that the impact of capacity building went significantly beyond the direct outputs reported. With support of the lead auditors trained under the project, QUACERT also certified 8 companies for OHSAS 18000.[38]

Assessing the benefits of GLOBALGAP and OHSAS certifications at the company level after a few months would be premature.

5. Impact on the National Quality Infrastructure in Laos, Cambodia and ASEAN

As an unintended effect, the project also contributed to the development of SMTQ beyond Viet Nam's border. Substantial support to the Lao Metrology Institute by STAMEQ benefitted from capacity building to VMI under the project. Also to be mentioned are attachment trainings for Lao and Cambodia laboratory staff at QUATEST 3.

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[38] Unaccredited certification, BOA is not an accredited certification body for OHAS18000 and does not intend to obtain accreditation.

6. Positive effect on STAMEQ's internal capacity building activities

Within STAMEQ, QUATEST 3 provided regular trainings to QUATEST 2, using know-how developed under the project. The project support was also instrumental for the recognition of QUATEST 3 as an ASEAN reference laboratory for food micro-biology testing.

F. Sustainability

The following section assesses the likelihood that project benefits are maintained:

Technical upgrading of equipment and staff skills are clearly sustainable. All equipment provided by the project continues to be well maintained and put into stable operation by counterparts. In none of the beneficiary institutions, staff turnover is a significant issue.

Sustainability of international accreditation is to be seen. Whether the (envisaged or already project-funded) international accreditations will be sustainable depends on the availability of financial resources for maintaining these accreditations and maybe also the future demand/pressure from clients of beneficiary laboratories. It seems to be more likely that the laboratories of QUATEST 3 will be financially capable to maintain international accreditation than other laboratories supported under the project (NAFIQAD and potentially QUATEST 2 and the micro-biology laboratory under QUATEST 1).

Capacities in standard formulation and in conducting RIAs are likely to be maintained. The standards were developed with a broad involvement of different stakeholders plus national experts, which make it likely that the know-how will continue to be locally available after the end of the project.

Awareness rising to companies in the field of RoHS and REACH: Sustainability of awareness depends on whether and how the RRIC will continue to promote compliance with the two EU Directives ROHS and REACH and support companies in achieving it. Awareness of companies is only likely to sustain, if it is regularly refreshed and combined with practical support. At a time where the RRIC is not yet operational, an assessment would be premature. The involvement of QUATEST 3 increases likelihood of sustainability, because QUATEST has an interest to promote the use of its testing laboratory. Trigger for applying RoHS by the electronic industry in practice will be client requirements and the enforcement of relating national standards. For REACH, application will be driven by pressure from European clients. The key challenge is not to maintain awareness but to introduce the major changes in the production process that are necessary to comply with the two Directives, which requires significant investments. It seems rather unlikely that VINACHEMIA will have the necessary capacities and expertise to assist them.

Seminars and auditor training for OHSAS 18001 and GLOBALGAP[39] were embedded into existing activities of QUACERT who has a track record of regularly organizing events for companies, partially as a tool to market certification services.

The sustainability of traceability systems in coffee companies can at this stage not be assessed, because implementation has not yet started. Sustainability depends on costs and requirements to

[39] QUACERT has been recognized as a competent GLOBALGAP certification body by GLOBALGAP and JAS-ANZ in 2011, but has not plans to get accredited for OHAS 18001 due to limited demand in the country.

comply with standards, as discussed above. Unless traceability is required by clients and/or the new mandatory standard is enforced, companies are not willing to apply traceability, except if this results in increased profits. Costs of companies for applying the system will therefore be the key for sustainability. Technical sustainability can only be expected if support to the coffee sectors is institutionalized and expanded to coffee farmers. Otherwise, traceability will not work and quality problems continue to negatively affect prices for Vietnamese coffee.

In conclusion: The capacity built at the laboratories seems to be sustainable, with a low risk of losses through turnover of staff. Laboratories do have or are able to obtain a budget for repairing, maintaining and replacing equipment. However, most laboratories are unlikely to maintain their international accreditation without further donor support. Whether the planned traceability systems in companies will be sustainable remains to be seen. However, interviews with companies show that they are only willing to use a system if they can reap economic benefits from it. This would require more systematic, comprehensive and institutionalized efforts.

V
Conclusions and recommendations

A. General conclusions

This evaluation validates many key findings of the thematic evaluation of UNIDO SMTQ activities. It also provides evidence that UNIDO is putting the recommendations of the thematic evaluation into practice.

More specifically this is for instance demonstrated by the following points [references to the recommendations of the thematic evaluation in brackets]:

- The application of state-of-the-art project management tools such as logical frameworks and results based budgeting has been *significantly* improved. The project document includes baselines and progress indicators, which were regularly updated. Operational reports provide an assessment of expected towards achieved results. [recommendations 7.1 and 7.2];
- Upon inception, the Steering Committee agreed upon clear governance and management structures, including specific competences, responsibilities and accountabilities of each of the parties involved into strategic and operational management.

Certain recommendations of the thematic evaluation are not yet fully implemented, such as:

- Financial reporting does not yet link expenditures to results (result-based financial management). This issue will be solved with UNIDO's new Enterprise Resource Management System that is currently under implementation.
- While the needs assessment was done carefully, in a participatory way and through a survey among clients of STAMEQ and NAFIQAD, it did not assess the existing *overall supply* of SMTQ services in the country by other parties (private and public) [recommendations 1.1 – 1.5];
- Projects in the same area with the same counterparts in the same country but funded by different donors should be planned and implemented as multi-donor projects pooling resources from different donors. [recommendation 2.2 and recommendation 10];
- Project documents should apply a longer-term strategic approach with a "master plan" for NQI development including expected contributions by other donors. This overall planning would be updated as the project moves forward and subsequent phases are designed. Support in subsequent phases could be made conditional to achieving certain objectives. [recommendation 2.6 and recommendation 9 to donors]

B. Recommendations to SECO

1. Approve an extension phase until the end of 2012 with additional funding, subject to a detailed plan to be submitted by UNIDO. An extension until the end of 2012 would allow for completing all planned outputs, support laboratories until international accreditation and complement capacity building in areas of high priority. The extension phase should focus on achieving the *current* objectives, while selectively considering complementing or deepening support to existing beneficiary institutions. After this extension phase, the project should be formally closed.

2. Provide the necessary funding to UNIDO to develop a detailed proposal for future support to trade capacity building in Viet Nam. Future SMTQ support should be integrated with the other projects of the upcoming UN/UNIDO programme in Viet Nam that is currently under preparation.

C. Recommendations to UNIDO

I. Recommendations to the TCB Branch on the project under evaluation

3. Subject to agreement of SECO *in principle*, submit a proposal for funding of an extension phase until December 2012 to SECO, in order to:

(a) Complete all planned activities according to the implementation plan in the interim progress report, in particular support to the traceability systems in the coffee sector and support to the preparation of laboratory accreditations.

(b) Finalize and complement planned support to upgrading of testing/calibration laboratories (including funding an initial round of international accreditation), filling the specific gaps that have already been identified by UNIDO's laboratory experts.

(c) Support VMI to expand MRAs in legal metrology, taking into consideration priorities and what is realistically possible to be completed by the end of 2012)

(d) Prepare a proposal on how to integrate SMTQ into next Viet Nam country programme.

(e) Formally close the project at the end of 2012

II. General recommendations to the TCB branch

4. The UNIDO TCB Branch should continue implementing the recommendations of the thematic evaluation of SMTQ activities into new projects and monitor the status of their implementation for all ongoing projects.

5. For projects aiming at strengthening supply of SMTQ services for exporters, apply the following steps for identification/preparation:

a. Prioritize target export sectors, taking into consideration their socio-economic impact, the international competitiveness and government policies/strategies.

b. Conduct a comprehensive assessment of the existing supply of SMTQ services relevant to those specific sectors. This should include *all* services providers rather than only public institutions. Purpose of this is to identify specific gaps: what

specific testing, calibration, verification or certification services that companies from the selected priority export sectors need to comply with client requirements are not yet sufficiently accessible and/or affordable. Accessibility of services for companies should be taken into consideration (e.g. the need of on-site calibration, testing of perishable products, such as food). Based on this, prioritize those services that would have the most significant impact on exporters.

c. Assess existing capacities of institutions that already provide similar (related) services to exporters and then select those institutions, where building the necessary additional service capacities can be achieved with little additional investment.

d. Establish a specific action plan that outlines in details what additional equipment, training and credentials (accreditation) would be needed to fill the specific gaps (services that are crucial for exporters but not available).

e. In order to prevent using donor funds for duplicating capacities, shift away from selecting institutions and upgrade them based on gaps in their capacities, without taking into consideration *overall* supply and demand within the country.

6. Address procurement problems.

a. Equipment should be procured as early as possible in order to allow for proper training and sufficient time for preparing accreditation, where planned.

b. A clear procurement/training plan should be communicated to beneficiaries as early as possible, in order to allow them to plan for their own resources and/or call on other donors, if needed.

c. The TCB Branch should analyze together with the Country Office and the procurement branch the procurement problems that occurred (what were the reasons for problems encountered with customs clearance and how to prevent them in this and other UNIDO projects in Viet Nam).

7. In relatively advanced countries such as Viet Nam, national accreditation bodies should be used for laboratory accreditations, whenever possible and appropriate. In cases where international accreditation bodies have to be used, this should be combined with strengthening of the local accreditation system (e.g. through “twinning” of international and local accreditation bodies).

8. UNIDO should consider including a human resource development component into SMTQ projects (e.g. attachment trainings for *key* laboratory staff; twinning of laboratories; support to universities in integrating “quality management” into their curricula; etc).

III. General recommendations to UNIDO

9. UNIDO country programmes should be planned and executed as synergetic entities. Cooperation between projects should be formalized through agreements between projects with specific cooperation targets and include a clear coordination mechanism (e.g. through inviting representatives of both projects as observers to the respective steering committee meetings).

10. Consider the option of co-funding, where several UNIDO projects funded by different donors cover the same areas with the same counterparts as opposed to implementing several projects in parallel. This would increase efficiency and further facilitate coordination.

11. Wherever practical, UNIDO should contribute to building human capacity by twinning international with local experts. This would also be a good way to bridge gaps between international expert missions.

12. In line with UNIDO's change management programme, the UNIDO representative or head of operations should be given responsibility for day-to-day project management. This requires strengthening project governance structures. [see also recommendation 6.3 of the thematic evaluation.]

13. Make result-based financial reporting mandatory for all projects. Data could be used to systematically benchmark the efficiency of projects and made available within UNIDO for the planning of new projects.

Annex A: Terms of Reference (without Annexes)

Independent Evaluation of
UNIDO project US/VIE/08/004

Post WTO accession support to Viet Nam - Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary (SPS) compliance capacity development related to key export sectors

Background

The project under evaluation is part of the long-term collaboration of UNIDO with the Directorate for Standards, Metrology and Quality (STAMEQ) in the area of Standards, Metrology, Testing and Quality (SMTQ). This collaboration started as early as 2002 under a regional project TF/RAS/02/003 entitled '*Market access and trade facilitation support for Mekong Delta Countries'* covering Cambodia, Lao People's Democratic Republic (PDR) and Viet Nam funded by the Norwegian Agency for Development Cooperation (NORAD). The first phase of this project was evaluated in 2005.

The *regional* NORAD project was implemented in parallel with the *national* project US/VIE/03/083 '*Market access support through the strengthening of capacities related to Standards, Metrology, Testing and Quality (SMTQ)'* funded by the Swiss State Secretariat for Economic Affairs (SECO) with a total budget of USD 985,000 (excluding agency support cost). This project was implemented between 2004 and 2006 and aimed to improve Viet Nam's metrology and testing laboratories and to develop role models for management systems in industry. It was subject to an independent evaluation in 2007.

The present evaluation will focus on the second phase of the SECO funded project entitled *'Post WTO accession support to Viet Nam - Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary (SPS) compliance capacity development related to key export sectors'*. This project was developed following Viet Nam's accession to WTO in January 2007. It is part of the UNIDO country program and focuses on further enhancing the national SMTQ infrastructure (primarily development and upgrading of metrology and testing laboratories).

The evaluation will be conducted in parallel with the above mentioned regional NORAD project and build on the two earlier evaluations in 2005 and 2007.

Project objectives. The objective of the project is to reduce technical barriers to trade in order to enhance Viet Nam's access to global markets. The project has two expected outcomes:

- WTO TBT/SPS requirements related to metrology met by the Vietnamese government (i.e. metrology laboratories in Hanoi, Ho Chi Minh City and Da Nang)
- Testing, certification and food traceability capabilities developed and strengthened at the national level (i.e. testing laboratories in Hanoi, Ho Chi Minh City and Da Nang).

In July 2009, two outputs were revised following a meeting of the project Steering Committee and the approval of the UNIDO Programme Approval Committee. The budget remained unchanged.

The project has been integrated into the Joint UN Programme for Trade Development in Viet Nam, which was initiated in collaboration with FAO, ITC, UNCTAD, UNIDO and the

Vietnamese partners under the One UN Plan in the country. The three-year Joint Programme from 2008 and 2011 aims to enhance the value added and coherence of interventions, decreasing transaction costs for all parties involved, maximizing the benefits of WTO accession and minimizing any adverse effects. More specifically, the project contributes to the Joint Programme's Output 3 'Increased export opportunities through upgraded conformity assessment and infrastructure and improved information and other technical services'.

Project budget and duration: The total budget of the project (including support costs) is USD 2.42 million. To date, 86% of the total budget has been committed and/or spent.

The project started in July 2008 for an expected duration of three years. UNIDO and SECO envisage an extension by six months until December 2011.

Table 1. Project budget (in USD excluding support cost)

Budget Items	Budget Line	Allotment	Expenditure	Implemented
Personnel	19-99	974,000	797,286	82%
Contracts	29-99	364,000	337,466	93%
Training	39-99	83,000	91,941	111%
Equipment	49-99	700,000	617,915	88%
Miscellaneous cost	59-99	21,000	3,275	16%
Total		**2,142,000**	**1,847,883**	**86%**

Source: Project revised budget dated July 2009 and UNIDO Infobase as of 28 Feb 2011

Purpose of the Evaluation

The evaluation will be conducted in accordance with the UNIDO Evaluation Policy and the UNIDO Guidelines for the Technical Cooperation Programmes and Projects. The purpose of this evaluation is threefold:

- Assess the project in terms of relevance, effectiveness, efficiency, sustainability and impact;
- Examine and validate the findings and recommendations of the thematic evaluation of UNIDO's approach to SMTQ development, which was conducted in 2009 and 2010;
- Develop lessons and recommendations for the continuous improvement of future SMTQ projects in Viet Nam and elsewhere.

The evaluation will be closely coordinated with the evaluation of the second phase of the NORAD funded project 'Trade capacity building in the Mekong Delta countries'. The evaluation will directly contribute to the forthcoming country evaluation of UNIDO's presence in Viet Nam in 2011.

Scope and focus of the evaluation

The evaluation will focus on the ongoing project *("SECO phase II")*. However, given that the implementation of the phase 1 project already started in 2004, there is also scope to evaluate the wider impact of the first phase. Building on the evaluation of phase 1, the present evaluation will therefore give particular emphasis to the evaluation

of impact on and relevance to the "key export sectors" mentioned in the project title. To this end, a survey among beneficiary companies will be conducted.

The design of the project and its intervention logic as encapsulated in the logical framework will be scrutinized, taking into account the findings and recommendations of the thematic evaluation of UNIDO's SMTQ approach. The intervention logic and the survey approach will be discussed in the Inception Report (see section V. for more details) to be prepared by the evaluation team at the beginning of the field visit.

Evaluation criteria and questions

The evaluation will apply the generic intervention logic of SMTQ projects shown in Figure 1 and address the standard evaluation criteria of relevance, effectiveness, efficiency, impact and sustainability and examine the following aspects:

Design

- The extent to which:
  - ✓ a participatory project identification process was instrumental in selecting problem areas and national counterparts;
  - ✓ the project has a clear thematically focused development objective, the attainment of which can be determined by a set of verifiable indicators;
  - ✓ the project was formulated based on the logical framework approach;
  - ✓ the project was formulated with the participation of national counterpart and/or target beneficiaries;
  - ✓ relevant country representatives (from government, industries and consumer associations) have been appropriately involved and were participating in the identification of critical problem areas and the development of technical cooperation strategies

Relevance

- The extent to which the project is relevant to the:
  - ✓ national development priorities and strategies of the Government and population of Viet Nam
  - ✓ UNIDO's thematic priorities
  - ✓ UN Development Assistance Framework (UNDAF) for the Mekong countries
  - ✓ "key export sectors" and other industrial clients of SMTQ services
  - ✓ Institutional and non-industry clients of SMTQ services

- Is the project's design adequate to address the problem(s) at hand? Does the project remain relevant taking into account the changing environment? Is there a need to reformulate the project design and the log frame given changes in the country and operational context?

Effectiveness

- To what extent have the expected outputs and outcomes been achieved or are likely to be achieved? Are the actual project outcomes commensurate with the original or modified project objectives? If the original or modified expected results are merely outputs/inputs, the evaluators should assess if there were any real outcomes of the project and, if there were, determine whether these are commensurate with realistic expectations from the project. How do the stakeholders perceive the quality of the project outputs and outcomes? Were the targeted beneficiary groups actually reached?
- What outputs and outcomes has the project achieved so far (both qualitative and quantitative results)? Has the project generated any results that could lead to changes of the assisted institutions? Have there been any unplanned effects?

Impact

- Identify the potential longer-term impacts or at least indicate the steps taken to assess these (see also below "monitoring of long term changes"). Wherever possible, evaluators should indicate how findings on impacts will be reported in future.

Efficiency

The extent to which:

- UNIDO and Government/counterpart inputs have been provided as planned and were adequate to meet requirements.
- The quality of UNIDO inputs and services was as planned and timely
- The interventions were cost-effective. Was the project the least cost option?
- There was coordination with other UNIDO and other donors' projects and possible synergy effects
- Has the project produced results (outputs and outcomes) within the expected time frame? Are the project's activities in line with the schedule of activities as defined by the project team and annual work plans? Are the disbursements and project expenditures in line with budgets?

Sustainability

Sustainability is understood as the likelihood of continued benefits after the project ends. Therefore, assessment of sustainability of outcomes will give special attention to analysis of the risks that are likely to affect the persistence of project outcomes at the various levels of the intervention logic shown in Figure 1. At the laboratory level, the sustainability criteria in Table 2 will be applied.

Project coordination and management

The extent to which:

- The national management and overall coordination mechanisms have been efficient and effective. Did each partner have assigned roles and responsibilities from the beginning? Did each partner fulfill its role and responsibilities (e.g. providing strategic support, monitoring and reviewing performance, allocating funds, providing technical support, following up agreed/corrective actions…)?
- The UNIDO HQ and Filed Offices' management, coordination, monitoring, quality control and technical inputs have been efficient, timely and effective (problems identified timely and accurately; quality support provided timely and effectively; right staffing levels, continuity, skill mix and frequency of field visits…)
- Assessment of implementation approach: What are the advantages and disadvantages of the project implementation approach (regional approach)? Does it comply with the principles of the Paris Declaration? How can it promote local ownership and capacity building? Any innovative approaches or best practices that can be identified? What are the potential risks?
- Monitoring and evaluation (M&E) assessment: Monitoring and self-evaluation were carried out effectively, based on indicators for outputs, outcomes and impacts. Is there any annual work plans? Was any steering or advisory mechanism put in place? Did reporting and performance review take place regularly?
  - ✓ ***M&E design.*** Does the project have a sound M&E plan to monitor and track progress towards achieving project results?
  - ✓ ***M&E implementation.*** The evaluation should verify that an M&E system was in place and facilitated timely tracking of progress toward project objectives by collecting information on chosen indicators continually throughout the project implementation period; annual project reports were complete and accurate, with

well-justified ratings; the information provided by the M&E system was used during the project to improve performance and to adapt to changing needs; and projects had an M&E system in place with proper training for parties responsible for M&E activities to ensure that data will continue to be collected and used after project closure.

- ✓ ***Budgeting and funding for M&E activities.*** In addition to incorporating information on funding for M&E while assessing M&E design, the evaluators will determine whether M&E was sufficiently budgeted for at the project planning stage and whether M&E was funded adequately and in a timely manner during implementation.

Figure 1: Generic Intervention Logic of SMTQ Projects

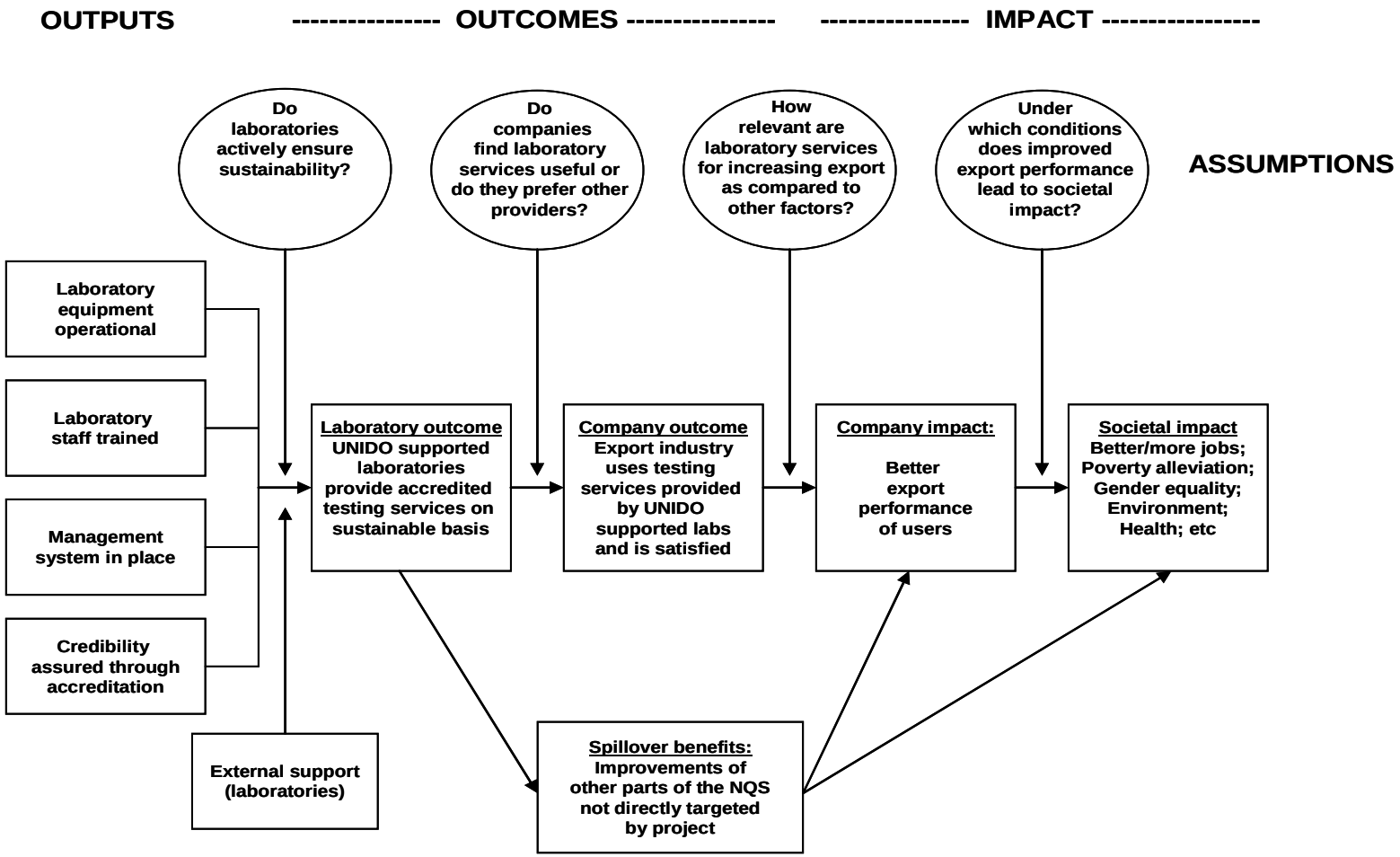

Table 2: Sustainability Criteria at Laboratory level

Sustainability criteria at laboratory level
1. Equipment:
1.1. Laboratory infrastructure
1.2. Climate controlled metrology labs
1.3. Availability of chemicals and standards
1.4. Repair and maintenance service
1.5. Forward budget for purchase of new equipment
2. Staff:
2.1. Skilled staff
2.2. Appropriate remuneration package
2.3. Promotional schemes to encourage performers
2.4. Performance based incentive scheme
2.5. Suitable succession plan
3. Management/governance:
3.1. Knowledge and experience suitable as per IEC 17025
3.2. Quality concept leveraged across entire organization
3.3. Laboratories operating as profit centres
3.4. Costing methods and pricing strategy
3.5. Dependence on income from mandatory requirements
3.6. Laboratories able to meet changing demands
3.7. Strategic orientation towards client needs
4. Accreditation:
4.1. Scope of accreditation related to country needs
4.2. Budget for annual renewal of accreditation
4.3. Budget for maintaining accreditation
4.4. Budget for staff training for scope expansion

Processes that affected attainment of project results

Among other factors, when relevant, the evaluation will consider a number of issues affecting project implementation and attainment of project results. The assessment of these issues can be integrated into the analyses of project design, relevance, effectiveness, efficiency, sustainability and management as the evaluators find them fit (it is not necessary to have a separate chapter on these aspects in the evaluation report).

- ***Preparation and readiness***. Were the project's objectives clear, practicable and feasible within its timeframe? Were the capacities of participating institution and counterparts properly considered when the project was designed? Were lessons from other relevant projects properly incorporated in the project design? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project approval? Were counterpart resources (funding, staff, and facilities), enabling legislation, and adequate project management arrangements in place at project entry?
- ***Country ownership, commitment and motivation***. Was the project concept in line with the sectoral and development priorities and plans of the country? Are project outcomes contributing to national development priorities and plans? Were the relevant country representatives, from government and civil society, involved in the project? Did the recipient governments maintain their commitment to the project? Has the government approved policies or regulatory frameworks been in line with the project's objectives?
- ***Stakeholder involvement***. Did the project involve the relevant stakeholders through information-sharing, consultation and by seeking their participation in the project's design, implementation, and monitoring and evaluation? For example, did the project implement appropriate outreach and public awareness campaigns? Did the project consult and make use of the skills, experience and knowledge of the appropriate government entities, civil society, community groups, private sector, local governments and academic institutions in the design, implementation and review of project activities? Were perspectives of those that would be affected by decisions, those that could affect the outcomes and those that could contribute information or other resources to the process taken into account while taking decisions? Were the relevant vulnerable groups and the powerful, the supporters and the opponents, of the processes properly involved?
- ***Financial planning***. Did the project have the appropriate financial controls, including reporting and planning, that allowed management to make informed decisions regarding the budget and allowed for timely flow of funds. Was there due diligence in the management of funds and financial audits?
- ***UNIDO's supervision and backstopping***. Did UNIDO staff identify problems in a timely fashion and accurately estimate its seriousness? Did UNIDO staff provide quality support and advice to the project, approved modifications in time and restructured the project when needed? Did UNIDO provide the right staffing levels, continuity, skill mix, and frequency of field visits for the project?
- ***Delays and Project Outcomes and Sustainability***. If there were delays in project implementation and completion, then what were the reasons? Did the delay affect the project's outcomes and/or sustainability, and if it did then in what ways and through what causal linkages?

Broader issues covered by the UNIDO SMTQ thematic evaluation

In 2009/10, UNIDO Evaluation Group conducted a thematic evaluation of UNIDO activities in the area of SMTQ and made a series of recommendations on how to improve SMTC projects. Hence, the project evaluation team will also look into these recommendations to ensure that its assessment and recommendations be compatible with that of the thematic evaluation (see the list of recommendations applicable to this project attached to the TOR).

Evaluation methodology

The evaluation will follow UNIDO evaluation guidelines and policies. It will be carried out as an independent terminal evaluation using a participatory approach whereby the UNIDO staff associated with the project is kept informed and regularly consulted throughout the evaluation.

The evaluation team will be required to use different methods to ensure that data gathering and analysis deliver evidence-based qualitative and quantitative assessment based on diverse materials: from desk studies, literature review, statistical analysis to individual interviews, focus group meetings, surveys and direct observation. This approach will not only enable the evaluation to assess causality through quantitative means but also to provide reasons why certain results were achieved or not. The concrete mixed methodological approach will be described in the inception report. The evaluation will encompass the following main steps:

Desk review and interviews at UNIDO HQ

The evaluation team will review and analyze the project document, progress reports to the donor, progress reports from the counterparts, reports prepared by the CTA and other consultants, and other relevant correspondence. Relevant documents from the Governments of Viet Nam and other development organizations will also be consulted. Interviews with the project managers of the project under evaluation and other related projects will be conducted at UNIDO HQ in Vienna.

Inception meeting at STAMEQ and inception report

On the basis of the desk review an inception meeting will be conducted at STAMEQ to discuss and fine-tune the evaluation methodology and to define the methodology for the collection of detailed data on the SMTQ services provided by STAMEQ and its subsidiaries between 2002 and 2010. On the basis of these discussions, the UNIDO Senior Evaluation Officer will prepare an Inception Report that will further operationalize the TOR. This report will focus on the following elements: refined intervention theory and impact paths; further elaboration of the evaluation methodology including the questionnaires and the sampling for the beneficiary survey; division of work between the members of the evaluation team; and a reporting timetable.

Consolidation and analysis of data on SMTQ services delivered by STAMEQ

Under the guidance of the International Consultant, the UNIDO project will collect and consolidate the relevant data on metrology and testing services delivered by STAMEQ. To capture the impact of the project on the delivery of SMTQ services to clients, an attempt will be made to construct reliable time series data for the period 2004 to 2010.

From this data, the International Consultant will identify the areas for which the most significant impact could be expected (public sector; enterprises; lead export products). The International Consultant will also identify the potential spillover benefits (see Figure 1) of the project. Such spillover benefits could be market effects (quality and price) on the market of SMTQ services in Viet Nam; secondary effects on private testing laboratories from using calibration services from STAMEQ; use of SMTQ services from STAMEQ by the public sector leading to public welfare benefits; knowledge flows in and outside Viet

Nam. Other potential and unexpected (positive and negative) spillover benefits should also be identified.

Mapping the market of SMTQ services in Viet Nam

The International Consultant will conduct a mapping of the market for SMTQ services in Viet Nam with a focus on calibration and laboratory testing. This mapping will identify the main providers of calibration and laboratory testing services (public and private sector) and estimate the market shares of STAMEQ as compared to its main competitors. The mapping will also include the potential influence of the spillover benefits mentioned above.

Survey among enterprises using SMTQ services

To assess the outcome and impact of the project at company level, a survey among 30 companies using laboratory testing and calibration services will be conducted. The companies will be primarily exporting companies but also companies that are active on the national market. The enterprise survey will focus on the following areas of interest:

- Use of laboratory testing and calibration services (which services; which providers; quantity and quality of services purchased; etc)
- Level of client satisfaction and cost incurred;
- Perceived client benefits from using laboratory testing and calibration services.

The sample will be composed of two parts. STAMEQ will nominate 20 companies that have used laboratory testing and calibration services from STAMEQ. The second part will be a control group of companies with a similar profile as the ones nominated by STAMEQ. This control group will be randomly selected.

The company survey will be conducted by the Central Institute for Economic Management (CIEM). CIEM is the leading institute for economic analysis in Viet Nam. The institute specializes in surveys at firm-level on policy issues relating to business environment and competitiveness. Recently, CIEM completed a survey among 200 exporting firms in the garment, electronics and seafood industries, which are all relevant to the project. The collaboration with CIEM will not only allow drawing upon the specialized knowledge of this institute but also raising considerable synergy benefits.

Relevance

The relevance of the project will be assessed against the relevant Government policies and action plans in the area of TBT and SPS. Other specialized agencies (FAO; WHO; etc) and bilateral donors will be interviewed. The relevance assessment will be sector specific.

Sustainability

The sustainability of the project results at laboratory level will be assessed on the basis of the sustainability criteria in Table 2. The international consultant will develop a questionnaire and a checklist for the laboratory interviews.

Field visits and interviews

The International Consultant will:

- Visit project sites in Hanoi, Haiphong, Da Nang and Ho Chi Minh City in Viet Nam to carry out in-depth interviews with representatives of all stakeholder groups (government counterparts, supported institutions, enterprises, private sector representatives; etc).
- Interview project staff and partners (various national and provincial authorities dealing with the project), other stakeholders, and a sample of consultants and/or institutions that were hired by UNIDO to support the project. The evaluators shall determine whether to seek additional information and opinions from representatives of any donor agencies or other organizations.

Field interviews could be either focus-group discussions or one-to-one consultations.

In those cases where baseline information for relevant indicators is not available the evaluation team will aim at establishing a proxy-baseline through recall and secondary information.

Reporting

The draft report will be delivered to UNIDO EVA and circulated to UNIDO staff and national stakeholders associated with the project, including the UNIDO office in Viet Nam for factual validation and comments. Any comments or responses to the draft report will be sent to UNIDO EVA for collation and onward transmission to the project evaluation team who will be advised of any necessary revisions. On the basis of this feedback, the evaluation team will prepare the final report.

The evaluation team will present its preliminary findings to the local stakeholders at the end of the field visit and take into account their feed-back in preparing the evaluation report. A presentation of preliminary findings will take place at HQ after the field visit.

The length of the Final Report should be around 30-40 pages excluding Annexes, with a 3-page executive summary in English.

Quality Assessment of the Evaluation Report

All UNIDO evaluations are subject to quality assessments by UNIDO Evaluation Group. Quality control is exercised in different ways throughout the evaluation process (briefing of consultants on EVA methodology and process, review of inception report and evaluation report by EVA). The quality of the evaluation report will be assessed and rated against the criteria set forth in the Checklist on evaluation report quality (Annex 2). The applied evaluation quality assessment criteria are used as a tool to provide structured feedback.

Evaluation team and timeline

The evaluation will be conducted by an International Evaluation Consultant with in-depth knowledge of SMTQ and the situation in Viet Nam. The company survey will be conducted by CIEM under the guidance of a specialized researcher from this institution

The Senior Evaluation Officer of UNIDO will participate in the inception phase and prepare an inception report.

All members of the evaluation team must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the project under evaluation. This principle is underlined in the UNIDO Evaluation Policy: "*For independent evaluations, the members of an evaluation team must not have been directly responsible for the policy-setting, design or overall management of the subject of evaluation (nor expect to be so in the near future)*". The consultants will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract with the Evaluation Group.

The project management and UNIDO office in Viet Nam, and the project management in Vienna will provide support to the field mission.

After taking account EVA's comments, the draft report will be submitted to the counterpart and relevant stakeholders for comments. The final timetable will be included in the Inception Report.

Annex B: List of persons met

Vienna	
Monday, 11 April 2011	
09:00 – 16:00	Briefing at UNIDO Headquarter with Project Manager Initial desk study, development of methodology for evaluation, laboratory survey and company survey.
Viet Nam	
Wednesday, 4 May 2011	
9.00 – 10.00	Briefing UNIDO Country Office: Mr. Patrick Gilabert - UNIDO Representative; Ms. Hoang Mai Van Anh, National Programme Coordinator; Ms. Le Thi Thanh Thao, National Programme Officer
15:00 – 16:00	EUROCHAM: Ms. Mai Thi Thanh Huong, Project Manager
16:15 – 17:00	SECO/Swiss Coordination Office: Ms. Brigitte Bruhin, Deputy Country Director, Mr. Do Quang Huy, National Programme Officer
17:30 – 18:30	Meeting with FAO: Ms. Yuriko Shoji, FAO Representative in Viet Nam; Mr. Vu Ngoc Tien, Assistant FAO Representative (Programme)
19:00 – 20:00	Skype interview with CTA (SECO-project): Mr. Anthony Russel
Thursday, 5 May 2011	
09:00 – 10:00	STAMEQ/UNIDO: Ms. Le Huong Huong, National Project Coordinator; Ms. Nguyen Thanh Van, National Programme Officer.
10:00 – 11:00	STAMEQ: Dr. Ngo Quy Viet, Director General
13:30 – 15:00	VMI/STAMEQ: Mr. Nguyen Manh Hung, Head of Planning & Cooperation Section; Mr. Duong Quoc Thao, Head of R&D Management Division, Quality Manager
15:00 – 16:30	QUATEST1/STAMEQ: Mr. Nguyen Canh Toi, Director; direct managers of laboratories supported by the project. Visit of laboratories.
Friday, 6 May 2011	
09:00 – 10:00	NAFIQAD/MARD: Mr. Nguyen Nhu Tiep, Director General; Mr. Nguyen Van Thuan, Head-Division of Agriculture, Forestry and Salt Quality Assurance; Ms. Vu Thi HuyenVinh, Officer, Planning and General Affairs Division.
10:30 – 12:00	VINACHEMIA-MOIT: Mr. Luu Hoang Ngoc, Deputy Director; Mr. Pham Hoai Long, Official, Department of Convention and International Relations; Mr. Van Huy Vuong, Official, Department of Precursors Management.
13:30 – 14:30	QUACERT/STAMEQ: Ms. Ly, Vice-Director
15:00 – 16:30	CIEM: Ms. Tue Anh, Vice-Director
Friday, 20.5.2011	
10:30 – 11:30	Viet Nam Electronic Industries Association: Mr. Tran Quang Hung, Secretary General
13:30 – 14:30	Viet Nam Textile & Apparel Association (VITAS): Mr. Le Van Dao, Vice Chairman; Ms. Dang Phuong Dzung, Vice Chairwoman, General Secretary
Sunday, 29.5.2011	
18:30	Arrival in Buon Ma Thuot with VN 1601 from Hanoi

Monday, 30.5.2011	
09:30 – 11:00	Buon Ho Coffee Company (subsidiary of VINACAFE): Mr. Tran Xuan Binh, Director, Mr. Nguyen Ngoc Kieu, Deputy Director.
13:30 – 15:00	SIMEXCO Daklak Ltd.: Mr. Le Duc Thong, Chairman and General Director; Mr. Nguyen Tien Dung, Senior Project Officer; Mr. Le Duc Huy, General Management Assistant.
15:00 – 17:00	Community Development Center (CDC): Mr. Bach Thanh Tuan, Director (worked as coffee expert for UNIDO); Mrs. Nguyen Thanh Tam, Vice-Director, Mr. Pham Kim Cuong, Head of Training Department.
Tuesday, 31.5.2011	
09:00 – 11:00	Nam Nguyet Coffee Company: Ms. Tran Thi Minh Nguyet, Deputy Director
16:00	Departure to Danang with VN 1910
Wednesday, 1.6.2011	
08:30 – 11:30	QUATEST 2 (Danang): Mr. Doan Van Back, Vice-Director Testing: Ms. Nguyen Ngoc Tram, Head of Laboratory; Ms. Truong Thi Be, responsible for micro-biology testing and participant of training course in Thailand; Mr. Vo Khanh Ha, Quality Manager Food Testing; Mr. Tranh Nguyen Ngoc, responsible for chemical testing; Mr. Luong Ngoc Nhut, Technical Manager. Metrology: Mr. Phan Canh Quang, Electrical Metrology Laboratory; Mr. Bui Chien Thang, Physical-Mechanical Metrology Laboratory.
Sunday, 5.6.2011	
22:00	Arrival in Haiphong with VN1670 from Danang
Monday, 6.6.2011	
09:00 – 11:30	NAFIQAD 1 (Haiphong): Ms. Bui Thi Nhanh, Vice-Director; Ms. Do Thi Thu Huong, Head of Laboratory; Ms. Nguyen Thi Hong Hanh, Microbiology Analyst; Ms. Ha Ngoc Dung, Microbiology Analyst
15:00	Departure with Train Number LP8 to Hanoi
Thursday, 16.6.2011	
18:00 – 19:00	Representative of International Buyer (Coffee)
19:00 – 20:00	Representative of International Buyer (Consumer Goods)
Friday, 17.6.2011	
09:00 – 12:00	QUATEST 3: Laboratory visit. Ms. Tran Thi My Hien , Vice-Director; Ms. Luong Thanh Uyen, Quality Manager for Testing, Head of Technical Department.
16:00	Departure with VN 1144 to Hanoi
Vienna	
Friday, 16.9.2011	
15:00 – 17:00	De-briefing at UNIDO Headquarters
Berne	
Monday, 26.9.2011	
09:00 – 11:00	De-briefing at SECO Headquarters

Annex C: List of documents

Project documents:

- Project Document: “Post WTO Accession Support to Viet Nam - TBT/SPS Compliance Capacity Development Related to Key Export Sectors” funded by SECO, US/VIE/08/004, amended in 2009 (see Inter-Office Memorandum 13 July 2009)

- Project Document, Market Access and Trade Facilitation Support for Mekong Delta Countries, through Strengthening Institutional and National Capacities Related to Standards, Metrology, Testing and Quality (SMTQ) in Mekong Delta countries (Viet Nam, Lao PDR, Cambodia), TF/RAS/02/003, 2002

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- United Nations: „One Plan“ for Viet Nam, 2006 – 2010

Evaluation reports:

- Independent Evaluation of “Market access support through the strengthening of capacities related to metrology, testing and conformity funded by SECO (SECO phase I), UNIDO 2007

- UNIDO, Final Evaluation Report, Market Access and Trade Facilitation Support for Mekong Delta Countries, through Strengthening Institutional and National Capacities Related to Standards, Metrology, Testing and Quality (SMTQ) in Mekong Delta countries (Viet Nam, Lao PDR, Cambodia), TF/RAS/02/003, Field mission: 6 to 20 June 2005, UNIDO 2005

- Project Phase II TE/RAS/06/001 Mekong Region: Viet Nam, Cambodia, Laos, Update Evaluation Report conducted under Work Package 1 of the Thematic Evaluation Of UNIDO activities in the area of Standards, Metrology, Testing and Quality (SMTQ), UNIDO August 2009

- Thematic Evaluation of UNIDO activities in the area of Standards, Metrology, Testing and Quality (SMTQ), co-funded by the Swiss State Secretariat for Economic Affairs (SECO), Final Report, Volume 1, April 2010 (based on the work of BENNET, Ben; LOEWE, Peter; KELLER Daniel).

- Evaluation of Impact of UNIDO SMTQ projects in Sri Lanka (XP/SRL/99/049; TF/SRL/99/003; UB/SRL/00/001; US/SRL/01/108; TF/SRL/01/001 and US/SRL/04/059), UNIDO 2010

- PROJECT TE/VIE/08003, SME CLUSTER DEVELOPMENT, PROGRESS REPORT III, Covering the period July to December 2010 and lists of participating enterprises

- Evaluation of the Business Registration Reform in Viet Nam, FINAL REPORT (January 31, 2010), by: Scott Jacobs, Managing Director, Jacobs and Associates and Phan Duc Hieu, CIEM

Minutes of meetings and progress reports:

- Mission Reports of CTA
- Progress Reports and Work Plans (last report dated 21 March 2011)
- Minutes of Steering Committee (2008, 2009, 2010)
- Letter QUATEST 1 dated 20 April 2011 (on not further pursuing international accreditation for textile laboratory under a possible phase III provided by the Project Manager)

Expert reports:

- Dr Alan G Rowley, Mission report, February 2011 (Viet Nam)
- Mr Philip Martin Briggs, report on trainings conducted in QUATEST 1 and 3, June 2010
- Mission report of Dr. Upali Samarajeewa (November 2006)
- Final report on seminar of GLOBALGAP with participant list (SECO phase II)
- Report on Product Certification Scheme for IE CEE-CB and CE Marking, by Chiew Wan TAN, July 2007
- Donor mapping conducted by UNIDO, included in interim Progress Report March 2011

Other background documents:

- Country data retrieved on 30 June 2011 from CIA World Fact Book www.cia.gov
- UNIDO in brief (2005)
- SECO's factsheets for Viet Nam, May 2011
- Meeting Standards, Winning Markets, Trade Standards Compliance, UNIDO 2010
- Brochure: "10 years of construction and development of the Viet Nam Electronics Association (2000 – 2010)", Hanoi 2011.
- CIEM/National University of Singapore: Viet Nam Competitiveness Report, by Christian Ketels, Nguyen Ding Cung, Nguyen Thi Tue Anh, Do Hong Hanh, Hanoi 2010
- Brochures of STAMEQ, QUATEST 1, QUATEST 3, QUACERT, Viet Nam Metrology Institute
- Brochure of IFS Advisory Services (formerly Mekong Project Development Facility)

- Requirements towards Establishing Certification Capacities for ISO 22000 and HACCP at the Department of Industrial Standards and Certification, Ministry of Industries and Mines, Phnom Penh, Cambodia, based on the work of Mr. Martin Dietz, Technical Adviser, December 2006

- EUROCHAM: User Handbook of the European Trade Information Center, supported by MUTRAP, 2010/2011

- Do Thanh Hai, VIET NAM'S TEXTILE AND GARMENT INDUSTRY AND GLOBAL TEXTILE AND GARMENT VALUE CHAIN IN THE TRANSITION PERIOD, UNIDO 2007

- CIEM: Research Report on the Competitiveness of Exporting Firms in Viet Nam: Evidence from the Garment, Seafood and Electronic Industries; supervised by Dr. Nguyen Dinh Cung and prepared by Nguyen Thi Tue Anh, Luu Minh Duc, Nguyen Minh Thao, Le Phan, Hanoi, May 2011

- UNIDO: Draft investor survey conducted in 2011 among 1'500 companies (not yet published).

- STAMEQ: Draft Development Strategy in the area of SMTQ 2011 – 2015, with a vision to 2020 (title translated by evaluators - available in Vietnamese only)

- MARD: Development strategy for NAFIQAD, 2011 – 2015 with a vision to 2020 (title translated by evaluators - available in Vietnamese only)

- National Quality Programme for Viet Nam approved by the Prime Minister

- Bureau of Accreditation, Directory of Accredited Bodies, Hanoi 2010

- Center for Community Development DAKLAK, brochure (experts for coffee traceability component)

Annex D: Questionnaire for laboratory survey

*Please fill out Sections A – C for **all** laboratories that benefited from the projects (NORAD and SECO) in terms of equipment provision, training or support to accreditation. Data will be cross-checked during field visits.*

Section A: General Information

Name of Laboratory: _____

Established in (year): _____

Location: _____

Testing services: ☐ Food Micro-biological ☐Food chemical ☐ Furniture ☐ Electrical

☐ Electrical ☐ RoHS & REACH ☐ Other (Specify) _____

Calibration services:

☐ Mass ☐Volume ☐ Flow ☐ Pressure ☐ Force ☐ Length

☐ Temperature ☐ Physiochemical _____ ☐ Electrical

Number of staff: ____

Accreditations/certifications received

Year	Certifications/accreditations received	Source of funding

Comment: Source of funding (STAMEQ, SECO, NORAD, other donors)

Main competitors: _____

How would you rate the pricing of your services compared with your competitors:

☐Higher ☐equal ☐lower

Do you apply different prices for services to government and private clients? ☐Yes ☐No

Does your average price cover the costs of services? ☐Yes ☐No

Section B: Statistical Data

Statistical Data for Tests/Calibrations

NUMBER OF CLIENTS	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Government Offices							
Businesses							
Others							
Total							
NUMBER OF TESTS/CALIBRATIONS by types of customers	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Government Offices							
Businesses							
Others							
Total							
NUMBER OF TESTS by types of products (leave out for calibrations)	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Product 1							
Product 2							
Product 3							
Product 4							
Product 5							
Other products							
Total							

Instructions:

(a) Number of tests: total number of tests conducted, regardless whether equipment provided by UNIDO was used or not for the tests.

(b) ***Customer segments****:* ***Government offices*** *are all government organizations that pursue a non-commercial purpose (e.g. inspection).* ***Businesses*** *are organizations/individuals with commercial activities (regardless whether they are government-owned or not).* ***Other organizations /individuals*** *are the remaining customers (for example, individuals who ask for testing their drinking water or baby milk samples). Please indicate how many samples were tested or how many calibrations were performed for each of the customer segments.*

(c) ***Product segments****: select the three product categories from which most samples were tested (e.g. coffee, milk, beverages, noodles). If no statistics are available, estimate a percentage from those product categories the laboratory received most samples for testing.* ***Leave empty for calibration.***

(d) ***Number of clients****: number of different organizations/individuals that used the services in the respective year. Different client means different legal entity or different individual person. If an organization has used the services several times, please count it only once.*

Section C: Important Milestones

(a) Purchase of key equipment/upgrading of facilities since 2004:

Please list equipment **that significantly increased the scope/quality of services or capacity of the laboratory.**

Year	Name of equipment	Source of funding

Comment: Source of funding (STAMEQ, SECO, NORAD, other donors)

(b) Key trainings received since 2004:

Please list staff trainings **that significantly increased the scope/quality of services or capacity of the laboratory.**

Year	Number of staff/content of training	Source of funding

Comment: Source of funding (STAMEQ, SECO, NORAD, other donors)

Comments of Laboratories (if any):

Worksheets for interviews with laboratories/service providers

(<u>Not</u> to be filled out by laboratories)

1. Availability of facilities, equipment and testing material

1.1. Laboratory infrastructure (suitable facilities)

1.2. Availability of chemicals and standards

1.3. Repair and maintenance service

1.4. Forward budget for purchase of new equipment (is equipment depreciated?)

2. Human Resources (staff):

2.1. Skill levels of staff

2.2 Turnover of staff

2.2. Appropriate remuneration package

2.3. Promotional schemes to encourage performers

2.4. Performance based incentive scheme

2.5. Suitable succession plan

3. Management/governance:

3.1 Knowledge and experience suitable as per IEC 17025

3.2 Turnover of managers

3.3 Quality concept leveraged across entire organization

3.4 Laboratories operating as profit centers

3.5 Costing methods and pricing strategy

3.5. Dependence on income from mandatory requirements (→ company survey)

3.6. Laboratories able to meet changing demands

Worksheets for interviews with laboratories/service providers (continued)

(Not to be filled out by laboratories)

4. Accreditation:

4.1. Scope of accreditation related to country needs

4.2. Budget for annual renewal of accreditation

4.3. Budget for maintaining accreditation

4.4. Budget for staff training for scope expansion

5. Questions to management of STAMEQ/NAFIQUAVED

- Ability to respond to unexpected shocks and challenges
- Knowledge flows within the country (assistance to other labs etc)
- Knowledge flows and delivery of services outside the country

Annex E: Questionnaire for enterprise survey

Date and time of interview: **_ _/_ _/2011 from _ _: _ _h to _ _: _ _**

Place of interview: _____

Name of consultant: _____

Mobile phone of consultant: _____

Email of consultant: _____

1. Enterprise Information

1.1 Full name of Company (English):

_____

1.2 Full name of Company (Vietnamese):

_____

1.3 Date of establishment and legal form of company:

Incorporated in _____ (year)

☐ **State-owned company (equitized in year _____)**

☐ Joint-stock ☐limited liability

☐ **Joint-venture with state-owned enterprise ___% of foreign capital**

☐ Joint-stock ☐limited liability

☐ **Domestic non-state company with < 49% of foreign capital**

☐ Joint-stock ☐limited liability

☐ 100% foreign-invested company

☐ Other (specify) _____

1.4 Persons interviewed – name(s) and function

_____

1.5 Contact Details

Address: _____

Phone Number: Email: Website:

_____ _____ _____

1.6 Number of Employees as per 31.3.2011

Total number: _____

Permanent contracts 6 months and longer: _____ (persons)

Short-term contracts/seasonal labor < 6 months: _____ (persons)

Basis: for seasonal labor, include employees in "probation period" and employees with whom the company has not yet signed labor contracts.

1.7 Key product categories (ranked according to % of sales in 2010)

Product 1: _____ (representing ___% of sales)

Product 2: _____ (representing ___% of sales)

Product 3: _____ (representing ___% of sales)

Comment: Sales based on VAT receipts issued by the company **without** any deduction for CGS. **Pay attention that sales is <u>not</u> the same as gross revenues, "profit" or turnover!**

1.8. Exports as a share of sales of each product

Product 1: _____ (__% of sales exported)

Product 2: _____ (__% of sales exported)

Product 3: _____ (__% of sales exported)

Export sales in percentage of total sales ___%

Comment: Sales for export **based on VAT receipts issued with 0% VAT**

1.9 Key countries products are exported to (for each product above)

Product 1: (A) _____ (__ %) (B)_____(%) (C)_____(%)

Product 2: (A) _____ (__ %) (B)_____(%) (C)_____(%)

Product 3: (A) _____ (__ %) (B)_____(%) (C)_____(%)

A – C = export market ranked according to importance (in % of **total sales for export**)

1.10 Position in value chain

What are the shares of the following buyer types in your total sales?

Retail companies	_____%
Distributors and/or wholesalers	_____%
Manufacturers	_____%
Government entities	_____%
Direct to consumers	_____%
Others	_____%
Total	100 %

2. Questions on Laboratory Testing

2.1 In-house laboratories

Do you have an in-house laboratory for product testing? Yes ☐ No ☐

If yes, is this in-house laboratory accredited? Yes ☐ No ☐

Accreditation body: _____

Do you perform in-house testing for key product (as identified above)?

Product 1: Yes ☐ No ☐ Recognized by customer Yes ☐ No ☐

Product 2: Yes ☐ No ☐ Recognized by customer Yes ☐ No ☐

Product 3: Yes ☐ No ☐ Recognized by customer Yes ☐ No ☐

Other products tested: _____

If yes, type of tests (several answers possible)

Product 1: ☐ Food micro-biological ☐Food chemical ☐ Furniture ☐ Electrical ☐ RoHS & REACH ☐ Other (Specify) _____

Product 2: ☐ Food micro-biological ☐Food chemical ☐ Furniture ☐ Electrical ☐ RoHS & REACH ☐ Other (Specify) _____

Product 3: ☐ Food micro-biological ☐Food chemical ☐ Furniture ☐ Electrical ☐ RoHS & REACH ☐ Other (Specify) _____

Other products: ☐ Food micro-biological ☐Food chemical ☐ Furniture ☐ Electrical ☐ RoHS & REACH ☐ Other (Specify) _____

2.2. External laboratory testing services

Do you use external testing services? Yes ☐ No ☐

If yes, for each product, type of tests (several answers possible)

Product 1: ☐ Food micro-biological ☐Food chemical ☐ Furniture ☐ Electrical ☐ RoHS & REACH ☐ Other (Specify) _____

Product 2: ☐ Food micro-biological ☐Food chemical ☐ Furniture ☐ Electrical ☐ RoHS & REACH ☐ Other (Specify) _____

Product 3: ☐ Food micro-biological ☐Food chemical ☐ Furniture ☐ Electrical ☐ RoHS & REACH ☐ Other (Specify) _____

Other products: ☐ Food micro-biological ☐Food chemical ☐ Furniture ☐ Electrical ☐ RoHS & REACH ☐ Other (Specify) _____

2.2 External laboratory testing services (continued)

Laboratories used for external micro-biological testing: _____

Laboratories used for external chemical testing: _____

Laboratories used for external furniture testing: _____

Laboratories used for external electrical testing_____

Laboratories used for RoHS & Reach:
_____

Other laboratories used (specify for which tests): _____

What are the reasons for choosing this/those laboratory/ies?

Micro-biological testing: _____

Chemical testing: _____

Furniture testing: _____

Electrical testing: _____

RoHS & Reach: _____

Other testing: _____

How often do you use external testing services?

Product 1: ☐ Regularly ☐occasionally ☐ not

Product 2: ☐ Regularly ☐occasionally ☐ not

Product 3: ☐ Regularly ☐occasionally ☐ not

Other products (specify): _____

Are there any tests/certificates of conformity your clients and/or importing countries require, but which are not available in Vietnam? ☐ Yes ☐ No

If yes, please specify **which tests** and **how you deal with this problem** (as specific as possible, e.g. sourcing testing services from other countries etc.)

Does the fact that those services are not available in Vietnam have **negative impact on your competitiveness** with suppliers from other countries, why (e.g. time constraints, cost)?

2.2 External laboratory testing services (continued)

Are you dependent on one specific testing laboratory or do you have a choice between different laboratories? ☐ Yes ☐ No

If you have a choice between different laboratories, how important are the following selection criteria for you:

1)	International accreditation of the laboratory:	☐ Important ☐ less important ☐ not important
2)	National accreditation of the laboratory:	☐ Important ☐ less important ☐ not important
3)	Accreditation by your key clients:	☐ Important ☐ less important ☐ not important
4)	Actual reliability of the laboratory:	☐ Important ☐ less important ☐ not important
5)	Price of testing services:	☐ Important ☐ less important ☐ not important
6)	Diligence, timeliness of the services:	☐ Important ☐ less important ☐ not important
7)	Recognition by your customers	☐ Important ☐ less important ☐ not important

***Comments**: 1) Accreditation by key clients means that the laboratory is recognized following a formal approval process. 4) Actual reliability means that the results provided are objectively accurate. 7) Recognition by your customers means that customers recognize results, but there is no approval process.*

Other criteria (specify):

For companies using laboratories under STAMEQ:

Which laboratory have you used? ☐ QUATEST 1 ☐ QUATEST 2 ☐ QUATEST 3

Since when have you been using those services? _____ (year)

How do you know about the services offered by STAMEQ?

What are the key strengths and weaknesses of STAMEQ's Laboratories today?

Are you satisfied with the services you receive?

- Your overall level of satisfaction: ☐high ☐medium ☐low
- Speed of service delivery: ☐high ☐medium ☐low
- Prices compared with other laboratories ☐high ☐medium ☐low
- Results are recognized by customers and/or public ☐high ☐medium ☐low
- Location: ☐high ☐medium ☐low

Other observations:

2.2 External laboratory testing services (continued)

Did you observe any improvements or deteriorations of service since you are using the services of STAMEQ's laboratories? If yes, what are the main changes you have observed? Please specify when approximately you observed the positive change?

For companies using the services of NAFIQUAVED:

Since when have you been using those services? _____ (year)

Location of NAFIQUAVED laboratory used: _____

- Your level of satisfaction with the services received: ☐high ☐medium ☐low
- Speed of service delivery: ☐high ☐medium ☐low
- Prices compared with other laboratories ☐high ☐medium ☐low
- Location: ☐high ☐medium ☐low

What are the key strengths and weaknesses of NAFIQUAVED's Laboratory today?

Did you observe any improvements or deteriorations of service since you are using the services of NAFIQUAVED's laboratories? If yes, what are the main changes you have observed? Please specify when approximately you observed the positive change?

2.3 Importance of Laboratory Testing Services for Competitiveness

For us, the availability of testing laboratory services is:

☐ Crucial ☐ Important ☐ Not very important ☐ Not important

The fact that testing services are recognized by clients is

☐ Crucial ☐ Important ☐ Not very important ☐ Not important

The fact that testing services are recognized by importing countries is

☐ Crucial ☐ Important ☐ Not very important ☐ Not important

Internationally recognized accreditation of testing laboratories is

☐ Crucial ☐ Important ☐ Not very important ☐ Not important

The availability of testing laboratory services is important to us, because using them allows us to:

- Increase sales to existing customers ☐strongly agree ☐agree ☐ disagree
- Obtain higher prices for our goods ☐strongly agree ☐agree ☐ disagree
- Lower our production costs ☐strongly agree ☐agree ☐ disagree
- Obtain new domestic customers ☐strongly agree ☐agree ☐ disagree
- Develop new export markets ☐strongly agree ☐agree ☐ disagree

Could you please tell a story illustrating why laboratory testing is important for you?

3. Calibration Services

3.1 Use of external calibration services

Do you use external calibration services? Yes ☐ No ☐

Could you please tell a story why calibration services are important for you?

What providers have you used for calibration services?

What calibration services do you use and how important are they?

- Mass ☐ Crucial ☐ Important ☐ Less important ☐ Not important
- Volume: ☐ Crucial ☐ Important ☐ Less important ☐ Not important
- Flow: ☐ Crucial ☐ Important ☐ Less important ☐ Not important
- Pressure: ☐ Crucial ☐ Important ☐ Less important ☐ Not important
- Force: ☐ Crucial ☐ Important ☐ Less important ☐ Not important
- Length: ☐ Crucial ☐ Important ☐ Less important ☐ Not important
- Temperature: ☐ Crucial ☐ Important ☐ Less important ☐ Not important
- Physiochemical: ☐ Crucial ☐ Important ☐ Less important ☐ Not important
- Electrical: ☐ Crucial ☐ Important ☐ Less important ☐ Not important
- Other: ☐ Crucial ☐ Important ☐ Less important ☐ Not important

Specify other calibration services: _____

Comments:

For companies using calibration services provided by STAMEQ:

Service of which institution have you used? _____

Since when have you been using those services? _____ (year)

- Overall level of satisfaction with the services received: ☐high ☐medium ☐low
- Speed of service delivery: ☐high ☐medium ☐low
- Prices compared with other laboratories ☐high ☐medium ☐low
- Reputation ☐high ☐medium ☐low

What are the key strengths and weaknesses of STAMEQ's calibration services today?

Did you observe any improvements or deteriorations of service since you are using the services of STAMEQ's laboratories? If yes, what are the main changes you have observed? Please specify when approximately you observed the positive change?

3.2 How does the availability of external calibration services impact your competitiveness?

Are there any calibration services your clients and/or importing countries require, but are not available in Vietnam? ☐ Yes ☐ No

If yes, please specify **which measures** and **how you deal with this problem** (as specific as possible, e.g. sourcing testing services from other countries etc.):

Does the fact that those calibration services are not available in Vietnam have **negative impact on your competitiveness** with suppliers from other countries, why (e.g. time constraints, cost)?

For us, the **availability** of calibration services is:

☐ Crucial ☐ Important ☐ Not very important ☐ Not important

The fact that calibration services are **recognized by clients** is

☐ Crucial ☐ Important ☐ Not very important ☐ Not important

The fact that calibration services are **recognized by importing countries** is

☐ Crucial ☐ Important ☐ Not very important ☐ Not important

Internationally recognized accreditation of calibration services is:

☐ Crucial ☐ Important ☐ Not very important ☐ Not important

The availability of calibration services is important to us, because using them allows us to:

- Increase sales to existing customers ☐strongly agree ☐agree ☐ disagree
- Increase product quality: ☐strongly agree ☐agree ☐ disagree
- Obtain higher prices for our goods ☐strongly agree ☐agree ☐ disagree
- Lower our production costs ☐strongly agree ☐agree ☐ disagree
- Obtain new domestic customers ☐strongly agree ☐agree ☐ disagree
- Develop new export markets ☐strongly agree ☐agree ☐ disagree

Comments:

4. Importance of Testing/Calibration versus other factors

Please rate how your business has developed since 2004:

- Number of customers increased ☐strongly agree ☐agree ☐ disagree
- Production volume increased ☐strongly agree ☐agree ☐ disagree
- Turnover increased ☐strongly agree ☐agree ☐ disagree
- Net profit increased ☐strongly agree ☐agree ☐ disagree
- Number of employees increased ☐strongly agree ☐agree ☐ disagree
- Average salaries of employees increased ☐strongly agree ☐agree ☐ disagree
- Exports increased ☐strongly agree ☐agree ☐ disagree
- Domestic sales increased ☐strongly agree ☐agree ☐ disagree

Other improvements/deteriorations and comments:

Rate the main external factors that had a positive/negative impact on the development of your business (as stated above): 1 = most important impact, 6 = no impact

- Availability of testing services ___
- Availability of calibration services ___
- Compliance with social/environmental standards of clients ___
- Compliance with other social/environmental standards ___
- Compliance with quality standards of clients ___
- Availability of qualified labor ___
- Exchange rate fluctuations ___
- Availability of land ___
- Access to capital (bank loans) ___
- Cost of bank loans ___
- Government incentives ___
- Customs procedures ___
- Taxes/Tax procedures ___
- Other administrative government procedures ___
- Corruption ___
- Transportation cost ___
- Cost of raw material ___
- Competition from other countries ___

Other factors that have a significant impact on the development of your business: