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**Market Access and Trade Facilitation Support for Mekong Delta Countries,  
through Strengthening Institutional and National Capacities Related to  
Standards, Metrology, Testing and Quality (SMTQ)**

**Mekong Delta countries (Vietnam, Lao PDR, Cambodia)**  
**TF/RAS/02/003**

Report of the Independent Evaluation Team\*

Field mission: 6 to 20 June 2005

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This document has not been formally edited.

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The evaluation team would like to thank all persons met and especially all persons involved in planning and realizing the mission. We hope that some of the proposed recommendations will contribute to the continuous improvement of the Project and to the achievement of the expected results in Phase II

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## ABBREVIATIONS AND ACRONYMS

ACCSQ	ASEAN Consultative Committee for Standards and Quality
ADB	Asian Development Bank
APEC	Asian Pacific Economic Cooperation
APLAC	Asia Pacific Laboratory Accreditation Cooperation
APLMF	Asian Pacific Legal Metrology Forum
APMP	Asian Pacific Metrology Program
ASEAN	Organization of South East Asian Nations
BOA	Board of Accreditation (within STAMEQ, Vietnam)
CAC	Codex Alimentarius Committee
CAMCONTOL	Import-Export Inspection and Fraud Suppression Dep. (Min. of Commerce, Cambodia)
CP	Cleaner Production
DIT	Department of Industrial Techniques under MIME, Cambodia
DISM	Department of Intellectual Property, Standardization and Metrology
EMC	Electromagnetic Compatibility
FDQCC	Food and Drug Quality Control Centre (under Ministry of Health, Lao PDR)
GOSSTANDARDS	Standards of the former COMECON countries
HACCP	Standards of hygiene applied in manufacturing
HCMC	Ho Chi Minh City
IEC	International Electrotechnical Commission
ILAC	International Laboratory Accreditation Cooperation
ILCC	Industrial Laboratory Centre of Cambodia
ITU	International Telecommunication Union
ISC	Department of Industrial Standards (under MIME, Cambodia)
ISO	International Organization for Standardization
ISO9001	Quality Management Standard
ISO14001	Environmental Management Standard
ISO17025	Quality System Requirements of Test and Calibration Laboratories
MIME	Ministry of Industry, Mines and Energy (Cambodia)
MOST	Ministry of Science and Technology (Vietnam)
MONRE	Ministry of Natural Resources and Environment (Vietnam)
NML	National Metrology Laboratory
NORAD	Norwegian Agency for Development
FDQCL	Food and Drug Quality Control Laboratory (under Ministry of Health, Lao PDR)
PPC	Plant Protection Centre
PRAKAS	Ministerial Decree (Cambodia)
PSC	Project support cost
QUATEST	Quality Assurance and Testing Center (under STAMEQ, Vietnam)
SA8000	Standard for socially responsible employment practices (issued by SAI)
SAI	Social Accountability International
SECO	Swiss State Secretariat for Economic Affairs
SER	Self Evaluation Report
SMTQ	Standards, Metrology, Testing and Quality
SPS	Sanitary and Phytosanitary Measures (SPS Agreement under WTO)
STAMEQ	Directorate for Standards and Quality
STEAPDR	Prime Minister's Office – Science, Technology and Environment Agency (Lao PDR)
TBT	Technical Barriers of Trade
UNIDO	United Nations Industrial Development Organization
VMI	Vietnam Metrology Institute (under STAMEQ, Vietnam)
VNCP	Vietnam Cleaner Production Centre
WTO	World Trade Organization

## **EXECUTIVE SUMMARY**

### **1. The Project**

The project “Market Access and Trade Facilitation Support for Mekong Delta Countries through Strengthening Institutional and National Capacities Related to Standards, Metrology, Testing and Quality (SMTQ)” aims at developing the quality infrastructure of Cambodia, Lao PDR and Vietnam.

The latest version of the Project Document available to the evaluation team is dated January 28, 2003. The development objective of the project is to: “Facilitate industrial development and export capabilities of the assisted countries by reducing TBT through the strengthening of standards, metrology, testing and quality institutional structures and national capacities”.

The present Phase I of the project aims at (1) national capacity building related to market access requirements and TBT and identifying manufacturing sub-sectors and export market focus for remedial action in each country and (2) upgrade the required technical infrastructure.

The main counterparts of the project are:

- In Vietnam: The Directorate for Standards and Quality (STAMEQ) under the Ministry of Science and Technology (MOST), including the Vietnam Metrology Institute (VMI) and the Quality Assurance and Testing Centre (QUATEST) and the Bureau of Accreditation (BOA)
- In Cambodia: The Department of Industrial Standards of Cambodia (ISC) under the Ministry of Industry, Mines and Energy (MIME)
- In Lao PDR: The Department of Intellectual Property, Standardization and Metrology (DISM) under the Ministry of Industry and Handicraft.

The project Phase I is fully funded by Norad, who approved the project in November 2002. Implementation of Phase I started with the official launch in May 2003 and is due to finish in July 2005. The funds available amount to USD 804,000 (excluding project support cost), of which 100% has been allocated. The total approved budget is USD 908,520 (including project support cost).

In the original project document UNIDO proposed a Phase II with three years duration and a total budget of USD 1,500,000. Norad has not yet committed to further support, but will make a decision on the basis of the present evaluation and a revised work plan for Phase II.

During the project period, exchange rate gains and earned interest have amounted to USD 237,000. UNIDO has requested Norad to approve use of these funds in the period between the end of Phase I and the proposed start of Phase II.

There are substantial synergies between this project and several other projects addressing the same objective. This is further commented in sections 6 and 7 in this summary.

## **2. Purpose and Methodology of the Evaluation**

This evaluation was conducted on request of Norad in order to provide an objective, independent assessment of Phase I as a basis for the proposed Phase II of the project. The basis for the evaluation was the Terms of Reference dated May 20, 2005 (included in Annex 1), UNIDO guidelines for Evaluations, and the Norms for Evaluation in the UN System. The evaluation involved a desk review of an extensive collection of technical and administrative background documents, including a self-evaluation report, extensive consultations at UNIDO HQ on 6 – 7 June and a field mission to Vietnam, Lao PDR and Cambodia on 9 – 19 June. A verbal report was presented to UNIDO and Norad in Vienna on 20 June. The evaluation was carried out on the basis of a participatory and formative approach.

Late provision of the relevant documentation and in contracting the local members of the evaluation team did not allow the evaluation team to prepare for the field mission to the extent they had wished to.

## **3. Capacities in Standardisation, Metrology, Testing, and Quality (SMTQ)**

**Vietnam:** The national counterpart STAMEQ covers the entire scope of the project: Standardisation, metrology, laboratory testing, certification and accreditation. STAMEQ has a well developed and highly professional institutional capacity, a good capacity to absorb technical assistance, demonstrated ability to act on recommendations, and also a capacity to invest Vietnamese funds when required.

**Lao PDR:** The national counterpart STEA also covers a wide range of activities: Standardisation, metrology and testing. STEA is a liaison office to the national SPS committee. STEA is small, but highly motivated and capable to absorb technical assistance. The present capacity is weak and substantial further support will be required in order to reach a reasonable international level.

**Cambodia:** The national counterpart is (ISC), which was established in 2002 and has currently 30 staff members. Its responsibilities include standardisation, metrology, product registration and, once the capacities are available, product certification and laboratory testing. The present capacity is weak and substantial further support will be required in particular related to the establishment of ILCC.

## **4. Relevance and Ownership**

The project is of high relevance in all three countries. Commitments, which all three countries will have to fulfil in the context of their WTO accession as well as the implementation of the AFTA agreement by 2008 make the project highly relevant. All stakeholders agree that the project meets specific needs of counterparts and is complementary to other bilateral and multilateral assistance.

The project is also relevant since – besides their importance for exports - the SMTQ institutions are important for domestic trade and poverty alleviation. Without a proper standards and testing infrastructure, the countries risk becoming a dumping ground for sub-standard and even hazardous imports from other countries and/or domestically produced goods.



All three countries clearly understand the importance of SMTQ for implementing their strategy of regional and international integration and their reliance on exports for economic development and poverty alleviation. The evaluation team received confirmation on this on the field mission.

All beneficiary institutions expressed a high level of ownership, except as regards finances (which is fully controlled by UNIDO). The high quality of the various interventions including international consultants contributed significantly to the high degree of ownership.

## **5. Formulation**

The project document was schematic and comprised identical interventions for all three countries, in spite of their significant differences in size and needs. However, the actual interventions were based on a detailed needs analysis for each of the three countries, resulting in a well designed plan.

The objective of the project as stated is purely directed towards strengthening of the region's export capacity. The interventions, however, to a significant extent address the needs to strengthen the protection of the population against substandard and hazardous import and/or domestic products. This is a highly relevant and an important objective of SMTQ, but it was not included as an objective in the project document. Thus, there is a mismatch between the content of the project and the stated objective. This should be rectified in Phase II.

The evaluation team questions the approach to design of a regional project for three countries with such considerable socio-economic and cultural differences. ASEAN, rather than the Mekong basin, seems to be the natural economic region. The synergies and other benefits from choosing a regional approach were limited to cost savings, which could also well be achieved by coordination of three stand-alone national projects.

National Master Plans were prepared for Lao PDR and Cambodia in the first months of 2005, dated May 2005. These give a detailed picture of the priority areas, taking into account not only the UNIDO/Norad project, but also the other projects in the same sector. These plans are a good basis for a work plan for Phase II, but more specific plans are still needed. One weak point in the Master plans is the treatment of standardisation.

For Vietnam, the document called "master plan" is of much less value, and is actually not a master plan. A work plan for Phase II in Vietnam must be drawn up in cooperation with STAMEQ and other stakeholders, also taking into account the priority areas identified in this evaluation.

Better results indicators are needed for Phase II and some examples are proposed.

## **6. Implementation**

With a few exceptions, services provided by UNIDO headquarter and their consultants were of excellent quality and highly appreciated by all beneficiary institutions. The consultants mobilised by UNIDO are generally in high regard. Main reasons for this include their high competence, their ability to adapt to the environment of the beneficiary institutions, their good communication skills, as well as the programme's design with a series of follow-up missions.



The combination of hardware (equipment) and software (capacity building, consulting and policy advice) proved to be highly effective.

Combined training courses for all three countries did not create the synergies expected. Language problems were not addressed through interpretation/translation and the selection of participants did not take into account their previous knowledge and experience. For Vietnam, the number of participants was too low in relation to the needs. Considerable synergy was achieved with other projects, such as the UNIDO/Switzerland project in Vietnam, The Vietnam-funded metrology development in Lao PDR and the Austrian project in Cambodia.

With regard to UNIDO's project management, the evaluation team found several opportunities for improvement. The most important weaknesses are: unclear responsibilities (as observed by the beneficiaries), and reporting routines. Progress reports are extremely brief and incomplete. The financial reporting provided to the evaluation team was sketchy and extremely weak. The evaluation team has not been able to assess the cost of inputs and to provide an opinion on efficiency. There is a lack of transparency in financial management. In spite of this, it appears that the Project Manager is able to control the project within the budget.

## **7. Results**

Most results (outputs and outcomes) were achieved as planned, except training in the quality area that did not achieve targets. UNIDO policy advice regarding legislation and institutional development has made an impact and is expected to result in new legislation, particularly in Lao PDR and Cambodia. In Vietnam, reorganisation of STAMEQ is under consideration, based on advice received in the project.

The awareness creation has been effective, in particular in Lao PDR and Cambodia, which started at a low level. Government commitment to further development was clearly demonstrated during the field mission.

The training programme has resulted in a substantial capacity lift in all three countries, even if certain elements of the implementation were less than perfect. The understanding of management system thinking, both in industry and in the institutions of the quality infrastructure, is considerably improved.

In all countries, metrology and testing laboratories (in particular for chemical and microbiological testing) have been improved substantially through the combined hardware and software project strategy. Hardware developments (in particular buildings and metrology equipment) have been boosted by a clever combination of the Norad project funding and other funding (Swiss, Austrian, Vietnamese and from national government). However, the approach lacks transparency regarding what is funded by whom.

A few companies in each country can serve as role models for introduction of quality and environmental management systems, but this aspect of the project is still in its beginning.

The evaluation team noted positively that many additions to the project plan were made by using existing resources for creating additional benefits.

Technical reporting by international consultants is of a high standard. UNIDO staff reports have not been disclosed to the evaluation team.

Together with project partners in Lao PDR and Cambodia, good Master Plans for Phase II have been developed. The so-called Master Plan for Vietnam is not satisfactory.

## **8. Sustainability**

While the results of Phase I seem to be sustainable in Vietnam, the sustainability of outputs and outcomes in Lao PDR and Cambodia depends on the implementation of Phase II. Continuity between the phases is of paramount importance.

The sustainability report for Lao PDR and Cambodia is very weak on sustainability. It only addresses personnel and business plans, but does not discuss important assumptions, such as the significance of Phase II.

## **9. Conclusions**

1. The project addresses important needs for the target countries. It is highly relevant for including the countries in international economic development and trade, and thus contributes to domestic poverty alleviation.
2. In addition to the stated objectives, the project contributes to protect the population against substandard or even hazardous products, of domestic origin or imported.
3. The original project formulation in the Project Document was schematic. In the inception phase, the project was modified to meet each country's needs in a participatory manner and with satisfactory results.
4. The regional approach in this case is questionable. Similar benefits could be obtained by three parallel national projects, while avoiding the negative consequences of the regional approach.
5. All counterparts and beneficiary institutions have demonstrated excellent ownership of the project.
6. All the planned activities have been implemented, with the exception of one (related to regional standardisation). Only small delays, compared to the original time schedule, have occurred, and these have been caused by circumstances beyond UNIDO's control.
7. The project has given important results such as effective awareness creation, a substantial capacity lift through training programmes, development of metrology and testing laboratories, developing role models for management systems in industry. Technical reporting is of a high standard.
8. There are substantial synergies with other projects with similar objectives. These opportunities have been cleverly utilised by UNIDO, but financial transparency is lacking.

9. The results in Vietnam are in most cases considered to be sustainable, while Lao PDR and Cambodia are in a critical phase. If there is no continuation after Phase I closes in July 2005, a considerable relapse must be expected.
10. The proposed Phase II of the project is recommended. As a basis for the decision to proceed, a specific project plan should be developed, based on the master plans for Lao PDR and Cambodia and the recommendations in this report.
11. Project management represents important opportunities for improvement. The project structure at the outset makes financial control difficult, except on the top project level. Progress reports are very brief and incomplete. Financial reporting is sketchy and in the opinion of the evaluation team extremely weak.

## **10. Recommendations for Phase II**

1. The project should continue with Phase II. We also recommend that the surplus funds from exchange rate gains and interest are released and used to ascertain continuity in the developments until Phase II is launched.
2. Phase II should be designed as national components for each of the three countries, addressing particular expressed needs; regional support in the framework of ACCSQ should be considered.
3. Expected outputs, impact, and outcomes should be precisely defined and the relation established at component/subcomponent level. Define success indicators for each component, aligned with a sustainability strategy.
4. Consumer protection, in particular related to food safety, should be included into the objectives of Phase II, in addition to the main export promotion objective of the project.
5. Use the master plans for Lao PDR and Cambodia as a basis for Phase II, but revise the section on standardisation. The so-called master plan for Vietnam needs to be entirely revised in consultation with STAMEQ before drafting a project plan for Phase II.
6. Standards: No further intervention in Vietnam is recommended; support Lao PDR and Cambodia in accessing ISO and IEC standards; continue consultancy support to Lao PDR and Cambodia.
7. Metrology in Lao PDR and Cambodia: Continue providing consultancy, training and upgrading of facilities with main focus on Lao PDR and Cambodia; assist the beneficiary countries in developing proposals for hardware upgrading to other bilateral and multilateral donors. Particular attention should be paid to the newly established Cambodia National Metrology Centre within the ILCC and the new metrology laboratory in Lao PDR. Maximize the utilisation of expertise of Vietnam to assist Lao PDR and Cambodia.
8. Metrology in Vietnam: Phase II should focus on selected interventions with highly specialised, tailor-made advice, combined with attachment training abroad. The possibility to extend the scope to chemical metrology and acoustic and vibration parameters should be explored. Reference laboratories and participation in international pro-

iciency testing for microbiology as well as regional industrial metrology (high level calibration services) should be promoted.

9. Testing: The main focus should be on Lao PDR (support to FDQCC and PPC) and Cambodia (support to the implementation of ILCC). Vietnam is capable of providing attachment training for Lao PDR and Cambodia in some fields of testing. In Vietnam, continue ISO/IEC 17025 training and provide limited consultancy support to STAMEQ in re-organising testing.
10. Certification: Support development of product certification, combined with legislation related to potentially hazardous products. NB: The same requirements must apply to domestic as for imported products.
11. For management system certification, Lao PDR and Cambodia will – at least in the medium term - depend on foreign certification bodies. A scheme for financial support to certification should be considered. For Lao PDR and Cambodia, consulting and training should be continued. Vietnam has already an accredited certification body and no further intervention is recommended.
12. Accreditation: In Vietnam, continue consultancy and training in specialised areas, including attachment training. In Lao PDR and Cambodia, consider contributing to the costs of accreditations, as laboratories become ready to fulfil the requirements.
13. Management systems: Provide national rather than regional training courses in ISO 9000, ISO 14000, HACCP and possibly SA8000 at a level appropriate to national conditions. Include interpretation in training sessions and translation of documents. Continue providing training in the area of quality management, in Vietnam concentrating on the “train-the –trainer” approach.
14. In the area of quality management, follow-up courses should be provided to persons who have already been trained as lead auditors, trainers or consultants in order to deepen and strengthen what they have learned during Phase I and to prevent immature advice.
15. Project management: UNIDO should review its project management system and improve or revise it in line with modern international practice for project management. The project plan should be broken down in components and sub-components and each element monitored with respect to outputs, schedule and inputs, including cost. The reporting system needs to be strengthened. The new system should be agreed with donors.

## 11. Lessons Learned

1. **Regional approach:** Should build on already established frameworks of cooperation within the field of the project. For south-east Asia, ASEAN and AFTA would be the natural economic cooperation framework. When a regional approach is chosen, national conditions should be thoroughly accounted for. The cost savings in regional programmes may be realized through parallel country project or components. Regional project management modality should be developed as agreed with the target countries before project implementation starts.

2. **Training courses and study tours:** should be based on country-specific training needs. Participants should be selected based on their verified level of competence. In order to achieve a multiplier effect, particular attention should be paid to the participant's willingness and ability to train others ("train-the-trainer" approach). Lack of language skills should be addressed by providing translation of documents and interpretation. National training courses rather than a single regional course may prove to be advantageous.
3. **Combining hardware and software provision:** Integrated hardware and software inputs create synergies. Interventions that combine the provision of equipment with training and consulting have proven to be highly effective. This approach should be continued.
4. **Support countries in calling for international assistance:** UNIDO should utilize its professional competence to convince and give confidence to other donors in supporting highly technical programmes. Creating linkages between different interventions funded by different donors but implemented by UNIDO and its counterparts has proven to be a highly effective approach.
5. **Project Management by UNIDO:** UNIDO should strengthen its capacity in professional project management. The structure of projects by definition is task oriented. Components and sub-components must be defined. Functions and responsibilities should be clearly assigned. Missions of UNIDO staff members should be carefully planned and always add value to the project. Reporting should be informative and transparent.
6. **Sourcing of equipment by UNIDO:** Equipment that is readily available in beneficiary countries and is not of high value should – whenever possible - be sourced locally, in order to avoid problems relating to warranty services and maintenance. Local sourcing might require that precautions are taken in order to ensure that local procurement is in compliance with UNIDO rules.
7. **Evaluations should be carefully planned:** The necessary arrangements, including the selection of National Consultants and preparation of documentation the team is expected to review should be made early enough to allow sufficient time for the evaluation team to prepare. In order to be able to contract highly qualified candidates for future evaluations. Their remuneration should be close to the local market conditions for similar assignments. Changes in UN practice may be required.
8. In projects of this nature, **start by defining the user needs**, based on priority business sectors. Formulate objectives and activities that support the objectives. Indicators should be developed for each output.

<b>FOLLOW-UP PLAN ON RECOMMENDATIONS</b>			
No.	Recommendation	Responsible	Priority Deadline
<b>General recommendation</b>			
1.	The project should continue with Phase II. We also recommend that the surplus funds from exchange rate gains and interest are released and used to ascertain continuity in the developments until Phase II is launched.	Norad UNIDO	High Sept. 2005
<b>Design of Phase II</b>			
2.	Phase II should be designed as national components for each of the three countries, addressing particular expressed needs; regional support in the framework of ACCSQ should be considered.	UNIDO	High Sept. 2005
3.	Expected outputs, impact, and outcomes should be precisely defined and the relation established at component/subcomponent level. Define success indicators for each component, aligned with a sustainability strategy.	UNIDO	High Sept. 2005
4.	Consumer protection, in particular related to food safety, should be included into the objectives of Phase II, in addition to the main export promotion objective of the project.	UNIDO	Medium Sept. 2005
5.	Use the master plans for Lao PDR and Cambodia as a basis for Phase II, but revise the section on standardisation. The so-called master plan for Vietnam needs to be entirely revised in consultation with STAMEQ before drafting a project plan for Phase II.	UNIDO	High Sept. 2005
6.	Standards: No further intervention in Vietnam is recommended; support Lao PDR and Cambodia in accessing ISO and IEC standards; continue consultancy support to Lao PDR and Cambodia.	UNIDO	High Current
7.	Metrology in Lao PDR and Cambodia: Continue providing consultancy, training and upgrading of facilities with main focus on Lao PDR and Cambodia; assist the beneficiary countries in developing proposals for hardware upgrading to other bilateral and multilateral donors. Particular attention should be paid to the newly established Cambodia National Metrology Centre within the ILCC and the new metrology laboratory in Lao PDR. Maximize the utilisation of expertise of Vietnam to assist Lao PDR and Cambodia.	UNIDO	High Current
8.	Metrology in Vietnam: Phase II should focus on selected interventions with highly specialised, tailor-made advice, combined with attachment training abroad. The possibility to extend the scope to chemical metrology and acoustic and vibration parameters should be explored. Reference laboratories and participation in international proficiency testing for microbiology as well as regional industrial metrology (high level calibration services) should be promoted.	UNIDO	Medium Current

9.	Testing: The main focus should be on Lao PDR (support to FDQCC and PPC) and Cambodia (support to the implementation of ILCC). Vietnam is capable of providing attachment training for Lao PDR and Cambodia in some fields of testing. In Vietnam, continue ISO/IEC 17025 training and provide limited consultancy support to STAMEQ in re-organising testing.	UNIDO	Medium Current
10.	Certification: Support development of product certification, combined with legislation related to potentially hazardous products. NB: The same requirements must apply to domestic as for imported products.	UNIDO	Medium Current
11.	For management system certification, Lao PDR and Cambodia will – at least in the medium term - depend on foreign certification bodies. A scheme for financial support to certification should be considered. For Lao PDR and Cambodia, consulting and training should be continued. Vietnam has already an accredited certification body and no further intervention is recommended.	UNIDO	Medium Current
12.	Accreditation: In Vietnam, continue consultancy and training in specialised areas, including attachment training. In Lao PDR and Cambodia, consider contributing to the costs of accreditations, as laboratories become ready to fulfil the requirements.	UNIDO	High Current
13.	Management systems: Provide national rather than regional training courses in ISO 9000, ISO 14000, HACCP and possibly SA8000 at a level appropriate to national conditions. Include interpretation in training sessions and translation of documents. Continue providing training in the area of quality management, in Vietnam concentrating on the “train-the –trainer” approach.	UNIDO	Medium Current
14.	In the area of quality management, follow-up courses should be provided to persons who have already been trained as lead auditors, trainers or consultants in order to deepen and strengthen what they have learned during Phase I and to prevent immature advice.	UNIDO	High Dec 2005
<b>Implementation of Phase II</b>			
15.	Project management: UNIDO should review its project management system and improve or revise it in line with modern international practice for project management. The project plan should be broken down in components and sub-components and each element monitored with respect to outputs, schedule and inputs, including cost. The reporting system needs to be strengthened. The new system should be agreed with donors.	UNIDO	High Sept. 2005



## 1. INTRODUCTION

### 1.1 Project Description

The Project “Market Access and Trade Facilitation Support for Mekong Delta Countries through Strengthening Institutional and National Capacities Related to Standards, Metrology, Testing and Quality (SMTQ)” was designed as a regional project and covers the three countries of Cambodia, Lao PDR and Vietnam. The latest version of the project document available to the evaluation team is dated January 28, 2003.

The development objective of the project is to “facilitate industrial development and export capabilities (and consequently spurring economic growth and employment opportunities of the assisted countries by reducing technical barriers to trade through the strengthening of standards, metrology, testing and quality institutional structures and national capabilities”.<sup>1</sup>

Main objectives included<sup>2</sup>:

- National capacity creation related to market access requirements and technical barriers to trade (TBT) and identifying manufacturing sub-sectors and export market focus for remedial action in each beneficiary country,
- Upgrade the required technical infrastructure for (a) standards development and harmonisation, (b) metrology and testing laboratories required by the selected sectors; (c) Standards for labelling and accreditation and/or certification of laboratories and quality systems

The project is divided in two phases. Phase I started in May 2003 and am due to finish in July 2005. The budget for Phase I is USD 908,520. An extension is possible if certain surplus funds are released by the donor. Phase II is due to start as soon as UNIDO and the donor has agreed on financing. The duration of Phase II is 3 years and the preliminary budget is USD 1,500,000.

Phase I of the project focused on infrastructure mapping and needs assessment for laying the foundation of SMTQ infrastructure in the three countries. Resulting from the identified inadequacies, implementation has been concentrated in the areas of policy development, awareness creation and knowledge enhancement.

The main counterparts are:

- In Vietnam: The Directorate for Standards and Quality (STAMEQ) under the Ministry of Science and Technology (MOST), including the Vietnam Metrology Institute (VMI) and the Quality Assurance and Testing Centre (QUATEST) and the Bureau of Accreditation (BOA).
- In Lao PDR: The Department of Intellectual Property, Standardization and Metrology under the Ministry of Industry and Handicraft.
- In Cambodia: The Metrology Department, Department of Industrial Techniques (DIT) under the Ministry of Industry, Mines and Energy (MIME)

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<sup>1</sup> Project Document, page 16

<sup>2</sup> Project Document, page 16 - 19

Phase I is fully financed by Norad, the Norwegian Development Cooperation Agency, see Chapter 6.

## **1.2. Purpose and Methodology of the Evaluation**

The purpose of the evaluation was to enable the Government, UNIDO and donor:

- To assess the efficiency of implementation: quantity, quality, cost and timeliness of UNIDO and counterpart inputs and activities.
- To assess the outputs produced and outcomes achieved as compared to those planned and to verify prospects for development impact
- To provide an analytical basis and recommendations for the focus and (re) design for the continuation of the programme under a Phase II due to be submitted to Norad for approval in September 2005.

The decision to carry out an evaluation was reached at the annual project meeting between UNIDO and Norad on 2 March 2005. Norad wanted an independent evaluation before committing to Phase II, which is also in line with UNIDO evaluation guidelines.

The independent evaluation of the project was carried out on the basis of the Terms of Reference dated May 20, 2005 attached in Annex 1. The evaluation team has also used the newly issued UN evaluation norms<sup>3</sup>.

The evaluation team analyzed all background papers of policy, programmatic and project related nature as well as the self-evaluation report dated 26 May 2005. More than 1200 pages were received on 27 May. The evaluation team also made use of the results of the Independent Evaluation of Integrated Programme of Cooperation between Vietnam and UNIDO 2003-2005 completed in March 2005. Some of the background papers were only received after the return from the field mission. This included the annual report for 2004 and other important document regarding project control.

The documentation reviewed was validated through briefing meetings and interviews at UNIDO HQs 6 – 7 June and in the field and served as a basis for formulating a qualitative assessment. Interviews and meetings were carried out with all stakeholders (counterparts, sample of beneficiaries and the Project Manager). Very useful was also the interview with the Chief Technical Adviser (CTA) whom the evaluation team met by coincidence in Lao PDR. The Assistant expert of UNIDO who was also significantly involved into project implementation could not be interviewed as she was on medical leave during the time of the evaluation mission. She however participated in the debriefing meeting in Vienna held on 20 June, 2005 and provided additional documentation at that time.

Field visits were carried out in Hanoi (from 9 – 11 June), Vientiane (from 12 – 14 June) and Phnom Penh (from 15 – 19 June). In Vientiane, Phnom Penh, and Hanoi, feed-back meetings were conducted with representatives from counterparts and donors to present the preliminary findings and recommendations of the evaluation and provided an opportunity for the counterparts and donors to provide comments. The list of persons met and organizations is attached in Annex 2. An extensive debriefing meeting was also conducted UNIDO HQ 20 June. The

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<sup>3</sup> United Nations Evaluation Group (UNEG), Norms for Evaluations in the UN System, April 29, 2005

approach during the field mission was participatory and interactive and aimed at serving as a learning process for all involved. The independent evaluation team was tripartite representing the Governments (of each country), the donor (Norad) and UNIDO.

The evaluation team consisted of:

- Ivar Foss, Ivar Foss Quality Management, Oslo, appointed by NORAD, Team leader
- Daniel Keller, Swiss Consulting, Hanoi, appointed by UNIDO
- Tran Quoc Trung, Ministry of Planning and Investment, Vietnam, National Consultant
- Sengdeuane Wayakone, National University of Lao PDR, National Consultant
- Heng Naret, Royal University of Phnom Penh, Cambodia, National Consultant

The evaluation team would like to express its gratitude to the project counterparts, to the Project Manager, the Chief Technical Adviser, and the UNIDO Country Office in Vietnam for the cooperation and excellent support provided throughout the evaluation exercise.

## **2. COUNTRY AND REGIONAL CONTEXT**

### **2.1 Vietnam**

Vietnam has made a considerable progress in the improvement of its people living standards and well-being since the “turning-point” of major economic reforms, called “doi moi” (renovation) in 1986. After more than eighteen years of reforms, Vietnam is seen as one of the most successful economies in transition and its economy has experienced high economic growth rate of 6.7 % annually on average over the 1986 - 2004 period.

Since the adoption of the doi moi policy in 1986, Vietnam’s trade policy has changed significantly towards an outward-oriented one, and there is no doubt that the trade liberalisation has made a considerable contribution to the high economic growth and development of the country. Trade policy reforms in Vietnam comprised of the shift from the state monopoly in foreign trade sector towards a more competitive system with increasing participation of private sector, the relaxation of controls on entry into foreign trading activities, the gradual abolishment of non-tariff barriers, the reform towards a tariff-based system of trade management, introduction of export incentives, the integration with the world economy via regional and multilateral trade agreements, the unification of multiple exchange rate system and the establishment of a more realistic market-based exchange rate by means of successive devaluation.

As the result of trade liberalisation and reforms, total merchandise exports surged 33.6 folds to more than USD 26.5 billion in between 1986 and 2004. The annual export growth has averaged at more than 23 percent over the reform period. Export structure has positively changed in favour of manufactured exports, from 29 % of total exports in 1986 to 50 % in 2002. Export markets have been diversified significantly, with the number of trading partners increasing from about 30 countries and territories in 1986 to 224 in 2002. A number of enterprises engaging in foreign traded increased from about 30 in 1988 to over 1200 by the end of 1994, and further up to 16,200 in 2001.

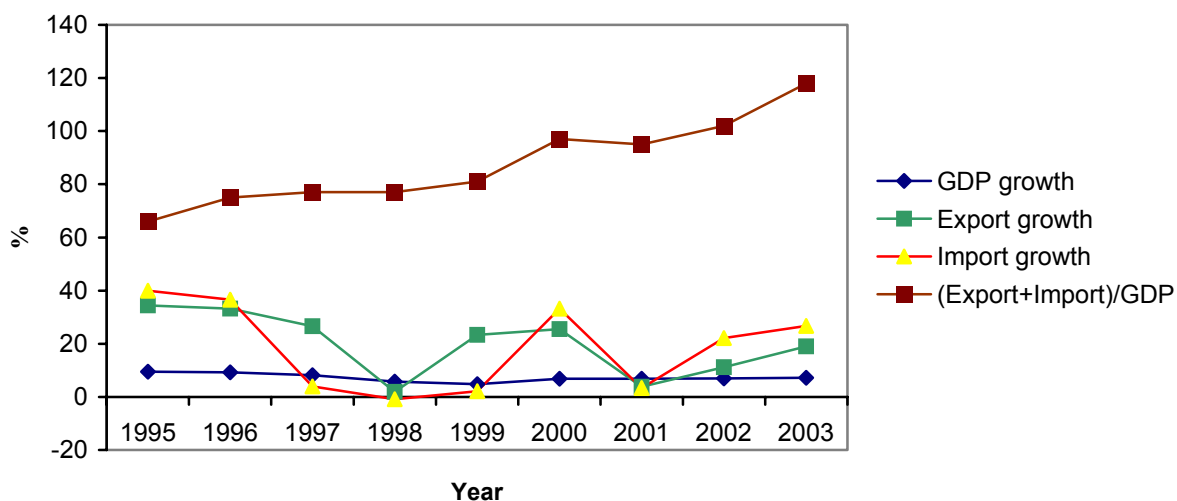
However, due to the legacy of a centrally-planned economy, Vietnam’s trade regime is still controlled and directed by the State. State support provided in terms of credits, technology,

expertise, facilities, logistics tends to work in favour of the state-owned enterprise (SOE) sector. To a certain extent, this is also true for some of the support the Vietnamese government has mobilised from bilateral and multilateral donors. In particular in the area of SMTQ, services are not warranted, as this was indicated in the gap analysis carried out by the project. WTO accession/international integration requires more institutional and legal reforms and the manufacture of export products to sophisticated markets also requires compliance to international standards, metrology and testing facilities and systems to ensure product quality and demonstrate compliance to environmental norms. On the other hand, as the country develops, local consumers are increasingly aware of hygiene, security and quality of locally manufactured and imported products, especially food and food-stuff products. Therefore, there is an urgent need to solve technical/economic barriers to trade more consistently in the WTO accession/international integration as well as to better protect consumers' health and to prevent the poor quality imports spreading in the domestic markets.

Vietnam started the process to access WTO in 1995. Since then, a comprehensive overhaul of the country's legal system in the area of trade and investment has taken place. Important new laws that are expected to be passed by the National Assembly this year include a new Law on Intellectual Property, and common investment and enterprise laws for both domestic and foreign enterprises, as well as fundamental changes of the legislation on trade<sup>4</sup>. The Vietnamese Government has set itself the target to become a member of WTO by the end of 2005 or in early 2006.

Vietnam is negotiating accession to the WTO and is now in the final stage. The country expects to be accepted in late 2005 or in 2006.

### Vietnam growth rates (GDP, Export, Import and Trade/GDP)<sup>5</sup>



<sup>4</sup> Vietnam has currently separate legislation for domestic private enterprises, for state-owned enterprises, and for foreign-invested enterprises. The new common investment and enterprise laws aim at creating a level-playing field for all three economic sectors.

<sup>5</sup> Source: GSO, Statistical Yearbook, various years

## 2.2 Lao PDR<sup>6</sup>

The economy of the Lao PDR is largely resource based and depends heavily on a sustainable environment to generate future growth. Agriculture is the largest sector, accounting for 52% of GDP. This proportion was stable from 1996 to 2000. About 85% of the employed population works in agriculture. 1.15% of the workforce produces about 50% of GDP. In part this reflects the fact that a large part of the rural economy is not monetarised and not properly accounted for in the national accounts. However, it also indicates an imbalance in labour productivity. Future economic growth will depend on improving productivity in the agriculture sector, and the migration of the labour force to more productive sub-sectors of the economy.

In recent years, manufacturing has played an increasingly important role in the economy, growing from 15.4% of GDP in 1996 to 16.8% in 2000. Although specific data on the contribution of textiles in this sub-sector is not available, textiles are considered to be one of the driving forces. Textile exports grew from \$64 million in 1996 to \$77 million in 2000; presumably local consumers bought more domestically produced textiles as their income increased.

The energy sector, particularly the generation of electricity from the country's hydro resources is playing an increasingly important role in the economy. Investment in the hydroelectric sector has been a major source of investment in the economy and the export of energy has been one of the country's major exports in recent years.

Traditionally, the Lao PDR has exported the bulk of the energy generated. Even in 1976, the first year with statistics, the country exported about 75% of the electricity generated. This ratio has been more or less steady over the past 25 years. Since the introduction of the New Economic Mechanism in 1986, domestic energy consumption has increased more than fourfold due to growing demand for electricity by households and industry.

The output of the service sector has also increased. Tourism has expanded from 1.7% of the economy in 1996 to 2.4% in 2000. Tourism is also an important source of foreign exchange and with proper investment in the future; it will continue to be an important source of economic growth, employment, and foreign exchange. The biggest sub-sector in the service sector continues to be wholesale and retail trade, which continued to grow from 1996 to 2000. In 2000, commercial trade accounted for 9.6% of GDP. Little specific data is available on this sub-sector, but it appears to be mostly dominated by informal trade.

The total value of exports has grown steadily in the past five years, increasing from \$321 million in 1996 to an estimated \$393 million in 2000. Lao exports are highly concentrated in a few product categories. In 2002, garments were 33.6% of the total, electricity 33.3%, wood and wood products 20.6%, and coffee 5.5%. The major factor contributing to exports is the export of electricity, which increased from \$30 million in 1996 to \$112 million in 2000. The second largest export has been wood products, primarily in raw form as logs and timber. The current rate of forest clearing is not sustainable, and the timber industry will either have to adopt sustainable forestry practices or timber will not be available for logging. The garment industry also increased its exports to \$77 million in 2000, although the value-added contribu-

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<sup>6</sup> Extracted from Master plan for development of Standardisation, Metrology, Testing and Quality activities in the Kingdom of Cambodia, Dr. Lalith Goonatilake Quality, Standardization and Metrology Branch, UNIDO, May 2005. Data not verified by evaluation team.

tion of this sector is quite small. In 2000, imports for the garment sector were estimated to be around \$67 million.

In practice much of the manufactured exports, especially food and agricultural products, handicrafts and textiles, originate from small scale production units including home manufacture. The large number of small units adds up, in many sectors, to a substantial whole but such an approach does not lead naturally to the development of consistent quality standards normally expected for the global market. Moreover small units are unable to sustain in-house testing capability.

Current export markets are limited to Thailand, Vietnam, France, Germany, Italy, and Belgium. China is becoming a potential export market, especially for timber and agricultural products. Exports of mining products, in particular copper and gold, to Australia are expected to grow rapidly in the near future. Also, Lao PDR is implementing the provisions ASEAN Free Trade Area (AFTA) reducing tariffs to 0 - 0.5 % by 2008.

Lao PDR has implemented the ASEAN Electrical & Electronics products MRA since 2002 and is in the process of becoming a member of WTO by the year 2007.

### **2.3 Cambodia<sup>7</sup>**

Cambodia ratified its accession to the WTO in October 2004. However, the country has to put in place a number of measures to get full advantage WTO membership. Some of these requirements were outlined in the WTO Accession document WT/ACC/KHM/21.

Since June 2003, the United Nations Industrial Development Organisation (UNIDO) and the Government of Cambodia have implemented two projects for development of Standardisation, Metrology, Testing and Quality activities.

Considerable assistance has been provided to the Dept. of Industrial Standards and Dept. of Metrology under these projects. Further development of these fields is envisaged during the next four year period. A plan of activities to be undertaken during this period is given in this document.

Cambodia is at an important crossroads in its development as it moves away from a post-conflict situation towards a more normal development phase. Three decades of isolation and conflict that ended only in 1991, devastated much of the country's physical, social and human capital, forcing the nation to start from scratch in rebuilding its infrastructure and institutions. This has left Cambodia as one of the poorest countries in Asia, with a GDP per capita of around USD 300 in 2002.

Despite many challenges, much has been achieved in recent years. Cambodia has made important progress in rebuilding institutions, ensuring peace and security, establishing a stable macroeconomic environment, and a liberal investment climate. Notwithstanding these achievements, the development agenda remains daunting. Poverty rates remain very high —

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<sup>7</sup> Extracted from Master plan for development of Standardisation, Metrology, Testing and Quality activities in the Kingdom of Cambodia, Dr. Lalith Goonatilake Quality, Standardization and Metrology Branch, UNIDO. Data not verified by Evaluation Team.

with around 35 - 40 % of the population remaining below the poverty line, and 15 % - 20% in extreme poverty — and inequality appears to be increasing. Moreover, recent economic growth has been narrowly based, and has not led to a significant reduction in poverty.

While major challenges will need to be overcome as a matter of urgency, prospects for Cambodia are good. With peace and macroeconomic stability now more firmly entrenched, the country has the opportunity to make far reaching economic reforms to achieve sustained socio-economic development. Within this context, it augurs well that the government has developed a comprehensive reform agenda as set out in the Second Socio-Economic Development Plan, 2001-2005 (SEDP2), the National Poverty Reduction Strategy (NPRS), and the Rectangular Strategy” to meet the Cambodia Millennium Development Goals (CMDGs). Significantly, Cambodia achieved accession to the WTO in September 2003.

Reflecting prudent macroeconomic policies and favourable external developments as indicated by significant aid inflows and the signing in 1996 of a bilateral trade agreement with the US, Cambodia’s gross domestic product (GDP) grew by an average 6.6% from 1999 to 2002, compared to 5.6% from 1995 to 1998. Having peaked at 10.8% in 1999, GDP growth has, however, been on a declining trend, and is estimated to have increased by 5.2% in 2003. Growth in 2003 was held back by the SARS outbreak and anti-Thai riots which adversely affected tourism.

On the positive side, agriculture production staged a strong recovery from a drought-induced decline in 2002, and the export-oriented garment industry expanded strongly. Over the past decade, the industrial sector was the main engine of growth, with industry's share of GDP increasing from 13% in 1992 to 28% in 2002, and that of agriculture falling from 48% to 36% during this period. The manufacturing sub-sector was the largest contributor to incremental GDP, with textiles and garments being the key drivers of such growth. Tourism also contributed significantly to growth, while agriculture has grown modestly, lagging behind population growth. While the outlook for economic growth in 2004 is clouded somewhat by weaker prospects for agriculture, there are fears of a sharp slowdown in 2005 as the anticipated changes in the trading regime for textiles and garments take hold.

Foreign trade is expected to grow in the coming years. The ASEAN has agreed to lower tariffs on selected Cambodian exports and the applicable tariff is between 0 and 5%. The opening of the first bridge across the Mekong is expected soon, which would lead to more intra-trade from the Northeast and also access to Thailand. A further noteworthy trade related development is the close links developing between Cambodia and South Korea.

It is evident that the economic development in the country would rely on the diversification of the industrial base. Opportunities exist for agro-processing, tourism support industries and also targeting the exploitation of the favourable trade opportunities emerging from ASEAN agreement and WTO membership.

The private sector in Cambodia is dominated by the informal sector, which accounts for over 80% of GDP and close to 90% of employment. Much of informal sector activity is concentrated in agriculture. The informal industrial sector accounts for almost half of total industrial output and supplies mainly the domestic market. Some 7,000 private enterprises registered with the Ministry of Commerce constitute the formal private sector. The formal private sector has been narrowly focused on garments and tourism. Foreign direct investment has played



an important role in developing the formal private sector and is the main source of exports. However since the late 1990's FDI has been on a declining trend. Constraints to private sector operations include: (i) weak governance including an underdeveloped legal framework and an ineffective regulatory regime, excessive red tape, and widespread corruption; (ii) a lack of access to, and the high cost of, institutional finance; (iii) a shortage of physical infrastructure, especially in transport and energy; (iv) limited human technical and managerial skills and; (v) limited access to land, information and competitive markets.

Significant industries include rice, milling, fishing, wood and wood products, garments, rubber, soybeans and sesame. Cambodia's major export markets are USA, Germany, UK and Singapore.

## 2.4 Regional issues

	<b>Inhabitants (millions)</b>	<b>Yearly per capita GDP Parity purchasing power, USD</b>
<b>Vietnam</b>	<b>83</b>	<b>2700</b>
<b>Lao PDR</b>	<b>6</b>	<b>1900</b>
<b>Cambodia</b>	<b>14</b>	<b>2000</b>

*Source: CIA World Factbook*

Vietnam, Lao and Cambodia have emerged from post-war situations, and have only relatively recently started rebuilding institutions.

Vietnam and Lao PDR are communist countries and have a legacy of a centrally-planned economy. From the late 1980ies, they have embarked on the process of transition to a market-oriented economy and an open-door policy.

Cambodia's trade and investment regime has been fully liberalised after the first free elections (1996) in the late nineties. While Vietnam and Lao PRR have enjoyed a fairly long period of political stability after 1975, Cambodia's economic development was regularly negatively affected by political turmoil and riots until the recent past.

All three countries pursue now a consistent policy of regional (framework of ASEAN/AFTA) and international (WTO) economic integration. Cambodia has already accessed the WTO, while Vietnam and Laos are in a relatively advanced stage of the process of applying for WTO membership. As for the economic structure, the majority of the population of all three countries is working in the (mostly informal) primary sector, mostly agriculture, aquaculture, and forestry. Assistance in STMQ for all three countries should include areas relevant to processed and unprocessed products from the primary sector (in particular agriculture, aquaculture, fishery), while consider areas relevant in building up capacities necessary to fulfil the requirements of regional and international integration.

In Lao PDR and Cambodia, manufactured exports, especially food and agricultural products, handicrafts and textiles, originate from small scale production units, including home manufacture. Value added of export products is very small, as most of agricultural exports are exported in an unprocessed or semi-processed form. In the case of Lao PDR, electricity

contributes around one third of the total export volume. Both countries have a very weak industrial base, which limits demand for SMTQ other than for the purpose of protecting the domestic market from substandard/hazardous products.

In Vietnam, the industrialisation process is significantly more advanced than in Lao PDR or Cambodia. The country has a fairly strong industrial base and has already successfully moved towards exporting more value-added products (e.g. electronics, mechanical products), which has significantly increased the demand for SMTQ, including more complex areas (acoustics, vibration).

### **3. CAPACITIES IN STANDARDISATION, METROLOGY, TESTING AND QUALITY (SMTQ) IN VIETNAM, LAO PDR AND CAMBODIA**

#### **3.1 Vietnam**

STAMEQ, the national counterpart<sup>8</sup>, covers the entire scope of the project. STAMEQ has a well developed and highly professional institutional capacity, a good capacity to absorb technical assistance, demonstrated capacity to act on recommendations, and also a capacity to invest Vietnamese funds when required.

#### **STAMEQ**

STAMEQ is the State Agency under the Ministry of Science and Technology responsible for carrying out State management functions on standardization, metrology and product quality. STAMEQ has 1,000 employees working in 9 administrative departments and 15 subsidiaries, and benefits from a high degree of financial autonomy. STAMEQ has obtained membership in 18 international and regional organizations. Its relatively long history of development started in 1962. Its subsidiaries are responsible for providing information, training and consultancy services and other services related to standardization, productivity, product certification, management systems certification, testing on quality of products, metrology, verification and calibration of measuring instruments, accreditation of laboratories. The head office is in Hanoi, while branch offices are in Ho Chi Minh City and Da Nang.

- Standardisation: The evaluation team learned that in the area of standardisation, STAMEQ has adopted 5600<sup>9</sup> standards, of which 25 % are based on international standards. STAMEQ hopes to increase this number to 50 % by 2010. The number of GOSSTANDARDS is down from originally 90 % to 10 %. An ordinance on standards has been drafted, which will distinguish between Technical Regulations and standards. There are few mandatory standards. Overall, Vietnam seems to be on the right track. In the near future, STAMEQ plans to call on the ADB for assistance, in particular for the procurement of equipment.

Conclusion: The UNIDO project has only to a limited extent supported the standardisation activities in Vietnam. STAMEQ appears to be on the right track and gets support from other donors. Phase II should therefore not give priority to this activity.

<sup>8</sup> Functions, duties and organisational structure of STAMEQ are stipulated in Decision No. 140/2004/QĐ-TTg issued by the Prime Minister on August 5, 2004.

<sup>9</sup> According to STAMEQ's brochure the figure is 6,000.

- Metrology: Overall, Vietnam is reasonably well covered in the area of metrology. Some weaknesses exist in chemical metrology and microbiology references. The National Metrology Laboratory is integrated into STAMEQ. The UNIDO project funded by Switzerland<sup>10</sup> provided equipment to the metrology laboratory. Current weaknesses need to be addressed in the area of chemical metrology, acoustic and vibration parameters, where industry needs have emerged and there is a high demand. There is a need to cover supporting reference laboratories and participation in international proficiency testing for microbiology. STAMEQ is positive and willing to play a regional role as National Metrology Laboratory (NML) by providing high-level calibration services to other countries and has already started to do so with Lao PDR. STAMEQ have ambitious plans for developing an entirely new National Metrology Laboratory outside Hanoi.

Conclusion: The expert review and recommendations in Phase I are considered to be good, useful and relevant. Interventions in Phase II should be limited to continue providing technical advice for upgrading of the metrology infrastructure and to assist Vietnam in promoting regional industrial metrology, in particular advise on how to develop high-level calibration services. Major equipment procurement should be left to other donors, but UNIDO may advise STAMEQ on procurement. In the microbiology field, development of reference laboratories and participation in international proficiency testing is required. The needs related to a new National Metrology Laboratory are way beyond the budget of a possible Phase II.

- Testing: Important export sectors with testing needs are seafood, processed food, processed and unprocessed agricultural products, textiles, garments, and probably in the near future, electronics. Domestic testing needs include: food testing, inclusive water, environmental testing (air, water and noise), construction materials, and electrical products. In order to cover those needs, laboratories in the areas of analytical chemistry, incl. toxicology, microbiology, environmental testing, acoustics and vibration, and later electromagnetic compatibility (EMC) are required. The most important testing organisation in Vietnam is QUATEST (three centres in Hanoi, Danang and HCMC), one of the larger branches of STAMEQ. UNIDO has long been arguing for an independent organisation of QUATEST. In the near future this appears to become a reality, with QUATEST organised as a state-owned company. Priority should be directed towards assisting QUATEST 2 in Danang.

Conclusion: The priorities of UNIDO's support seem to meet national needs. The support in the testing field has been highly professional and has been well received. Training and advice on quality systems for laboratories have made an impact. Certain targeted interventions could be included in Phase II. These should not be limited to QUATEST and should be based on documented needs.

- Accreditation: The Board of Accreditation (BOA) is part of STAMEQ and recognised as the national accreditation body in Vietnam. BOA is well developed and has obtained international recognition in the laboratory area through a MRA with ILAC and APLAC. Vietnam is in the process of establishing an Accreditation Council. Targeted

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<sup>10</sup> USVIE03083 funded by SECO

assistance with the development of BOA as an independent accreditation body is still required in order to enhance the standing of BOA in the international market. The main needs expressed by BOA during the evaluation mission were highly specialised training in accreditation of priority labs (chemical, microbiology, textile), attachment training (2 – 3 weeks) with other national accreditation bodies. BOA emphasised on that “generic knowledge” in the area of testing was already available in the country and that general training courses were no longer needed. For the time being, the fact that BOA and QUATEST are both under the STAMEQ umbrella creates a conflict of interest that may hurt the international reputation of BOA and QUATEST accreditation certificates. The proposed reorganisation of QUATEST will to a large degree solve this problem.

Conclusions: The support by the UNIDO consultant has been highly professional and appreciated. The impact on BOA has been significant. Development of competence and the reorganisation of BOA are in an active phase and should, if possible, be continued without interruption between Phase I and II. Specialised training of assessors should be offered in Phase II.

- Quality: Vietnam has already a well established network providing services in the area of ISO 9000, ISO14000, HACCP and SA8000 in place, including both private and government-related providers. Various players, both from the public and private sector are active in this area. Also many bilateral and multilateral projects are already providing services in this field.

Conclusion: Vietnam is already well covered in the field of quality management. Future assistance needs are limited, except in the field of quality management systems for laboratories (ISO/IEC 17025).

### **3.2 Lao PDR**

The national counterpart is STEA (Prime Minister’s Office – Science, Technology and Environment Agency) - Department of Intellectual Property, Standardization and Metrology (DISM) covering all areas of the project (certification and services in the area of quality management are not yet developed). STEA is also liaison office to the national SPS committee. STEA/DISM is small, but highly motivated and capable to absorb technical assistance.

In all areas, UNIDO support is considered as relevant, useful and timely.

- Standardisation: A draft law and implementing decree on standardisation has been prepared with assistance of the project, and is expected to be passed in 2005. The policy of decree 85 on Management of Standards, Quality of Goods and Products has been confirmed, which means essentially that DISM and STEA will remain the only body carrying out standardisation activities. The evaluation mission received confirmation that an ADB proposal<sup>11</sup>, which had foreseen to establish a national standards council consisting of steering committees, technical committees distributed in various ministries, seems to have been rejected,. Only a small risk seems to remain that the

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<sup>11</sup> The evaluation team has received an exchange of emails between UNIDO and Mr. Lo Wah Sing, Standards Expert for ADB Lao TA 4108.

government will abandon the current system of one centralized standardisation body. Few national standards have been developed, the capacity in the area of standardisation remains weak.

Conclusion: Substantial further support will be required. Continuity is important.

- Metrology: A new draft law and decree on metrology has been prepared with assistance of the project and is expected to be passed in 2005. A new national laboratory, funded by Vietnam, is under construction and is expected to be completed by September 2005. Besides construction costs, Vietnam has also made a commitment to cover a part of the costs of equipment. The total funding received from Vietnam is approximately USD 300,000 (equivalent to VND 5 billion).

Conclusion: Again, the national system is very weak. Substantial further support will be required in the area of equipment, training of newly recruited staff, training, international traceability, and in obtaining international accreditation. The establishment of the new laboratories in the 4<sup>th</sup> quarter 2005 will be a critical phase.

- Testing: Priority has been given to food testing (chemical and micro-biological) and this is supported. FDQCC has received training, and advice on microbiology laboratory reconstruction. The job has been completed with UNIDO funding. PPC has received limited advice and training.

Conclusion: The capacity is still very weak; important needs remain: Equipment, training, accreditation.

### **3.3 Cambodia**

Counterpart is the Department of Industrial Standards of Cambodia (ISC) and the Metrology Department under the Ministry of Industry and Mining. It was established in 2002 and has currently 30 staff members. Its responsibilities include standardisation, product registration and, once the capacities are available, product certification and laboratory testing. The 4 existing testing laboratories will be integrated into the newly established ILCC.

- Standardisation: A new law on industrial standards has been drafted, but approval takes long time. Establishing standards advances in slow pace; up to now, only 50 standards have been adapted. Access to international standards (ISO and IEC) is critical, but costly and therefore not possible without outside support.

Conclusion: There is quite obviously a crying need for support. Without external assistance, ISC will clearly not be able to accelerate the establishments of standards.

- Metrology: A new Law on Metrology has been drafted and is expected to be adopted in late 2006 or 2007. The Government of Cambodia has funded a new building for the metrology lab, which offers a fairly good working environment; the UNIDO input was limited to planning of the labs, provision of equipment, and training. Procurement of equipment was financed over an Austrian project (see Chapter 7). There is an obvious, significant need for further support, in particular in terms of equipment and training.

Conclusion: The metrology lab is in a critical phase as it is in the process to be moved to this new location.

- Testing: Most importantly, an Industrial Laboratory Centre of Cambodia (ILCC) has been established by Prakas (ministerial decision) issued on June 1, 2005. This bold step merges four existing laboratories under MIME into one single unit, which is expected to be operational within 2 – 3 months. The evaluation team was told that ILCC is aimed at becoming a service centre to the public and the private sector. Furthermore, the evaluation team was informed that ILCC will receive a new laboratory building, located at the same site as the metrology laboratory financed by the Cambodian Government. It should be noted that CAMCONTROL under the Ministry of Trade has also received support from the project. They showed a very high commitment; the laboratory of CAMCONTROL made a good impression, but here again, the need for continuous support was obvious.

Conclusion: The establishment of ILCC is now in a critical phase and continuous support is important for a sustainable development. ILCC also requires further support in Phase II. CAMCONTROL should not be forgotten.

- Quality: Consulting in this field is only marginally developed, and certification is currently not available in the country.

### 3.4 Regional Issues

Standardisation: Harmonised standards are one of the most effective means of facilitating international trade. For Vietnam, Lao PDR and Cambodia, the basis for harmonisation should be the standards recommended by ACCSQ. It is outside the scope of this evaluation to consider ACCSQ's policies. However, we anticipate that many of the standards are adopted international standards. An essential task for the future will be to allow all countries to get access to such standards. This is a problem for Lao PDR and Cambodia, who are not yet member of international standards organisations. The problem ought to be addressed in Phase II of the project.

The most relevant organisation is the International Organisation for Standardisation, ISO. ISO have members in about 150 countries. In order to get access to the ISO standards, a developing country would have to register as "Corresponding Member". The annual fee for such membership is in the order of USD 10,000 – 20,000 per year.<sup>12</sup>

Another relevant international standardisation organisation is International Electrotechnical Commission, IEC. IEC operates an Affiliate Country Programme, aimed at newly industrialised countries.

Metrology: One of the basic principles of metrology is traceability. A measurement standard in one country must be traceable back to recognised international standards in order to ascertain that measurement units are the same all over the world. Regional cooperation will facilitate traceability in the Mekong (or ASEAN) region. For instance, the standards in Lao PDR and Cambodia could be traceable to standards in Vietnam or Thailand. To a certain extent this opportunity is utilised already, but a more extended system should be explored in Phase II.

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<sup>12</sup> Source: Influencing and Meeting International Standards. ITC, Geneva (2004)

Testing: In chemistry, Certified Reference Materials are used. These may be shared on a regional basis.

In microbiology, the testing laboratories need access to reference laboratories, which may be different for the different types of tests. They also need to take part in proficiency testing, where a number of laboratories carry out the same test and compare results, thus checking their competence level and accuracy. Such schemes are also highly relevant on a regional basis.

Certification of management systems: The markets in Lao PDR or Cambodia are still too small to support a national management system certification body. Nevertheless, certification to ISO 9000 or ISO 14000 may be required from exporters in these countries. The natural solution will be to make use of an existing management system certification body in the region.

Accreditation: In order to gain international acceptance for test reports and certificates, laboratories and certification bodies require accreditation by an internationally recognised accreditation body. There are already four such bodies in the region, in Singapore, Malaysia, Thailand and Vietnam. In Lao PDR and Cambodia, the market is far too small to develop a financially and professionally sustainable accreditation body. The solution for these countries will therefore be to make use of one of the existing bodies. Given the national accreditation bodies that are already in operation, a regional body is probably not realistic.

## **PROJECT EVALUATION**

### **4. RELEVANCE**

The project addresses problems internationally recognized as Technical Barriers to Trade (TBT), and partly SPS. It fits in the internationally agreed framework of Trade Related Technical Assistance (TRTA). Thus it is in full conformity with international development strategies. The project is also in line with the corporate strategy of UNIDO, which emphasises on productivity enhancement activities for social advance and poverty alleviation. This supports the efforts of the developing countries and the countries with economies in transition to participate in the world production system by helping them to raise productivity and develop competitive economies.

The evaluation team found in all three countries a clear agreement of all stakeholders that further intervention along the lines of Phase I would meet their needs, and that the programme supports the overall economic strategy of their countries, which is international integration (in the framework of WTO) and regional integration (in particular the AFTA free-trade area to be implemented by 2008).

All three countries clearly understand the importance of SMTQ for implementing their strategy of regional and international integration and their reliance on exports for economic development and poverty alleviation, and the importance of their capacity to comply with WTO TBT/SPS requirements. The evaluation team received confirmation on this on the field mission.



The project is also relevant since – besides their importance for exports - the SMTQ institutions are also important for domestic trade and poverty alleviation. Without a proper standards and testing infrastructure, the countries concerned risk becoming a dumping ground for substandard and even hazardous imports from other countries as well as for domestically produced goods. This would result in a significant risk that the limited purchasing power of the poor is further exploited. The evaluation team received confirmation that dumping of cheap, substandard goods, most of which are illegally imported, is already a major problem in all three beneficiary countries. Under-weighted goods are another relevant problem addressed by the project.

- For Vietnam: The project fully supports Vietnam in accelerating its trade facilitation strategies in the context of its modernisation and integration policies in the field of SMTQ. The purpose of the project is also relevant for the Five-Year Socio-Economic Development Plan 2001 – 2005 approved by the X<sup>th</sup> National Assembly of Vietnam in 2001 in terms of increasing visibly the efficiency and competitiveness of locally manufactured products to better meet local consumption and export demands and creating favourable conditions for promoting exports.
- The project is relevant to a wider stakeholder community than the one who benefited from Phase I. This ought to be taken into account in the design of Phase II.
- For Lao PDR, which has started the accession process for WTO in 1997, the project is especially relevant as the country has intensified preparations for becoming a WTO member by 2007<sup>13</sup>.
- Cambodia acceded to the WTO 18 months ago and is still trying to comply with TBT/SPS compliance requirements. Vietnam is in the final stage of negotiating the WTO entry and hopes to access WTO by the end of 2005 or beginning 2006.

Conclusion: The evaluation received unanimous confirmation among all stakeholders interviewed that the UNIDO intervention was timely and in full consistence with the strategy of their governments in general and the beneficiary institutions in particular, and thus highly relevant to the countries' needs.

## **5. OWNERSHIP AND SUSTAINABILITY**

The evaluation team has examined to which degree the counterparts were motivated and capable to plan, manage and absorb technical cooperation and to provide input to achieve and sustain results, in particular the institutional capabilities.

The project plan was formulated at the outset of Phase I in consultation with all relevant counterparts; the same is true for the Master Plans for Phase II for Lao PDR and Cambodia. Regarding the Master Plan for Vietnam submitted to the evaluation team, STAMEQ has not been consulted except in writing (and has subsequently expressed dissatisfaction, which is also a form of evidence for ownership).

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<sup>13</sup> Target confirmed during evaluation mission.

All of the supported organizations the evaluation team has visited have shown clear evidence that they are willing and able to absorb technical assistance, and also to act on recommendations.

For example, all laboratories the team visited have taken measures to reduce cross-contamination in micro-biological laboratories by either separating testing facilities from each other or (in the case of FDQCC, Lao PDR), moving a laboratory from the first to the third floor. The newly built metrology laboratory in Cambodia is well designed, and has obviously followed the advice given by the visiting UNIDO experts. During the mission, the evaluation team has, before even visiting the laboratory, received explanations on what had been recommended by the experts and to what degree this had been implemented. The evaluation team received in some cases comments and candid explanations regarding certain recommendations that were not implemented. For example in the case of Lao PDR, the surfaces in the FDQCC lab had to be made of wood, instead of an easy-to-clean, non porous material as recommended by the expert. This was because other material was not available locally. FDQCC waited to receive feed-back from the expert, before starting operations in the new lab. The evaluation team assisted in obtaining the necessary authorisation.

Although the evaluation team was not able to verify how far advocating by UNIDO caused the Government of Lao PDR to refuse an ADB proposal on establishing an unsuitable structure for standardisation, it is highly probable that UNIDO advice was well received and favourably considered.<sup>14</sup> The same is true for concentrating testing services under one laboratory in Cambodia by establishing ILCC.

As other clear evidence of ownership, it should be highlighted that the government of Cambodia has provided approximately USD100, 000 of own funding to build a new metrology centre. The evaluation team also received confirmation that within this year, further investments in the same order of magnitude will be made for a new building serving the needs of the newly established ILCC.

Lao PDR has successfully called for assistance from Vietnam to establish a new metrology centre plus some basic equipment.

As an example of private companies that has benefited from the project, the team visited Hanoi Beverage Corporation (main product: Hanoi Beer). They expressed high satisfaction with the training services provided by the (ISO 9000 and ISO 14000 courses). They have also invested USD 2 million for a waste water treatment system and a power saving system and are applying for ISO 14000 certification. Currently the corporation is in the process of internal audit of the environmental management system.

It can be concluded that all beneficiary organizations have expressed a high degree of ownership for the project, it should, however, be mentioned that this does not include financial ownership. In line with UNIDO policy the counterparts were not provided with financial reports.

In the opinion of the evaluation team, all relevant institutions are highly motivated to continue the development of the infrastructure along the lines of Phase I, with necessary modifications.

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<sup>14</sup> Letter sent by the Director General of DISM to UNIDO, dated March 5, 2004 is a further indication

As far as the institutions are concerned, the sustainability aspect is well taken care of. Other aspects of sustainability are discussed in Chapter 11.

## 6. FUNDS MOBILISATION

The funding agency, Norad, approved the project in November 2002 with a total budget of USD 908,520. UNIDO received the first instalment in April 2003.

	Funding as per 30 April 2005 (according to SER)			
	<b>TF agreement</b>	<b>Allotment (excl. psc)</b>	<b>Allotment (incl. psc)</b>	<b>Donor</b>
TF/RAS/02/003	USD 804,000	USD 804,000	USD 908,520	Norad
<b>Total</b>	<b>USD 804,000</b>	<b>USD 804,000</b>	<b>USD 908,520</b>	

According to the SER, the funds available for implementation of Phase I in the period May 2003 - July 2005 amount to USD 804,000 exclusive of project support cost (psc). By the end of April 2005, 100% of the budget has been allocated. The evaluation team was unable to verify the figures presented in the SER.

During the project period, exchange rate gains and earned interest amount to USD 237,000. UNIDO has requested Norad to approve use of these funds in the period between the end of Phase I and the proposed start of Phase II. At the time of writing, UNIDO is waiting for approval from Norad for the disbursement of these funds.

In the opinion of the evaluation team, the surplus funds could provide an important contribution to continuity of the project and in this way contribute to sustainability in a critical project phase.

In the original project document UNIDO proposed a Phase II with three years duration and a total budget of USD 1,500,000. Norad has not yet committed to further support. On the basis of the present evaluation, Norad expects a revised work plan for Phase II. A decision regarding further funding will be made on the basis of the plan.

## 7. RELATION TO OTHER PROGRAMMES

Excellent synergies were achieved with the UNIDO SMTQ project funded by the Swiss State Secretariat for Economic Affairs (seco)<sup>15</sup>. Activities were complementary; the main synergies resulted from combining hardware procurement (under the seco project) with support and advice under the project financed by Norad. Furthermore, some experts missions could be combined, which led to cost savings (e.g. the mission of Mr. John A. Gilmour conducted in November 2004). For some follow-up activities on activities offered by the project, funding by seco was used. Examples include the re-sit courses for participants of ISO 9001 and ISO 14001 courses who did not pass the final exam the first time, and the latest mission by Mr. Gilmour.

<sup>15</sup> USVIE03083 implemented by UNIDO and STAMEQ, funded by Swiss State Secretariat for Economic Affairs (SECO)

The evaluation team also positively noted that the Vietnam Cleaner Production Centre<sup>16</sup> (VNCPC) was invited to training courses in ISO 9000. However, the opportunity to combine CP assessments and other CP related services provided to enterprises has not yet been exploited. During the visit at Vientiane Steel Factory, the team noted a crying need to address significant energy and cost saving potential, while at the same time addressing environmental issues. Yet, the factory was not aware of the UNIDO intervention in the field of CP and labour services. This factory would be a typical customer for VNCPC, where a relatively small investment could lead to a significant impact on the cost side could be achieved. They would also benefit much from the labour-related services VNCPC has integrated into their CP programme. Considering the pressure on the cost side the company is facing, the management would certainly be open to suggestions for implementing CP measures. The same is also true for EUROTECH the team visited in Cambodia, although only the production of plastic bottles includes energy intensive processes.

Overall, the potential for synergies with the VNCPC has not been fully exploited. Phase II should make better use to combine quality related technical assistance with CP services, in particular in Lao PDR and Cambodia.

In Cambodia, procurement of equipment was financed over an Austrian project<sup>17</sup>. Austria has committed USD 670,000 to metrology and testing equipment and this should be seen in connection with the Cambodia government's investment in new buildings. According to the Project Manager, the equipment budget is USD 375,000. Excellent synergies were achieved with the training and advice through the Norad project. During the evaluation, it remained unclear to whom this equipment was provided, whether the project provided advice on this, and whether there had been any formal or informal coordination. During the field mission, the evaluation team was informed by the counterpart about the procurements (including a summary in writing), without any mention of the Austrian project. Upon direct questions at several instances, the team was not able to obtain any information regarding the Austrian project.

The PTB projects for the metrology development in Cambodia and Lao PDR have a very limited scope; but both counterparts confirmed that the equipment that is in the process of being procured under PTB and UNIDO was complimentary.

According to the SER, coordination was achieved regarding preparing jointly with WTO a workshop on TBT with participation of ITC, EC and NORAD.

The evaluation team learned further that the Asian Development Bank (ADB) was negotiating an SME development loan combined with technical assistance, among other beneficiaries to STAMEQ. This would include supporting STAMEQ's plan to separate commercial and legal activities and might reinforce UNIDO's recommendations regarding governance. Phase II should be closely coordinated with ADB interventions.

With so many projects so closely interlinked, it is difficult to see what is financed by which project. There is no report available to the evaluation team that explains the financial picture, in spite of repeated requests. All hardware procurements are delivered with a UNIDO label.

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<sup>16</sup> USVIE 04064 implemented by UNIDO and INEST (Institute for Environmental Science and Technology under the Hanoi University of Technology), funded by Swiss State Secretariat for Economic Affairs (SECO); including some regional elements for Laos and Cambodia.

<sup>17</sup> According to the handout of the presentation made by the Project Manager to the evaluation team in Vienna, this was a Doha commitment to support the WTO accession of Cambodia.

In Cambodia, none of our contact persons was aware of the Austrian project and our impression was that all the credit went to UNIDO and Norad.

From the evaluation team's point of view this lack of transparency made it virtually impossible to judge the cost-efficiency of the Norad project. From a donor point of view, the lack of transparency may also cause concern.

## **8. FORMULATION**

### **Phase I**

The project document contains excellent and comprehensive background information on trade facilitation in the context of international integration. Within this context, the purpose of the project is to reduce technical barriers to export trade, reflecting a structure of interventions that are complementary to each other. The project document was schematic and comprised identical interventions for all three countries, in spite of their significant differences in size and needs. However, the actual interventions were based on a detailed needs analysis for each of the three countries. The project document or action plan was not updated to account for the changes resulting from the needs analysis. The original project document has therefore been used as a central reference for the evaluation.

The project was formulated using a participatory approach, considering the expressed needs of the beneficiary institutions.

The objective of the project as stated is purely directed towards strengthening of the region's export capacity. The interventions, however, to a significant extent address the needs to strengthen the protection of the population against substandard and hazardous import and domestic products. This is a highly relevant and an important objective of STMQ, but it was not included as an objective in the project document, and only seen as a by-product by the Project Manager. Thus, there is a mismatch between the content of the project and the stated objective. This should be resolved in the design of Phase II.

In designing the project, the logical framework was not consistently applied. Some of the activities are not precisely defined and success factors (outputs, expected impact and outcomes) are not included. The link between inputs, including costs, and outputs is weak.

The project formulation in the Project Document did not meet standard international practice for project plans. The project is broken down in two immediate objectives and 7 outputs, which are broken down in activities. The time schedule is linked to the outputs. However, inputs are not linked to outputs. The costs are linked to inputs, but not to outputs or activities. Inputs or costs are not linked to country. With this structure, financial control can only be executed on the topmost project level.

The evaluation team also questions the approach to design a regional project for the three countries with such considerable socio-economic and cultural differences. The original Project Document also included Myanmar. This country was excluded by Norad for political reasons. UNIDO's focus was the Greater Mekong Subregion (GMS). GMS was a major political initiative at the time the project was proposed. However, GMS includes Myanmar and China, and the region has no SMTQ infrastructure. For a project of this nature, it seems more relevant to focus on how to achieve practical results, than on the political dimension.

ASEAN, rather than the Mekong basin, seems to be the natural economic region. The AFTA free trade area (to be effective from 2008) is important but is not mentioned in the project document. ACCSQ is the vehicle for regional integration and harmonisation in the STMQ area. While ACCSQ is still a weak organisation and favours the stronger ASEAN countries, this appears to be the only vehicle for regional harmonisation. Lao PDR, Cambodia and partly Vietnam are behind other ASEAN countries and require extra support, a need that ACCSQ may not readily meet. Nevertheless, it would be natural to take into consideration the ongoing efforts within the framework of ASEAN ACCSQ to harmonize standards.

The synergies and other benefits from choosing a regional approach were limited to cost savings (e.g. combined expert missions), which could also well be achieved by coordination of three stand-alone national projects. In some instances, for example quality training courses, the regional approach (combined training courses) was a distinctive disadvantage, as those courses could not cater to the specific needs of each of the three countries.

## **Phase II**

The basis for the proposed phase II was included already in the project document in January 2003, which states: "Phase II would be to establish/strengthen metrology, microbiology and chemical testing laboratories in each of the four countries". The estimated budget for Phase II is USD 1,500,000. Further information was provided to Norad during the negotiations in 2002/2003.

Based on the significant developments that have taken place since 2003, the evaluation team recommends not using those early proposals as a basis for the second phase.

National Master Plans were prepared for Lao PDR and Cambodia in the first months of 2005, dated May 2005. These give a much more complete picture of the priority areas, taking into account not only the UNIDO/Norad project, but also the other projects in the same sector as explained in Chapter 7. These plans are a good basis for a work plan for Phase II, but more specific plans are still needed. One weak point in the Master Plans is the treatment of standardisation.

For Vietnam, the so-called master plan is of much less value, as discussed in chapter 10 under output 2.2. As commented by the Project Manager, there is probably no need for a master plan for Vietnam at this stage, given the relatively advanced infrastructure already in place. However, a work plan for Phase II in Vietnam must be drawn up in cooperation with STAMEQ and other stakeholders, also taking into account the priority areas identified in this evaluation. The work plan should reflect the views of different stakeholders, including UNIDO, in a balanced way.

A specific work plan along the lines we shall present in Chapter 13 should be drawn up as a basis for the Phase II budget and as part of the proposal to Norad. This plan should aim at defining better result indicators than was the case for Phase I. We recommend a combination of objective and subjective indicators. Some examples:

### *Objective indicators:*

- Specification of policy level interventions
- Number of people on training courses
- Implementation of management systems in industry and the institutions of the quality

- infrastructure
- Demand for laboratory services (testing and calibration)
- Export volume trends in priority industries
- Amount of expert advice provided, specified per subject area
- Equipment procurement, specified per product group
- Adherence to specified schedules
- Compliance to budgets

*Subjective indicators (by questionnaire or structured interviews):*

- Participants' evaluation of training
- Beneficiaries' evaluation of policy interventions, expert advice, project management, etc.
- Industry's evaluation of support received

## **9. IMPLEMENTATION**

With a few exceptions, the quality of technical input provided by UNIDO was excellent. The activities were well implemented. Generally, there is a good cooperation with the counterparts and beneficiaries. The evaluation team received very positive feed-back from all stakeholders visited. All beneficiaries are eager to continue the cooperation. In the entire project, international and national experts have worked hand in hand to improve the capacity of beneficiary institutions and companies. Advice has been followed-up to a high degree in all beneficiary institutions. The equipment provided seems to be well maintained and is working (with the exception of a computer screen and a projector in Cambodia). It can be said the project made a real difference in all institutions and companies the team has visited. For Lao PDR and Cambodia, which started virtually from scratch, the project has certainly significantly contributed to bringing SMTQ to a new level.

It should be pointed out that both the Project Manager and the Chief Technical Adviser fulfil their role to coordinate technical input very well.

The evaluation team noted also very positively that the project showed a strong capability to adapt to changing needs and arising demands in a flexible way. Opportunities to provide additional services by experts on mission to a larger number of stakeholders were consistently seized.

The so-called Master Plan for Vietnam forms an exception to this picture. The document is not really a master plan, as seen by the author and the national counterpart<sup>18</sup>. The status description is from 2003/2004 and the document does not amount to a national plan. The plan has been prepared without STAMEQ participation, as commented earlier.

Another exception is the design and organisation of training courses. This issue is commented upon in the following.

The way the project has been managed by UNIDO HQ has substantial room for improvement, in particular regarding

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<sup>18</sup> The title is: Present status and proposals for future development of Standardisation, Metrology and Conformity Assessment Activities in Vietnam.



- Assigning clear responsibilities within UNIDO: While the responsibilities between the Project Manager, the CTA, the Associate Expert and the UNIDO national representative may be clear in principle and at the top project level, the responsibilities are not clearly defined and communicated at output level and in the operational contacts with counterparts and other beneficiaries. To some of the counterparts it was not clear whom to address certain problems and who would make decisions in certain matters.
- Monitoring and reporting: The progress reports submitted to the evaluation team are extremely brief, and not satisfactory. Some relevant information is not updated (e.g. significantly wrong number of standards that has been adopted in Vietnam); sometimes it was not clear what activities were undertaken under which project. The possibility that outputs are reported several times under different projects cannot be excluded. Also, it is not clear what has been financed under what project.
- Change in Project Outputs without approval of the donor: The evaluation team found no evidence that the donor was consulted about a significant change in output 2.3 (defining national standards for Cambodia and Lao PDR instead of initiating a regional harmonisation of standards). From the minutes of the annual meeting conducted in Vienna on March 2, 2005 it can be concluded that the donor was only “informed” about this ex post.
- Expert missions: The evaluation team learned that in some instances, expert missions were coordinated on very short notice. This occasionally led to difficulties for the counterparts to do the necessary preparations. UNIDO procedures appear to be so time-consuming that project implementation is sometimes jeopardised (security training, security clearance, contract preparation etc).
- Missions from UNIDO headquarter: The counterparts in all countries found that sending UN staff members on missions to Vietnam in order to attend and oversee training courses as participants do not add value to the project and that the funds required for this could be used more efficiently. The evaluation team endorses this view and feels that the TOR of missions by UNIDO staff members should be designed in a way that they add maximum value to the project.<sup>19</sup>
- Office equipment: Sourcing of personal computers and other office equipment in Vienna has lead to problems in maintenance. At the arrival, a screen of a computer procured in Vienna (HP/Compaq Desktop Evo D530 convertible MiniTower with 17” screen had problems, and could obviously not be repaired locally. Also, computers provided did not include any software (this problem has been “addressed” by purchasing unlicensed software on the street market). Furthermore, the projector ACER PD520 XGA 1024\*1500 ANSI Lumen is also broken and had to be sent to Bangkok for repair. Although local sourcing of equipment might occasionally lead to problems (quality, transparency in procurement), it might have significant advantages for maintenance and repair. It would also support the local private sector i.e. increase the percentage of funds spent in the beneficiary country. UNIDO might consider using more local sourcing, as far as procurement rules and the local situation allows for it.
- Training for ISO 9001 and ISO 14001 and HACCP-GMP: Although the trainer, Nigel Bauer & Ass., performed well, the training programme design did not meet participants’

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<sup>19</sup> This point relates to certain training courses and not to UNIDO HQ missions in general.

needs: Auditor/Lead auditor training shot above the target. This training assumes that the participants have an understanding of the basic principles of quality/environmental management, including the relevant standards. Many of the participants did not possess this basic understanding.

Interpretation was not provided (there are 3 languages in the region), which lead to a situation where a significant number of participants was actually unable to understand the content of the course. This in spite the project required that the participants possess sufficient English language skills. Only a few participants were allowed from each country; from Vietnam definitely too few. The participants from Lao PDR and Cambodia had the least benefits. The evaluation team would also like to question the selection of participants, in particular the representatives from factories. The multiplier effect (train-the-trainer approach) was not sufficiently considered when quality managers from industry were selected. At least in the case of Vietnam, private sector consultants did not benefit from the training. While the host institution of this course provided excellent facilities, apparently little advance notice was given to the attendees, so they were not able to prepare.

The deficiencies in designing and organising this training course might lead to a risk of future distorted training by the train-the-trainer participants and auditors.<sup>20</sup> In order to avoid this, the participants should be followed up in Phase II. In future training programmes we recommend the normal structure of (1) awareness training for managers (1 day); (2) basic training in quality/environmental management (min. 3 days); (3) Auditor/lead auditor training (5 days).

- Progress reports are extremely brief and incomplete. Regular reports were issued about three times per year but only contain keywords with respect to progress on each output (such as 'completed', or 'planned for ... 2005'). A more extended report (about 3 pages, excluding the original project description and annexes) was presented 1 September 2004. The reports contain no financial information.
- Financial reporting is sketchy and in the opinion of the evaluation team extremely weak. We have considered the following reports:
  - Self evaluation report, 31 May 2005: This is the only report which separate costs between the three countries. But the costs are not added together and the budget lines are not explained, only numbered. It is not possible to link the costs to outputs
  - Annual report, 9 February 2005: This report does not specify costs, only total allotment and remaining funds. It is thus possible to calculate the costs. Budget lines are labelled, but not referred to outputs or countries.
  - Statements of account as at 31 Dec. 2003 and 31 July 2004 (this appears to be the most recent statement): The reports state total income and total expenditure for given periods. There is no specification of expenditures per output, input or country.

All the financial reports were received only after the reporting meeting in Vienna 20 June, in spite of repeated requests from the evaluation team as soon as we had received the main documentation 27 May and during the briefing in Vienna 6 – 7 June.

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<sup>20</sup> The evaluation team fully endorses the recommendations made by Nigel Bauer & Associates in their final report dated May 19, 2005, page 8 – 9.

As a consequence of the weak financial reporting, and the absence of a connection between outputs and costs, it has not been possible for the evaluation team to evaluate the cost efficiency of the project. Internally in UNIDO, there appears to be project management instruments that have allowed the Project Manager to control the project, since most of the missions have been completed with very good results and the overall budget has not been exceeded. At the least, however, there is a problem of transparency in the financial management.

As requested by Norad, financial reports should be output based. In order to provide the necessary transparency, the evaluation team recommends that financial reporting follow a matrix system, i.e. present the expenses according to components (e.g. legal infrastructure, competence development, laboratory development, all on a country basis) in addition to the usual budget lines (e.g. equipment, experts, etc.).

The counterparts do not have any financial ownership. A lack of financial ownership is a missed opportunity to do capacity building in fund management as well.<sup>21</sup>

## 10. RESULTS

This Chapter will concentrate on the outputs and outcomes of the project. At this early stage, impacts are hard to identify.

***Output 1.1: Awareness seminars for senior officials covering globalisation, trade issues and the market access implications arising from technical barriers to trade, leading to policy documents to address country capacity concerns.***

Awareness seminars for senior officials covering globalisation, trade issues and the market access implications arising from technical barriers to trade, leading to policy documents to address country capacity concerns were held in Cambodia and Vietnam.

The evaluation team received from STAMEQ a CD with comprehensive documentation on the seminar held on May 6, 2005 ("TBT workshop"). The material is highly professional, relevant and presented in an interesting, easily understandable way. A similar seminar is planned to be organized in Lao PDR before the end of the project.

In addition, a study tour covering globalization, trade issues and market access implications arising from TBTs held in Malaysia in 2005 with participation of three representatives from each country. For all those activities, an assessment against outcome indicators is not possible, since the project did not define any success indicators.

The awareness seminars as well as the study trip were considered as useful by the counterpart.

***Output 1.2: Report identifying product categories and firms facing conformity problems in external markets, classified according to whether these problems refer to product attributes, processing methods, packaging, branding and labelling and "others".***

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<sup>21</sup> The need on improving financial statements, budgeting has been agreed on by UNIDO and Norad in the meeting of March 2, 2005; minutes page 4.

A macro-economic sector study identifying product categories and firms facing conformity problems in external markets, classified according to whether these problems refer to product attributes, processing methods, packaging, branding and labelling and others, was done in all three countries. The results have been used to establish "Master Plans" for each of the three countries (output 2.2). The reports for Lao PDR are of good quality and are considered as useful by the counterparts. For Vietnam, the document called "master plan" is of much less value, and is actually not a master plan. A work plan for Phase II in Vietnam must be drawn up in cooperation with STAMEQ and other stakeholders, also taking into account the priority areas identified in this evaluation.

**Output 1.3:** *Program initiated on harmonizing regional standards and developing a regional conformity assessment mechanism (defined and launched).*

The output originally foreseen in the project plan could not be achieved and had to be modified, since ASEAN ACCSQ was taking action to harmonise standards among ASEAN member states. This modification was done without prior consultation with the donor.

The output delivered under this point was the formulation of 14 priority standards for Cambodia and 6 standards for Lao PDR. Also, staffs have been trained in the area of formulating standards. The revised output was found useful by the counterparts, was however not submitted to the donor for consideration before it was implemented<sup>22</sup>. For Vietnam, no activities under this task have been reported, and it is unclear how the input of the program is linked to the current situation in the area of standardisation as described in the SER.<sup>23</sup>

Since no targets were defined for the changed objective, it is not possible to assess whether the revised output has been achieved as expected.

**Output 2.1:** *National institutions made aware of the institutional requirements for SMTQ infrastructure for industrial development and trade facilitation, and the related WTO-TBT agreements, and assistance rendered to overcome critical gaps.*

In Lao PDR, laws and decrees relating to standardisation and metrology were drafted with assistance of the project and submitted to the government. They are expected to be passed by the National Assembly by the end of 2005. UNIDO seems to have successfully advocated against decentralisation of the standardisation function to different ministries proposed by ADB, which would have been unrealistic considering the limited resources available in the country.

In Cambodia, laws and regulations for standardisation and metrology were drafted with assistance of the project and submitted to the relevant ministries. They are expected to be passed at the end of 2006 or in 2007. On the policy and legislation side, the project had significant impact and the project is on the right track to generate the expected outcomes.

For Vietnam, as a positive outcome of expert advice provided, reorganisation of STAMEQ in Vietnam (spin-off of QUATEST) is now under consideration.

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<sup>22</sup> Minutes of meeting between NORAD and UNIDO held on March 2, 2005, page 4 states: „(...) UNIDO reported that the output had to be modified, as a result of an ASEAN wide initiative.“

<sup>23</sup> SER reports 600 national standards issued, among these 25% are harmonized with international standards. It is expected to increase to 30%. The evaluation team was told that Vietnam had issued 5600 standards(!). 25 % of those are based on international standards. STAMEQ hopes to increase this number to 50% by 2010.

The evaluation team feels that the governments of all three countries are well aware on how to upgrade their resources in SMTQ and the gaps they will have to overcome. They have also taken specific action towards overcoming the shortcomings that have been identified. The expected output can be considered as fully achieved.

**Output 2.2:** Report covering the assessment of metrology and testing infrastructure in each country and recommendations and a framework to strengthen the laboratory capacities.

For Lao PDR and Cambodia, master plans focusing on reducing TBT constraints have been prepared with a detailed strategy for the development of test and metrology laboratories. As a very positive, unexpected outcome, the government of Cambodia decided to establish a common laboratory centre for all 4 laboratories under the ISC, which – through concentration of resources, certainly significantly contribute to more efficient and effective operations. The construction of a new building for this laboratory centre is under consideration and benefits from support from the highest level of the government. In the area of metrology, a very positive additional outcome was the construction of a new metrology centre by the Cambodian government (partially equipped under the project).

The master plans are detailed, relevant, and were carefully discussed with the counterparts. For Vietnam, a similar document was drafted, which however is not satisfactory, as commented above.

One weak point in the Master Plans FOR Lao PDR and Cambodia is the treatment of standardisation. This should be reworked. Lao PDR and Cambodia today have a very limited number of national standards. Their needs are in the order of several thousand (Vietnam has already 5600). Most of these are product standards, and to a large extent they can be adopted from international standards or national standards that are already in wide use in the ASEAN region. The need to develop special national standards is limited. Lao PDR and Cambodia need access to these standards and that should be an issue of priority in Phase II.

Both the Master Plans and comments from the Project Manager imply confusion between standards setting and conformity assessment. In the case of export promotion, the standards of the importing country will normally apply, and there is no need for extensive standard setting in the exporting country. However, there is a need for conformity assessment (testing, certification etc.) in order for the product to gain acceptance by the importer (and his country). In the case of protecting society from substandard or hazardous products, the situation is opposite: National standards backed by legislation are required. Conformity assessment can be organised in various ways, including recognition of foreign test reports and certificates in the case of imported products.

In the planning of Phase II these issues should receive the appropriate attention and the project design should reflect the stated objectives.

For Lao PDR and Cambodia, the expected output has been achieved. The report for Vietnam needs to be carefully amended, but this should only be done after verifying whether such a report addresses an expressed need of Vietnam. Further comments are presented in Chapter 8.

**Output 2.3:** *Around eight nationals from each country trained on ISO 9001 quality management system (QMS) and ISO 14000 EMS requirements and audit procedures and consulting skills related to setting up ISO 9000 and ISO 14000 systems.*

Lao PDR: 10 persons were trained as lead auditors for ISO9000 and ISO14000; 2 passed the examination and are qualified to be certified as lead auditors<sup>24</sup>.

For Cambodia, 10 persons were trained as lead auditors for ISO 9000 and ISO 14000; 6 passed the examination and are qualified as lead auditors.

In Vietnam, 20 persons were trained and 15 passed the examination. Re-sits were offered to the Vietnamese participants who did not pass the lead-auditor courses under the stand-alone project funded by SECO. The Associate Expert attended those follow-up courses for lead-auditors as a participant.

Unlike in Vietnam, the expected output could not be achieved regarding Lao PDR and Cambodia. This was mainly due to the lack of background, and to a certain degree language skills of the participants, which have not duly been addressed when designing the course and selecting the participants.

As an interesting addition to the quality (ISO 9000 and 14000) courses, practical advice on Quality Management has been given to a number of enterprises (in Lao PDR and Vietnam mainly state-owned). The evaluation team visited Hanoi Beer Company (state-owned), Vientiane Steel Industry Co. Ltd. Group (joint-venture between foreign partners and Lao PDR), as well as EUROTECH in Phnom Penh (a Cambodian company specializing in bottled water). All those companies considered the assistance provided by the project as very useful; however, due to the limited time, the evaluation team was not able to assess the specific impact this assistance has made. EUROTECH claimed a substantial sales increase due to their efforts to build an ISO 9000 quality management system.

Consulting on quality management at the factory level may in the future serve as role models for introduction of quality and environmental management systems, if they successfully implement ISO 9000/14000. But this aspect of the project is still in its beginning.

As a further meaningful addition output generated Training program on consulting skills related to the set-up of ISO 9001 and ISO 14001 were held in Vietnam in December 2003 and in Lao and Cambodia first part of 2005.

**Output 2.4:** *Around four nationals from each country trained on food safety (Good Manufacturing Practice, safety and Hygiene) and the HACCP food safety system setting up and auditing.*

For Lao PDR and Cambodia, 5 persons were trained in HACCP and GMP; all of them passed the exam; for Vietnam, 12 persons were trained and passed the exam.

This output has been fully achieved.

**Other outputs (not specifically defined in the project document) included the following:**

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<sup>24</sup> SER, page 14; Final Report prepared by Nigel Bauer & Associates, May 19, 2005, page 13.

- In Cambodia: As an additional output in the area of certification, a product certification scheme has been set up and national seminar held to publicise it. Also, a quality system of ISC Cambodia for accreditation against ISO/IEC Guide 62 was formulated.
- Practical consultancy to laboratories in Lao PDR and Cambodia:  
 Similar to practical consultancy at the enterprise level, a number of important laboratories benefited from practical on-site consulting, which was combined with training courses on laboratory quality management according to ISO/IEC 17025. The project has made good use of experts on mission to Lao PDR to provide those additional services. All stakeholders have been highly satisfied with the services provided.
  - In Lao PDR the Food and Drugs Quality Control Laboratory (FDQCC) received consulting on how to avoid cross-contamination, which was put into practise combined with limited funding for upgrading. Staff of DOM has been trained in dimensional, mass and volume metrology. As a very positive outcome, DOM has conducted follow-up trainings both on the central and provincial level (9 provinces were covered).
  - In Cambodia, consultancy for a food microbiology laboratory, the Department of Industrial Techniques laboratory, the laboratory of CAMCONTROL and to the Rubber Research Institute of Cambodia was provided by visiting experts. ISC and DOM Cambodia received furthermore assistance in establishing brochures and (at ISC) an annual report. Those are of excellent quality, informative, and presented in a very professional way, but they are not yet translated into Khmer. In Cambodia to, the department of Metrology conducted follow-up courses in all 12 provinces.
- Study tours in standards and metrology were provided to staff from the related government institutions of all three countries, as well as representatives from private enterprises. The study tours took into consideration the different needs of each of the country (Vietnamese participants went to Germany; Laotian and Cambodian participants visited Sri Lanka).

Vientiane Steel Industry Co, Ltd. Group

Was incorporated as a joint-venture between Lao and foreign partners. The factory is built on a plot of 124,688 m<sup>2</sup>. Manufacturing started in October 1997 and in 1999, two factories for manufacturing reinforcement steel bars with 40,000 tons per year and roofing tile with the capacity of 2,500,000 pieces per year were established. At the beginning of 2003, the second factory for producing steel bars was put into operations with a production capacity of 110,000 tons per year. In addition, a reduction furnace for melting used steel was establish in order to melt recycling steel. As the market for steel in Laos is price rather than quality-driven, the factory faces significant difficulties to compete against domestic producers that are able With assistance from the Project, the factory is currently preparing documentation in order to apply for ISO 9001 certification. ISO certification will be a prerequisite for the factory to be able to sell to major foreign-funded projects within Laos. This will be crucial for the survival of the company, once the implementation of AFTA will reduce import tariffs for competing products from AFTA countries.

The company faces challenges not only in quality management, but also in implementing labor safety standards. The production lines would also have a significant potential for cost savings by reducing energy input and could be an ideal client for the CP project implemented by UNIDO.

*Concluding remarks:*

Generally, most results were achieved as expected. In some cases the project exceeded the originally defined outputs. One Output, 1.3 [on](#) harmonising regional standards, was modified and replaced by an intervention in the area of standard formulation to account for a lack of relevance of the originally envisaged output. The evaluation team noted positively that many additions to the project plan were made by using existing resources for creating additional benefits.

- Policy advice regarding legislation and institutional development has made an impact both on the legislation and institutional side.
- Awareness rising was effective, in particular in Lao PDR and Cambodia, which started at a low level. Government commitment to further development of STMQ was clearly demonstrated during the field mission.
- Well combined training and practical consultancy in laboratories and enterprises resulted in a substantial capacity lift in all three countries. The understanding of management system thinking, both in industry and in the institutions of the quality infrastructure, is considerably improved.

EUROTECH Co. Ltd., Phnom Penh, Cambodia

EUROTECH was established as a joint-venture between a local Cambodian enterprise and foreign partners in 1993 in Phnom Penh. After several years of heavy losses, the foreign partners withdrew from the business and the company became a 100% Cambodian-invested, family-owned company. Presently, the company employs 56 workers in factory, administration and distribution.

EUROTECH has established itself as a well known local brand of bottled purified water, targeting local customers in major cities of Cambodia.

Besides the water purification process by reverse-osmosis and UV light and bottling, the company also produces containers and PET bottles. Most of the machinery was purchased in China; raw material for bottle production is imported from Vietnam and Thailand.

EUROTECH is one of the four companies in Cambodia selected to receive assistance by the project in the area of Quality Management. The owners feel that they have significantly benefited from the support the project has provided in order to help them preparing for ISO certification. The main reason for them to obtain ISO certification is for marketing purposes. According to them, an ISO 9000 certificate will make a strong selling point for the quality of their water.

In the future, they plan to build a new factory on an area of 10,000 m<sup>2</sup> in the suburbs of Phnom Penh, for which they are in the process of applying for a preferential loan from a German organisation. Eventually, they intend to expand their market to neighbouring countries, in particular the border areas of Vietnam and Thailand.

- The combined hardware and software (training, consulting) proved to be very effective. Hardware developments (in particular buildings and metrology equipment) have been boosted by a clever combination of the Norad project funding and other funding (Swiss, Austrian, Vietnamese and from national government).



- The additional outputs mentioned above added considerable value to the project, at reasonable costs. Implementation was within the overall project budget.
- Technical reporting: The evaluation team has access to the technical reports from most of the missions accomplished by the external international consultants, but not from UNIDO staff missions. The technical reports are generally of a very high standard and contain detailed information.

## **11. SUSTAINABILITY**

In Lao PDR and Cambodia, there is a crying need to continue assistance, in order to consolidate the achievements made in Phase I. Without this follow-up, most of the achievements might be lost. Also, the Governments of all three countries need to address issues related to governance, private-public partnership and the service orientation and the sustainability of the SMTQ institutions.

Concepts of corporate governance, service orientation and public-private partnership are relatively new concepts to the three countries. These have to be introduced gradually, in a planned manner as reflected in the sustainability business plans. Much remains to be done, but the counterparts have expressed their willingness and commitment to tackle those problems step by step.

UNIDO has prepared a sustainability report for Lao PDR and Cambodia, covering the standards and metrology institutions. In the opinion of the evaluation team, the report is weak on the main theme: Sustainability. In stead, the report presents a comprehensive review of the general situation and the institutions.

Two elements of the report concern sustainability: the review of personnel and the business plans. However, the personnel qualifications are not considered with reference to qualification requirements.

The business plans consist of simple budgets that indicate that the institutions will be financially sustainable – provided the assumptions are valid. But there is no discussion of the assumptions, which are critical, in particular on the revenue side.

There is no comment of the significance of Phase II for sustainability.

The evaluation team considers the prospects for sustainability of outputs as very good for all countries, but in the case of Lao PDR and Cambodia only if Phase II is implemented. In the case of Vietnam, the outputs would be sustainable even if Phase II is not implemented.

In Lao PDR and in Cambodia, the development is currently in a critical phase. Certain basic developments have taken place in the two-year project period. The staff is being developed, new equipment is being procured, new buildings have been built or are under construction or planning, and new organisations are established and will be implemented. New legislation has been drafted, but not yet approved. The economy is vulnerable.

In a situation like this, continuity is of paramount importance. The risk for relapse will increase with the duration of a break between phases. This is the background why the evaluation team not only recommends a continuation into Phase II, but also that surplus funding available as

explained in Chapter 6, is made available to UNIDO to bridge the gap between Phase I and II.

## **12. CONCLUSIONS**

1. The project addresses important needs for the target countries. It is highly relevant for including the countries in international economic development and trade, and thus contributes to domestic poverty alleviation.
2. In addition to the stated objectives, the project contributes to protect the population against substandard or even hazardous products, of domestic origin or imported.
3. The original project formulation in the Project Document was schematic. In the inception phase, the project was modified to meet each country's needs in a participatory manner and with satisfactory results.
4. The regional approach in this case is questionable. Similar benefits could be obtained by three parallel national projects, while avoiding the negative consequences of the regional approach.
5. All counterparts and beneficiary institutions have demonstrated excellent ownership of the project.
6. All the planned activities have been implemented, with the exception of one (related to regional standardisation). Only small delays, compared to the original time schedule, have occurred, and these have been caused by circumstances beyond UNIDO's control.
7. The project has given important results such as effective awareness creation, a substantial capacity lift through training programmes, development of metrology and testing laboratories, developing role models for management systems in industry. Technical reporting is of a high standard.
8. There are substantial synergies with other projects with similar objectives. These opportunities have been cleverly utilised by UNIDO, but financial transparency is lacking.
9. The results in Vietnam are in most cases considered to be sustainable, while Lao PDR and Cambodia are in a critical phase. If there is no continuation after Phase I closes in July 2005, a considerable relapse must be expected.
10. The proposed Phase II of the project is recommended. As a basis for the decision to proceed, a specific project plan should be developed, based on the master plans for Lao PDR and Cambodia and the recommendations in this report.
11. Project management represents important opportunities for improvement. The project structure at the outset makes financial control difficult, except on the top project level. Progress reports are very brief and incomplete. Financial reporting is sketchy and in the opinion of the evaluation team extremely weak.

### **13. RECOMMENDATIONS**

1. The project should continue with Phase II. We also recommend that the surplus funds from exchange rate gains and interest are released and used to ascertain continuity in the developments until Phase II is launched.
2. Phase II should be designed as national components for each of the three countries, addressing particular expressed needs; regional support in the framework of ACCSQ should be considered.
3. Expected outputs, impact, and outcomes should be precisely defined and the relation established at component/subcomponent level. Define success indicators for each component, aligned with a sustainability strategy.
4. Consumer protection, in particular related to food safety, should be included into the objectives of Phase II, in addition to the main export promotion objective of the project.
5. Use the master plans for Lao PDR and Cambodia as a basis for Phase II, but revise the section on standardisation. The so-called master plan for Vietnam needs to be entirely revised in consultation with STAMEQ before drafting a project plan for Phase II.
6. Standards: No further intervention in Vietnam is recommended; support Lao PDR and Cambodia in accessing ISO and IEC standards; continue consultancy support to Lao PDR and Cambodia.
7. Metrology in Lao PDR and Cambodia: Continue providing consultancy, training and upgrading of facilities with main focus on Lao PDR and Cambodia; assist the beneficiary countries in developing proposals for hardware upgrading to other bilateral and multilateral donors. Particular attention should be paid to the newly established Cambodia National Metrology Centre within the ILCC and the new metrology laboratory in Lao PDR. Maximize the utilisation of expertise of Vietnam to assist Lao PDR and Cambodia.
8. Metrology in Vietnam: Phase II should focus on selected interventions with highly specialised, tailor-made advice, combined with attachment training abroad. The possibility to extend the scope to chemical metrology and acoustic and vibration parameters should be explored. Reference laboratories and participation in international proficiency testing for microbiology as well as regional industrial metrology (high level calibration services) should be promoted.
9. Testing: The main focus should be on Lao PDR (support to FDQCC and PPC) and Cambodia (support to the implementation of ILCC). Vietnam is capable of providing attachment training for Lao PDR and Cambodia in some fields of testing. In Vietnam, continue ISO/IEC 17025 training and provide limited consultancy support to STAMEQ in re-organising testing.
10. Certification: Support development of product certification, combined with legislation related to potentially hazardous products. NB: The same requirements must apply to domestic as for imported products.

11. For management system certification, Lao PDR and Cambodia will – at least in the medium term - depend on foreign certification bodies. A scheme for financial support to certification should be considered. For Lao PDR and Cambodia, consulting and training should be continued. Vietnam has already an accredited certification body and no further intervention is recommended.
12. Accreditation: In Vietnam, continue consultancy and training in specialised areas, including attachment training. In Lao PDR and Cambodia, consider contributing to the costs of accreditations, as laboratories become ready to fulfil the requirements.
13. Management systems: Provide national rather than regional training courses in ISO 9000, ISO 14000, HACCP and possibly SA8000 at a level appropriate to national conditions. Include interpretation in training sessions and translation of documents. Continue providing training in the area of quality management, in Vietnam concentrating on the “train-the –trainer” approach.
14. In the area of quality management, follow-up courses should be provided to persons who have already been trained as lead auditors, trainers or consultants in order to deepen and strengthen what they have learned during Phase I and to prevent immature advice.
15. Project management: UNIDO should review its project management system and improve or revise it in line with modern international practice for project management. The project plan should be broken down in components and sub-components and each element monitored with respect to outputs, schedule and inputs, including cost. The reporting system needs to be strengthened. The new system should be agreed with donors.

#### 14. LESSONS LEARNED

1. **Regional approach:** Should build on already established frameworks of cooperation within the field of the project. For south-east Asia, ASEAN and AFTA would be the natural economic cooperation framework. When a regional approach is chosen, national conditions should be thoroughly accounted for. The cost savings in regional programmes may be realized through parallel country project or components. Regional project management modality should be developed as agreed with the target countries before project implementation starts.
2. **Training courses and study tours:** should be based on country-specific training needs. Participants should be selected based on their verified level of competence. In order to achieve a multiplier effect, particular attention should be paid to the participant’s willingness and ability to train others (“train-the-trainer” approach). Lack of language skills should be addressed by providing translation of documents and interpretation. National training courses rather than a single regional course may prove to be advantageous.
3. **Combining hardware and software provision:** Integrated hardware and software inputs create synergies. Interventions that combine the provision of equipment with

training and consulting have proven to be highly effective. This approach should be continued.

4. **Support countries in calling for international assistance:** UNIDO should utilize its professional competence to convince and give confidence to other donors in supporting highly technical programmes. Creating linkages between different interventions funded by different donors but implemented by UNIDO and its counterparts has proven to be a highly effective approach.
5. **Project Management by UNIDO:** UNIDO should strengthen its capacity in professional project management. The structure of projects by definition is task oriented. Components and sub-components must be defined. Functions and responsibilities should be clearly assigned. Missions of UNIDO staff members should be carefully planned and always add value to the project. Reporting should be informative and transparent.
6. **Sourcing of equipment by UNIDO:** Equipment that is readily available in beneficiary countries and is not of high value should – whenever possible - be sourced locally, in order to avoid problems relating to warranty services and maintenance. Local sourcing might require that precautions are taken in order to ensure that local procurement is in compliance with UNIDO rules.
7. **Evaluations should be carefully planned:** The necessary arrangements, including the selection of National Consultants and preparation of documentation the team is expected to review should be made early enough to allow sufficient time for the evaluation team to prepare. In order to be able to contract highly qualified candidates for future evaluations. Their remuneration should be close to the local market conditions for similar assignments. Changes in UN practice may be required.
8. In projects of this nature, **start by defining the user needs**, based on priority business sectors. Formulate objectives and activities that support the objectives. Indicators should be developed for each output.

DATE: 20 May, 2005

**Terms of Reference**  
INDEPENDENT EVALUATION of  
PROJECT in the Mekong Delta Region (TFRAS02003)  
covering the three countries of Cambodia, Lao PDR and Vietnam

**1.0 The independent evaluation**

Independent project evaluation is an activity carried out during and/or at the end of the cycle, which attempts to determine as systematically and objectively as possible the relevance, efficiency, achievements (outputs, outcomes and impact) and sustainability of the programme. The evaluation assesses the achievements of the programme against its key objectives, as set in the Programme document, including re-examination of the relevance of the objectives and of the design. It also identifies factors that have facilitated or impeded the achievement of the objectives.

**2.0 Purpose**

The purpose of the Mekong Delta Region (TFRAS02003) project independent evaluation is to enable the Government, UNIDO and donor:

- To assess the efficiency of implementation: quantity, quality, cost and timeliness of UNIDO and counterpart inputs and activities.
- To assess the outputs produced and outcomes achieved as compared to those planned and to verify prospects for development impact.
- To provide an analytical basis and recommendations for the focus and (re) design for the continuation of the programme under a Phase II.

The evaluation is conducted in compliance with UNIDO evaluation policy.

**3.0 Project Background**

The Mekong Delta Regional project covers the three countries of Cambodia, Lao PDR and Vietnam. The project objective is to "facilitate industrial development and export capabilities (and consequently spurring economic growth and employment opportunities) of the assisted countries by reducing technical barriers to trade through the strengthening of standards, metrology, testing and quality institutional structures and national capacities".

The three countries have varying assistance needs in this regard and the project has paid due attention to this fact. Of the three, only Cambodia has become a WTO member. This membership is dependent upon Cambodia meeting requirements in the SMTQ area. Vietnam is applying for WTO membership in 2006 and Lao PDR has the desire to do so in the foreseeable future.

This first phase of the project focused on infrastructure mapping and needs assessment for laying the foundation of SMTQ infrastructure in the three countries. Resulting from the identified inadequacies, implementation has been concentrated in the areas of policy development, awareness creation and knowledge enhancement.

It is planned for synergetic effects between projects to be derived in the years to come. Synergies have, however, already been established with The World Bank and bilateral donors (Switzerland and Austria for the Vietnam and Cambodia stand alone projects).

Reproduced below is the financial picture of the project as of the day that the TOR was prepared:

As per Original Project Document	Expenditure	Percentage %
(in United States dollars)		
<b>804,000</b>	<b>804,000</b>	<b>100%</b>

#### **4. Method**

The evaluation will be carried out through analyses of various sources of information including desk analysis, survey data, interviews with counterparts, beneficiaries, partner agencies, donor representatives, programme managers and through the cross-validation of data. While maintaining independence, the evaluation will be carried out based on a participatory approach, which seeks the views and assessments of all parties. The evaluation will make use of the results of previous evaluations, including the evaluation of IP Vietnam completed in March 2005.

#### **5. The Evaluation will Address the Following Issues:**

##### **5.1 Relevance and Ownership**

The extent to which:

- The component was formulated with participation of the national counterpart, and/or target beneficiaries, in particular the industrial stakeholders.
- The counterpart(s) has/have been appropriately involved and were participating in the identification of their critical problem areas and in the development of technical cooperation strategies, and are actively supporting the implementation of the project.
- Changes of plan documents during implementation have been approved and documented.

##### **5.2 Efficiency of Implementation**

The extent to which:

- UNIDO and Government/counterpart inputs have been provided as planned and were adequate to meet requirements as per the project document objectives
- The quality of UNIDO services (expertise, training, equipment, methodologies, etc) were as planned and led to the production of outputs

##### **5.3 Effectiveness of the Project**

Assessment of:

- The relevance of the outputs produced and how the target beneficiaries use these outputs.
- The outcomes, which have been or are likely to be realized through utilization of outputs.

##### **5.4 Impact**

Identify what developmental changes (economic, environmental, and social) at the target beneficiary level (industry) have occurred or are likely to occur.

##### **5.5 Sustainability**

- Assess the ability of the governments and institutions to independently continue the processes or the operations resulting from the outputs of the project (manpower, know-how, financial situation, market environment, etc)
- Identify the risks associated with independent operations and prepare recommendations to overcome major risks (if present).

## 5.6 Synergy Benefits

The extent to which there is synergy:

- Between the regional project being evaluated and the two complimentary stand alone projects in Vietnam and Cambodia
- Between the regional project being evaluated and related technical assistance projects in the region
- With related bilateral and multilateral programmes focussing on the Doha Development Agenda and the WTO TBT and SPS agreements.

## 6.0 Evaluation Time Frame

Date	Place	Assignment
April	Vienna	Preparation of Self Evaluation Report (SER)
May 31- June 3	HB	Desk analysis of background documents
June 6-7	Vienna	Briefing of Evaluation Team
June 8		Ivar Foss Depart for Hanoi
June 9-11	Hanoi, Vietnam	Field mission to counterpart in Vietnam (STAMEQ) to obtain supportive information, draw conclusions and prepare preliminary recommendations. Visits to labs supported under the Vietnam stand-alone project and to actual and/or potential beneficiary companies.
June 12	Depart for Lao PDR	Vientiane
June 13-14	Vientiane, Lao	Field mission to counterpart in Lao PDR (STEA) to obtain supportive information, draw conclusions and prepare preliminary recommendations.
June 15	Depart for Cambodia	Phnom Penh
June 15-19	Phnom Penh, Cambodia	Field mission to counterpart in Cambodia (ISC and Dept of Metrology – under MIME) to obtain supportive information, draw conclusions and prepare preliminary recommendations. Visits to labs supported under the Cambodia stand-alone project and to actual and/or potential beneficiary companies.
June 19		Daniel back to Hanoi Ivar to Vienna
June 20	Vienna	Presentation of draft conclusions and recommendations with UNIDO HQ and the donor. (Subject to Oslo final confirmation)
June 22-29	HB	Report writing

## 7.0 Composition and Requirements of the Evaluation Team

The evaluation team will be composed of the following:



- UNIDO Expert Daniel Keller
- Norad Expert Ivar Foss
- Government nominated representatives from each country, well acquainted with industry-relevant institutional framework of the country will participate in their respective segments of the mission.

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

The member of the evaluation team who is not staff member of UNIDO, as well as the national evaluation experts will be contracted by UNIDO. Norad will contract the other non-UNIDO evaluation team member.

UNIDO Field Office will support the evaluation team for the segment in Vietnam.

## List of Organisations visited and people met

Date/Time	Description	Venue
<b>Thursday, 9.6.</b> 16.00 – 17.30	<b>VIETNAM</b> Mr. Phillippe Scholtès, UR and UCO team	UNIDO Hanoi, 72 Ly Thuong Kiet, Hanoi Tel: 8224490
<b>Friday, 10.6.</b> 09.00 - 11.00	STAMEQ Dr. Ngo Tat Thang, Director, Ms. Nguyen Thu Ha, Vice Director and Ms Nguyen Thi Thanh Van, Senior Officer, International Cooperation Department, STAMEQ Mr. Ngo Manh Am, Director, Quality Assurance and Testing Center 1, STAMEQ Dr. Vu Khanh Xuan, Director, Vietnam Metrology Institute, STAMEQ	STAMEQ, 8 Hoang Quoc Viet, Hanoi (Ms Van: 0904128185)
11.00 - 12.30	Mr. Vu Xuan Thuy, Vice Director, Bureau of Accreditation, STAMEQ	STAMEQ, 8 Hoang Quoc Viet, Hanoi
14.00 - 15:30	Mr. Nguyen Dac Loc, Vice Director and Mr. Nguyen Manh Hung, Head of Planning and Cooperation Section, Vietnam Metrology Institute, STAMEQ	STAMEQ, 8 Hoang Quoc Viet, Hanoi (Ms Van: 0904128185)
15.30- 17.00	Mr. Ngo Manh Am, Director, Quality Assurance and Testing Center 1, STAMEQ	STAMEQ, 8 Hoang Quoc Viet, Hanoi
<b>Saturday, 11.6.</b> 9.00 - 10.30	Ms. Ngo Thi Viet Hoa - Member of Board of Management, Mr. Pham Trung Kien, Head of Technology and Quality Control Department and Ms. Nguyen Thu Hien, Quality Assurance Department, Hanoi Beverage Corporation	Hanoi Beverage Corporation 80 A Hoang Hoa Tham Str.
<b>Monday, 13.6.</b> 09.00 – 12.00	<b>LAO PDR</b> Prime Minister's Office Science, Technology and Environmental Agency Mr. Nheune Sisivad, Director General Mr. Soumana Choulamany, Director Standard Quality Div. Mr. Sisomphet Nhoibukong, Deputy Director General	Phone: +856 21 219 002 Fax: +856 21 213 472 Email: nheune_sisivad@yahoo.com
13.30 – 14.30	Visit construction site National Metrology Centre	
14.30 – 15.30	Ministry of Health Food & Drugs Quality Control Centre (FDQCC) Mrs. Souklatsamy Vongsack, Director Mr. Thongvang Ratsavong, Deputy Director	Khouvieng Road, Vientiane Phone: +856 21 243 379 Fax: +856 21 217 503 Email: <a href="mailto:fdqcclao@laotel.com">fdqcclao@laotel.com</a>
16:00 – 17:00	Agricultural Inputs Laboratory, Plant Protection Centre Dr. Olayvanh Singvilay, Director	
17:00 – 18:30	Dr. G.M.S. de Silva, Chief Technical Adviser Standardisation and Metrology Projects TF/RAS/02/003 and US/CMB/02/114 UNIDO	24, P.B. Alwis Perera Mawatha Katubedda, Sri Lanka Tel/Fax: +9411 260 73 06 <a href="mailto:quantum@sltnet.lk">quantum@sltnet.lk</a>

<p><b>Tuesday, 14.6</b> 09.00</p>	<p>Vientiane Steel Industry Co. Ltd. Mr. Chanthon Southivong, Deputy Director Mr. Sonesavanh Soukdala, Technical and Quality Control Manager</p>	<p>No. 087/12B Salakham Km 11 Thadeua Road Hat Xai Fong District, Vientiane Tel: +856 21 812 089 Fax: +856 21 812 098</p>
<p>11.00 - 12.00   13.30 - 14:00  15.00 - 16.30</p>	<p>Mekong River Commission Mr. Boriboun Sanasisane, Director of Natural Resources Development Planning Division  Prime Minister's Office, Technology and Environmental Agency H.E. Dr. Maydom Chanthanasinh Vice-President of Science  Wrap-up meeting: Mr. Nheune Sisavad, DG of DISM; Mr. Sisomphet Nhoibouakong, Deputy DG of DISM; Mr. Soumana Chounlamany, Director of Standard and Quality Division; Mr. Chanthon Southivong, Deputy Director of the Vientiane Steel Industry Co., Ltd; Mrs. Souklatsamy Vongsac, Director FDQCC; Dr. Olayvanh Singvilay, Director Agricultural Input Testing Lab; Dr. Kheungkham Keonouchan, Head of UNIDO Operations in Lao PDR, Dr. G.M.S de Silva, CTA; evaluation team.</p>	<p>184 Fa Nguom Road, Unit 18 Ban Sithane Neua, Sikhottabong, Vientiane Phone: +856 21 263 263 Fax: +856 21 263 264 Email: <a href="mailto:boriboun@mrcmekong.org">boriboun@mrcmekong.org</a> Phone: +856 21 217 705 Fax: +856 21 213 472 Email: <a href="mailto:Maydom@stea.gov.la">Maydom@stea.gov.la</a>  DISM</p>
<p><b>Wednesday, 15.6.</b> 15.00 - 17.00</p>	<p><b>CAMBODIA</b> Department of Industrial Standards (ISC) under Ministry of Mining and, Industry (MIME) Mr. Ping Sivlay, Director; Mr. Chan Boring, Deputy Director; Mr. Yem Narith, Information and Communication Office; Mr. Chan Sopha, Head of Industrial Standard Development Office; Mr. Seng Chhang, Head of Management Systems Certification Office; Mr. Chheng Uddara, Head of Product Standards Certification Office.</p>	<p># 45, Preah Norodom Blvd Phnom Penh, Cambodia. Mobile: 855 -12 - 929 522 Fax: 855 - 23 - 216 086 E-mail: <a href="mailto:discinfo@camnet.com.kh">discinfo@camnet.com.kh</a></p>
<p><b>Thursday, 16.6.</b> 09.00 – 11.00</p>	<p>Ministry of Industrial, Mines and Energy (MIME), Department of Metrology and National Metrology Laboratory (DOM) Mr. Hou Leng, Deputy General Director of the Department of Industry under MIME; Mr. Ho Kadeb, Director of DOM; Mr. Meas Phon Deputy Director DOM; Mr. Sok Narith, Head of Administration Office; Mr. Sea Kimhoun, Mr. Chau SETHA, Mr. Seng Touch</p>	<p># No 205, National road 5, Sangkat Km 6, Khan Russey Keo Phnom Penh, Cambodia Mobile: 855 - 12 - 813 979 Tel/Fax: 855 - 23 - 426 603/ 428 263</p>
<p>11:00 – 12:30</p>	<p>Ministry of Commerce, CAMCONTROL, Laboratory Mr. Klauk Choun, Deputy Director; Mr. Klauk Choun, Head of SPS Office; Mr. Saroeun Kessara, Deputy Head of SPS Office; Mr. Pich Chan, Deputy Head of SPS Office; Mr. Chea Ekchim, Deputy Head of SPS Office; Mr. Phueng Ban, Officer.</p>	<p>#50 Eo, 144 Street Phnom Penh Cambodia Fax/Phone: +855 23 42 61 66 Email: <a href="mailto:camcontrol@camnet.com.kh">camcontrol@camnet.com.kh</a></p>

14.00 – 14.30	Ministry of Industrial, Mines and Energy (MIME), Laboratory of the Dept. of Industrial Techniques, (part of future ILCC)  Mr. In Sambo, Head of Office; Mr. Heng Chysin, Vice- Head of Office; Mr. Teng Vanddarit, Officer (Chemical Engineer).	# 45, Preah Norodom Blvd Phnom Penh, Cambodia. Phone: +855 23 428 263 Fax: +855 23 428 263 <a href="mailto:vannarith@yahoo.com">vannarith@yahoo.com</a>
15:00 – 16:30	Ministry of Agriculture, Rubber Research Institute of Cambodia (RRIC)  Mr. Yin Song, Director; Mr. Chhe Pitou, Deputy Director of in charge of Quality Management; Mr. Hun Kimsan, Chief of laboratory specification and technical manager; Mr. Kim Chandy, Deputy Quality Manager of testing laboratory.	9 Blvd Penn Nouth Phnom Penh, Cambodia Phone: +855 23 882 830 Fax: +855 23 882 831 Email: <a href="mailto:rricam@online.com.kh">rricam@online.com.kh</a>
<b>Friday, 17.6.</b> 09.00 – 10.00	Ministry of Industry, Mines, and Energy (MIME) Mr. Keo Rottanak, Director of Minister's Cabinet and Deputy Director General of Industry	# 45, Preah Norodom Blvd, Phnom Penh, Cambodia. PO Box: 116, Phnom Penh, Cambodia Mobile: 855 -12 - 803 978 Fax: 855 - 23 - 428 263 E-mail: <a href="mailto:rottanak@online.com.kh">rottanak@online.com.kh</a>
10.30 – 12.00	EUROTECH Co, Ltd, Cambodia  Ms. Van Luy, Director; Mr. Theang Thai, Production Manager; Mr. Thai Vantha, Marketing Manager and Manager in charge of ISO certification.	No 3 CDE Street 230 S.K. Toul Kork Phnom Penh, Cambodia Phone: +855 23 300 292 Fax: +855 12 770 292 Email: <a href="mailto:eurotech@mobitel.com.kh">eurotech@mobitel.com.kh</a>
16.00	Participants of Final Wrap-up meeting  Mr. HOU LENG, Deputy Director, General Department of Industry; Mr. CHAN BORIN, Deputy Director ISC; Mr. HO KADEB, Director of DOM; Mr. SOK LENG, Deputy Head of Development of Industrial Standards Office (ISC); Mr. CHAN SOPHA, Head of Industrial Standard Development Office (ISC); Mr. CHHENG ULDARA, Head of Product Standards Certification Office (ISC); Mr. TOM PENVIRAKVITOU, Staff, ISC; Mr. HOUT BUN CHHEANG, Deputy Head of Administration Office, ISC; Mr. MAO THIRA, Deputy Chief Product Certificate Office (ISC); Mr. YEM NARITH, Chief of Information and Communication Office (ISC); Mr. SENG CHHANG, Head of Management Systems Certification Office (ISC); Mr. KIM KEOMARA, Deputy Chief of Laboratories (ISC); Mr. MEAS PHON, Deputy Director DOM; Mr. SOK NARITH, Chief of Administration Office (DOM); Mr. SENG TOUCH, Vice-Head of Office; Mr. CHAU SETHA, Vice Head of Office; Mr. KIM CHANDY, Deputy Quality Manager of testing laboratory, Rubber Research Institute of Cambodia (RRI); Mr. HUN KIMSAN, Chief of laboratory specification and technical manager (RRI); Mr. THAI VANTHA, Marketing Manager and responsible of ISO certification, EUROTECH Co, LTD Cambodia.	At the ISC