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June 1992

END REVIEW MEETING

P 90/5 PROJECT N° : US/THA/88/238

STRENGTHENING OF THE THAI INDUSTRIAL STANDARDS INSTITUTE  
IN THE FIELD OF CALIBRATION, STANDARDIZATION  
AND QUALITY CONTROL.

The present report concludes the series of activities carried out under the project p 90/5, n° US/THA/88/238 : Strengthening of the Thai Industrial Standards Institute in the field of calibration, standardization and quality control.

It consists of the following :

A) Progress of the project.

This section is in fact a summary of all the activities which have been carried out under the project.

B) Project Performance Evaluation Report.

This section relates to the report written on February 1992, by UNIDO, on the Project.

C) Recommendations.

This sections deals with the proposal for a follow-up assistance, as made by UNIDO, and comments on it.

It includes also in appendix, a list of people attending the meeting of June 11, 1992, a revised draft proposal for follow-up assistance and a copy of the letter sent by TISI to CERLAB concerning TISI's appreciation on the project.

## A) PROGRESS OF THE PROJECT

During the meeting held in TISI on June 11, 1992, Mr Verdonck, Administrator of CERLAB presented to TISI staff, DTEC representatives, UNIDO backstopping officer and UNIDO representatives in Bangkok the progress of the project. One can find hereafter the summary of his presentation.

### Activity 1 : Preliminary mission.

This one week mission has been carried out by Mr Verdonck, from April 23 to 29, 1990. During that mission, it appeared necessary to reorient some of the activities, either because of a misunderstanding of the content of some actions (information center), or because of the delay between the establishment of terms of reference and the starting date of the project (accreditation system). A report of that mission has been sent to TISI and to UNIDO.

### Activity 2 : Metrology Laboratory.

The two week mission has been carried out by Mr Priel and Mr Erard, on February and March 1991 in Thailand. This mission aimed at the evaluation of TISI's needs in calibration, based on the examination of the list of test equipment of TISI, and on the list of reference standards already available in its calibration laboratory. The mission report which was forwarded to TISI and UNIDO, included a list of equipment (with two priority levels) to be purchased in order to set up a calibration laboratory within TISI.

The recommendations dealt also with the metrological organization of this laboratory, so as to comply with the ISO/IEC guide 25. Particularly the problem of traceability of standards was underlined, as well as the calibration procedures. Proposals were made also concerning training. Two 2 month training sessions abroad were proposed for 2 Thai engineers in the fields of mechanics and thermals measurements and of electrical and photometry measurements. One seminar on the uncertainty of measurements was also proposed, to be conducted by 2 experts for one week. Finally a further expertise seemed to be necessary for the traceability in chemistry, and in that respect, it was proposed to have one expert for 10 days in Thailand.

Activity 3 : Information center on foreign standards and technical regulations.

A three week mission has been carried out by Mr Kain in Thailand, from June 22 to July 12, 1990. It dealt with

the evaluation of the possible solutions for delivering adequate services to the Thai industries, so as to help them to export. Two basic solutions were discussed, and their combinations : an integrated system into a unique organization, or a coherent network constituted of several organizations.

These solutions, and a Thai proposal called TECOMEX (Technical Conformity for Export), were described to the different Thai organizations which were to be involved in that activity. It appeared that there was a real need in that field and that a solution was to set up a network to help Thai companies to solve technical problems at export.

During that mission, Mr Kain also participated to the selection of candidates for a training in France. Four were preselected out of eight, and a ninth one was audited in Paris. The report of the mission clearly summarize the discussions held during the different meetings. It has been sent to TISI and UNIDO.

A second step consisted in the training in France of two engineers : Mr Lertchai, for 5 months, in the field of technical help for exporters (monograph studies, especially on Thai products exported in Europe, Japan or USA, studies of European set of directives and standards, knowledge of European institutions and of national standardization and testing bodies, ...), and Miss Tapanee, for 3 months, in the field of information center (assessment of facilities needed, knowledge of data banks, ...).

The last step of that activity is a three week mission which will be carried out by the end of June 1992, by Mr Wendling.

#### Activity 4 : Laboratories accreditation network.

A first three week mission has been carried out in Thailand by Mr Sorro, from July 2 to 20, 1990. The aim of that mission was to improve the TISI laboratory accreditation system which had been created in 1988. Mr Sorro paid a visit to 13 laboratories (6 of them having been accredited by TISI), examining their quality organization according to ISO/IEC guides 54, 55 and 25, and looking in details at the procedures and technical assessments used by TISI for the accreditation.

The assessment shew that some improvements were possible or necessary, such as the necessity of liaison between the calibration of test equipment and the accreditation of the laboratory itself, or the need for

written procedures (quality manual) even for the training of assessors.

Moreover during his mission, Mr Sorro delivered two speeches, the first one for TISI staff on the European situation for calibration and testing, and the other one for an audience of 80 people on the quality organization of a laboratory.

The report of Mr Sorro's mission has been sent to TISI and UNIDO, making proposals for the establishment of sectorial committees, and strongly supporting the proposal of having only one system for the accreditation of laboratories in Thailand, especially with the aim of negotiating recognition agreements with similar organizations from abroad. In that respect, it proposed that the best national testing competences participate actively to the TISI accreditation system.

Two one week training sessions have then been organized in Thailand by Mr Heinis, from November 4 to 16, 1990. It consisted of laboratory assessors training courses (4 days each) attended by two groups of 10 participants and some observers. Theory of assessments and case studies were the basis of these training courses. A report of those sessions has been sent to TISI and UNIDO.

Another two week mission dedicated to audits of Thai laboratories has been carried out by Mr Heinis on April 1991. It consisted of assessment simulations (4 days each) and of discussion about TLAS quality system. A report has been sent to TISI and UNIDO.

Finally a two week mission, consisting of joint auditing of three electrical laboratories was carried out by Mr Truffert, on February 1992. 13 assessors participated to these audits. During that mission, an assessment of conformity of TLAS with ISO/IEC guides 54 and 55 was also made. One can note the appreciation of the expert concerning the at present capacity TLAS and TISI staff to give pertinent comments on the international scene in that field of laboratory accreditation (see comments on ISO/CASCO last proposal).

#### Activity 5 : Study tour of TISI officials

A study tour for three TISI officials has been organized from June 9 to 24, 1991. These delegates (Mr Surasak, Mr Virat and Mr Udom) visited the main bodies involved in quality, certification, testing and

standardization in France and in Spain. They were accompanied by the Secretary General of TISI during the first week.

#### B) REPORT ON P. P. E. R.

Mr Stephens, UNIDO backstopping officer, said that an evaluation of the project has been carried out by Mr Goubet (from France). A report of that evaluation has been sent to TISI, DTEC and CERLAB. It includes a Project Performance Evaluation Report (P. P. E. R. ), even if formally there is no need for such a document because the project is not funded by UNDP but by France. Nevertheless P. P. E. R. has proved to be a good and complete procedure of evaluation.

All the objectives of the activities have been reached, to the satisfaction of UNIDO, TISI and DTEC.

Mr Stephens reported also on the recommendations made by Mr Goubet for a follow-up of this project concerning an assistance to Thai industry in the field of technical barriers to trade.

Mr Pongwattana, from DTEC, also said that he appreciated that the objectives of the project had been achieved, that experts provided by CERLAB were very high skilled and delivered updated and relevant informations, and that the project contributed to make TISI closer to the industry.

Mrs Kanya Sinsakul, from TISI, recognized that the project has been carried out very efficiently and with a smooth implementation. She said that Thailand is an export-oriented country, with main markets located in Japan, USA, Canada and Europe, and that standardization becomes a more and more important aspect for trade. According to her, two means have to be promoted for the increase of exports : testing and more precisely its recognition, and certification, and here too, its recognition.

In this respect, and as the national body in charge of certification, TISI has followed the international trend, trying to implement programs on ISO 9.000 and on laboratory accreditation.

Moreover, as Europe was enforcing the single European market, there was a need for TISI to be well aware about this evolution.

These considerations show that the implementation of the project came at the right time, with three main activities, i.e. laboratory accreditation, technical help for exporters, and in-house calibration.

Apart from these considerations, Mrs Kanya Sinsakul underlined that ASEAN was developing, since January 1992, an ASEAN free trade area, which meant a liberalization of trade within ASEAN and the need to consider programs on standards. The project has no doubt strengthened TISI, and will allow this organization to play a key role in the region.

Concerning laboratory accreditation, TISI has proposed the creation of a National Committee, in order to avoid any possible duplication with Department of Science Service in the field of metrology. But at the present time, TISI has already involved DSS in TISI laboratory accreditation system through its participation in sub committees. Moreover the accreditation system allows now TISI to delegate more routine tests to accredited private laboratories.

### C) RECOMMENDATIONS

Mr. Ken Stephens reported on the proposal for a follow-up assistance made by Mr Goubet. This proposal seemed to be limited to two industrial sectors, namely textile and electricity/electronics, but there were maybe others industrial sectors of interest.

He said that there was probably some follow-up to forecast also in the field of calibration, such as the organization of fellowships.

Mrs Kanya Sinsakul was very interested in developing a further cooperation especially for technical help for export, and she thought that if it were necessary to limit the follow-up assistance to some sectors, it should be better to focus on industrial sectors where some problems exist at export, such as electrical products, rubber products, food products... in the field of safety, health and environment. The textile sector is for sure one of the first at export, but it is not facing technical trade barriers.

Technical help for export is a high priority for TISI, and the other cooperation projects, such as the ASEAN/EEC project, do not deal with that. On the contrary, she said that for the development of the information center, TISI will be equipped through this ASEAN/EEC project.

Regarding laboratory accreditation, TISI laboratory accreditation system has much improved, and can be considered as one of the leading systems in ASEAN. But in the view of creating a National Committee, she thinks that there is a need for training in Thailand some more assessors. Regular audits of the system are also necessary.

She said lastly that as environment becomes more and more sensitive in the world, and as it may have some impact on the development of international trade, TISI would like to focus on this matter.

Mr Verdonck was sharing the points of view of Mrs Kanya Sinsakul concerning the interest of further developing the cooperation on technical help for export, proposing that the training sessions for Thai people in France be longer than three months, and he suggested six months taking into account the previous experience of the project.

Mrs Kanya Sinsakul, as well as Mr Pongwattana, forwarded their thanks to the French Government for having financed through UNIDO this project.

Mr Ken Stephens warmly thanked also the French Government for its contribution.

As to the request of DTEC regarding the possibility of finding financial contribution for the development of this follow-up assistance, Mr Ken Stephens said that its main concern was to have a good project, i.e. of good quality. If so, there is no much doubt that donor countries will be found.

Mr Verdonck said that, as the project has been financed by the French Government, he will report to the French Ministry of Foreign Affairs about the progress of the project and about the proposal of follow-up assistance.



June 11, 1992

List of persons  
attending  
the end-review meeting

Mr. Nills RAMM-ERICSON	Country Director	UNIDO
Mr. Johan NELIS	Programme Officer	UNIDO
Mr. Ken STEPHENS	Backstopping Officer	UNIDO
Mr. Pongwattana CHAROENMAYU	Programme Officer	DTEC
Miss Amporn SAKORNWASEE	Programme Officer	DTEC
Mrs Kanya SINSAKUL	Deputy Secretary General	TISI
Mr. Surasak ASAVADORNDEJA	Standard Division Director	TISI
Miss Suwanee KETSAYOM	Foreign Relations Officer	TISI
Mrs Supasinee SOMBUTTAWE	Foreign Relations Officer	TISI
Mrs Onanong SOOKMI	Foreign Relations Officer	TISI
Miss Tapanee SONTIRATANA	Standards Officer	TISI
Miss Wipa MEKASUT	Standards Officer	TISI
Mr. Lertchai RATANA ARPORN	Engineer	TISI
Mr. Virat AJA APISIT	Engineer	TISI
Mr. Nithasn SISILASPYOS	Engineer	TISI
Mr. Somruay HARINASUTA	Certification Division Director	TISI
Mr. Jacques VERPONCK	Administrator	CERLAB

15 June, 1992

**Revised draft proposal for follow-up assistance****TITLE**

**Assistance to Thai industry in the field of technical barriers to trade**

**IMMEDIATE OBJECTIVE**

To improve the capacity of the Thai industry, more particularly the electrical appliances, the rubber products and the food products industries, to adapt its production to foreign standards and technical regulations, in order to promote export.

**OUTPUT 1**

To sensitize managers from the Thai industry to the importance of technical barriers to trade, and to inform them about the possibility of helping them to solve these technical problems at export.

**ACTIVITY 1.1**

Organization of two one day seminars in each sector, with the assistance of international experts and the support of the Federation of Thai Industries.

One additional seminar will be organized on environment.

**ACTIVITY 1.2**

Elaboration, on the Thai funding, of a promotional booklet on TECOMEX activities.

**OUTPUT 2**

About ten products in each sector for which the technical barriers to trade are levied.

**ACTIVITY 2.1**

TECOMEX staff will analyse the practical problems some industries of each sector are facing, and will make proposal for solving them, with the assistance of international experts (3 split missions per sector, each of 2 weeks in Thailand).

**ACTIVITY 2. 2**

A one week joint mission of 3 TECOMEX staff and an international expert will be organized in a target country at export, after having studied the above mentioned problems.

**OUTPUT 3**

An ad hoc cell within TISI, dealing with technical help for export, will be operational (TECOMEX secretariat), with 6 well trained staff, adequate operation system and adequate equipment.

**ACTIVITY 3. 1**

An international expert will give advise to TISI staff on the design of the operation system called TECOMEX.

**ACTIVITY 3. 2**

Two one week study tours will be organized for three staff each, in one target country at export.

**ACTIVITY 3. 3**

Three training sessions, of 6 months each, will be organized in a similar organization abroad. One staff will attend each of these training sessions.

## INPUTS

International experts

fees	9,5*15.000 \$	142.500 \$
1.1	1 month	
2.1	6 months	
2.2	0,25 months	
3.1	0,5 months	
preparation	1,75 months	
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	9,5 months	

<u>D. S. A.</u>	217 d*120 \$/d	26.040 \$
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<u>Travels</u>	18*4.000 \$	72.000 \$
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1.1	4 trips	
2.1	12 trips	
2.2	1 trip	
3.1	1 trip	
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	18 trips	

<u>Local costs for seminars</u>	4*2.000 \$	8.000 \$
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Training sessions

fees	3*6 m*2.000 \$/m	36.000 \$
D. S. A.	3*6*1.500 \$/m	27.000 \$
travels	3*4.000 \$	12.000 \$

Study tours

DSA	63 d*120 \$/d	7.560 \$
travels	9*4.000 \$	36.000 \$

<u>Overhead costs of UNIDO</u>		54.900 \$
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<u>GRAND TOTAL</u>		422.000 \$
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No 0701/ 10933



Thai Industrial Standards Institute  
Rama VI Street, Bangkok 10400  
THAILAND.

19 June B.E. 2535(1992)

Dear Mr. Verdonck,

UNIDO Project US/THA/88/238

First I must thank you very much for the precious time you share with us at TPR meeting of the Project.

Our appreciation and congratulations to CERLAB for their outstanding work in finding for us the experts with the demanded experience and good knowledge of English, and the excellent training venues. Thailand has made the most of this project on which I would like to repeat here again as follows:

1. Laboratory accreditation - The assistance has helped train a number of our staff who will become the resources for assessment and future local trainings. The institute itself was able to develop an appropriate and correct work procedure according to the international standards requirement enabling further networking.

2. Calibration - TISI was able to draw conclusion on in-house calibration appropriate to the institute and on its training need.

3. Tecomax - This is TISI's new activity which, in my view, may be somewhat difficult and require considerable efforts. The assistance under this project gave TISI the concept as well as basic knowledge of the system and management approach for servicing. However, the assistance might have to continue for some time for greater effect.

As I have informed the meeting, the assistance in all of the three areas could very well be said to be timely. This is because by now you may have heard of the recent ASEAN development where ASEAN have agreed on the establishment of a Free Trade Area, mentioning standards harmonization, recognition of test and certification as means to facilitate free trade area. On the part of ASEAN NSBs, discussion is underway for a formulation of a standardization programme embracing activities such as standards harmonization, information network and conformity assessment. The assistance under the project has helped well with the preparatory work of Thailand.

Looking at the outcome of the technical assistance provided and future commitments of Thailand both at national and regional levels, the assistance granted so far might not be considered as complete. May I therefore propose for your consideration my views as follows:

1. Laboratory accreditation - Technical assistance should be provided for short-term expert to undertake audit of the set-up system.
2. Calibration - The equipment for the laboratory and staff training as recommended by the experts need be provided subject to the source of fund.
3. Tecomex - The assistance to be provided should be aimed at those fields of technical problem to Thailand. Sending staff to training programme will familiarize them with the work and system as well as build acquaintance with their counterparts. Still I see technical assistance as highly useful for the industry. For example, expert in a certain area could be provided who can advise TISI on the servicing, clear up with the industry on technical requirements in different nations and advise the industry accordingly.

I would be very appreciative if you could consider my views above and possibly place them for your government's consideration. I should be more than willing to supply more information, if you require any, and look forward to your favourable response.

Finally, I shall not fail to take this opportunity to express our warmest gratitude to your government for the kind assistance granted through this project to Thailand and wish to assure you of our continued cooperation.

Yours sincerely,

*K. Sinsakul*

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Deputy Secretary-General  
For Secretary-General  
Thai Industrial Standards Institute

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