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DP/ID/SER.A/1320
9 February 1990
ORIGINAL: ENGLISH

TESTING OF TEXTILE RAW MATERIALS, YARNS AND FABRICS AND PRODUCT DEVELOPMENT

DP/VIE/86/015/11-01

VIET NAM

Technical report: Second mission of the Chief Technical Adviser*

Prepared for the Government of Viet Nam

by the United Nations Industrial Development Organization,

acting as executing agency for the United Nations Development Programme

Based on the work of Roy Nield
Chief Technical Adviser

Backstopping officer: J.P. Moll, Agro-based Industries Branch

United Nations Industrial Development Organization

Vienna

* This document has not been edited.

V.90-81430

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ABBREVIATIONS

CTA	Chief Technical Adviser
Est	Estimate
JD	Job Description
MOLI	Ministry of Light Industries
NPD	National Project Director
Prodoc	Project Document
Req xx	Requisition No. xx
SIDFA	Senior Industrial Development Field Adviser
TOR	Terms of Reference
TPR	Tri-Partite Review
TRI	Textile Research Institute (Hanoi)
TRSI	Textile Research Sub-Institute (Ho Chi Minh City)
UTE	Union of Textile Enterprises

I EXECUTIVE SUMMARY

This mission took place during November and December 1989. It was coordinated with a mission to Project DP/VIE/86/014 in Hanoi.

The current status of the Project was reviewed.

The project concept remains very relevant to the Government's Development Plan which emphasises the need to expand the production of consumer goods especially clothing.

A progress report by the CTA was accepted as presented by the TPR meeting in Hanoi on 12 December 1989.

The following decisions were taken at the TPR:

1. Continue implementation of the project according to the work plan given in the CTA's report.

2. Amend the Mandatory Revision in accordance with the decisions of the TPR meeting. This has been done. The project total remains unchanged.

3. Schedule an evaluation mission for the second half of November 1990 so that its findings will be available to the next TPR.

4. Schedule the next TPR for December 1990.

The status of the Project outputs is as follows:

Outputs 1 and 2 will be fully produced after completion of the training programme and expert missions and delivery of an Uster yarn strength tester (as approved by the TPR).

Output 3 has not yet been produced due to difficulties in selecting the most appropriate equipment for the testing and processing of silk. However, a decision on this equipment is expected on completion of the Study Tour in February 1990.

Output 4 has been fully produced.

It is expected that the main project objectives will be achieved within the intended life of the project (2 years from 8/8/88).

II INTRODUCTION

The main object of the project is to increase the availability of good quality textiles for domestic consumption which is in line with the Government's development plan for the period 1986-90 which emphasizes the need to expand the production of consumer goods - especially clothing.

The immediate objective is to strengthen the capability of the southern subsidiary of the Vietnam Textile Research Institute in the areas of physical and chemical testing, product development and dissemination of information.

These objectives were elaborated upon in the first mission report of the CTA (DP/ID/SER.A/1154).

III RECOMMENDATIONS

1. Continue implementation of the Project according to the work plan (Annex 5) and Budget Revision (Annex 6). In particular:-

2. Complete the building alterations as soon as possitle and then keep the laboratories clinically clean (NPD).

3. Check the specification of the Tensometer with Uster and inform UNIDO (CTA).

4. Place the order for the Tensometer with Uster (UNIDO).

5. Check the specification of the sample loom with AVL and inform UNIDO (CTA).

6. Place the order for a sample loom (UNIDO).

7. Finalize the specifications and recommens supplier(s) of silk testing equipment and inform UNIDO (NPD after study tour).

8. Finalize specifications and recommend supplier(s) of silk processing machines (winding, doubling and twisting) and inform UNIDO (NPD after completion of study tour).

9. Place orders for silk testing equipment and silk processing machines (UNIDO).

10. Implement Study Tour No 54 on silk in January 1990.

11. Implement Fellowship 31.11 on circular knitting, Jan 1990.

12. Contact Bolton regarding Fellowships (CTA).

13. Agree extra fee for English language tuition before

14. Implement Fellowships to Bolton (8 fellows from 015 and 3 from 014) starting April 1990.

15. Cancel Fellowships on Fancy yarns and fabrics (2x3m/m) UNIDO

16. Confirm exact dates for next missions of CTA (CTA).

17. Provide CV's for posts 11-02, 11-03 and 11-05 (UNIDO).

18. Cancel posts 11-04 and 11-06 (UNIDO).

19. Organize a Project Evaluation for the second half of November 1990 - coordinated with Project 014 (UNDP, Hanoi).

20. Organise the next TPR for December 1990 (UNDP, Hanoi).

IV ACTIVITIES AND OUTPUTS

Purpose of the Mission

The main objectives of the mission were:

- to review progress since the last mission.
- to discuss outstanding issues.
- to try to settle the technical specifications for the remaining items of equipment to facilitate procurement as soon as possible.
- to finalize the training programmes.
- to up-date the work plan.
- to advise the NPD on the work to be carried out in the absence of the CTA.
- to assist in preparation for the TPR.
- to prepare a progress report and recommendations for the TPR.
- to participate in the TPR.
- to prepare the "Summary of TPR Revue Report"
- to prepare a mission report recording all decisions taken and the actions necessary and by whom to expedite further implementation of the project.

Programme

The mission was combined with a mission to the TRI in Hanoi which is receiving assistance through project DP/VIE/86/014. The dates of the combined mission were 5 November to 18 December 1989, inclusive.

Counterparts

The NPD is Mme Pham Thi Minh Chau. The Director of the TRSI is Dr Tran Quoc Thinh. The Director of the TRI is Dr Pham Hoang Ninh.

Meetings, Seminars, etc.

Frequent meetings were held with the NPD and her staff when all outstanding matters were discussed in great detail.

The members of the study group which had recently returned

from France, UK and Hungary were de-briefed and advice was given on preparation of their final reports.

The fellowship group which had recently returned from India and S. Korea was debriefed and advice was given on the preparation of their final reports.

All the items of equipment supplied by UNIDO were examined and various suggestions made.

Two meetings were held with Mr Bonnamy, SIDFA.

Inputs

The project inputs are elaborated in the progress report (Annex 1).

Budget Revision

The Mandatory Budget Revision was amended in accordance with the decisions taken at the TPR meeting. No additional funds were found to be required.

Documentary Outputs

Agenda for the TPR.

Progress report for the TPR. A slightly edited version of the text is included as Annex 1 of this report. The tables have been updated to reflect the decisions taken at the meeting.

Summary of the TPR report (Minutes of the meeting).

Terms of Reference (TOR) for a future project evaluation.

Second Mission Report of CTA.

Schedules detailing the present status of the project as regards equipment, training and experts (Annexes 2, 3 and 4 of this report).

A detailed work plan for the remainder of the project (Annex 5)

An amended Mandatory Revision of the budget (Annex 6).

V CONCLUSIONS

Progress has been satisfactory during the first 16 months of the Project's active life, with the exception of Product Development of Silk where some decisions still need to be made.

It is expected that all outstanding decisions will be taken in February 1990, after completion of the Study Tour of silk, in which case all the project outputs should be produced before the end on 1990.

The Tri-Partite Review meeting in December was very brief but very successful thanks mainly to a most efficient Chairman, the participation of the Back-Stopping Officer from UNIDO and thorough preparation for the meeting by the CTA and the NPD.

Implementation of the Project should be continued as outlined in this report.

VI ACKNOWLEDGEMENTS

The author wishes to thank all those persons in the Government, UNDP and UNIDO who participated in the work of this mission for their willing co-operation and invaluable advice and in particular:

Dr Dang Vu Chu	Vice Minister of Light Industry Chairman of the TPR meeting
Dr Ding Sy Bang	Director, Science and Technology, MOLI
Mr Nguyen Lam Con	Deputy Director, Planning Department, MOLI
Mme Vu Kim Anh	Deputy Director, International Cooperation Department, ICD
Mr Phan Trong Tiem	Senior Official, ICD
Mr Nguyen Huy Chuong	Senior Official, Council of Ministers
Dr Mme Phan Thu Vinh	Senior Expert, State Planning Committee
Dr Do Van Vinh	Director, Industrial Deptartment, State Committee for Science and Industry
Dr Pham Hoang Ninh	Director of the TRI
Dr Tran Quoc Thinh	Director of the TRSI
Mme Pham Thi Minh Chau	National Project Director
Mr J M Bonnamy	SIDFA, UNDP
Mr Tran Trong Phung	Programme Officer, UNDP.

DP/VIE/86/015 Annex 1

PROGRESS REPORT FOR THE TRIPARTITE MEETING TO BE HELD IN HANOI ON 12 DECEMBER 1989

Buildings

Modifications that have been made to the existing premises include:

Creation of a special, air-conditioned room for product development of silk.

Re-habilitation of the silk-processing room. Some old machines have been removed.

Installation of the industrial air-conditioning equipment supplied by UNIDO in the testing laboratory.

Preparation of a separate laboratory for silk testing in anticipation of delivery of the UNIDO equipment.

Division of the upper floor into a conference room, library, information section, computer room and workrooms for technicians.

A hand-embroidery section accommodating 50 persons.

A garage for 2 cars.

Equipment

All the equipment finally selected for the physical testing laboratory as been installed and is operational.

All the equipment selected for the dyeing and finishing facility has been installed.

Books and periodicals are being delivered to the information department as planned. A monthly news letter with a circulation of 500 copies is appreciated by the industry.

The circular knitting machine has been installed.

The silk testing and processing equipment has not yet been ordered, pending completion of study tour No 54. Nor has the sample loom.

Details of the equipment are given in Annex 1.

Training

One study tour has been successfully completed and the other is scheduled for January 1990.

One fellowship programme has been successfully completed. Training for 4 other groups (9 persons) has been arranged for 1990. Two fellows cannot be placed pending a decision regarding purchase of a shuttleless loom and the final group should be cancelled since the topic is fully covered elsewhere. This was agreed. Details of training are given in Annex 3.

Experts

It was always envisaged to field the experts after completion of training and delivery of the equipment. Accordingly, all experts should be fielded during 1090. This was agreed. Details of the experts are given in Annex 4.

Work Plan

The agreed work plan for the rest of the project is given in Annex 5.

Budget

The latest budget revision is attached as Annex 6.

Issues

Due to changes in emphasis since the Prodoc was written, e.g. less interest in sizing and more stress upon yarn testing for export and product development of silk the following issues need to be addressed:

Sample Loom & Shuttleless Loom

The members of the Study Tour examined the AVL loom and found it to be suitable for the purposes of the project. It was decided to place the order for an AVL Loom with colour monitor and printer.

In view of the increased interest in product development of silk, a shuttleless (rapier type) loom may be required in the future.

Product Development of Silk

Considerable difficulties have been met in trying to find suitable equipment and suppliers. Originally it was intended to provide 2 machines - a doubler and a twisting machine. No offers were received.

During the first mission of the CTA it was decided that 4 processes would be necessary, namely winding, doubling, twisting and re-reeling. The TRSI already had a reasonably good re-reeling machine but their other 3 machines badly needed to be replaced.

On the grounds of economy, it was decided to seek a dual-purpose machine but the enquiries were not very successful. The project authorities felt that more information was required and it was decided to postpone final selection until after completion of the second Study Tour which is scheduled for January 1990.

In the light of a report by the Fellowship group which visited India and S Korea, it was felt that 3 new machines would be required and that the winding machine should be installed in a conditioned laboratory where it could be used for measuring the filament breakage rate when winding raw silk in addition to production work. This was agreed.

Yarn Testing and Certification for Export

After completion of the training programmme, the TRSI will be capable of carrying out all the required tests to international standards except in one vital respect - measurement of yarn tensile properties (strength and extensibility). As stated in the CTA's first mission report this facility is absolutely essential for certification of export quality of yarns and an Uster "Tensorapid" tester is required for the purpose. It was agreed that such an instrument should be purchased.

Annex 2

DP/VIE/88/015
Testing Raw Materials, yarns and fabrics + product development

EQUIPMENT - Revised December 1989 (* = Already Delivered)

Req No	Item	Supplier	Cost($)	Remarks
88/1	Landcruiser	Toyota	14,414	*
	Spare parts		2,290	*
88/2	Pressley tester	Baer	2,591	*
88/3	Micronnaire	SDL	4,947	*
88/4	Fineness/Maturity	SDL	23,113	*
88/5	Fibre blender	SDL	6,022	*
88/6	Evenness tester	Uster	75,112	*
88/7/1	Cloth abrasion	Heal		*
/2	Cloth thickness	Heal		*
/4	Pilling tester	Heal	10,686	Items 1+2+4
/3	Crease recovery	SDL		*
/5	Crimp tester	SDL	6,234	Items 3+5
88/8/1	Wash fastness	SDL	6,888	*
/2	Crock tester	Heal	746	*
/3	Skein dyeing m/c	Roaches	8,872	*
/4	Lab. mercerizer			Cancelled
/5	Viscosimeter	Roaches		*
/6	Lab. steamer	Roaches		*
/7	Set hydrometers	Roaches	6,345	Items 5+6+7
88/9/1	Denier balance			Select after study
/2	Seriplane winder			tour no 54.
/3	Seriplane viewer + photographs			
/4	Serigraph			
/5	Manual length meter			
/6	Cohesion tester			
/7	Drying oven			
88/10/1	Assembly winder (10 spindles)			Select after study
/2	Twisting machine (32 spindles)			tour no 54.
	Winding machine (30 spindles)			Added at TPR
88/11	Sample loom	AVL		Place order
88/12	Knitting machine	Qualitex	36,650	*
88/13/1	Piece glass 25cm	Heal		*
/2	Piece glass 20cm	Heal		*
/3	Tensiometer	Heal		*
/4	Thermohygrograph	Heal	2,127	Items 1+2+3+4
88/14	Overhead projector	Kwan	679	*
88/15	4 airconditioners	Kwan	2,204	*
88/16	Room conditioner	BB/York	12,326	*
88/17	PP copier	Kwan	1,649	*
88/18	Books/periodicals	Munksgaard	3,220	*
88/19	Digital fibrograph	SDL	38,082	*
	Tensorapid yarn strength tester	Uster		Added at TPR Place order.

DP/VIE/86/015
Testing Raw Materials, yarns and fabrics + product development

TRAINING - Revised December 1989

Number	Name	Duration	Remarks
FELLOWSHIPS			
Textile testing			
31-01	Do Van Quong	3	Scheduled April 1990
31-02	Nguyen Thi Nqan Ha	3	Bolton
31-03	Tran Thanh Liem	3	
Testing and processing of blends			
31-08	Tran Gia Huyen	3	Scheduled April 1990
31-09	Nguyen Anh Kiet	3	Bolton
31-10	Dinh Cong Quyet	3	
Standard testing procedures			
31-	Nguyen Thi Minh Duc	3	Scheduled April 1990
31-	Nguyen Thi Tuy	3	Bolton
Silk testing and processing			
31-04	Ha Nhu Thi Viet	3	Implemented 1989
31-05	Thai Dao Duy	3	S. Korea + India
31-06	Vuong Cu Luu	3	Silk teting and
31-07	Thuy Pham Van	3	processing.
Circular knitting			
31-11	Lanh Tran Ngoc	1	Scheduled January 90 Qualitex, UK.
Shuttleless weaving			
31-		1	Place after ordering
31-		1	the shuttleless loom.
Fancy yarns and fabrics		2x3	Cancel - covered by the Bolton group.
STUDY TOURS			
Textile testing (No 53)			
32-01		5x1	Implemented 1989 France, UK and Hungary.
Production of silk and blends (No 54)			
32-02		5x1	Scheduled January 1990 France + S. Korea.

DP/VIE86/015
Testing raw materials, yarns and fabrics + product development

EXPERTS - 1990 AND FUTURE - Revised December 1989

Post no	Title	m/m	Remarks
11-01	CTA	4	R. Nield selected. Next missions Aug 90, Nov 90, Apr 91 and Oct 91. Co-ordinate and share cost with DP/VIE/86/014.
11-02	QC/Testing	2	UNIDO to provide CV's for other candidates including, if possible Mr J. Mitchell of BTTG and/or a candidate from Bolton. Split missions Aug 90 (after fellowships) and Apr 91. Share expert and coordinate with 014.
11-03	Silk weaving	2	Expert from S. Korea preferred in view of links between TRSI and Korean silk industry. Field expert after delivery of shuttleless loom (assuming the purchase will be approved at the next TPR meeting).
11-04	Sizing	0	Cancel this post as sizing no longer features in foreseeable work programme of the TRSI.
11-05	Degumming/ finishing	2	UNIDO please submit CV's. CTA suggests Mr R. Hoffsteten as possible candidate and may be able to suggest others after study tour in Jan 1990.
11-06	Dyeing/ finishing	0	Cancel this post since many companies have now started to gives seminars in Vietnam on the dyeing and finishing of silk.

DP/VIE/86/015
Testing Raw Materials, Yarns and Fabrics + Product Development

WORK PLAN - PROJECT INPUTS AND ACTIVITIES - Revised Dec 1989

		1989	1990	1991
Personnel				
11-01	Chief Technical Adviser			
11-02	QC/Testing			
11-03	Silk weaving			
11-04	Sizing Cancel			
11-05	Degumming of silk			
11-06	Dyeing/Finishing Cancel			
Fellowships				
Silk testing. S.Korea/India	4x3m/m			
Textile testing. Bolton	8x3m/m			
Circular knitting. UK	1x1m/m			
Shuttleless weaving.	2x1m/m			
Fancy yarns and fabrics	Cancel			
Study Tours				
Textile testing (No 53)	5x1m/m			
Silk and blends (No 54)	5x1m/m			
Equipment				
Physical testing/D+F/Knitting				
Silk testing				
Product development of silk				
Sample loom				
Activities				
Physical testing				
Dyeing and finishing tests				
Silk testing				
Product development of silk				
Circular knitting				
Sample weaving				
Dissemination of information				
Evaluation of Project				

Annex 6

UNITED NATIONS DEVELOPMENT PROGRAMME
PROJECT REVISION

Country : VIETNAM
Project Number : VIE/86/015/C/01/37
Project Title : Textile Quality Control (HCMC)

The above project is revised as shown in the attached budget to reflect the estimated expenditures in 1989 and rephase the unspent funds to 1990 and onwards.

The increase in the training, equipment and miscellaneous components are offset by savings on the expert component due to the shared use of the CTA for this project and VIE/86/014 as decided at the tripartite review meeting on 12 December 1989.

The change to the project budget is as follows:

Previous UNDP input - Project budget	"B"	US$	881,540
Revised UNDP input - Project budget	"C"	US$	881,540
UNDP input - decrease		US$	Nil

Re letter of UNIDO — 18/10/1989
Signed on behalf of Executing Agency — Date

David Smith — 13/12/89
Signed on behalf of UNDP — Date

Annex 6 (cont'd)

PROJECT BUDGET COVERING UNDP CONTRIBUTION
(FIGURES IN US DOLLARS)

Country : VIETNAM
Project Number: VIE/86/015/C/01/57
Project Title : Textile Quality Control (HCMC)

BL	DESCRIPTION	TOTAL		1988		1989		1990		1991	
		m/m	US$	m/m	US$	m/m	US$	m/m	US$	m/m	US$
10	PROJECT PERSONNEL										
11	INTERNATIONAL EXPERTS										
11.01	CTA	6.0	69,511	1.4	16,461	0.6	5,050	2.0	24,000	2.0	24,000
11.02	QC / Testing Adviser	2.0	20,000					1.0	10,000	1.0	10,000
11.03	Silk Weaving Expert	2.0	20,000					2.0	20,000		
11.05	Silk Finishing Expert	2.0	20,000					2.0	20,000		
11.49	Sub-Total (Experts)	12.0	129,511	1.4	16,461	0.6	5,050	7.0	74,000	3.0	34,000
11.99	Sub-Total	12.0	129,511	1.4	16,461	0.6	5,050	7.0	74,000	3.0	34,000
16.00	Other Personnel Costs		5,000						5,000		
19	Component Total	12.0	134,511	1.4	16,461	0.6	5,050	7.0	79,000	3.0	34,000
30	TRAINING										
31.00	Individual Fellowships		169,500				35,000		134,500		
32.00	Study-tours		84,014				54,382		29,632		
39	Component Total		253,514				89,382		164,132		
40	EQUIPMENT										
41.00	Expendable Equipment		6,426		5,539		887				
42.00	Non-expendable Equipment		483,059		190,440		57,619		235,000		
49	Component Total		489,485		195,979		58,506		235,000		
50	MISCELLANEOUS										
51.00	Sundries		4,030		400		1,630		1,500		500
59	Component Total		4,030		400		1,630		1,500		500
99	PROJECT TOTAL		881,540		212,840		154,568		479,632		34,500