

- 当工場の設備近代化には、在来織機か革新織機かいずれが適当か。
- 品質向上の対策は。
- J I C A の業務について。

(3) ガーナ

ア. TEMA TEXTILES LTD.

当社はガーナ政府（60%）と香港企業（40%）の合弁企業で1969年に発足、Managing Director は中国人で紡機：60,000錠、織機：480台（中国製豊田自動）を持ち、綿糸糸30中心の平織りが主製品である。

工場見学に先立ち、Managing Director やガーナ人 Mill Manager との懇談の席上、次の様な話があった；

- ITMA 87（パリ国際繊維機械展）には、ガーナ向きの機械は無かったし、日本の機械は高かった。
- 古い機械と低い技術水準ではあるが、ガーナではトップクラスの工場だ。
- 従業員は1,350人、女子は採用しない（すぐ妊娠するので）。
- 自家製糸だけでは足りないので、外部からも糸を買い織っており、製品は全て内需。
- 織機は140～160 rpmで12台持ち、1ロール（反）は200～250m、プリントは8色。
- 就業時間は6：30～14：30、14：30～22：30、22：30～6：30、ただし管理部門は7：30～16：30。
- 給料は一般公務員初任給8,000セディ（約4,000円）が基準。

工場内を一巡した印象は、中国人技術者3人の指導もあって、古い機械を使いながらも良くやっているとの感じであった。機械のなかには山東（仕上げ）や村田（ワインダー）が見受けられた。しかしワインダーのトラブル調整不良が目立ち、ボビンの残糸不同が多いようであった。試験室には糸引っ張り強力試験機と糸斑試験機が目についただけであった。この後研修員を対象に、技術セミナーを実施した。（後述）（写真9～12参照）

イ. GIHOC-FIBRE PRODUCTS CO. LTD.

General Manager より工場見学に先立ち、次の様な説明があった；

- 当社の創業は1962年であるが、GIHOCグループ（政府全額出資で現在25企業が傘下）に入ったのは1968年。
- 外貨不足のため、バングラデシュからジュートが入らず、ガーナ産を使っているが繊維が粗雑で品質悪く、選別に手間を要している。

- 原料不足で目下紡機も織機も休止しているものが多い。(紡機も織機も英国 J. Mackie 製で、織機 200 台保有)
- そのため従業員を現在の 1,500 人から 1,050 人に削減する。すでに 3 シフトから 2 シフト (6~14、14~22) に変更。
- 定年は男子 60 歳、女子 54 歳で全体の 1/4 が女子。日給 150 セディ。
- 製品はココア用ジュートサック (95%) 及びヘシアンクロス。

体育館の様な大きな建物内に、紡績・織布・縫製・梱包の各工程がまとめられている。機械は殆どが 1962 年の創業当時からのものであるが、よく動いていた。しかし機械全体の約 2/3 が、休止している始末で、織機は 200 台中 100 台休止。Mackie のレピア織機はストップモーションを全て外しており、1 人 2 台持ち。しかし糸の品質が悪い上、210 rpm という高速のため停台多く欠点も多い。最近導入された新鋭機 26 台は 240 rpm、自動停止装置付きであるが、4 台持ちをしていても殆ど動いていない始末であった。それでも担当者によると、運転効率は紡績 65~70%、織布 70~75% との事であった。(写真 13~16 参照)

ウ. NATIONAL INDUSTRIAL CO. LTD.

当社は政府全額出資の企業であるが、繊維部門は設備が古くしかも国内での競争が激しいため一時閉鎖し、パートナーを探ることになったと、Managing Director が話し、工場見学の後是非意見を聞かせてほしいと述べた。閉鎖された工場には英国やチェコスロバキア製の織機、それに編機やミシンもあった。しかし、これらは全て日本ではスクラップとしか見られないものばかりであった。そのため時間の関係もあり、Managing Director との再会は中止した。

エ. LOYALTY INDUSTRIES LTD.

NATIONAL INDUSTRIAL CO. LTD. の下請工場だそうであるが、ここでも外貨不足で原料が入手できず、72 台のベルギー製織機が 4 台動いているだけだった。Managing Director は誰でも良いからパートナーになってくれる人(企業)を求めている。

ガーナの繊維企業は外貨不足のため設備更新だけでなく、原料入手にも事欠く深刻な状態にある。それにしても幹部や従業員の表情が明るいのは、国民性だけでなく、国営であり利益を得ているグループ内企業による相互扶助があるためであると案内してくれた研修員が話していた。(写真 17~20 参照)

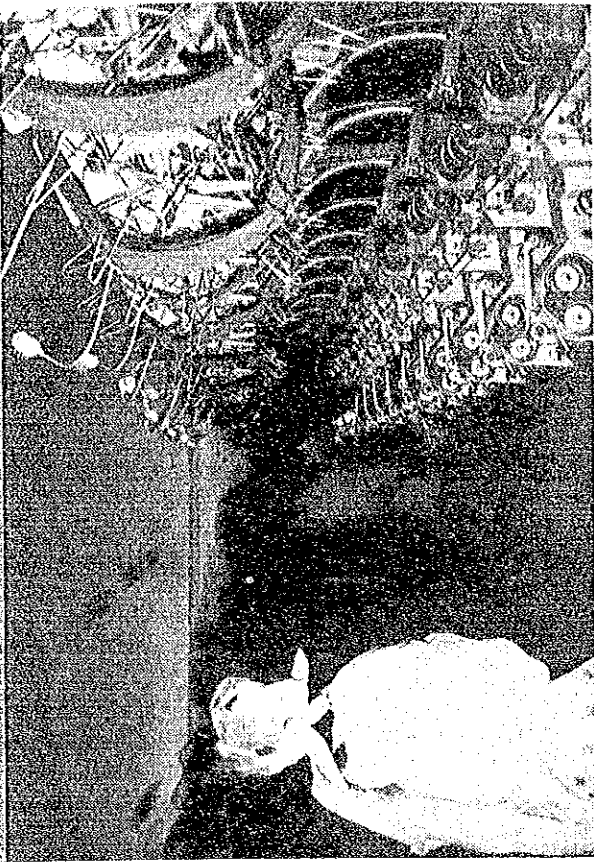


写真2 糸の巻返し



写真4 糸の染色

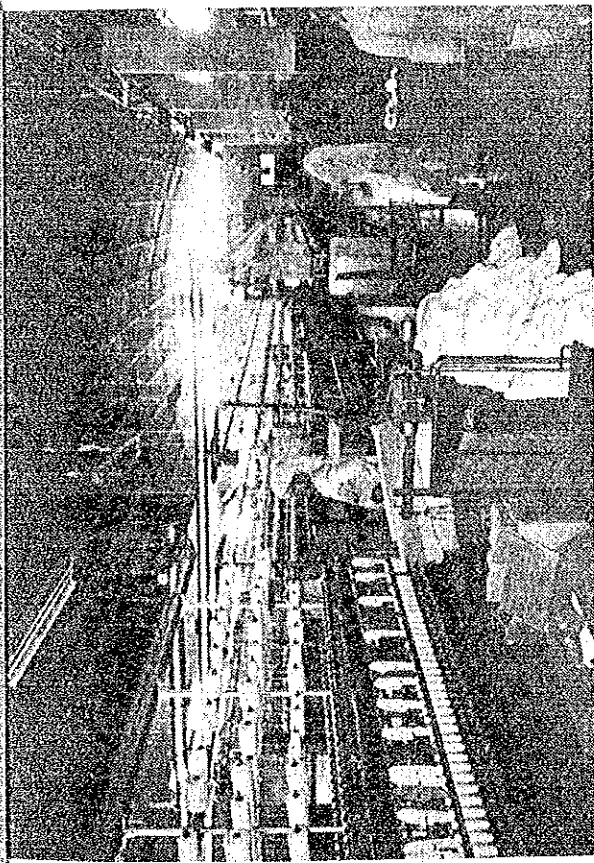


写真1 糸の合繰糸

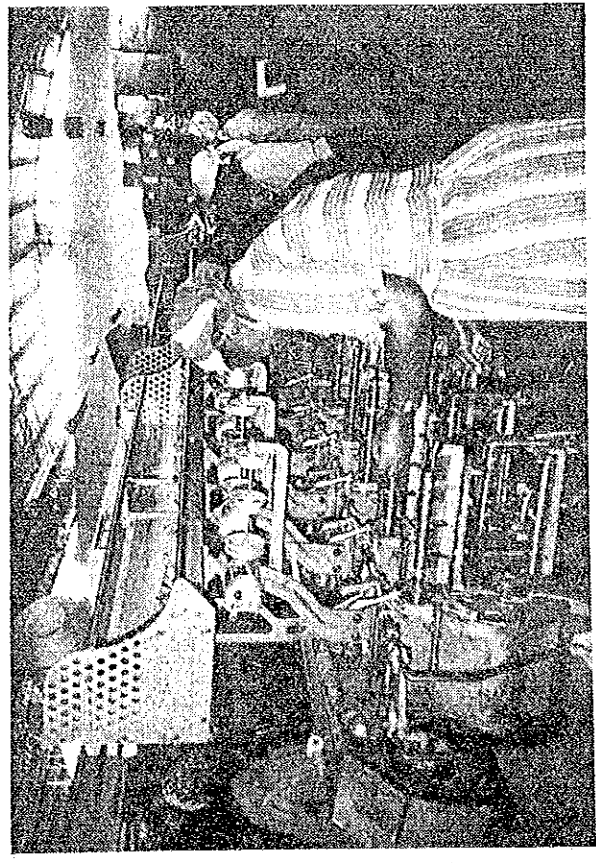


写真3 糸のボビン巻き

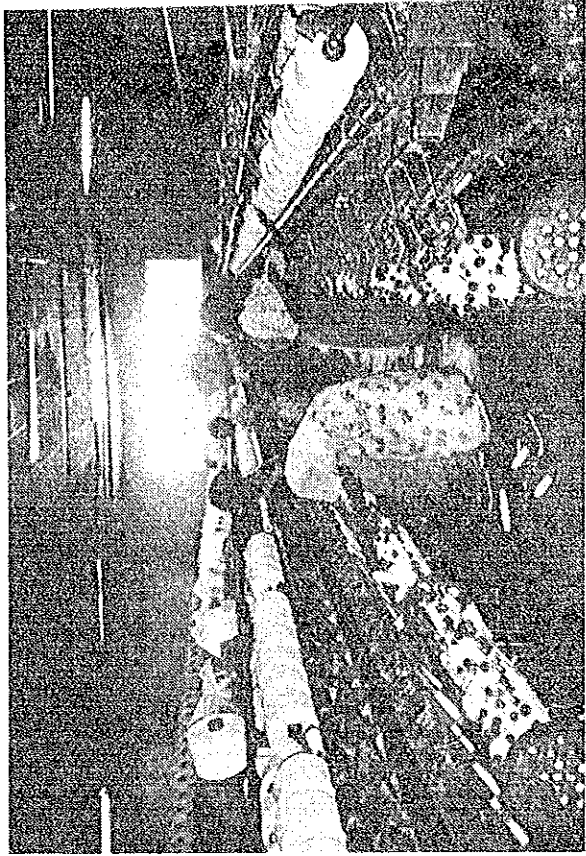


写真6 糸の巻返し

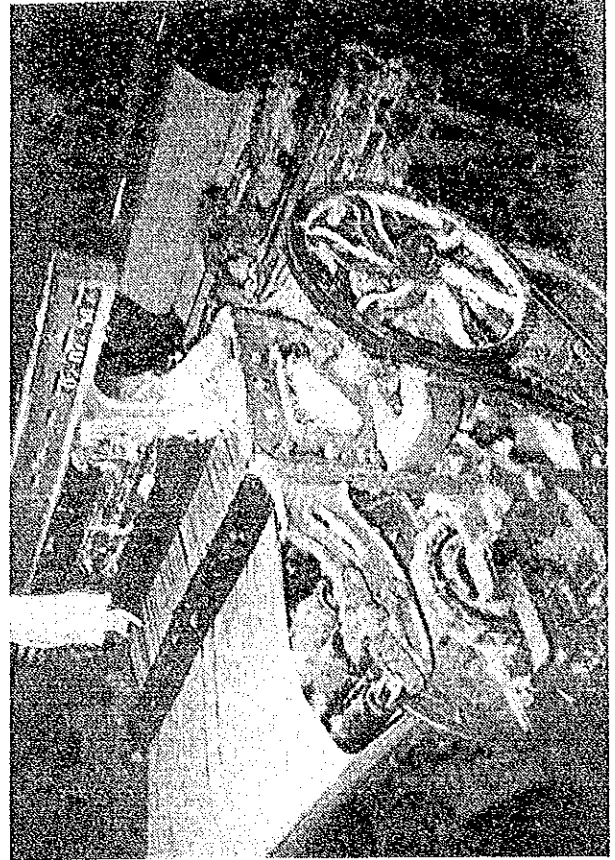


写真8 管棒自動織機

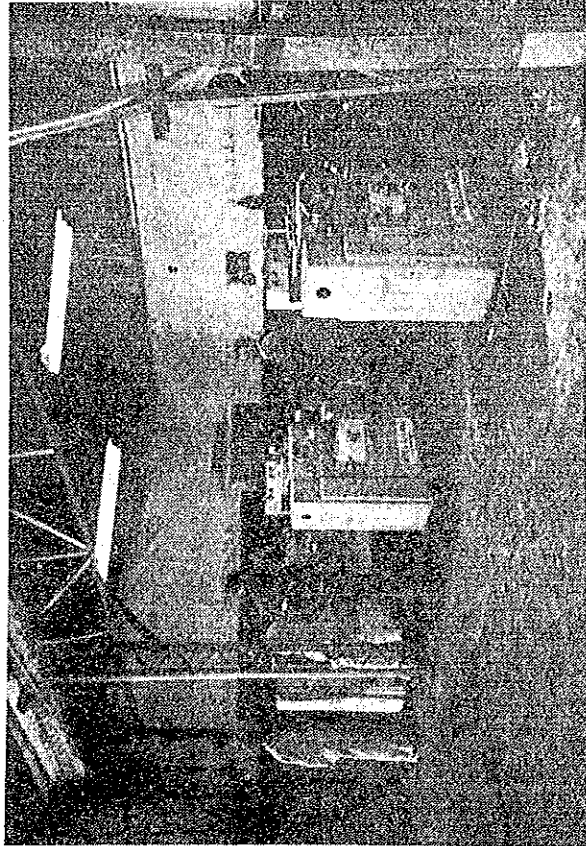


写真5 部品加工工場

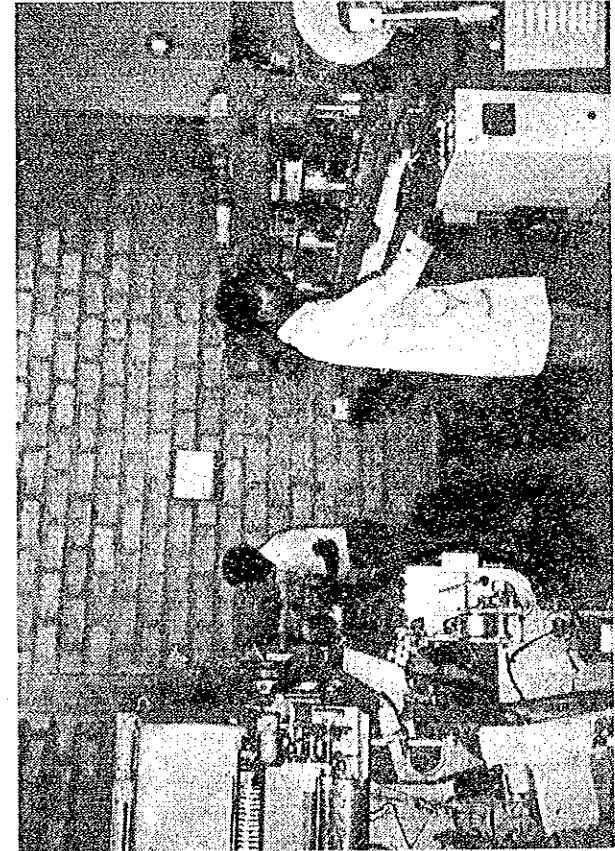


写真7 トビレーピア織機

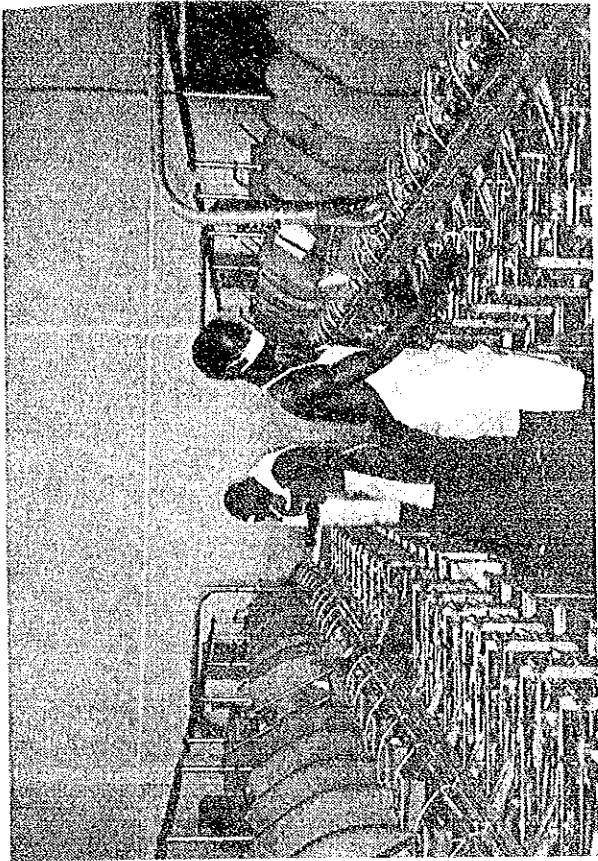


写真10 よと管巻機

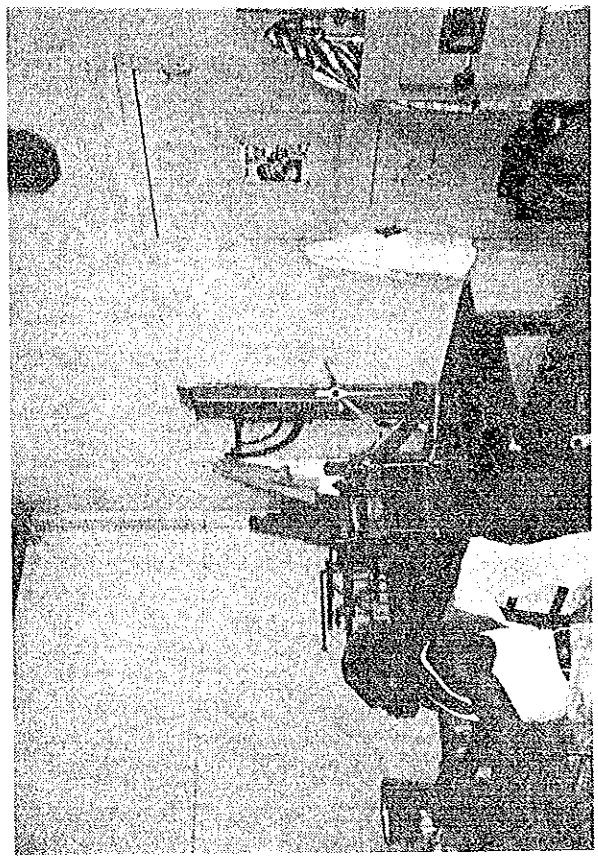


写真12 品質試験室

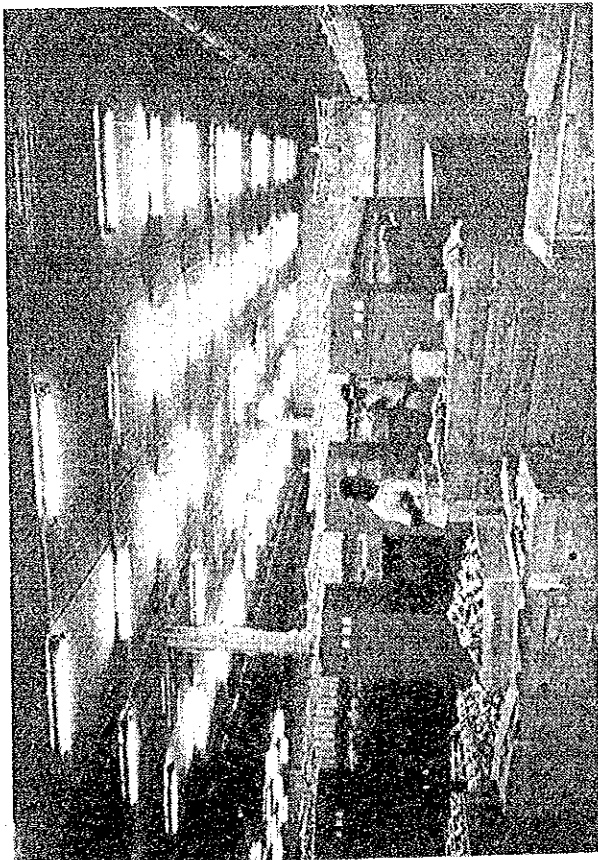


写真9 リング精紡機

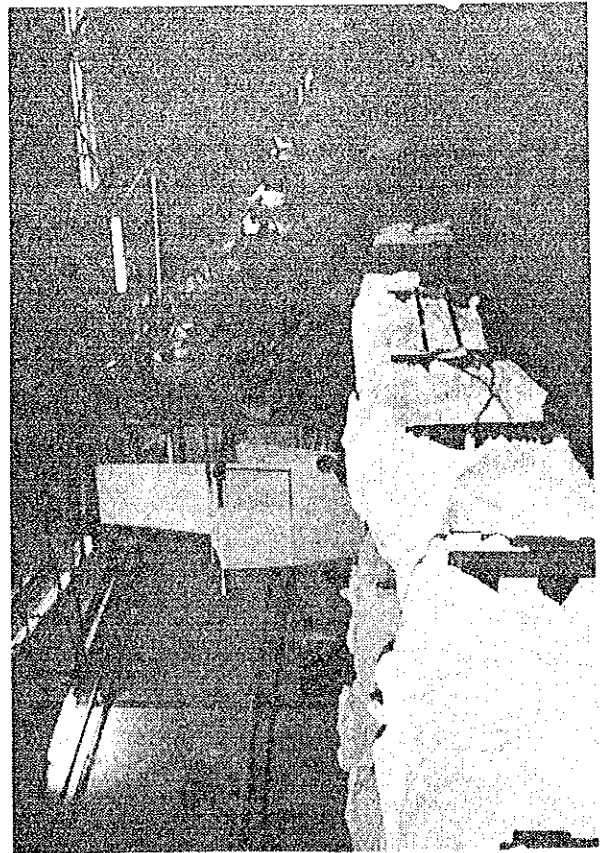


写真11 織物仕上機

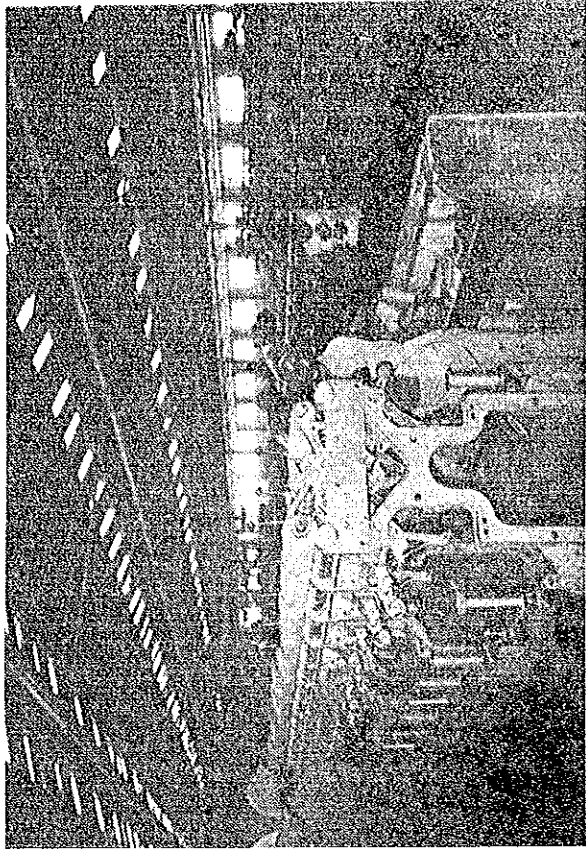


写真14 ジェート糸の巻返し

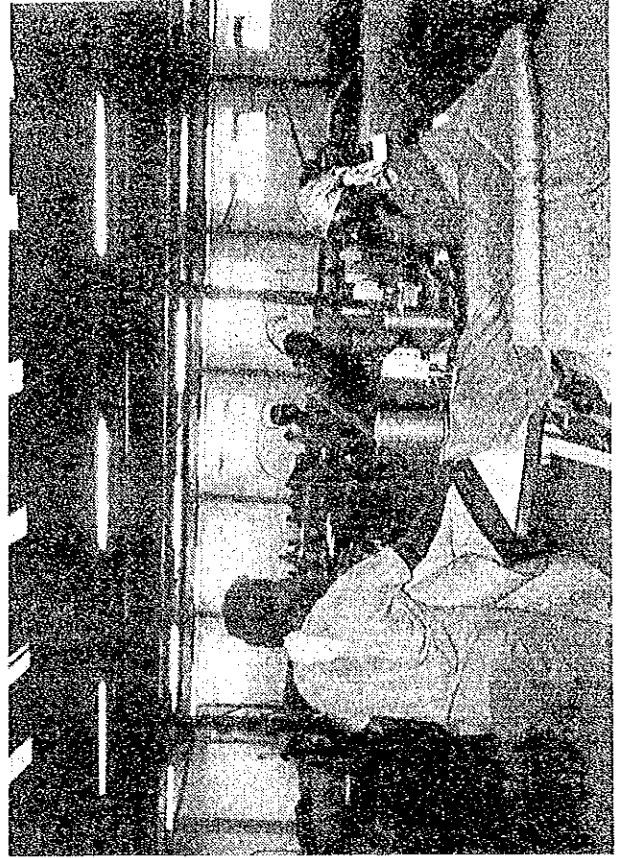


写真16 ジェート糸の研製

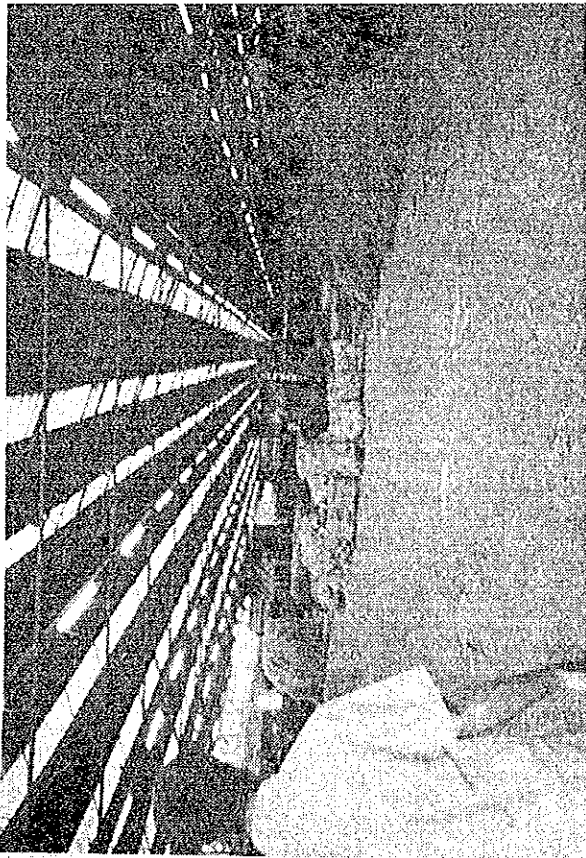


写真18 ジェート原料

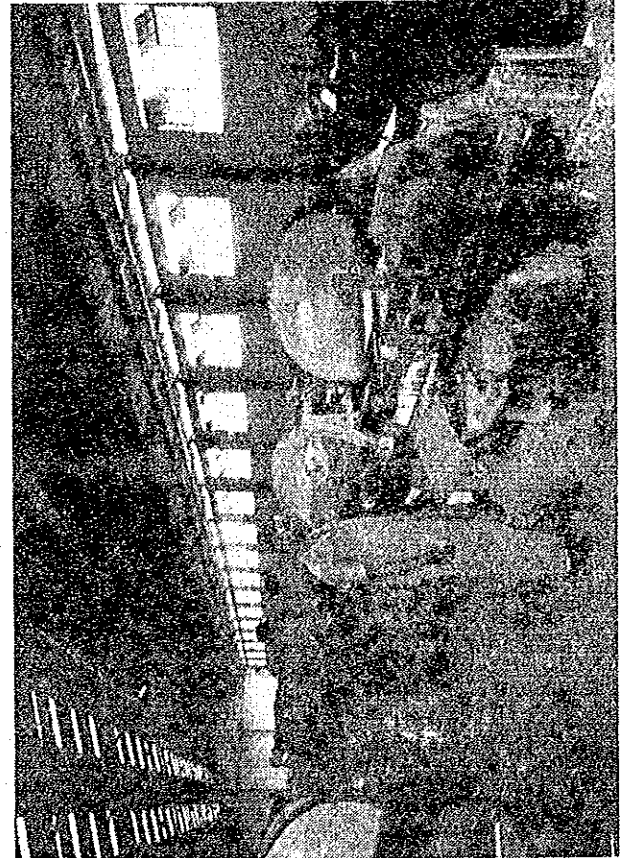


写真15 レヒア織機で製織

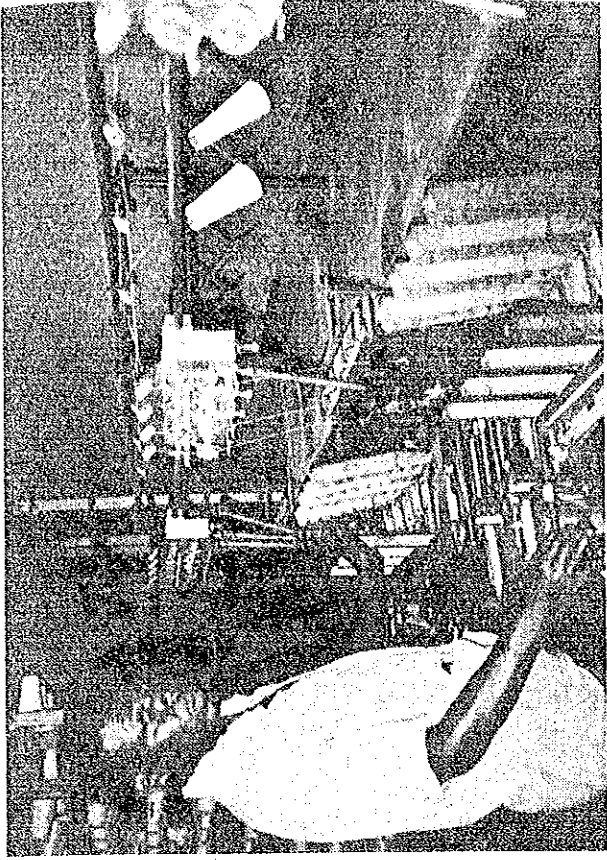


写真18 自動管巻きを手動で

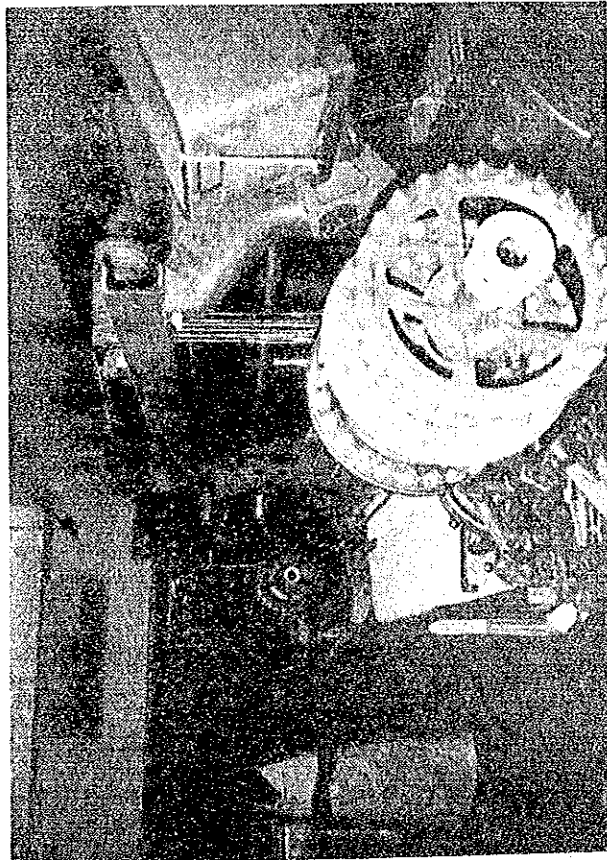


写真17 自動織機で綾織

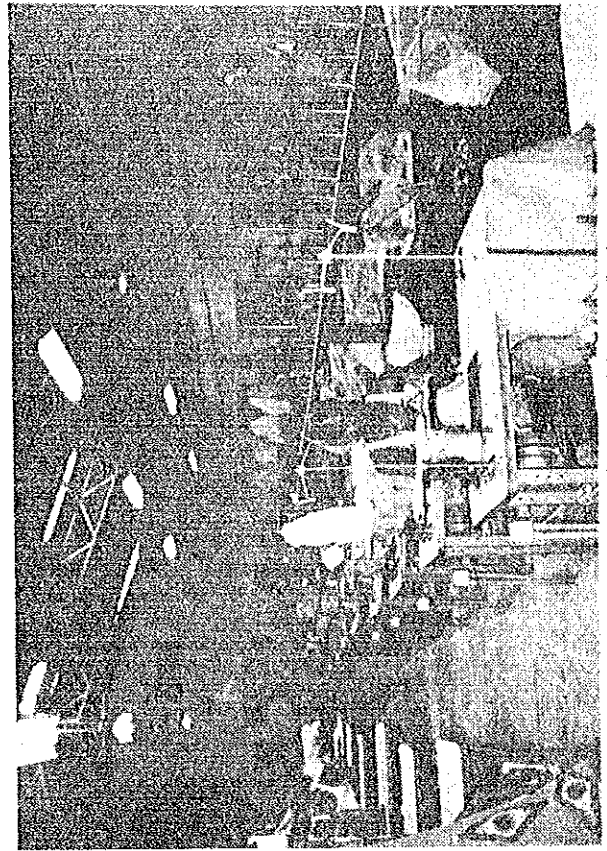


写真20 人もまばらな縫製部門

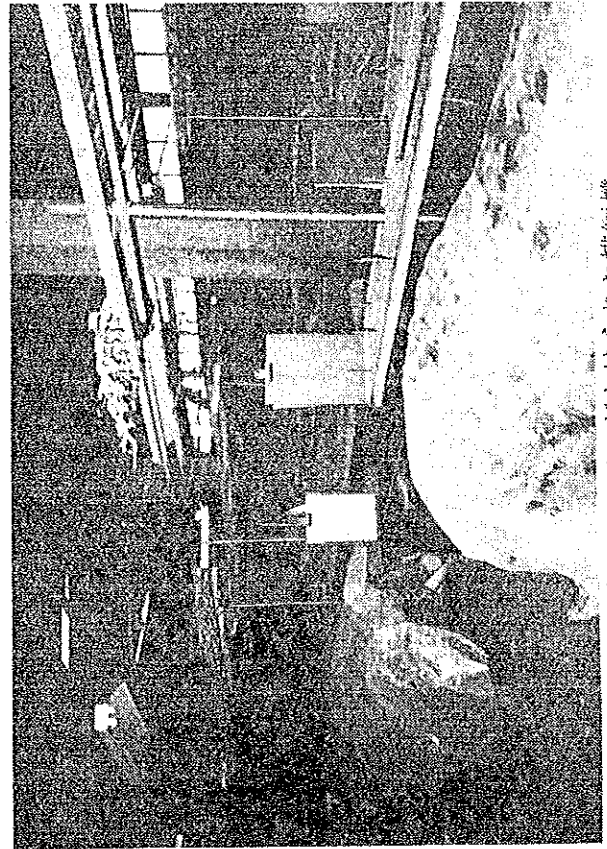


写真19 カバーがかかけられた横編機

Ⅲ. 技術セミナー実施内容

1. 技術セミナー実施計画

セミナーは石田輝男石川県工業試験場次長のOHPを利用した「日本の繊維及び繊維機械産業」と題する講義の外、岡田立巳名古屋通産局中小企業第一課長による「日本における品質管理(TQC)について」の話題提供があり、終了後ディスカッションを行なった。これらはいずれも、最近の日本の技術水準の一端を紹介するもので、内容は別記の通り。なおセミナーの対象は帰国研修員を中心にしたが、一部企業技術者も参加した。

(写真21参照)

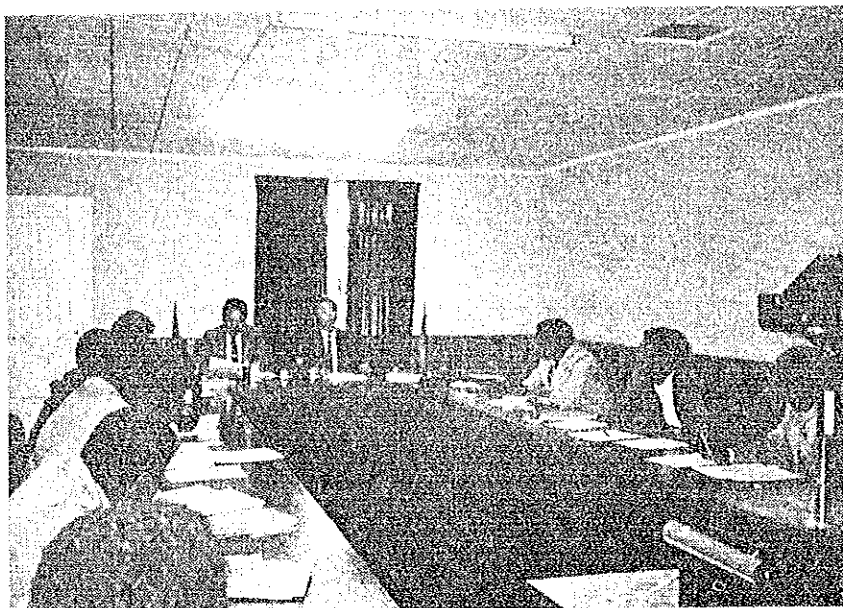


写真21 技術セミナー(エチオピア)

JAPAN'S TEXTILE AND TEXTILE MACHINERY INDUSTRIES

CONTENTS

1. Japan's Textile Industry-----	(1)
2. Japan's Textile Machinery Industry-----	(5)
3. Production Control System for Weaving-----	(9)
4. Weaver's View Point on Production-Control System-----	(10)
5. CIM for Textile Mills-----	(17)

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JAPAN INTERNATIONAL
COOPERATION AGENCY

1. Japan's Textile Industry

Toyobo, one of the giant textile companies in Japan, increased its profit last year because of the progress of value enhancement in the natural-fibre sector. According to a newspaper, Toyobo's natural-fibre sector earned about ¥14,000 million as ordinary-profit (a pre-tax profit) in the 1987 financial year. This is about 2.6 times that of the previous year.

Toyobo increased its production of the finer counts of cotton yarns, i.e., finer than Ne 60 (10 tex), and of blended yarns such as linen /polyester fibre. Toyobo has also introduced a computer-integrated-manufacturing (CIM) system for production, shipping, and stock control to its sixteen natural fibre mills. The CIM system introduced is very effective in cutting the delivery time from the mills to the customers. However, the profits not only Toyobo but also of other textile companies are recovering rapidly. This is caused by an improvement in domestic market condition as well as by the rationalisation of the companies, since textile consumption in Japan in 1987 rose by 10.6 % over that of the previous year.

The majority of the value-enhanced textiles belong to short-run articles. Today, the short-run articles became the main products in Japan's textile industry to overcome the products made in other Asian countries, where the production cost is much lower than Japan. The volume of the textiles imported by Japan has increased recently, as shown in Table 1. Nowadays Japan has changed from a textile exporting country to the textile importing country.

Table 1. Textiles Imported by Japan (in ton)

Source Year	China	Korea	Taiwan	Hong Kong	Italy	Total (incl. other countries)
1980	23,230	27,413	10,583	3,400	1,033	72,990
1981	21,528	35,913	11,474	2,777	1,048	78,736
1982	25,158	35,044	12,072	3,165	1,286	82,310
1983	26,766	26,825	10,235	2,871	1,319	72,171
1984	34,627	38,050	15,770	3,339	1,249	97,495
1985	42,263	43,966	16,583	3,240	1,205	112,512
1986	42,542	65,062	26,002	3,317	1,223	144,750
1987	61,461	82,413	32,710	4,552	1,512	192,718

(Source: Japan Textile Importers Association)

Despite of this fact, the textile industry is still one of the most important industries in Japan as shown in Tables 2 and 3. However, for survival, decreasing the production cost is a never-ending task. Thus the use of the production-control system suitable for high-speed looms, small lot, and three-shift operation is desirable. This productivity of modern machinery is much higher than that of conventional machinery, as shown at every ITMA, and hence the machine stoppage affects the mill efficiency to a very considerable extent. Table 4 shows some of the air-jet looms demonstrated at ITMA

'87. The actual machine stoppage, or down-time, in resetting a machine to produce or process a different material is increased in the wide range of small-lot production. How to keep the down-time at a minimum is therefore the vital factor in the efficient production of a wide range of the short-run products. Because of this, several computer-aided production-control systems have been developed and introduced to Japan's textile industry in recent years.

Table 2. Japan's Textile Industry in 1985

Textile ind.	Enterprises	Employees	Outputs(¥100m)
Silk reeling	190(0.0)*	6,669(0.1)	1,277(0.0)
Spinning	900(0.1)	79,083(0.7)	12,768(0.4)
Twisting	9,027(1.2)	39,099(0.3)	2,885(0.1)
Weaving	40,139(5.3)	186,716(1.6)	20,466(0.8)
Knitting	17,818(2.4)	194,712(1.7)	19,960(0.7)
Dyeing	8,835(1.2)	114,047(1.0)	14,225(0.5)
Miscellaneous	14,197(1.9)	99,488(0.9)	12,844(0.4)
Clothing	50,977(6.8)	582,897(5.0)	38,183(1.4)
Man-made fibres	84(0.0)	31,448(0.3)	10,796(0.4)
Total	142,167(19.0)	1,334,159(11.6)	133,404(5.0)
All manuf.ind.	749,366(100.0)	11,542,574(100.0)	2,684,763(100.0)

(Source: Japan Chemical Fibres Association) *:share in %

Table 3. Textile Machinery Placed in Japan

Machinery	Cotton spinning	Cotton weaving	Filament weaving
1981	9,904,000(spindles)	287,834(looms)	277,063(looms)
1982	9,759,000	282,568	258,831
1983	9,440,000	278,209	242,284
1984	9,289,000	274,529	228,564
1985	9,092,000	255,541	212,460
1986	8,686,000	243,047	198,288

(Source: Japan Chemical Fibres Association)

Table 4. Some of the Air-jet Looms at ITMA '87

Loom	Fabric	Reed Width (cm)	Speed	
			(picks/min)	(m/min)
Picañol:				
PAT-A-1-E190	Poplin	190(163 in reed)	950	1549
PAT-A-F-1-E190	Continuous-filament	190(155)	1170	1814
PAT-W-2-N-TI280	Bed sheeting	280(267.4)	600	1604
PAT-W-2-N330	Clothing	330(301)	540	1625
PAT-A-2-R190	Clothing	190(161)	760	1224
Sulzer-Rüti:				
L5100B400N1-1EPAM	Reinforced	400(2 × 190)	440	1672
L5100B280N1-1ENTM	Bed sheeting	280(246.5)	530	1306
L5100S190N21KTE	Apron cloth	190(186.4)	900	1678
L5100S190N4SNTE	Blouse fabric	190(175)	645	1129
Tsudakoma:				
ZA205-4S-190	Taffeta	190(172)	1040	1789
ZA103-4S-190-2C	Palace crêpe	190(173)	710	1228
ZA205-C4-190	Pinpoint oxford	190(170)	1040	1768
ZA207T-B16-230-4C	Terry cloth	230(3 × 71)	560	1193
ZA205-C6-420-2C	Poplin	420(2 × 206)	440	1813
ZA205-B16-190-6C	Fancy plaid	190(170)	710	1207
ZA205-C6-280-2C	Sheeting	280(244)	650	1586

以下略

例(2) 「日本における品質管理」より

Total Quality Control in Japan

History of Quality Control in Japan

- * Starting of National Standard System (Japanese Industrial Standard Marking System) regulated by Industrial Engineering Standard (in 1949)
 - * Self imposed adoption judged by private factories
 - Introduction and diffusion of Statistical Quality Control (S.Q.C.)
 - * Transition of value judgement from inspection to process control
 - Improvement of the processes from which defects are derived
 - Decrease of inspecting cost
 - Revealed problems which are not solved only by process control
 - Solution of problems related with reliability, safety, conformability to demands.
 - * Raised morale on Quality Control including the process of developing new products (around in 1960)
 - Introduction of Total Quality Control participated by all departments of a company
 - Participation of nonproductive departments, such as planning, drawing, service, account, labor dept.
- * Deffusion of T.Q.C.

Characteristic of Quality Control in Japan

- * Characteristic of social structure in Japan
 - * In Europe and America --- professionalism, vocational labor unions, high rate in change of occupation, and so forth,
 - * In Japan --- top and bottom social structure (vertical social structure), in-house labor unions, life-long employment, and so forth.
- * Birth of T.Q.C. in Japanese style
 - * In Europe and America --- Taylor system (controlled by specialists)
 - * In Japan --- Diffusion of Q.C. circle activities participated by all employees at each level of each department.

Quality Control

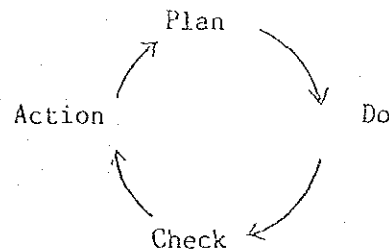
* Purpose

* A system of means whereby the qualities of products or services are economically produced to meet the requirement of the purchaser while utilizing statistical methods.
(Glossary of terms used in Q.C. by JIS)

Demands of the consumer --- To receive necessary products in sufficient quality with proper price.

This is not only to cover national standard.

Procedure



* Utilization of P.D.C.A. cycle

- * Plan --- Object, goal, method of accomplishment
- * Do --- education, training, execution of jobs
- * check --- check of the result
- * Action -- Elimination of the causes of defects

Significance

* Security of the Quality required by the consumer and reform of the companies

* Administration of marketing research, planning new products, drawing, production, sales, and after-sale service.

* Improvement of Quality Control by P.D.C.A. cycle and proposal system

Actualization of the management, respecting humanity, not pursuing the profit in short-term, responding consumer's demands (including the demands of following process in a company), participated by all employees.

---> reform of the companies

Rolls of executives and managers

* Rolls of executives

- * To deepen the comprehension of Quality Control
- * To decide its introduction and policy of promotion, and to state them clearly.

以下略

2. 実施状況

訪問国	場所	月／日・時間	参加人員
エチオピア	繊維公社	10／19・10～12	12
		10／19・14～15	
		10／20・10～12	
ガナ	テマ紡織会社	10／25・14～16	9

3. 参加者との質疑応答内容

今回準備した講義内容は訪問国の現状からみて、いささか縁遠い話と思われたので、10年後、20年後に貴国においても必要になる技術であり、諸兄等幹部技術者は将来計画を立てる上の参考にして欲しいと締め括った。セミナー終了後、参加者からの主な質問内容は次の通りであった；

(1) エチオピア

- 織機モニタリングシステムの導入前と導入後の工場側の評価について。
- 日本は繊維輸入国だというが、現在企業の業績が良い理由は。
- TVで日本のオートメーション工場を見たが、コスト的に利点があるか。また省人化した場合、その対応は。
- 日本は老人国だといわれるが、その対策は。若い人の終身雇用制についてどのように思うか。業種による賃金差は。
- 産業の空洞化についてどう思うか。輸入と需要の調整は。

(2) ガナ

- モニタリングシステムのコストは。織物の納期は。
- 日本製繊維機械メーカーのコストダウンへの対応は。
- 合併企業に対する考えは。日本の小企業の現状と生き残り策は。
- このようなセミナーを開くのなら、参加者の枠を広げて欲しい。
- 日本が作った研修センターの設備更新を望む。
- 西欧機械メーカーとの接触はあるが、日本メーカーとはない。

4. 実施成果等

先進工業国の一員である日本の繊維産業及び繊維機械産業の実態と、企業の生き残り策としての技術開発の現状を、帰国研修員達は新たに窺い知ることができたと思われる。一方、我々はこれまで余り情報が得られなかったアフリカの繊維技術の実態を知ることができ、今後の技術研修計画を立てる上で参考になるものと考えられる。

IV. 当該研修コース改善への提案

前にも記した通り、今回調査した両国は極端な外貨不足から、設備更新はおろか原料購入さえも事欠く有様で、このままでは産業として存続していくことが困難であり、技術指導以前に解決しなければならぬ問題があった。

帰国研修員の多くは、日本での楽しい生活の思い出を語ってくれたが、技術の面では帰国後研修成果を活用する場がないことを訴えた。現状ではあまりにも、日本と両国間との経済的・技術的格差が大きすぎ、今の日本での研修内容は彼等にとって消化不良になっているものと思われた。

よって出来ることなら、国情に合った研修内容を計画すべきだと思われる。例えば現地に技術研修センターを設置、工業高校繊維工学科程度の教科内容を海外青年協力隊により指導する方が、日本で研修させるより実地的であると考えられる。要は短期間に終了する事業よりも、長期にわたり現地の実態を踏まえながら根気よく指導を続けて行く事業が必要である。因みにガーナには日本が建てた技術研修センターがあるものの、設備は古くすでにスクラップ化しているものもあった。帰国研修員の多くがこのセンター修了生で、設備更新についての日本の援助を強く望んでいた。(写真22参照)

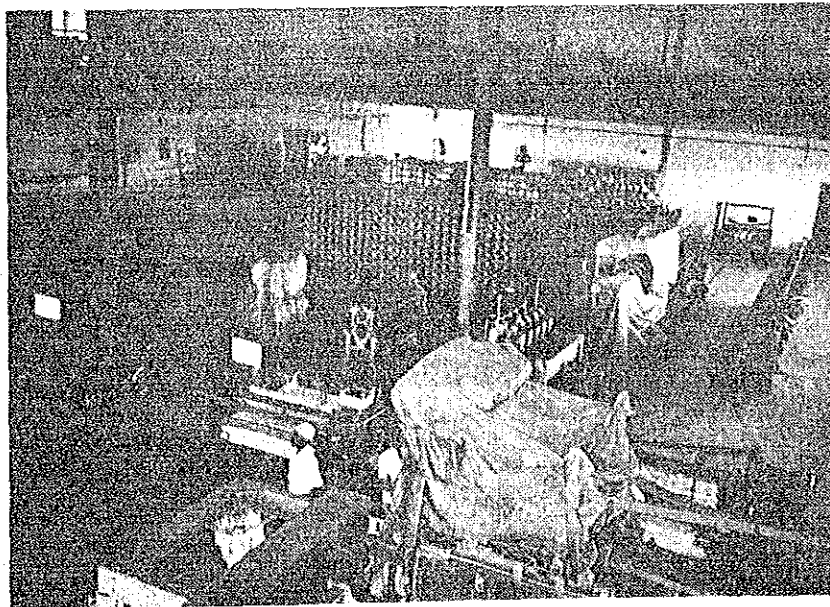


写真22 研修センターの内部

V. 現地報告書

1. エチオピア

SUMMARY REPORT OF THE FOLLOW-UP TEAM
FOR THE EX-PARTICIPANTS
OF THE GROUP TRAINING COURSE OF JICA
ON TEXTILE MACHINERY ENGINEERING

1. INTRODUCTION

Being dispatched by the Japan International Cooperation Agency (JICA) as a part of its Follow-Up Programme for the ex-participants of the group training course on Textile Machinery Engineering, the team, consisting of three members, headed by Mr. Hiroshi Tanaka, Head of General Affairs Div., Nagoya International Training Center, JICA, has conducted the follow-up activities for four days after its arrival to Ethiopia on 18th of October, 1988.

The team has the pleasure to submit a summary report on the results of the follow-up activities, for the purpose of references of the concerned authorities of the Government of Ethiopia.

2. TEAM MEMBERS

- | | | |
|------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (1) Mr. Hiroshi TANAKA | Leader | Head, General Affairs Division
Nagoya International Training
Center, JICA |
| (2) Dr. Teruo ISHIDA | Technical Guidance
on Textile Machinery | Deputy Director, Industrial
Research Institute of Ishikawa
Prefecture |
| (3) Mr. Tatsumi OKADA | Technical Guidance
on Industrial Policy | Director, 1st Small and Medium
Enterprise Division, Nagoya
Bureau of International Trade
and Industry, Ministry of
International Trade and
Industry |

3. OBJECTIVES

The objectives of the team are as follows:

- (1) The evaluation on the effects of the courses, Textiles Machinery Engineering and Cotton Weaving Engineering which was revised to the former one.
- (2) Assessment of problems, if any, in the process of conducting the training course of JICA.
- (3) Confirmation of needs of the training programme of JICA.
- (4) Delivering lectures on the present status of the relevant fields of technology in Japan.

4. SUMMARY OF THE FOLLOW-UP ACTIVITIES AND RECOMMENDATION TO NATIONAL TEXTILES CORPORATION FROM TECHNICAL POINT OF VIEW

We conducted:

- (1) Visit and interview with Mr. Neway Zera Yohannes, Head, Manpower Planning & Labour Dept., ONCCP.
- (2) Visit and interview with Mr. Shamsan Yadeta, Deputy General Manager, NTC and other officials.
- (3) Interviews with ex-participants of the training courses of JICA.
- (4) Seminar in NTC.
- (5) a. Visits to NEFAS SILK Thread Factory, NTC.
b. Visit to AKAKI Textile Factory, NTC.

We have visited two textile factories, i.e., NEFAS SILK Thread Factory and AKAKI Textile Factory. Some of the impressions obtained through the visiting of two factories are as follows:

- (1) Many of the machinery being used in these factories were old. And some of them were running in the unsuitable condition for producing quality products due to a lack of proper maintenance.
- (2) Not only the machine maintenance, but also handling the materials, e.g., yarns, bobbins, beams, fabrics, must be carried out carefully, otherwise the quality products can not be obtained.
- (3) It was seen that clean-up of the machinery being used was another factor to increase the productivity as well as improve the quality of products. The clean-up is also effective for improvement of the condition for your workers there.

- (4) However, the most effective counter-measure for increasing the productivity as well as the quality of products must be replacement of the present old machinery to modern machinery, and at the same time, it is also necessary to train the workers.
- (5) Despite of these facts, we also appreciate the technical staffs of the factories for their efforts to maintain the old machinery.

Through the follow-up activities which have been conducted, the team has confirmed that the result of the training courses is really bringing up the progress quite extensively in the relevant field of Ethiopia.

Finally, the team would like to express the sincere appreciation and gratitude to ONCCP., Ministry of Industry, and NTC for the valuable assistance extended to us, and also to the Embassy of Japan and JICA Ethiopia Office for the assistance and support.

22nd of October, 1988

In Addis Ababa

HIROSHI TANAKA

Leader of the Follow-Up Team
for the Group Training Course
on Textile Machinery Engineering
(Cotton Weaving Engineering)

TO: The Ministry of Finance & Economic Planning,
The Government of Ghana

SUMMARY REPORT OF THE FOLLOW-UP TEAM
FOR THE EX-PARTICIPANTS OF THE GROUP TRAINING COURSE
OF JICA ON TEXTILE MACHINERY ENGINEERING
(COTTON WEAVING ENGINEERING)

1. INTRODUCTION

Being dispatched by the Japan International Cooperation Agency (JICA) as a part of its Follow-Up Programme for the ex-participants of the group training course on Textile Machinery Engineering (Cotton Weaving Engineering), the team, consisting of three members, headed by Mr. Hiroshi Tanaka, Head of General Affairs Division, Nagoya International Training Centre, JICA, has conducted the follow-up activities for six days after its arrival in Ghana on 22nd of October, 1988.

The team has the pleasure to submit report on the results of the follow-up activities for the purpose of references of the concerned authorities of the Government of Ghana.

2. TEAM MEMBERS

- | | | |
|------------------------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| (1) Mr. Hiroshi TANAKA | Leader | Head, General Affairs Division, Nagoya International Training Center, JICA. |
| (2) Dr. Teruo ISHIDA | Technical Guidance on Textile Machinery | Deputy Director, Industrial Research Institute of Ishikawa Prefecture |
| (3) Mr. Tatsumi OKADA | Technical Guidance on Industrial Policy | Director, 1st Small and Medium Enterprise Division, Nagoya Bureau of International Trade and Industry, Ministry of International Trade and Industry. |

3. OBJECTIVES

The objectives of the team are as follows:

- (1) The evaluation on the effects of the courses, Textiles Machinery Engineering and Cotton Weaving Engineering which was revised to the former one
- (2) Assessment of problems, if any, in the process of conducting the training course of JICA
- (3) Confirmation of needs of the training programme of JICA

- (4) Delivering lectures on the present status of the relevant fields of technology in Japan.

4. SUMMARY OF THE FOLLOW-UP ACTIVITIES

- (1) Visit and Interview with Mr. Karbo, Deputy Director of International Economic Relations Department Ministry of Finance and Economic Planning and other Officials.
- (2) Visit to Tema Textiles Ltd. and Seminar at T.T.L.
- (3) Interviews with ex-participants of the training courses of JICA.
- (4) Visits to:
 - (a) GIHOC FIBRE PRODUCTS COMPANY LTD - KUMASI
 - (b) LOYALTY INDUSTRIES LTD - ACCRA
 - (c) NATIONAL INDUSTRIAL CO. LTD. - ACCRA

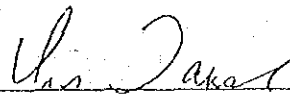
5. RECOMMENDATION FROM TECHNICAL POINT OF VIEW

as attached sheet

Through the follow-up activities which have been conducted, the team has confirmed that the result of the training courses is really bringing up the progress quite extensively in the relevant field of Ghana.

Finally, the team would like to express the sincere appreciation and gratitude to the Ministry of Finance and Economic Planning for the valuable assistance extended to us, and also to the Embassy of Japan and JICA Ghana Office for the assistance and support.

27th of october, 1988
In Accra



HIROSHI TANAKA

Leader of the Follow-Up Team
for the Group Training Course on
Textile Machinery Engineering
(Cotton Weaving Engineering)

CC: Embassy of Japan.
JICA Ghana Office

(An attached sheet)

RECOMMENDATION FROM TECHNICAL VIEW POINT

We have visited four textile factories, i.e., Tema Textile Ltd., Gihoc-Fibre Products Co., National Industrial Co. Ltd., and Loyalty Industries Ltd.

Among the factories visited, the present condition of National Industrial Co. and Loyalty Industries Ltd. will be unable to help by any technical advice from our side because of their most important counter measure must be to get some suitable partners who can provide the financial, management and technical assistances for the reconstruction of the two factories.

We thought that the technical condition of Tema Textile Ltd. should be much better than that of other factories in this country. This might be caused by the partnership with a Chinese company in Hong Kong. Hence we think that Tema Textile will be able to keep its present technical condition as far as the partnership is continued.

Gihoc-Fibre Products Co. is faced with a lack of raw-material shortage due to financial problem. Therefore it must be solved before the technical condition is discussed between us.

Thank you

