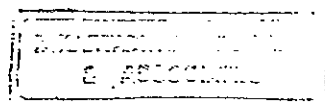


ESTIMATE OF LOCAL COSTS FOR THE TRADE TRAINING GRANT AID PROJECT

I.	Preparation of Infrastructure on Location.	
1.	Site Preparation	
1.1.	Site clearing, leveling, & demolishing	
1.2.	Soil testing	Rp 3.000.000,-
1.3.	Site mapping (1 : 200)	Rp 250.000,-
1.4.	Survey of existing infrastructure	
1.5.	Block plan permit	Rp 5.500.000,-
2.	Public Utilities	
2.1.	Electricity	Rp 160.000.000,-
2.2.	Water supply	Rp 50.000.000,-
2.3.	Telepon	Rp 20.000.000,-
2.4.	Utilities Installation permit	Rp 10.000.000,-
II.	Incidental Civil Works.	Rp 150.000.000,-
	Landscaping & outdoor lighting; fences; guardhouse; gates.	
III.	Furnishings/Interiors	Rp 1.400.000.000,-
IV.	Master Plan & Block Plan	Rp 45.000.000,-
V.	Life Cycle Cost for Building (Renovation, Taxes, Maintenance, Operation).	



COST OF A BUILDING

Cost of a building consist of the following :

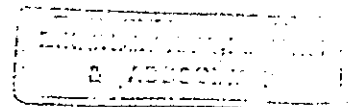
- I. Construction Cost : . Architecture Building System
 . Structure building System
 . Mechanical & Electrical Building System.

- II. Other Cost before occupancy : . Insurance
 . Legal
 . Survey & Boring
 . Off Site Utilities
 . Furnishings & Interior
 . Architect & Engineer Fee
 . Permits

- III. Life Cycle Cost : . Renovation
 . Taxes
 . Maintenance
 . Operation

Arch	Archer.C II	35%	III		
Struct	Constr.C I	65%		II	70% Life-Cycle.C
Mech & El				I	30% Constr.C
Constr.Cost					

The cost of "Maintenance" and "Operation" depends largely on the initial cost and the quality of the architecture and engineering building system.
 Low initial building cost achieved by the sacrifice of quality can result in high life-cycle cost.



KIND/ FIELD OF TRAINING & OTHER FACILITIES	NO. OF INSTA.	DURATION PER YEAR		TRAINEES/YEAR		KIND OF EQUIPMENT	ROOMS REQUIRED	
		DURATION (MONTHS)/YEAR	TOTAL (WEEKS)	PARTICIPANTS (PER MONTH)	TOTAL		NAME OF ROOM	PERFORMANCE
A TRADE TRAINING DIVISION								
1. How to get Started in Exports (Course 1)	2	12 weeks (half-time)	5 (10.5 mos)	20 - 25	125			Lecture, case studies (2 hrs. in 15 part.)
2. Export Procedures & Documentation (Course 2)	2	12 weeks (half-time)	4 (8 mos)	20 - 25	100			
3. Transport Problems in Exports (Course 3)	3 + 2	13 weeks (full-time)	3 (1 mo)	20 - 25	75			
4. Basic Export Market Research (Course 4)	3 + 2	12 weeks (half-time)	3 (1.5 mo)	20 - 25	75			
5. Business Communications (Course 5)	2 + 1	12 weeks (half-time)	4 (8 mos)	20 - 25	100			
6. Export of Selected Products to Japan (Courses 6 - 12)	2 + 2	13 weeks (half-time)	6 (14 mos)	10 - 15	90			
7. Office & administration		12 mos. (full-time)	10.5 mos	14 personnel		1 Seminar room	1 80	160
						1 office	1 80	160
B EXHIBITION TRAINING DIVISION								
1. Trade Fairs as & Promotional Tool (Course 1)	3 + 3	12 weeks (half-time)	3 (1.5 mo)	20 - 25	75			
2. Preparation for Specific Trade Fairs (Course 2)						1 Seminar room	1 80	
3. Office & administration						1 office	1 80	160
C INSPECTION & QUALITY CONTROL TRAINING								
1. Wood and Cellulose Products		12 months	6 (12 mos)	15		1 Wood Laboratory	1 240	
2. Food Products		12 months	6 (12 mos)	15		1 Food Laboratory	1 180	
3. Rubber Products		12 months	6 (12 mos)	15		1 Rubber Lab	1 120	
4. Packaging		12 months	6 (12 mos)	15		1 Packaging Lab	1 120	
5. Textile & Garments		12 months	6 (12 mos)	15		1 Textile & Garment Lab	1 120	
6. Office & administration						1 Station Lab.	1 120	
						1 General Ins- trument Lab.	1 120	
						1 office	1 80	160

KIND/ FIELD OF TRAINING & OTHER FACILITIES	NO. OF INSTR.	DURATION PER YEAR		TRAINEES/YEAR	KIND OF EQUIPMENT	ROOMS REQUIRED		
		DURATION /EVENT	TOTAL /YEAR			NAME OF ROOM	NO.	PERFORMANCE
D LANGUAGE TRAINING DIVISION								
Courses 15 - 16	2	13 months	4 1/2 months	20 - 25	100 16 mm Movie Projector 25 mm Slide Projector Monitor Speaker TV Camera Set Monitor Tv with Stand Microphone (boom Stand) Microphone (Deck Top) Lighting Set Audio Master System Set Video Master System Set Slide Copier System Video Editing System Fi-Jack-in System Set Duplicating System Set Portable Video Taping System Set 15 mm Camera Set Portable Sound Amp. Set for Lecturer Set	Language Lab.	1	80 with storage
E GENERAL AFFAIRS DIVISION								
1. Auditorium & Projection Room					100 16 mm Movie Projector 25 mm Slide Projector Monitor Speaker TV Camera Set Monitor Tv with Stand Microphone (boom Stand) Microphone (Deck Top) Lighting Set Audio Master System Set Video Master System Set Slide Copier System Video Editing System Fi-Jack-in System Set Duplicating System Set Portable Video Taping System Set 15 mm Camera Set Portable Sound Amp. Set for Lecturer Set			
2. Studio Control Room								
1. Business Contact Rooms						Business Conference Room	2	150 Cubicles
2. Meeting Room								
3. Public Facilities						Cafeteria Restaurant Pantry Kitchen	4	400 11 Self Service 200 100
4. Loading Dock								
F ADMINISTRATIVE DIVISION								
1. Library					Video Monitor Set.	Library	1	200
2. Administrative Facilities						Office/Back Rm. Lecture Rm. Archive Reproduction	1 1 1 1	200 185 80 90

100-115-150-180-185-190-195-200-205-210-215-220-225-230-235-240-245-250-255-260-265-270-275-280-285-290-295-300-305-310-315-320-325-330-335-340-345-350-355-360-365-370-375-380-385-390-395-400-405-410-415-420-425-430-435-440-445-450-455-460-465-470-475-480-485-490-495-500-505-510-515-520-525-530-535-540-545-550-555-560-565-570-575-580-585-590-595-600-605-610-615-620-625-630-635-640-645-650-655-660-665-670-675-680-685-690-695-700-705-710-715-720-725-730-735-740-745-750-755-760-765-770-775-780-785-790-795-800-805-810-815-820-825-830-835-840-845-850-855-860-865-870-875-880-885-890-895-900-905-910-915-920-925-930-935-940-945-950-955-960-965-970-975-980-985-990-995-1000

KIND/ FIELD OF TRAINING & OTHER FACILITIES	NO. OF INSTR.	DURATION PER YEAR		TRAINEES/YEAR		KIND OF EQUIPMENT	ROOMS REQUIRED		
		DURATION /EVENT	TOTAL /YEAR	PARTICIPANT/EVENT	TOTAL		NAME OF ROOM	ROOM NO	PERFORMANCE
6 EXHIBITION DIVISION									
1. Permanent display (wood products, textile & garments, rattan, gifts, house ware, food products)						Printing offset machine		1200	
2. Temporary display (agriculture, industrial, handicrafts)						Slide Projector Multi System Set Sound System Set Stage Lighting Set Stage curtain Set		500	
3. Office & administration								80	1780
1. Storage for change of products								500	
2. Storage for display kit & supplementary equipment								200	700
DORMITORIES					100			1000 125 R2 2500	2500
Efficiency ratio 60/40 %						TOTAL NET AREA		8025	40 %
						TOTAL BUILDING AREA		3236	
								11333	

1. TRADE TRAINING

1. COURSE TITLE OR FIELD	BASIC TRAINING COURSE	ADVANCED TRAINING COURSE	TRADE MANAGEMENT TRAINING COURSE	BUSINESS JAPANESE LANGUAGE TRAINING
2. Content.	<p>1 How to get started in Export</p> <p>2 Export Procedures and Documenttation.</p> <p>3 Business Communications.</p> <p>4 Transport problems in Export incl,shipping and freight service.</p> <p>5 Basic Export Market research.</p>	<p>- Export of selected products to Japan. (Each course deal with one particular priority product group only)</p> <p>(e.g. Rattan Furniture, Garment, Textile, Processed Food etc.)</p> <p>Note : It is to early to make specific proposal for this programmes, and it should be flexible to response to the market developments.</p>	<p>Export Management and International Marketing.</p> <p>- International Marketing Strategy.</p> <p>- Advance Export Procedures</p> <p>- Trade Information Service</p> <p>- Trade Promotion Techniques and Methods.</p>	<p>Japanese Language : --</p> <p>1. Basic.</p> <p>2. Intermediate.</p> <p>3. Advanced.</p>
3. Required or Exported Qualifications of participants.	<p>Small & Medium Size Entrepreneurs, with little or no previous experience government official.</p>	<p>Small & Medium Sized Entrepreneurs, with little or no previous experience government official.</p>	<p>Entrepreneur, Sales Manager, Gov. Official.</p>	<p>Gov. Official, language teacher, private sector.</p>

12. Teaching Equipment if any.	Visual aids, slides projector, overhead projector, white board, TV video/camera.	Visual aids, slides projector, overhead projector, white board, TV, Video/camera.	Visual aids, slides projector, overhead projector, white board, TV Video/camera.	Language Laboratory equipment.
13. Training Objective.	<p>1. How to get started in Export : To enable the participating companies to start exporting to as least one new foreign market each.</p> <p>2 Export Procedures and Documentation : To familiarize the participants with common procedures for foreign trade transactions and to enable them to fill in export form in Indonesia.</p> <p>3 Transport Problems in Exports, Incl. Shipping and Freight Services: To increase the participants ability to solve transport problems crucial to their export transactions, including problems of domestic transport.</p>	<p>To introduce the participating companies products to the Japanese market. To increase the ability of the participants to plan and implement introductions of their products to other export markets.</p>	<p>-Improvement of marketing method of staff and private sector involved in trade management and trade promotion who will be professional in International Trade.</p> <p>-Objective of each training course : Improvement of government employees, knowledge and marketing abilities of export promotion.</p> <p>-To present other specialized training events, in the form of courses, seminar symposia on subject related to export marketing problem and appointments, to make it flexible respons to market developments.</p>	<p>To enable the participants to communicate verbally in Japanese, at a level sufficient for their business/professional needs</p>

4. Organization to which participants belong.	Official/Private.	Official / Private Sector	Official / Private.	Official / Private
5. No of Necessary Instructors (counterparts)	10 full time instructors and 4 guest lecturers.	2 full time instructors 2 Japanese experts	2 full time instructors as manager and 7 guest lecturers.	one per course (native speaker)
6. Frequency/Year	Course No.1. 5/year. Course No.2. 4/year. Course No.3. 2-3/year. Course No.4. 2-3/year. Course No.5. 3-4/year. Total min 16-19/Year.	6 / year Covering one priority product group each.	6 / Year	4 / Year
7. Duration/Coverce	2 week.	3 weeks half time plus market visit to Japan.	1 month	Several months depenity on prior knowledge of the language.
8. Length of Training per day.	3 1/2 Hours 08.30 - 10.00. 10.30 - 12.00. or. 14.00 - 15.30. 16.00 - 17.30.	3 1/2 Hours 08.30 - 10.00. 10.30 - 12.00. or. 14.00 - 15.30. 16.00 - 17.30.	3 1/2 Hours 08.30 - 10.00. 10.30 - 12.00. or. 14.00 - 15.30. 16.00 - 17.30.	12 1/2 Hours. 08.30 - 10.00. 15.00 - 17.00. 18.30 - 20.30.
9. No of Participant per course.	20 - 25 persons	10 - 15 persons	20 - 25 persons	20 - 25 persons
10. Annual Enrollment.	320 - 400 persons	60 - 90 persons.	150 persons	300 persons.
11. Teaching Method.	Lecture, case study, project work, demonstration including company visit, field visit, exercises.	Lecture, case study, project work, market visit to Japan.	Lecture, discussion, Field visit.	Language Laboratory and other method as appropriate.

	<p>4 Basic Export Market Research : To enable the participating companies to formulate export market research problems; to identify and utilize sources of trade information, to make use of the Indonesia official trade representation abroad for information gathering purposes, and to ingrate market information into the overall export marketing planning.</p>			
	<p>5 Business Communications: To increase the ability of the participants to have effective business communications in written English.</p>			

II. EXHIBITION TRAINING COURSE

(1). TRAINING OBJECTIVE (ITEM)	To enable the participating companies to utilize trade fairs as effective parts of the export marketing mix, coordinated with other promotional elements.	To develop good skills of trainers in the creative design and display for trade exhibition.	
(2). COURSE TITLE.	Trade Fair as a promotional tool.	Preparation courses for specific Trade Fair.	
(3). CONTENTS.	<ul style="list-style-type: none"> - Using trade fairs as an element of the export marketing mix. - How to select appropriate fairs. - What business visitors expect at a fair. - Establishing objectives for exhibiting. - Planning procedures and project management for exhibiting. - Pre-fair visitor promotion. - Preparations for a fair (market research, preparing samples, sales literature, briefing representative, etc.) - Department on the stand (approaching visitors, extracting information, making the right sales "pitch", etc. - Product Display and Presentation techniques. - Stand layout and decoration. - Recording information and following-up. - Evaluating results. 	Implementation of the theory will in advance to participate in a specific Trade Fair.	

(4). REQUIRED OR EXPECTED QUALIFICATIONS OF PARTICIPANTS.	Small & medium scale entrepreneurs, with some export experience.	Small & medium scale entrepreneurs, with some export experience (exporters intending to participate in a specific trade fair.	Entrepreneurs, sales manager, government official.
(5). ORGANIZATIONS TO WHICH PARTICIPANTS BELONG.	Private sector	Private sector	
(6). NO OF NECESSARY INSTRUCTORS (COUNTERPARTS).	3 persons full time instructors. 3 - 4 guest lecturer	2 persons + guest lectures	
(7). FREQUENCY / YEARS.	3 time / year	25 time / year, depends on trade fair will be participated.	
(8). DURATION COURSE.	2 weeks half time	1 weeks half time	
(9). LENGTH OF TRAINING PER DAY.	3½ hours	3½ hours	7 hours.
(10) NO OF PARTICIPANTS COURSE.	20 - 25 persons	10 - 15 persons	25 persons.
(11) TEACHING METHOD	Lecture, case study, field visits, project work.	Lecture, case study, field visits, project work.	Lecture and discussions, simulation, Field visit.
(12) TEACHING EQUIPMENTS	Multi system set. Visual aids slide projector (1 set), copy machine, telex machine. Sound system (1 set), scale lighting system (1 set), scale custom set.	- Display materials, computer - Visual aids. - Video projector set.	- Visual aid/video & film projector. - Slide projector. - Overhead Projektor set. - Sound system set.

EXHIBITION HALL	MATERIAL DISPLAY	CHANGE OF PRODUCT DISPLAY	EQUIPMENT REQUIRED	ROOM REQUIRED	OBJECTIVE
- Permanent Display.	<ol style="list-style-type: none"> 1. Wood Product. 2. Textile & Garment. 3. Rattan Product. 4. Gift Item & House Ware. 5. Food Product. 	2 time / year.	<ul style="list-style-type: none"> - Exhibition modules. - Man & queens dolls. (full & half body). - Dress rack. - knock down stage. - Forklift (manual) - han trolley. - lighting panel. 	1.500 m ²	To provide exhibition room for exporter to assist to promote Indonesian export.
- Special Promotion.	<ol style="list-style-type: none"> 1. Agriculture 2. Industrial 3. Handicraft 	3 time / year	<ul style="list-style-type: none"> Display Kit Printing Machine (offset). 	1.000 m ²	
- STORAGE	<ol style="list-style-type: none"> 1. Wood product. 2. Textile & Garment. 3. Rattan product. 4. Gift Item & House ware. 5. Food product. 		Storage Kit.	500 m ²	

INSPECTION AND QUALITY CONTROL TRAINING

S U B J E C T	RUBBER AND RUBBER PRODUCTS	FROZEN FOOD	P A C K A G I N G
1. TRAINING OBJECTIVE	To obtain well versed persons in testing, quality control, and inspection for implementation of further training of the kind.	To obtain well versed persons in testing, quality control, and inspection for implementation of further training of the kind.	To obtain well versed persons in testing, quality control, and inspection for implementation of further training of the kind.
2. COURSE TITLE OR FIELDS	Testing, quality control, and inspection training course in rubber and rubber products.	Testing, quality control, and inspection training course in frozen food.	Testing, quality control, and inspection training course.
3. CONTENT	See appendix 4 A	See appendix 5 A	See appendix 6 A
4. REQUIRED OR EXPECTED QUALIFICATION OF PARTICIPANT	- High school graduate or equivalent	- High school graduate or equivalent	- High school graduate or equivalent
5. ORGANIZATION TO WHICH PARTICIPANT BELONG	- Government Official - Private Company	- Government Official - Private Company	- Government Official - Private company
6. NO. OF NECESSARY INSTRUCTORS	2	2	2
7. RECRUITMENT OF INSTRUCTORS (COUNTERPART)	Expert in Q.C. or Inspector	Expert in Q.C. or Inspector	Expert in Q.C. or Inspector
8. FREQUENCY / YEAR	4	4	4

S U B J E C T	RUBBER AND RUBBER PRODUCTS	PROZEN FOOD	PACKAGING
9. DURATION / COURSE	4 Weeks	8 Weeks	4 Weeks
10. LENGHT OF TRAINING / DAY	8 Hours / Day	8 Hours / Day	8 Hours / Day
11. NO. OF PARTICIPANTS / COURSE	15 Persons	15 Persons	15 Persons
12. ANNUAL ENROLMENT	60 Persons	60 Persons	60 Persons
13. TEACHING METHODS	Lecture and Practice	Lecture and Practice	Lecture and Practice
14. TEACHING EQUIPMENTS	Related testing equipments	Related testing equipments	Related testing equipment

See appendix 4 B

See appendix 5 B

See appendix 6 B

INDONESIA EXPORT TRAINING CENTRE

CURRICULA

A. TRADE TRAINING

- Course no.1 : HOW TO GET STARTED IN EXPORTS
- Target group : Small & Medium Size Enterprises (SMEs) with little or no previous export experience
- Objective : To enable the participating companies to start exporting to at least one new foreign market each
- Duration : Two weeks half-time
- Frequency : 5 times per year
- No. of participants: 20 - 25
- No. of trainers : 2 IETC trainers
- Teaching methods : Lectures, case studies, project work. ¹⁾

1) "Project work": Participants work on "projects", i.e. practical problems from their own companies within the subject matter area of the training course. This work is done under the guidance of the trainers and aims at producing a specific solution to the problem, ready for implementation in the company after termination of the course.

Course no. 2 : EXPORT PROCEDURES AND DOCUMENTATION

Traget group : SMEs with limited export experience

Objective : To familiarize the participants with common procedures for foreign trade transactions and to enable them to fill in export documents, including those required for exports from Indonesia.

Duration : Two weeks half-time

Frequency : 4 times per year

No. of participants : 20 - 25

No. of trainers : 2 IETC trainers

Teaching methods : Lectures, demonstrations (incl. company visits), project work.

Course no.3 : TRANSPORT PROBLEMS. IN EXPORTS, INCL. SHIPPING
AND FREIGHT SERVICES

Target group : SMEs with export experience

Objective : To increase the participants' ability to solve
transport problems crucial to their export
transactions, including problems of domestic
transport.

Duration : One week full-time

Frequency : 2-3 times per year

No. of participants : 20 - 25

No. of trainers : 3 IETC trainers, 2 - 3 guest trainers from
shipping companies and freight forwarders

Teaching methods : Lectures, case studies, field visits (to
shipping companies, Jakarta port and airport,
etc.), project work.

<u>Course no.4</u>	: BASIC EXPORT MARKET RESEARCH
<u>Target group</u>	: SMEs with export experience
<u>Objective</u>	: To enable the participating companies to formulate export market research problems, to identify and utilize sources of trade information, to make use of the Indonesian official trade representation abroad for information gathering purposes, and to integrate market information into the overall export marketing planning.
<u>Duration</u>	: 2 weeks half-time
<u>Frequency</u>	: 2-3 times per year
<u>No. of participants</u>	: 20 - 25
<u>No. of trainers</u>	: 3-4 IETC trainers, 2-3 guest trainers from the private and public sector
<u>Teaching methods</u>	: Lectures, case studies, exercises, project work

Course no.5 : BUSINESS COMMUNICATIONS

Target group : SMEs with limited export experience

Objective : To increase the ability of the participants to have effective business communications in written English.

Duration : Two weeks half-time

Frequency : 3-4 times per year

No. of participants : 20 - 25

No. of trainers : 2 IETC trainers. 1 guest trainer, preferably of English mother tongue.

Teaching methods : Lectures, exercises, project work.

Course no. 6 - 12 : EXPORT OF SELECTED PRODUCTS TO JAPAN

Each course should deal with one particular priority product group only (e.g. rattan furniture, garments, etc.).

Target group : SMEs with some export experience, wishing to develop exports to the Japanese market

Objective : To introduce the participating companies' products to the Japanese market. To increase the ability of the participants to plan and implement introductions of their products to other export markets.

Duration : 3 weeks half-time plus market visit to Japan

Frequency : 6 courses per year, covering one priority product group each

No. of participants : 10 - 15

No. of trainers : 2 IETC trainers, 2 Japanese experts

Teaching methods : Lectures, case studies, project work, market visit to Japan. Each of the courses should cover the basic steps in export marketing planning, e.g. sources of market information, distribution channels, product adaptation requirements, shipping facilities, payment terms, etc. The project work should be so organized that during the 3 weeks' course in Jakarta each participating company develops an export marketing plan for its product in the Japanese market. under

B. EXHIBITION TRAINING

<u>Course no.13</u>	: TRADE FAIRS AS A PROMOTIONAL TOOL
<u>Target group</u>	: SMEs with some export experience
<u>Objective</u>	: To enable the participating companies to utilize trade fairs as effective parts of the export marketing mix, coordinated with other promotional elements.
<u>Duration</u>	: 2 weeks half-time
<u>Frequency</u>	: 3 times per year
<u>No. of participants</u>	: 20 - 25
<u>No. of trainers</u>	: 3 IETC trainers. 3-4 guest trainers, e.g. from the Trade Fairs Division of NAFED, the Jakarta Fair, etc.
<u>Teaching methods</u>	: Lectures, case studies, field visits, project work.

D. LANGUAGE TRAINING

<u>Course no. 15 - 16</u>	: LANGUAGE TRAINING IN JAPANESE AND ENGLISH
<u>Target group</u>	: SMEs and government staff needing to learn/improve their Japanese or English
<u>Objective</u>	: To enable the participants to communicate verbally in Japanese or English, at a level sufficient for their business/professional needs
<u>Duration</u>	: Several months, depending on prior knowledge of the language
<u>Frequency</u>	: 3-4 courses per year
<u>No. of participants</u>	: 20 - 25
<u>No. of trainers</u>	: One per course (native speaker)
<u>Teaching methods</u>	: Language laboratory and other methods as appropriate

Items to be covered in this course include:

- Using trade fairs as an element of the export marketing mix.
- How to select appropriate fairs
- What business visitors expect at a fair
- Establishing objectives for exhibiting
- Planning procedures and project management for exhibiting
- Pre-fair visitor promotion
- Preparations for a fair (market research, preparing samples, sales literature, briefing representatives, etc.)
- Deportment on the stand (approaching visitors, extracting information, making the right sales "pitch" , etc.)
- Product display and presentation techniques
- Stand layout and decoration
- Recording information and following-up
- Evaluating results

Course no.14 : PREPARATION COURSES FOR SPECIFIC TRADE FAIRS

Such courses could be presented to companies intending to participate in a specific trade fair. They should be implemented well in advance of the fair and include selected items of Course no.15.

the guidance of the trainers. The first steps in implementing the plan are then taken during the market visit to Japan (also under the guidance of the trainers).

After having assisted in the planning and implementation of courses on exports to Japan, the IETC trainers should be able to present other similar courses, covering other products and markets, without assistance of the Japanese experts. The IETC trainers may have to draw upon other expertise for such courses, for instance commercial representatives in Jakarta from the market country.

could also be used to provide training in other areas of export marketing, such as product development, packaging, and distribution. The IETC trainers could also be used to provide training in other areas of export marketing, such as product development, packaging, and distribution.

OTHER SPECIALIZED COURSES/SEMINARS/SYMPOSIA

IETC will be well placed to present other specialized training events, in the form of courses, seminars or symposia, on subjects related to export marketing problems and opportunities. They could cover functional subjects, e.g. special packaging problems for a particular product group, costing and pricing, computerized trade information, or other special subjects such as negotiation techniques, joint ventures, special opportunities in exporting to a particular market (may be in connection with currency fluctuations, e.g. a cheaper dollar), etc. It is yet too early to make ^{partly} specific proposals for such programmes; indeed their very rationale lies in the possibility of using them as a flexible response to market developments. For these programmes, IETC trainers will normally be managers rather than lecturers; they will depend on outside guest speakers, often high level officers from government and business. The categories of participants in these programmes will also vary, and could in some cases include very senior staff for short (1-2 days) symposia on specific subjects.

IV. HUMAN RESOURCE REQUIREMENTS AND TRAINING OF TRAINERS

It can be estimated that IETC will need to employ 8-10 full time trainers to plan and implement the training programme recommended above. It will be important to employ a Director of IETC at an early time, in order to supervise the planning and act as senior counterpart to the Japanese team (in the Philippines, the Director of PTTC was employed some time before the planned start of construction work and of the recruitment of the first trainers).

The trainers to be employed by IETC should have a university background in marketing or international marketing, and a broad experience of export trade, either as businessmen or as advisers to businessmen. They should also have teaching experience, preferably from extension training of businessmen. They must be fluent in English. While they should all have broad, overall qualifications in export marketing and be able to teach a variety of subjects, some of them should have a more specific background in certain subjects of particular importance, e.g. transport, trade fairs, export market research, etc. The Director should, in addition to the qualifications of the trainers, also have experience of management of training programmes at a senior level. 2-14/11/77
Rait

In order to get maximum benefits from the Japanese technical cooperation inputs to the project, it is recommended that the Japanese experts, in close cooperation with the Indonesian trainers, undertake the following activities for each of the courses outlined above:

1. Identify specific training needs of the Indonesian exporters in the subject matter area of the course, including identification of the most important problems encountered by the exporters.
2. Train the Indonesian trainers in the technical subject matter of the course.
3. Train the Indonesian trainers in the pedagogical techniques best suited for use in training exporters in that particular subject (case studies, group work, etc.). DLC
4. Identify and develop suitable training material for the course, to the extent possible based on Indonesian conditions, and whenever needed translated into Bahasa Indonesia. Training of the Indonesian trainers in how to use the material (e.g. how to conduct case discussions).

5. Plan a detailed curriculum for the course, including specifications for each session of subject to be covered, teaching method and training material to be used.

Parts of items 2,3 and 4 should be undertaken in Japan, the rest of the work in Indonesia. To the extent that training in export marketing in English can be offered in Japan, this should be done. It may be advisable to request the Japanese experts to set up special training courses in Japan for the IETC trainers. The training in Japan should also include visits to Japanese export and import companies and to banks, shipping companies and other organizations related to foreign trade, as well as to Japanese training institutions with programmes in export marketing (mainly to study teaching methodology).

3. 工業製品・農産品生産高

GENERAL

The Indonesian manufacturing industry is projected to take off in the 6th Five Year Plan of 1994/1995 – 1999/2000, which will be characterized by a minimum dependency on imported basic materials and capital goods, well-developed and strong machinery and electronics industries, notable progress in technical design and engineering industries resulting in significant increases in the country's foreign exchange earnings.

The Indonesian manufacturing industry has indeed made notable progress in the past 15 years, its average growth rate being 12.7% a year as compared with only 4.0% for agriculture, 5.3% for mining and energy and 8.5% for trade and services. The overall growth rate of Indonesia's Gross Domestic Product (GDP) in the past 15 years was 5.9% a year.

As the result of its rapid growth, the role of the manufacturing industry as a contributor to Indonesia's GDP has increased from 8.3% in 1969 to 10.4% in 1974, to 13.7% in 1979 and to around 15.8% in 1983.

As a source of foreign exchange funds, the industry's role has risen from only 9.0% of Indonesia's export earning in 1979 to 14.9% in 1983.

Production

As shown in the following table, many manufacturing industries have indeed made very notable progress in the last 5 years, especially the fertilizer, cement, reinforcing rods, G.I. sheets and steel pipes industries.

It is expected that improved world economic conditions will further assist the development of the manufacturing industry.

TABLE 4.1.
PRODUCTION OF SELECTED MANUFACTURING INDUSTRIES
1979/1980 – 1983/1984

Items	Units	1979/1980	1980/1981	1981/1982	1982/1983*	1983/1984**
Textiles	million meters	1,910.0	2,027.3	2,094.0	1,708.9	1,563.6
Yarn	'000 bales	998.0	1,84.0	1,233.0	1,370.0	1,253.6
Fertilizer (urea)	'000 tons	1,827.0	1,985.1	2,006.7	1,944.1	2,204.8
Fertilizer (Z.A)	'000 tons	147.9	180.0	195.2	209.0	208.1
Cement	'000 tons	4,705.1	5,851.8	6,844.2	7,650.0	8,078.1
Paper	'000 tons	214.2	232.0	246.6	296.9	313.5
Salt	'000 tons	703.0	690.0	285.8	799.9	870.0
Motorcar tyres	'000 pieces	2,898.4	4,420.0	3,816.9	3,885.6	3,673.3

Table 4.1 (Cont'd)

Items	Units	1979/1980	1980/1981	1981/1982	1982/1983*	1983/1984**
Motorcycle tyres	'000 pieces	2,070.5	2,319.7	2,801.3	2,567.1	2,438.5
Coconut Oil	'000 tons	452.0	610.0	480.8	442.1	360.0
Vegetable Oil	'000 tons	266.2	278.9	326.4	326.2	498.0
Detergent	'000 tons	46.5	54.4	63.9	66.8	73.1
Clove Cigarettes	million pieces	41,500.0	50,500.0	55,600.0	59,100.0	62,911.9
White Cigarettes	million pieces	28,600.0	33,400.0	28,400.0	27,100.0	27,956.4
Reinforcing rods	'000 tons	500.0	640.5	671.0	743.8	724.3
Wire steel	'000 tons	108.0	143.2	159.7	128.3	103.9
Galvanized iron sheet	'000 tons	250.0	294.2	301.6	316.7	419.0
Steel pipe	'000 tons	129.5	153.8	243.0	282.5	390.0
Diesel engines	'000 sets	25.0	34.1	69.4	64.6	52.7
Automobiles	'000 units	102.6	170.1	209.9	188.4	155.6
Motorcycles	'000 units	221.6	410.0	503.3	577.4	504.4
Dry batteries	million dozen	38.5	43.9	46.1	48.1	52.8
T.V. sets	'000 sets	659.8	730.1	846.9	653.5	622.8
Radio sets	'000 sets	1,018.8	1,110.5	1,154.9	1,589.9	1,228.2
Light bulbs	million pieces	29.9	33.8	36.5	30.4	45.4
Refrigerators	'000 sets	99.6	134.5	138.5	152.4	139.3
Aeroplanes	unit	16	12	17	21	10
Helicopters	unit	16	12	12	21	20
Sewing machines	'000 sets	477.6	525.4	551.6	393.5	290.2

Source : The enclosure to the President's annual speech
The Department of Industry

*] Provisional figures

**] Estimated

Exports

Woodbased products, in the form of Sawn timber, plywood and other wood products are still the largest single industrial export product, their contribution in 1984, for example, being 25.5% of the total industrial product export value. The second position is held by rubber which contributed 23.3% to Indonesia's exports earnings in 1984.

In addition to rubber, the increasingly important export commodities are garments and other textile products, electrical and electronic goods, and essential oils (see the following table).

TABLE 4.2.
EXPORTS OF INDUSTRY PRODUCTS
1983 - 1984

Commodity	1983		1984	
	Volume (Ton)	Value FOB (US\$'000)	Volume (Ton)	Value FOB (US\$'000)
1. Woodbased	2,695,128	800,595	3,374,910	993,733
- Plywood	1,253,432	509,411	1,763,154	667,859
- Sawntimber	1,220,073	257,063	1,341,844	282,218
- Others	221,623	34,121	269,912	43,656
2. Metal goods	281,790	580,701	277,051	603,282
- Tin	24,950	309,220	22,568	269,146
- Aluminium	90,712	128,800	135,017	204,640
- Nickel	46,010	135,110	49,848	126,246
- Iron/steel	120,118	7,571	69,618	3,250
3. Textiles	52,337	269,403	80,649	483,905
- Garment	22,055	157,229	31,947	295,924
- Fabric	22,622	91,558	35,421	152,745
- Other textile	7,660	20,616	13,281	35,236
4. Rubber	902,807	804,554	973,837	909,517
- Rubber goods	555	1,062	1,203	2,637
- Sheet	173,824	166,666	168,612	162,802
- Crepe	18,802	15,520	20,105	17,044
- Crumb rubber	709,626	621,306	783,917	727,034
5. Animal feed	1,061,864	86,396	788,628	66,414
- Copra cake	304,874	31,752	140,257	14,224
- Rice bran	636,896	45,798	533,683	41,515
- Others	120,094	8,846	114,688	10,675
6. Essential Oil	3,697	35,604	5,090	53,253
- Patchouli Oil	498	7,641	665	15,819
- Other Essential oil	1,816	10,918	1,820	13,175
- Perfume	1,383	17,045	2,605	24,259
7. Nabati Oil	358,675	115,539	190,447	111,050
- Palm Oil	345,777	111,462	127,938	63,278
- Other nabati oil	12,898	4,077	62,509	47,772

Table 4.2 (Cont'd)

Commodity	1983		1984	
	Volume (Ton)	Value FOB (US\$'000)	Volume (Ton)	Value FOB (US\$'000)
8. Fatty Acid	89,710	32,400	153,617	61,495
- Stearin	61,101	23,150	118,972	48,805
- Other Acid	28,609	9,250	34,645	11,690
9. Electrical Equipment	3,717	145,672	4,696	168,897
- Diode transistor	826	114,941	1,254	133,164
- Other electrical equip.	2,891	30,731	3,442	35,733
10. Food	653,601	70,116	714,670	61,196
- Processed cocoa	10,113	17,245	1,013	3,298
- Mollases	619,384	23,045	690,528	26,912
- Shrimp crackers	2,102	4,028	2,035	3,443
- Fruits/vegetables	3,772	1,772	2,117	1,297
- Beverages	10,992	3,086	11,871	3,818
- Cigars	502	7,062	707	9,703
- Others	6,736	13,878	6,399	12,725
11. Cement	198,350	7,201	389,800	12,466
12. Handicrafts	979	8,034	1,400	9,349
13. Furniture	1,448	3,172	2,579	4,657
14. Chemical goods	33,723	19,166	197,408	47,220
15. Fertilizer	343,047	46,779	262,309	37,220
16. Pharmaceutical products	3,647	6,179	4,771	7,542
17. Frog legs	3,296	8,753	2,200	4,122
18. Leather & leather goods	5,720	26,954	8,486	42,136
19. Glass & Glass ware	17,785	8,705	24,007	10,229
20. Paper and paper goods	10,992	5,939	36,392	20,574
21. Precious stones	1	18,853	0	7,159
22. Other Industries	32,697	40,644	96,424	181,054
Total	6,755,011	3,141,359	7,589,371	3,896,512

Government Policy

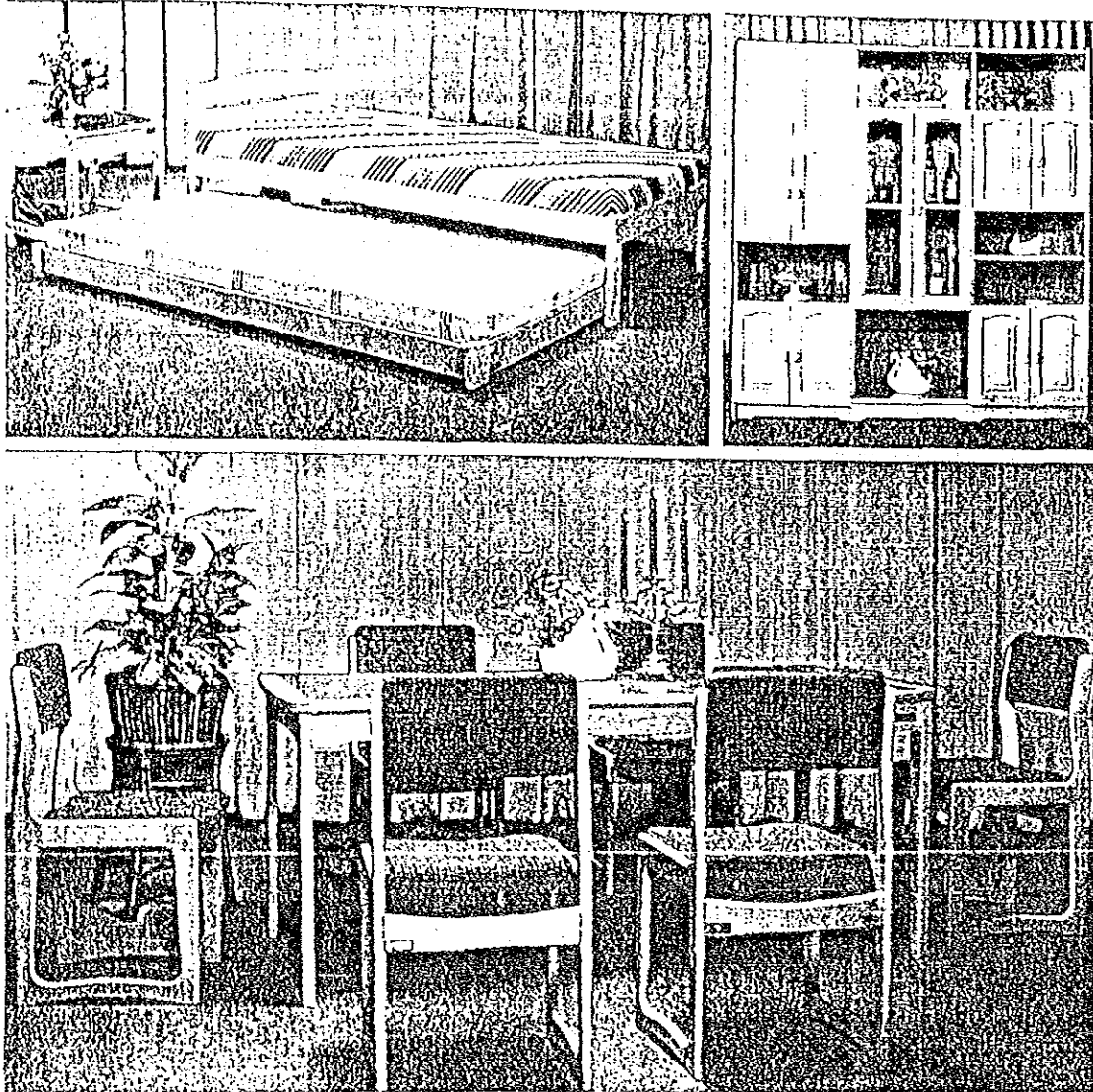
To overcome the negative impact of the reduced oil production quota, the Indonesian Government has introduced several policies to promote non-oil and gas exports especially manufactured products.

The policies include:

- a. Export certificate for the reimbursement of import duties paid in the importing of basic and auxiliary materials and capital goods for those involved in the production as well as exporting of the exportable goods concerned.
- b. Streamlining export procedures and dropping port levies and charges to reduce the cost of marketing.
- c. Low interest export credit, with only 9% interest a year compared with 12% charged on other priority credits, or around 20 - 24% on commercial credits.
- d. Counterpurchase policy which requires foreign suppliers to Government sponsored or financed projects to buy Indonesian products to be exported at about the same value as their sales to the projects.

4. 商品別輸出状況

(1) 木製品・藤製品



WOODEN FURNITURE

Indonesia, endowed with huge, richly-varied wood resources and high craftsmanship, has the potential to become a major supplier of furniture. Although the volume of exports is still relatively low, it is on an upward trend.

Supported by new and inherited skills, modern machines and better management, several companies have been able to penetrate the international markets. The majority of producers, however, are still orientated to the domestic market which has also expanded steadily.

Production

Furniture is still made largely by individual artisans. But an increasing number of companies are operating large-scale production facilities turning out good-quality and design furniture for both the domestic and the export market.

Furniture makers are concentrated mainly in Java which has also the largest single concentration of consumers. Furniture plants also flourish in North and South Sumatra, Kalimantan and Sulawesi using wood or rattan as their basic materials.

Obviously, there are no reliable and comprehensive figures on the widely spread and small furniture makers. However the Central Bureau of Statistics in 1982 registered 130 medium large-scale furniture factories employing 20 workers or more.

Included among the range of furniture produced are cupboards, dressing tables, writing tables, various styles of chairs, office furniture, desks, drawers and beds. Several producers also make self assembly furniture for easy handling and transportation.

It is also extremely difficult to get complete figures on the volume of furniture production, but various estimates put it at 15% of the total sawn timber consumption of 4,575 thousand m³. This means that in 1983, the sawn timber used for making furniture totalled 686 thousand m³. Assuming that the conversion rate from sawn timber to furniture is 2 : 1, the furniture production would have been 342 thousand m³ or about 274 thousand tons.

Exports

Indonesian furniture exports totalled 2,858 tons worth US\$ 4.8 million in 1984 or double the export volume in 1983. This means that export is still negligible compared with total production. The situation is expected to be better in 1985.

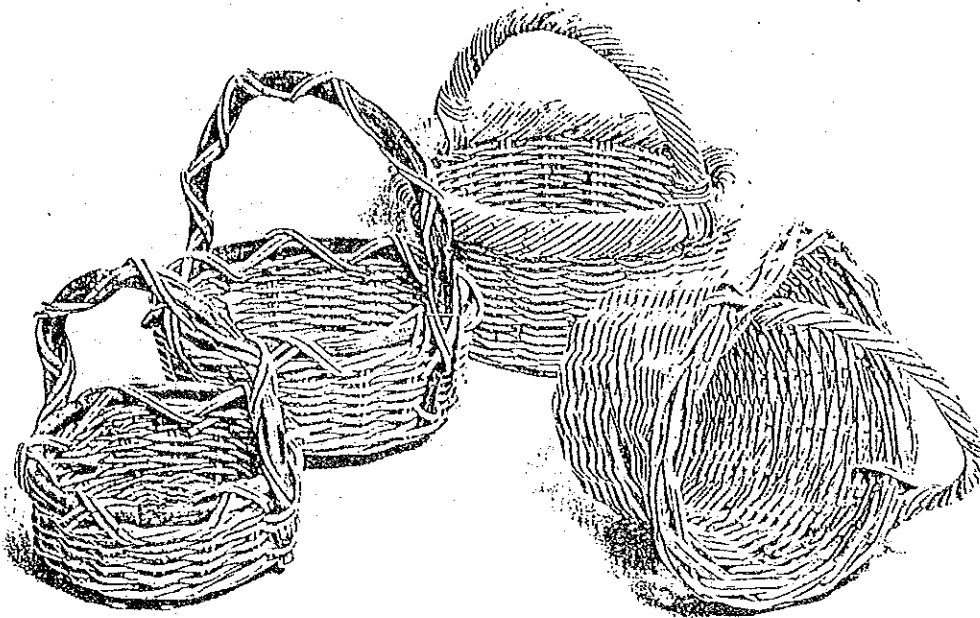
Year	Volume (tons)	Value (US\$'000)
1981	792	1,730
1982	781	2,006
1983	1,945	4,088
1984	2,858	4,858

Source : Central Bureau of Statistics

By country of destination, EEC countries formed the largest single importer of furniture from Indonesia, followed by Asian countries, Australia and the Middle East, as detailed below:

Destination	Ton	US\$'000
Japan	285	893
Singapore	666	827
Australia	301	516
U.S.A.	187	414
West Germany	1,124	1,654
Others	295	554
Total	2,858	4,858

Source : Central Bureau of Statistics.



RATTAN HANDICRAFTS

Indonesia holds about 90% of the world's rattan standing stocks but is still virtually unknown on the international market for rattan furniture and wares because most of her exports still consists of raw and semi-finished rattan materials.

Even though Indonesia is the world's largest supplier of rattan, it is other countries who benefit mostly from the value added of the rattan goods.

Indonesia, however, has launched a more concerted effort to develop rattan industries by, for example, phasing out exports of raw (uncleaned and unsulfurized) rattan canes. Several Indonesian producers of rattan furniture and rattan ware have also succeeded in penetrating international markets.

Production aspects

According to the Ministry of Forestry, Indonesia's rattan forests are capable of producing 599,676 tons of rattan canes a year, mostly of the Manau and Sega species. Rattan forests are located mostly in Aceh, West and North Sumatra, Bengkulu, South Kalimantan and Sulawesi, as detailed below:

Type	Annual capacity (tons)	Location
1. Manau	47,440	Aceh, North Sumatra, Bengkulu
2. Sega	44,500	North Sumatra, South Kalimantan, East Kalimantan, West Kalimantan and Sulawesi
3. Other types of rattan	507,736	Spread throughout forested areas in Indonesia
Total	599,676	

Source : Ministry of Forestry.

The rattan production potential has not, however, been tapped intensively. Nonetheless, production of rattan handicraft, furniture and other rattan ware has been increasing to meet domestic demand and, to a lesser extent, foreign orders.

No organization has ever made a complete, comprehensive survey of rattan-based industries. It is therefore quite difficult to get reliable data and figures about the capacity and range of products of these industries, especially because quite a number of them comprise small-scale enterprises.

Informed industry sources estimate the number of medium and large-scale rattan-goods companies at about 145, many of which use fairly modern production machinery. Their products include furniture, baskets, light fittings, room dividers, ornamental items and various household utensils.

Rattan handicraft production centres are located mainly in Medan, Padang, Palembang, Jakarta, Cirebon, Tangerang, Semarang, Surabaya, Banjarmasin and Ujung Pandang.

Export Developments

According to the Central Bureau of Statistics, Indonesian exports of raw and semifinished rattan canes and rattan pitch rose from 79,882 tons valued at US\$ 75 million in 1980 to 81,190 tons worth US\$ 78.3 million in 1983, and 1984 was 79,750 tons worth US\$ 86.0 million.

Exports of rattan handicraft such as matting of rattan and other articles of plaited rattan materials totalled 1,260 tons valued at US\$ 8.9 million in 1984, as detailed below:

Type of product	Unit	1980	1981	1982	1983	1984
Raw rattan	Tons	64,050	21,879	27,314	38,557	33,521
	US\$'000	57,424	21,021	24,500	34,792	29,146
Other unprocessed rattan	Tons	12,028	24,255	41,463	30,959	49,108
	US\$'000	13,297	42,574	44,235	34,272	47,990
Rattan pitch	Tons	3,804	5,338	7,299	11,674	7,121
	US\$'000	4,477	5,053	7,031	9,248	8,857
Matting of rattan	Tons	966	490	719	790	863
	US\$'000	7,608	4,047	6,942	7,373	7,206
Other articles of plaited material	Tons	16	259	342	142	397
	US\$'000	55	1,119	1,051	566	1,735
Total	Tons	80,864	68,221	77,137	82,122	91,010
	US\$'000	82,859	73,814	83,759	86,251	94,934

Source : Central Bureau of Statistics

Indonesian rattan products have not been as popular on the international market as those from Taiwan, the Philippines, Hong Kong and Singapore which have long established their reputation among consumers in many industrialized countries.

However, Indonesia, even though a newcomer, has made significant inroads into the international market thanks to the concerted efforts by many producers to improve their design and the quality of their products and to diversify their product lines to meet consumer demand.

Incentives

The Government exempts rattan handicraft from export tax in order to improve the competitive edge of Indonesian rattan products in the international market. In addition, many industrialized countries also include rattan products from Indonesia in their General System of Preferences, thereby exempting them from import tariffs (duty).

(2) 纖維製品

TEXTILE INDUSTRY

Ever since the launching of the First Five Year Plan in 1969, the textile industry has been given high priority in line with the Government programme to satisfy one of the basic needs, i.e. clothing.

The industry is now capable of producing basic textile materials of cotton and synthetic fibre and a wide range of garments for the domestic and export markets.

In recent years, despite the relatively small growth of the textile industry overall, there are several companies which continue to expand and diversify their production.

Production

The textile industry in Indonesia began with the development of weaving plants, followed by spinning mills and synthetic fibre plants. Indonesia's textile industry has therefore become extensively integrated, through manufacturing yarn, fabric and apparel.

The country's reliance on imported basic material for synthetic fibres will end when the Aromatic Centre currently under construction in Palembang, South Sumatra, begins production within the next few years.

The production of synthetic fibres such as polyester staple fibre (PS), polyester filament (NF) and rayon staple fibre (RS) grew markedly from 89,067 tons in 1980 to 152,449 tons in 1983.

There are now ten synthetic fibre factories already in production in Indonesia with a combined capacity of 176,950 tons a year consisting of 75,550 tons of NF and 36,000 tons of RS.

Spinning mills also registered impressive growth. Their production, according to the Ministry of Industry, rose from 1.18 million bales in 1980 to 1.66 million bales in 1983. The Association of Indonesian Spinners reported that there were 84 spinning mills in the country as of 1982 with a combined capacity of 2.40 million spindles.

Production	1980/1981	1981/1982	1982/1983	1983/1984
Synthetic fibre (ton)	89,067	111,968	132,397	152,449
Weaving yarn (bale)	1,184,000	1,233,024	1,370,000	1,662,000
Fabric ('000 meters)	2,027,300	2,094,000	1,708,900	1,996,100
Garments (million dozen)	17.6	19.4	21.2	22.3

Source : Ministry of Industry

The table shows that fabric production rose by 3.4% to 2.09 billion meters in 1981/82 from 2.02 billion meters in 1980/1981 but dropped by 18.4% to 1.70 billion meters before resurging by 16.7% to 1.99 billion meters in 1983/1984.

The steady expansion in garment production due to the domestic market expansion and a marked increase in export is encouraging. Garment production and exports began to grow rapidly after the introduction of the export-promotion package policy of November 15, 1978. Garment production shot up from 17.6 million dozen in 1980/1981 to 22.3 million dozen in 1983/1984.

Exports

The Central Bureau of Statistics reported that Indonesian textile exports which totalled 15,993 tons valued at US\$ 136.41 million in 1980 increased by 13.6% to 18,099 tons worth US\$ 126.29 million in 1981, to 24,093 tons valued at US\$ 152.85 million in 1982, 50,717 tons worth US\$ 263.24 million in 1983 and 76,221 tons worth US\$ 469.1 million in 1984.

Further expansion of exports will be possible through greater diversification of product lines which are now concentrated largely on Category 6 (trousers), Category 7 (blouses) and Category 8 (shirts).

Indonesian textile exports from 1980 up to 1984, according to the Central Bureau of Statistics, developed as follows:

Textile product	Ton US\$'000				
	1980	1981	1982	1983	1984
Textile Yarn & Thread	992 3,148	507 1,753	296 1,300	5,403 13,712	7,297 17,003
Cotton Fabrics, Woven	784 2,393	1,076 3,726	2,434 8,001	6,992 25,536	10,945 43,534
Textile Fabrics, Woven	4,118 27,723	3,449 22,945	4,101 24,285	15,193 63,067	23,599 101,847
Tulle, Lace & Other small products	174 1,306	194 1,014	334 1,295	276 2,257	539 4,621
Special Text. Fabrics and Products	5 34	109 648	44 139	91 246	311 1,486
Made-up Articles, NES	795 3,536	398 847	310 1,416	712 1,267	1,598 4,873
Clothing	9,065 98,274	12,366 95,529	16,574 116,422	22,050 157,159	31,932 295,743
Total	15,933 136,414	18,099 126,292	24,093 152,858	50,717 263,244	76,221 469,107

Source : Central Bureau of Statistics.

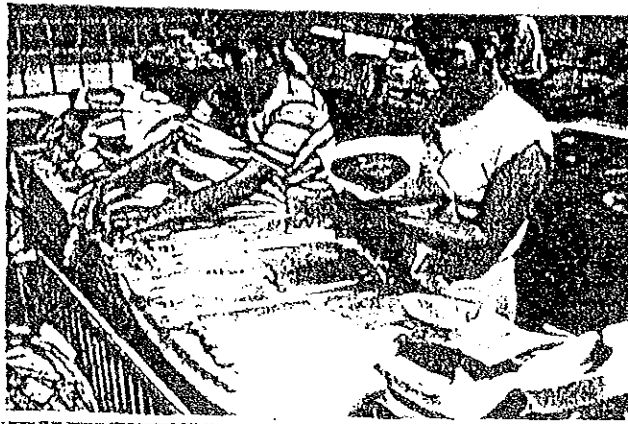
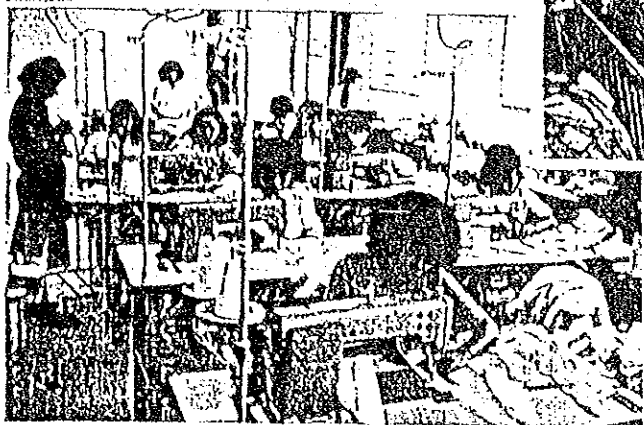
Export Ruling

To control the realization of textile-export quotas and to ensure a fairer distribution of export quotas among the producers and exporters, the Minister of Trade issued Decree No. 414/KP/III/84 which was supplemented by Foreign Trade Director General's Decree No. 11/DAGLU/KP/III/84 effective as of January 1, 1984, regarding the distribution of textile export quotas.

The new regulations stipulate, among other things, that:

- 90% of textile products which are subject to quotas for the first time are, during the first year, distributed among exporters who can prove that they have fully realized their regular quotas.
- The remaining 10% are distributed among new exporters under the following terms: 5% are distributed evenly among exporters, 2.5% among small exporters and cooperatives and 2.5% are given as additional quotas to exporters whose production is entirely destined to exports, as stipulated in their licences from the Investment Coordinating Board or Ministry of Industry.
- If during the first year, there are no new exporters, the remaining 10% quota is distributed among exporters who can fetch higher sales prices than other exporters (higher-value products).

Countries which have imposed quotas on textile exports from Indonesia are EEC countries, the United States, Canada and Sweden.



GARMENTS

Indonesia's garment industry has grown dramatically in terms of capacity, quality and the range of products. The industry has been capable not only of satisfying domestic demand but also of supplying the international markets.

Supported by the Government with various incentives such as the Export Certificate scheme (rebate system) and better-managed garment companies, garments are poised to become a leading export item.

Production

More garment companies are using modern technology and increasingly improving their efficiency and the designs and quality of their apparel, as can be noted from the substantial expansion in garment exports from Indonesia.

The Directorate General for Multifarious (light) Industries registered 289 garment companies with a total of 12,956 sewing machines in 1980. Of the total, 286 are based in Java and only four operate outside Java, namely in Bali, North Sumatra and South Sulawesi.

TABLE 4.5.
INDONESIAN GARMENT COMPANIES
1980

Location	No. of companies	Units	
			Sewing machines owned
North Sumatra	2		318
DKI Jakarta	135		8,367
West Java	121		2,671
Central Java	11		935
Yogyakarta	2		35
East Java	16		529

Table (Cont'd)

Location	No. of companies	Sewing machines owned
Ball	1	30
South Sulawesi	1	71
Total	289	12,956

Source : Directorate General for Multifarious Industries.

The production of the garment companies rose steadily from 17 million dozen in 1980/1981 to 22.3 million dozen in 1983/1984. Their main product lines are:

- Category 6 : Men's and boys woven breeches, shorts and trousers (including slacks), women's, girls and infants', woven trousers and slacks.
- Category 7 : Blouses and shirts, knitted or crocheted (not elastic or rubberized) or woven, for women, girls and infants.
- Category 8 : Men's and boys' shirts, woven.
- Category 21 : Parkas, anoraks, windcheaters etc., woven.

TABLE 4.6.
GARMENT PRODUCTION
(in million of dozen)

Production	1980/1981	1981/1982	1982/1983	1983/1984
Garment	17.0	19.4	21.2	22.3

Source : Directorate General for Multifarious Industries.

Exports

Despite the quota restrictions imposed by industrialized countries, Indonesian garment exports have increased steadily over the past few years, except in 1981 due largely to the depressed market as a result of the deep economic recession.

Indonesian exports of all types of garments (for men, women, boys, girls and infants) totalled 31,480 tons and a value of US\$ 286.3 million in 1984 markedly up from 21,778 tons, worth US\$ 153.6 million in 1983, and 16,438 tons worth US\$ 114.6 million in 1982.

TABLE 4.7.
INDONESIAN EXPORTS OF GARMENTS

Product	(Tons) (US\$'000)		
	1982	1983	1984
Men's and boys' outer wear	<u>5,669</u> 32,826	<u>9,937</u> 54,826	<u>10,710</u> 74,828
Women's outer wear	<u>4,237</u> 35,717	<u>6,231</u> 55,087	<u>8,778</u> 96,749
Underwear	<u>6,001</u> 39,319	<u>4,528</u> 35,721	<u>6,460</u> 60,117

Table 4.17 (Cont'd)

Product	1982	1983	1984
Outer wear, embroidered, knitted	<u>181</u> 1,971	<u>105</u> 1,188	<u>1,047</u> 10,724
Underwear, embroidered, knitted	<u>332</u> 4,605	<u>380</u> 3,476	<u>3,193</u> 33,323
Other apparel	<u>18</u> 117	<u>597</u> 3,556	<u>1,292</u> 10,536
Total	<u>16,438</u> 114,555	<u>21,778</u> 153,573	<u>31,480</u> 286,277

Source : *Central Bureau of Statistics.*

The United States purchased 49% of Indonesia's total garment exports (in terms of value), EEC countries 21%, Asian countries 11.2% and other importers, including those in the Middle East, took up the remainder.

Association : *Association of Garment Industries (PIBTI)*

Address : Jl. Bendungan Hilir No. 19 2nd fl.

Jakarta

Telephone - 582658



RUBBER

Indonesia is the world's second largest rubber producer after Malaysia and plays a major role on the international market.

Rubber was the largest non-oil foreign exchange earner until 1972 when its position was taken over by wood. At present rubber ranks second after wood as the largest foreign exchange earner among non-oil commodities.

The government has launched a massive program to rehabilitate smallholder rubber estates and has provided credit for both State and private rubber plantation companies to expand or rejuvenate their rubber trees in order to maintain Indonesia's position as the second largest supplier to the world's natural rubber markets.

Area and production

Smallholders account for 80% of Indonesian rubber plantations with the remaining 20% managed by private and State-owned plantation companies. According to the Directorate General of Estates, there were 2.504 million hectares (ha) of rubber plantations throughout the country as of 1983 consisting of 2.019 million ha of smallholder estates, 247,221 ha owned by private plantation companies and 238,118 ha by State Companies, as detailed below:

Year	Smallholder	Private estates	State estates	Total (ha)
1967	1,816,985	291,930	222,789	2,131,704
1968	1,589,707	290,690	228,330	2,208,330
1969	1,771,387	294,062	271,480	2,286,909
1970	1,813,123	280,590	223,574	2,317,287
1971	1,811,277	306,901	221,443	2,339,621
1972	1,840,475	305,864	197,430	2,343,769
1973	1,856,587	275,063	216,292	2,347,944
1974	1,872,752	259,120	197,209	2,329,081

TABLE 1.1. (Cont'd)

1975	1,864,218	254,740	201,787	2,320,743
1976	1,857,088	251,619	196,991	2,305,688
1977	1,864,913	236,408	189,707	2,291,029
1978	1,870,593	253,263	188,599	2,312,455
1979	1,926,240	270,742	187,040	2,384,022
1980	1,947,091	246,375	190,339	2,386,805
1981	1,994,196	243,630	202,295	2,440,121
1982*)	1,995,601	245,382	231,589	2,472,572
1983**)	2,018,841	247,221	238,117	2,504,178

Notes : * Provisional figures

** Estimates

Source : Directorate General of Estates

Indonesian rubber production grew from 709,251 tons in 1967 to 853,978 tons in 1977 and 1.23 million tons in 1983, as described below:

No.	Year	Smallholder	Private estates	State estates	Total (tons)
1.	1967	500,272	96,128	112,851	709,251
2.	1968	931,216	101,639	122,785	755,640
3.	1969	553,828	109,751	109,856	773,433
4.	1970	571,014	112,961	118,171	802,146
5.	1971	547,027	115,969	117,950	780,946
6.	1972	567,327	112,145	120,618	800,090
7.	1973	597,925	109,453	136,677	844,255
8.	1974	571,050	107,779	137,653	816,482
9.	1975	542,727	109,828	137,292	784,847
10.	1976	610,183	103,888	142,477	856,548
11.	1977	590,339	116,744	146,895	853,978
12.	1978	612,409	110,073	162,500	884,982
13.	1979	673,122	121,255	169,562	963,939
14.	1980	689,068	114,483	185,815	989,366
15.	1981	642,331	127,529	193,378	963,238
16.	1982	549,065	121,802	190,083	860,950
17.	1983**)	910,000	124,000	197,000	1,231,000

Source : Directorate General of Estates

**) Estimated

Exports

Indonesia usually exports about 85% of its rubber production with the other 15% being used by domestic tyre industries and other plants manufacturing rubber goods and parts & components for automobiles and motorcycles.

Indonesian rubber exports comprise mainly (75%) SIR (Standard Indonesian Rubber) and to a lesser extent, ribbed smoked sheets (RSS), brown crepe, pale crepe and air dried sheets.

Rubber exports over the last few years have developed as follows:

TABLE 1.3.
INDONESIAN RUBBER EXPORTS
1979 - 1984

Year	Volume (000 tons)	Change %	Value (US\$ million)	Change %
1979	865.0	-	940.6	-
1980	981.3	13.4	1,175.0	24.9
1981	812.9	-17.2	836.5	-28.0
1982	797.7	1.9	612.1	-28.0
1983	938.0	17.6	843.4	-40.1
1984	989.3	5.5	931.2	10.4

Source : Central Bureau of Statistics.

The United States was the largest importer of Indonesian rubber, accounting for 47.5% of the country's total exports in 1984. Singapore, the second largest buyer, bought 22.8%. Other buyers included Japan with 3.4% and Russia with 4.4% in 1984.

TABLE 1.4.
INDONESIAN RUBBER EXPORTS BY DESTINATION
1981 - 1984

Destination	of export volume %				of export value %			
	1981	1982	1983	1984	1981	1982	1983	1984
U.S.A.	36.8	42.3	40	47.0	36.1	42.3	41.5	47.5
Singapore	34.3	26.3	26	24.4	34.3	24.9	23.8	22.8
U.S.S.R.	6.9	3.3	5.3	4.3	8.1	5.7	5.7	4.4
West Germany	2.2	4.5	3.4	1.6	2.4	4.7	3.7	1.8
Japan	3.4	3.1	3.8	3.3	3.7	3.3	4.2	3.4
Others	16.4	20.5	21.6	19.4	15.4	21.2	21.2	20.1

Source : Processed from Central Bureau of Statistics reports.

Quality Standard

In an attempt to further improve the quality of rubber, the Government has introduced better methods of cultivation, tapping and processing. In addition, the Government also enforces strict quality - control requirements. Such conventional rubber as ribbed smoked sheet and crepe is subject to visual classification based on the standards set by the International Rubber Quality and Packing Conference (IRQPC) or Green Book. Crumb rubber with technical specifications is classified according to the Standard Indonesian Rubber (SIR) and its export shipments are covered by certificates of quality.

Associations

Most Indonesian rubber producers and exporters are affiliated with Gapkindo - The Association of Indonesian Rubber Producers - an organization that serves as a forum of communication with regard to production and marketing problems.

Gapkindo, which was set up in 1971, has been a member of the International Rubber Association (IRA) since 1971 and is an active partner of the Government in developing the country's rubber industry.

(4) 農・水産物



SHRIMPS

Indonesia is the world's third largest exporter of shrimps after Mexico and India, but the country can still increase its current position by intensifying the tapping of its fresh water and sea shrimp resources.

Shrimps are the fifth largest foreign exchange earner among non oil commodities in Indonesia after wood, rubber, coffee and tin.

Indonesian shrimp exports consist mainly of Banana shrimps (*Peneus merquensis*), Tiber shrimps (*Peneus mododon*), "Dogol" (endeavour) shrimps, "Cendana" (*Metapeneus brevicornia*) shrimps and spynilobster (*Penulirus* species).

Production

Indonesian shrimp production is derived largely from sea fishing and fresh-water. Shrimp farming is still relatively small.

Shrimp production from sea fishing accounted for 131,175 tons or 79.4% of the total shrimp output in 1979, while river and lake-water shrimp production amounted to only 10,038 tons or 6.1% of the total output and the shrimp-pond output to only 23,925 tons or 14.5% of the total production.

The sea shrimp catch fell to 100,490 tons in 1982 or 70.5% of the total shrimp production, while river and lake-water shrimp output amounted to 11,313 tons (7.9%) and shrimp pond production rose to 30,749 tons (21.6%).

TABLE 2.1
INDONESIAN SHRIMP PRODUCTION BY SPECIES

Type of shrimp & prawn	1978	1979	1980	1981	1982
Banana prawns	42,181	41,690	47,990	34,063	41,327
Giant tiger prawns	13,875	15,992	17,020	16,315	18,851
Metapeneus spp	17,880	21,473	21,788	21,120	27,146
Lobster	285	258	216	996	562
Fresh water giant shrimps	4,193	3,691	3,746	3,139	3,427
Fresh water shrimps and prawns	2,981	2,700	2,474	2,271	2,229
Athyds	63	197	264	159	1,054
Others	79,910	79,137	53,883	73,672	47,956
Total	161,368	165,138	147,381	151,739	142,552

Source : Directorate General for Fisheries

Banana prawns, endeavour and giant tiger prawns together account for the bulk of Indonesia's sea and fresh water shrimp production. The three species respectively account for 29%, 19% and 13% of the total shrimp output. Fresh water shrimps comprise mainly giant shrimps, "grago" or athyds and fresh-water shrimps each with an annual production below 3,500 tons.

TABLE 2.2
INDONESIAN SHRIMP EXPORTS
1980 - 1984

	1980		1981		1982		1983		1984	
	Ton	US\$'000	Ton	US\$'000	Ton	US\$'000	Ton	US\$'000	Ton	US\$'000
Crabs Fresh, Chilled/Frozen	1,584	350	1,994	455	1,990	416	2,132	465	1,866	488
Crabs dried, salted, etc	-	-	-	-	18	4	287	58	277	55
Lobster & Crayfish fresh, Chilled/Frozen	77	515	145	908	82	705	268	2,327	190	1,388
Lobster & Crayfish dried, Salted, etc.	-	-	1	4	28	199	53	477	3	16
Shrimps & Prawns Headless, etc.	30,471	177,894	24,584	161,754	25,373	180,651	25,812	191,603	27,778	194,088
Shrimps & Prawns, dried, Salted, etc.	-	-	242	162	93	84	33	41	54	59
Shrimps & Prawns, Other	1,136	2,362	-	-	-	-	-	-	-	-
Total	33,268	181,121	26,966	163,283	27,584	182,059	28,585	194,971	30,168	196,094

Source : Central Bureau of Statistics

The waters around the Malacca Strait that cover Aceh, Riau and North Sumatra were the largest shrimp-producing areas in Indonesia, turning out 50,877 tons in 1981 or 46% of the total sea shrimp catch in that year. In 1982, the shrimp catch from the waters around the three provinces fell to 39,700 tons or 40% of the total sea shrimp catch. The waters around West and South Kalimantan were the second largest producer, followed by Maluku and Irian Jaya waters.

Java and Sulawesi have the largest concentration of brackish-water shrimp farming. In 1981, brackish water shrimp production in Java amounted to 19,025 tons or 67% of the total shrimp-pond output. Brackish-water shrimp production in Sulawesi rose from 6,452 tons in 1981 to 8,661 tons in 1982.

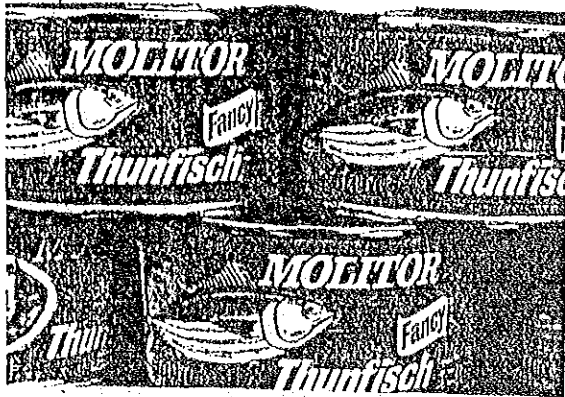
Sumatra and Kalimantan are the largest producers of fresh water shrimps because they have many rivers and lakes.

Exports

Indonesian shrimp exports declined, along with the decreasing production, from 33,268 tons valued at US\$ 181.1 million in 1980 to 26,966 tons worth US\$ 163.3 million in 1981. There was a slight rise to 30,168 tons valued at US\$ 196.1 million in 1984.

Shrimp exports comprised mainly of banana prawns (headless but with shells, frozen). In 1980, the exports of headless, unshelled frozen shrimps of all species amounted to 30,471 tons. Then there was a drop to 25,373 tons in 1982 followed by a slight increase to 27,778 tons in 1984.

Japan was the largest single importer of shrimps from Indonesia, purchasing about 27,000 tons in both 1978 and 1979 or 80% of Indonesia's total shrimp exports in those years. Japan's imports, however, fell to 20,963 tons in 1983.



FROZEN TUNA AND SKIPJACK

Indonesia, being the largest archipelagic country in the world, owns huge fish resources. Indonesian territorial waters cover 5.4 million sq. km., compared with its land area of only 1.9 million sq. km. Including its Exclusive Economic Zone (EEZ) which stretches 200 miles from its coastlines, the sea fishing grounds under the country's jurisdiction total 7.9 million sq. km.

According to a study by the Directorate General for Fisheries, Indonesia's sustainable sea-fish catch potential totals 6 million tons a year, of which 4.5 million tons lie in its territorial EEZ waters. Outstanding among the fish species which abound in Indonesian waters are tuna and skipjack.

Production aspect

Tuna and skipjack, two of the fish species which enjoy strong demand both on the domestic and international markets, abound in the waters around:

1. Northern Aceh
2. Western coast of Sumatra
3. Bali's southern coast
4. Java's southern coast
5. Makassar Strait and Tomini bay
6. Toto bay near Kendari (Southeast Sulawesi)
7. Sulawesi
8. The Moluccas
9. Halmahera
10. The Pacific Ocean near Waego.

Indonesian tuna and skipjack potential is estimated at 441,000 tons a year. Of the total, 166,000 tons are tuna and 275,000 tons skipjack. However, the actual catch so far amounts to only about 15% of this potential. Hence, there are still wide opportunities for tuna and skipjack in the country.

The Directorate General for Fisheries reported that Indonesian tuna and skipjack production (catch) totalled 89,657 tons in 1982, rising to 103,543 tons in 1983, as detailed below:

Year	Tuna	Skipjack	Total (tons)
1973	11,334	26,405	33,739
1974	11,236	28,060	39,296
1975	11,931	27,241	39,172
1976	9,354	30,851	40,205
1977	13,204	30,410	43,614

Table 2.3 (Cont'd)

1978	13,412	33,515	46,927
1979	17,899	42,834	59,733
1980	20,898	51,818	72,716
1981	25,239	57,430	82,669
1982	28,080	61,577	89,657
1983 ^{a)}	32,360	71,183	103,543

Source: Fisheries Statistics, the Directorate General of Fisheries

^a Estimated

The country's tuna and skipjack production is expected to increase steadily as state and private fishing companies improve their fishing methods. Many national and foreign companies have been granted or are applying for licences to fish in EEZ waters in East Indonesia.

Fishing gear most commonly used for catching tuna and skipjack in Indonesia include the long line, lift net, seine nets, gill nets and purse seine nets.

Exports

Most of Indonesia's tuna and skipjack production is still locally consumed either in the form of frozen, salted or canned fish. The country's tuna and skipjack exports are therefore still relatively small. According to the Central Bureau of Statistics exports of these two fish species in 1983 amounted to 20,310 tons, but dropped to only 14,702 tons in 1984.

TABLE 2A
INDONESIAN EXPORTS OF FROZEN/FRESH/CHILLED
TUNA AND SKIPJACK
1975 - 1984

Year	Quantity (Kg)	Value (US\$)
1975	424,193	257,723
1976	621,425	409,170
1977	1,898,231	1,319,990
1978	9,426,006	6,193,263
1979	9,797,340	8,002,585
1980	11,139,017	12,899,571
1981	14,013,286	15,863,081
1982	18,788,453	19,863,081
1983	20,319,575	14,775,803
1984	14,702,143	19,674,269

Source: Central Bureau of Statistics

Tuna and skipjack exports are shipped mainly to Japan, Singapore, the United States and Thailand. Exports to Japan amounted to 4,886 tons in 1984 or 33.2% of the total exports in that year, to Thailand 6,034 tons (41.0%), Singapore 2,571 tons (17.5%), Italy 955 tons (6.5%) and the United States 22 tons.

Quality Control

The Standardization, Normalization and Quality Control Directorate of the Ministry of Trade has worked out a concept of quality standard for frozen tuna.

The concept is based on the results of surveys made in Bali and North Sulawesi and on studies of the Methods of Inspection and Quality Control (FAO - 1971), Australia's (Fish) Regulations (1975) and Japanese Quality Standard and Inspection Procedures for Export Frozen Marine Products, Export Inspection Law of 1957 (Tanikawa - 1971).

FROG LEGS

Indonesia, with vast farming fields, swamps and many rivers has great potential for frog production. Given the strong demand for frog legs on the international market, President Soeharto himself has instructed the Junior Minister for Livestock and Fisheries Development, Prof. Hotasoit, to encourage more farmers to raise frogs in their fields.

Most of the frogs raised or farmed in Indonesia for domestic and overseas consumption are of the *Rana* *carnivora*, *Rana* *limnocharis* and *Rana* *macrodon* species.

Production

Indonesian frog production enjoyed robust growth during 1974 – 1978 but has declined steadily since 1979 due to pesticide pollution in rice fields, irresponsible catching methods used in many areas and inadequate frog farming.

Frog production is still derived mostly from catches made in rice fields, swampy land and river waters. Small-scale frog farming, however, has commenced in Java, notably in Bandung, Bogor, Ungaran, Purwokerto, Ambarawa and around Jakarta.

Major frog production centres are West, Central and East Java and North and South Sulawesi.

Exports

Indonesia began exporting frog legs in 1968. Exports reached 2,657 tons, worth US\$ 7.18 million in 1979, but fluctuated between 1,612 tons and 2,200 tons during the 1980 – 1984 period. During 1983, exports amounted to 3,296 tons, worth US\$ 8.75 million, but dropped to 2,200 tons in 1984, worth US\$ 4.12 million.

TABLE 2.5.
INDONESIAN EXPORTS OF FROG LEGS

Year	Volume (tons)	(US\$'000)
1979	2,657	7,184
1980	1,612	4,756
1981	2,776	9,430
1982	1,517	3,585
1983	3,296	8,753
1984	2,200	4,122

Source : Central Bureau of Statistics

Exports are usually directed to the Netherlands, France, Belgium & Luxemburg, Singapore, Hong Kong, West Germany, Switzerland and Italy.

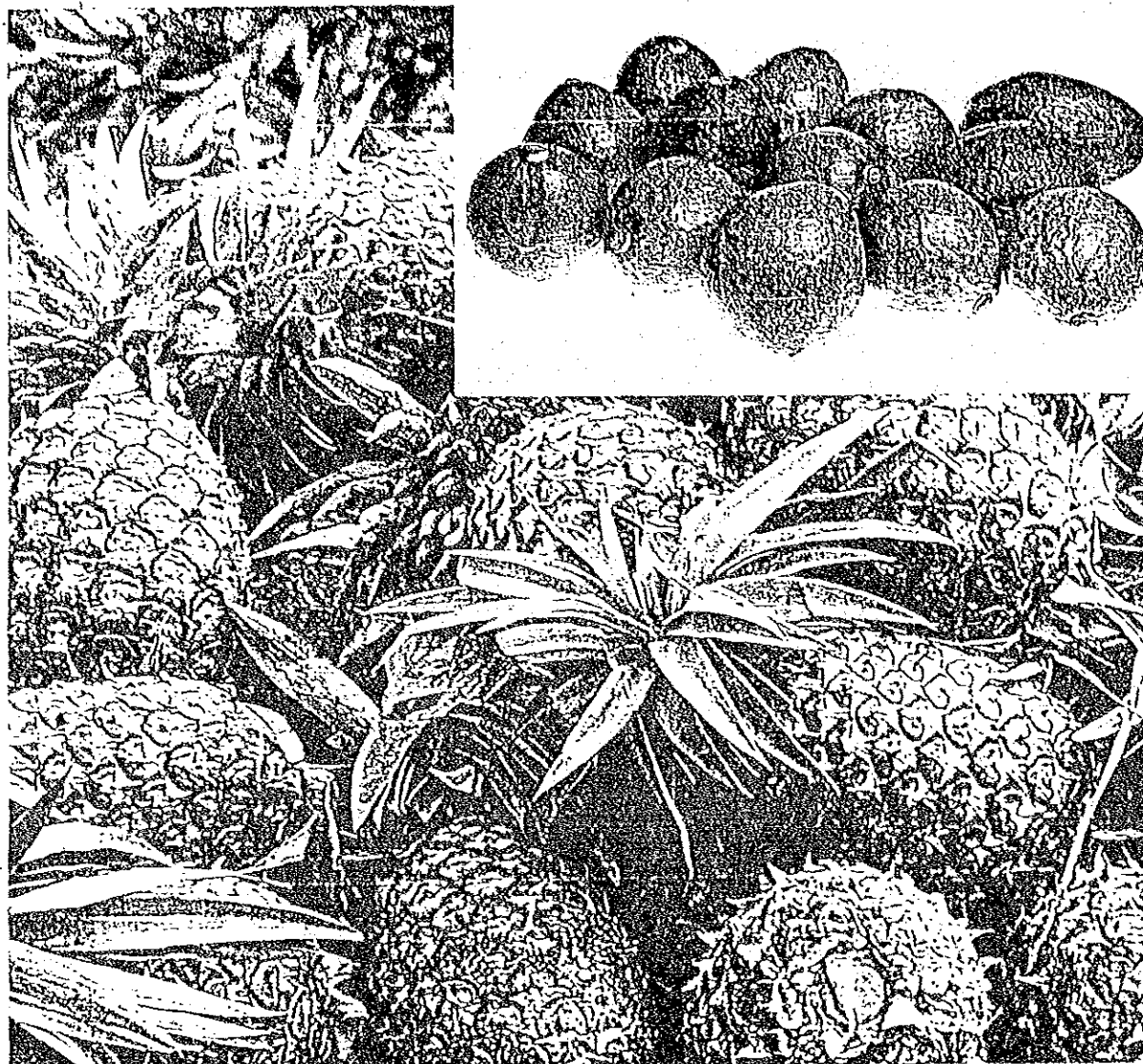
During the 1980 – 1984 period, the Netherlands was the largest single importer with an annual average of 998 tons. The smallest importer was Hong Kong with an annual average of 94 tons.

Frog leg exports are shipped mainly from Surabaya, Tanjung Priok, Belawan, Semarang and Palembang, as shown below: (Cumulative in 1979 – 1983).

Ports – Origin	Volume (kg)
Surabaya	1,379,457
Tanjung Priok	361,309
Belawan	197,179
Semarang	63,432
Palembang	145,301
Others *)	–
Total	2,146,678

*) Polonia, Kemayoran/Halim, Probolinggo, Pontianak, Ujung Pandang and Cirebon.

The above shows that Surabaya was the largest export port for frog leg exports, shipping about 1.37 million kg a year. The smallest port of origin was Semarang with an annual average of only 63,432 kg.



FRUIT AND VEGETABLES

Indonesia has an abundant year-round supply of fresh tropical fruit and vegetables. Among the most popular and exotic fruits are: mango, avocado, pineapple, banana, durian, rambutan, jackfruit, salak, orange and jambu and the most widely-grown vegetables are cabbage, tomato, cauliflower, onion and spinach.

North Sumatra and West and East Java are the largest producers of fruit and vegetables in Indonesia. However, these farm commodities are still cultivated mostly through traditional methods. Their production has nevertheless grown steadily.

Production

Fruit trees grow throughout the country, mainly cultivated by smallholders. According to the Ministry of Agriculture, Indonesian fruit production increased to 2.31 million tons in 1983 or 44.13% of the total fruit production registered by the Ministry. Oranges accounted for 10.29% of total production, pineapples for 9.43%, mango for 9.02%, papaya for 7.49%, jambu for 7.34%, as detailed overleaf :

Table (Cont'd)

	1978	1979	1980	1981	1982	1983
Spinach	—	—	—	45,810	43,628	185,151
Pumpkin	—	—	—	33,707	17,748	48,172
Others	104,057	98,226	201,311	35,346	50,204	43,726
Total	2,031,065	1,958,885	2,126,971	2,068,174	2,037,817	3,116,562

Source : Department of Agriculture

Exports

Indonesian fruit export are still negligible compared to production. In 1984 for example, total fruit exports were only 714 tons compared to total production of 5,242,363 tons. Fruit is exported in the forms of canned juices or dried slices.

The important fruit are mangos, the export of which rose from 36 tons in 1982 to 63 tons in 1983 and 121 tons in 1984.

TABLE 1.19
INDONESIAN FRUIT EXPORTS
1980 - 1984

Commodities	1980		1981		1982		1983		1984	
	Ton	US\$'000	Ton	US\$'000	Ton	US\$'000	Ton	US\$'000	Ton	US\$'000
Pineapples	—	—	—	—	—	—	—	—	51	18
Avocados	16	2	29	4	36	5	12	2	18	2
Mangos	42	4	16	2	36	7	63	27	121	44
Fresh Oranges	—	—	—	—	—	—	—	—	13	4
Durian	—	—	—	—	5	1	3	3	53	11
Papaya	—	—	—	—	—	—	19	3	23	17
Other Tropical Fruits	528	65	515	66	483	52	317	89	435	87
Total	586	71	560	72	560	65	414	124	714	183

Over 90% of the fruit exports were shipped to Singapore and the remaining 10% to Malaysia and West European countries.

Exports of vegetables grew by an average of 23% a year during the 1982 - 1984 period.

Vegetable exports during 1984 rose to 54,978 tons from 46,863 tons the year before, while their value rose by 16,7% from US\$ 5.4 million to US\$ 6.3 million as detailed below :

TABLE 1.20
INDONESIAN VEGETABLE EXPORTS
1982 - 1984

Commodity	1982	1983	1984
1. Sweet Potatoes	3	19	—
	2	1	—
	150	1,892	12,295
2. Other Potatoes	17	205	1,356

Table (Cont'd)

	1982	1983	1984
3. Tomatoes	3	98	233
	—	11	27
4. Shallots	108	437	399
	9	47	42
5. Cabbages & Cauliflower	5,990	10,408	38,048
	703	1,166	4,276
6. Other Leafy or Stem Vegetables	30,195	33,844	4,003
	3,399	3,821	603
7. Red Beans	12	12	—
	2	2	—
8. Kore Beans	3	27	—
	—	3	—
9. Mushrooms & Truffles	—	126	126
	—	111	—
Total	36,464	46,863	54,978
	4,132	5,367	6,304

As shown in the above table, cabbages and potatoes accounted for the bulk of vegetable exports. Cabbage exports during 1984 totalled 38,048 tons or 69.2% of the total export volume and potato 12,295 tons or 22.4% of the total.

Major vegetable importers from Indonesia are Singapore, Malaysia, Japan and the Netherlands.

Quality Standards

The Directorate General for Standardization and Quality Control, Ministry of Trade, has worked out quality standard concepts for the following fruits and vegetables:

A. Fruits:

1. Quality standard draft for mango (SP - 139 - 1981)
2. Quality standard draft for orange (SP - 140 - 1981)
3. Quality standard draft for pineapple (SP - 141 - 1981)
4. Quality standard draft for salak (SP - 142 - 1981)
5. Quality standard draft for avocado (SP - 143 - 1981)

B. Vegetables:

1. Quality standard draft for fresh cabbage (SP - 98 - 1978)
2. Quality standard draft for fresh potato (SP - 99 - 1978)
3. Quality standard draft for shallot (SP - 134 - 1981)
4. Quality standard draft for onion (SP - 135 - 1981)
5. Quality standard draft for Chinese cabbage (SP - 136 - 1981)
6. Quality standard draft for fresh tomato (SP - 137 - 1981)
7. Quality standard draft for fresh carrot (SP - 138 - 1981)

Regulations

There are no special regulations governing fruit and vegetable exports. However the Ministry of Trade has issued a series of rulings of fruit, vegetable and other food imports as stipulated in the Trade Minister's Decrees No. 505/KP/XII/1982, No. 273/KP/III/1982.

Associations

Fruit producers have not yet formed any organization or association. However vegetable growers in North Sumatra have set up an organization called the North Sumatra Vegetable Grower's Association.

THE ESTABLISHMENT OF THE TRADE EDUCATION AND TRAINING CENTER

BACKGROUND

Trade education and training institutional was established on 26 November 1973 under The Ministry of Trade Decree No. 404/KP/II/73, dated 26 of February 1973 with the main task to develop the skill and knowledge of The Department of trade employees as well as to improve the skill and knowledge of businessmen.

In 1974 by the Presidential Decree No 44 and 45, 1974 The Trade Educational and Training Institution was changed into The Trade Education and Training Center, an eschelon 2. unit under the Ministry of Trade that directly under supervision of, and responsible to The Minister of Trade. For daily activities it is responsible to The Secretary General of The Ministry of Trade.

When The Ministry of Trade changed into The Ministry of Trade and Cooperatives, the name of The Trade Education and Training Center changed into The Education and Training Center for Trade and Cooperatives. Therefore this training center had the right to train The Directorate General for Cooperative's employees too.

Based upon the lead of The Secretary General to make education and training more effective and according to the trade development, The Head for Trade and Cooperatives Research and Development had the right to train and develop curriculum on coopeartives.

OBJECTIVES

As mentioned above The Trade Education and Training Center was establish to develop the skill and knowledge of The Department of Trade's employees as well as to improve the skill and knowledge of businessmen.

ORGANIZATION

To promote achievement of this objective, the structure and regulations are designed so that it's trully be able to fullfill it's function, the organizational function of The Trade Education and Training Center is as follows

I. Before The Directorate General for Cooperatives joined The Ministry of Trade

The site, Function and task of The Trade Training Center based upon Ministry of Trade Decree No 110/KP/V/75 , which is implementation from the Presidential Decree no 44 and 45, 1974 , are :

a. Administration Division.

b. Programming Division.

c. Division for the execution of Trade Education and Training.

d. Division.....

d. Division for evaluation and control.

When the number of the personnel of The Ministry of Trade become bigger and bigger, the site, task and function of the Trade Education and Training Center according to The Ministry of Trade and Cooperatives Decree No 350/KP/VIII/80 dated 30 Augustus 1980 are as follows :

- a. Administration Division.
- b. Programming Division.
- c. Division for the execution of Trade education and training,
- d. Division for the execution of Cooperatives education and training.
- e. Division for evaluation and Control.

According to The Ministry of Trade Decree No 1132/KP/IX/84, the site, main functions and task of The Trade Education and Training Centre as follows :

The Site / Organization :

- a. Administration Division.
- b. Programming Division
- c. Education and Training for Administratif's Staf Division.
- d. Education and Training for Techniques staf Division.

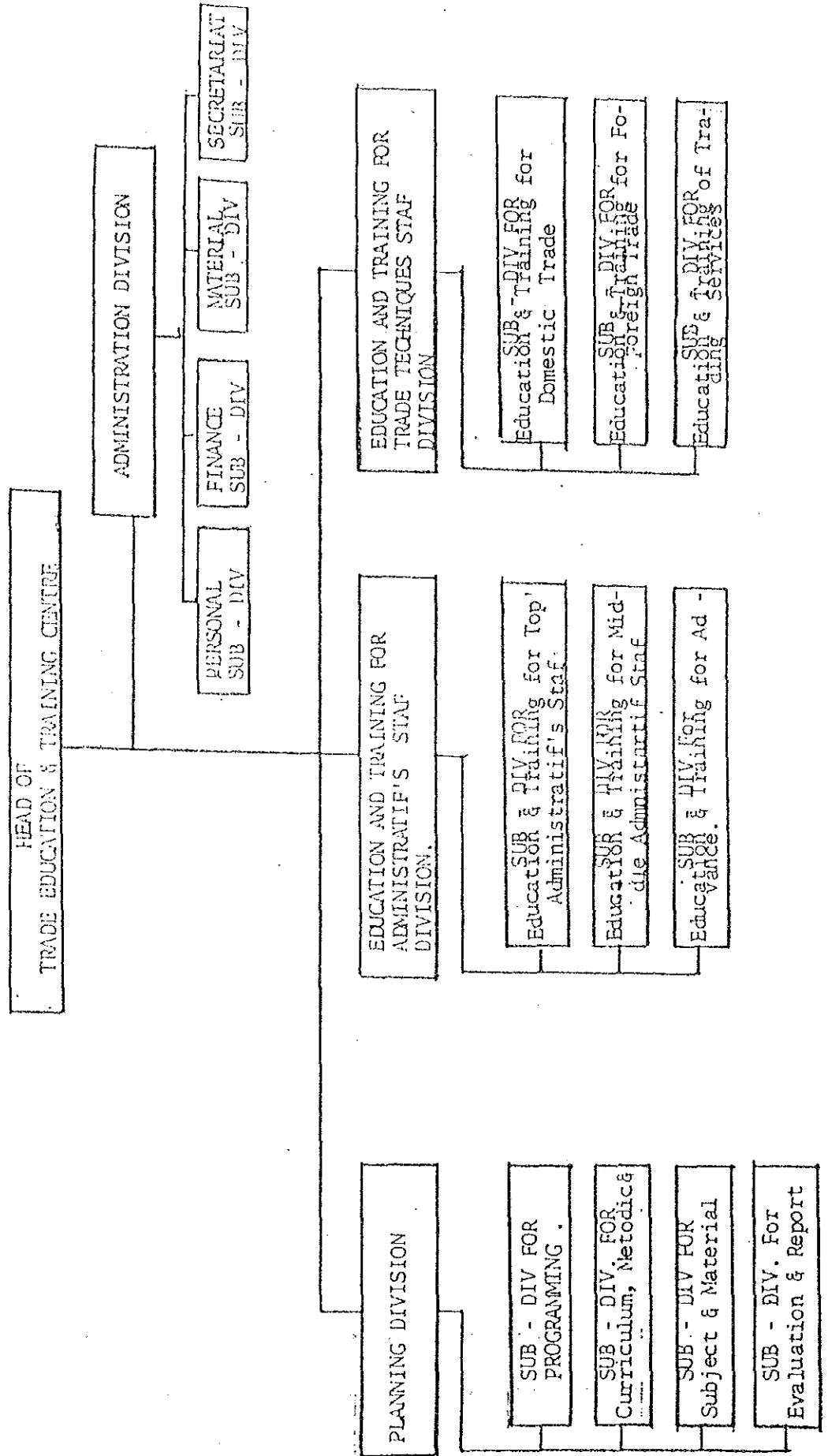
The Task and Function :

The Trade Education and Training Centre is assigned the responsibility to coordinate and develop education and training The Department of Trade officials according to The Minister of Trade's Policy.

The Function :

- a. To prepare formulation of and to execute the education and training policy.
- b. To plan an education and training's program.
- c. To execute and train the education and training's activities.
- d. To evaluate and make a report about the implementation of education and training activities.
- e. To execute the administration of the Trade Education and Training Centre.

ORGANIZATION CHART OF TRADE EDUCATION AND TRAINING CENTRE
 (ACCORDING TO THE MINISTER OF TRADE DECREE NO 1132 /KPTIX /64)



HOUSING

The Trade Education and Training Centre has dormitory Rooms. These rooms are especially suited to the needs and interests of the participants who came from all over place in Indonesia. The Dormitory located on Jalan Bangka VIII No 5 Jakarta.

Trade Education and Training Centre Facilities and Activities .

Students/ participants enrolled in every courses in this training - Centre may use all Trade Training Centre facilities and participate in all Trade Training Centre activities. These include ; The Library, Language Laboratory, and recreational facility such as tennis Court, Volleyball field , and Table Tennis.

PARTICIPANTS

Most of all participants who came to study at this Trade Training - Centre are The Ministry of Trade's employees, and some of them are from another Ministry and Government Institutions.

TEACHERS / INSTRUCTORS

All courses in The Trade Training Centre are taught by Trained Pro - fessionals who have had extensive experience in trade matters. Instructors are officials from Ministries concerned, Government Insti- tutions, Businessmen, as well as International Institutions.

1. Course Title : Staff And Administrative Management Course for Government Officials, which divided into :

Level I (SEPALA) : Level II (SEPADYA) : Level III (SESPA)

2. Objective : To broaden the view (way of thinking); increase the knowledge and skill of the Trade Department officials for the purpose of promotion.
3. Contents :
- | | | |
|---|--|--|
| <ul style="list-style-type: none"> 1. Economy of Indonesia I 2. Market Economics System 3. Macro and Micro Economics I 4. Industrial Economics I 5. Agro Economics I 6. Service Economics I 7. Monetary/Banking 8. Kawasan Nusantara. | <ul style="list-style-type: none"> 1. Economy of Indonesia II 2. Economic System 3. Macro and Micro Economics II 4. Industrial Economics II 5. Agro Economics II 6. Service Economics II 7. The Trade Functions According to GHN. | <ul style="list-style-type: none"> 1. Economics, Finance, Industry formulation for the National Economics Stability. 2. GHN (Guide Lines of the State) 3. Reductions of The Minister of Trade's Policy on Domestic Trade 4. Pancasila's Economics. |
|---|--|--|
4. Required or expected qualifications of participants. :
- | | |
|---|---|
| <ul style="list-style-type: none"> a. Staff who will have promotion b. Maximum age 50 years old | <ul style="list-style-type: none"> a. Staff who will have promotion b. Maximum age 50 years old |
|---|---|
5. Organizations to which Participants belong. :
- | | |
|---|---|
| <ul style="list-style-type: none"> The Ministry of Trade | <ul style="list-style-type: none"> The Ministry of Trade |
|---|---|
6. Number of Instructor. :
- | | | |
|--|--|---|
| <ul style="list-style-type: none"> 30 instructors | <ul style="list-style-type: none"> 30 instructors | <ul style="list-style-type: none"> 30 instructors. |
|--|--|---|
7. Recruitment of Instructor :
- | | | |
|---|---|---|
| <ul style="list-style-type: none"> Government Officials & Instructors of : Government officials, & LAN Instruc: Government Officials & LAN Instructors. LAN (Nat. Administration Institute) tors. | <ul style="list-style-type: none"> 1 (one) | <ul style="list-style-type: none"> 1 (one) |
|---|---|---|

9. Duration	:	5 months	:	5 months
10. No of participants	:	300 Officials	:	30 Officials.
11. Teaching Method	:	Lectures, discussions, seminars etc.	:	Lectures, discussions, seminars, etc.
12. Teaching Equipment	:	Visual aid, slide & films	:	slide and films

1. Object	To increase and develop and capability of the Trade Department Staffs in Office Administration and the English Language.	
2. Course title.	OFFICE ADMINISTRATION I	OFFICE ADMINISTRATION II
3. Contents	80% English Lessons 20% Office Administration (Finance, Archive, Inventory etc.) (Indonesian Language I.)	80% English Lessons 20% Office Administration (Finance, Archive, Inventory etc.) Indonesian Language II.
4. Required or expected qualifications of Participants.	1. Staffs 2. Passed the Placement Test 3. Age max 35 years	1. Staff 2. Passed the test of the Office Administration I 3. Age max. 35 years
5. Organization to which Participants belong	The Department of Trade	The Department of Trade
6. No. of Instructors	15 Instructors	15 instructors.
7. Recruitment of Instructors	English Teachers/Native Speakers (Government Officials)	English Teachers/Native Speakers (Government Officials)
8. Frequency/year	1 (one)	1 (one)
9. Duration/course	2 months	2 months
10. No. of Participants	20/class	20/class
11. Teaching method	Conversations, writing, reading lectures, discussions, test etc.	Conversation, reading, writing, lectures, discussions, tests etc.
12. Teaching Equipments	Visual aid, slide, film etc.	Visual-aide, slide, film etc.

1. Object . . . To train the candidates to be able to handle the financial problems by giving Monetary/Financial knowledge.

2. Course title . . . TREASURER

3. Contents . . . 1-National Budgeting
2.Book Keeping
3.Controllership
4.An Introduction on Tax

4. Required qualifications of Participants
1. Minimal 2 years on duty
2. staffs
3. Age max 55 years

5. Organization to which Participants belong . . . The Department of Trade

6.No. of Instructors : 12:Instructors.

7.Recruitment of Instructors . . . Government Officials

8.Frequency/year . . . 1 (one)

9.Duration/course . . . 2 months

10.No.of Participants . . . 25 participants

11.Teaching Method . . . Lectures, discussion, tests

12.Teaching equipments . . . Slides & Films

1.	OBJECT	: To enhance and develop knowledge and skill for official on domestic trade for region office of departement of trade
2.	COURSE TITLE	: D O M E S T I C T R A D E
3.	CONTENTS	: - Marketing analysis and research - Human relations and mass communication - Management and leadership - banking - The tax in trading - Act No 5 Tahun 1974 - Project design and evaluation - Costing and pricing - The techniques of warehousing
4.	REQUIRED OR EXPECTED QUALIFICATIONS OF PARTICIPANTS	: - Head of regional office department of trade - 3rd Echelon - Maximum age 50 years
5.	ORGANIZATION TO WHICH PARTICIPANTS BELONG	: The Department of trade
6.	NO. OF INSTRUCTORS	: 30 instructors
7.	RECRUITMENT OF INSTRUCTORS	: Government official, University of Indonesia
8.	FREQUENCY /YEAR	: 1 (one)
9.	DURATION/COURSE	: 3 months
10.	NO. OF PARTICIPANTS	: 50 participants from region office

11. TEACHING METHOD : Lectures, discussions, test, seminar etc

12. TEACHING EQUIPMENTS : Visual aid, slide, film etc

1. Object To enhance and develop knowledge and skill of the Trade Department Officials in the field of International Trade, especially for the foreign trade policy.

2. Course Title Export development

3. Contents
1. Market information system
 2. The techniques of research on marketing and selling prediction
 3. The research on export development
 4. Banking
 5. The tax on trading
 6. The techniques of warehousing
 7. Facking, packaging, and labelling
 8. The insurances in trading area
 9. Freight forwarding
 10. Costing and pricing

4. Required or expected qualifications of Participants
1. Official who deals in international Trade development, especially in field export
 2. Maximum age 45 years

5. Organizations to which Participants belong 30 participants

6. No. of Instructors 2-5 Instructors

7. Recruitment of Instructors Government Official, NAFED

8. Frequency/year 1 Year

9. Duration/course 2 Months

10. No. of Participants	50 Officials
11. Teaching Method	Lectures, discussions, seminars etc
12. Teaching Equipment	Visual aid, slide & film

1. Object To enhance and increase the skill of Officials by giving Statistical Science, generally by emphasizing the Trade Statistics and to interpretize economic data analysis which related to Trade.

2. Course title DATA ANALYSIS

3. Contents
1. Mathematics
2. Statistics
3. Economic Forecasting

4. Required qualifications
1. Minimal Bachelor of Art (B.A.) graduates
2. Age max 40 years

5. Organization of Participants
The Department of Trade

6. No. of Instructors

7. Recruitment of Instructors
Government Officials and Lecturers from the Centre of the Berou Statistic (BPS)

8. Frequency/year 1 (one)

9. Duration/course 2 months

10.No. of Participants 30 persons

11.Teaching method Lectures, Mathematics and Statistics Practices

12.Teaching equipments Calculators

1. Object : To enhance the Official's Skill in PLANNING technics as well as in the Administrative field.

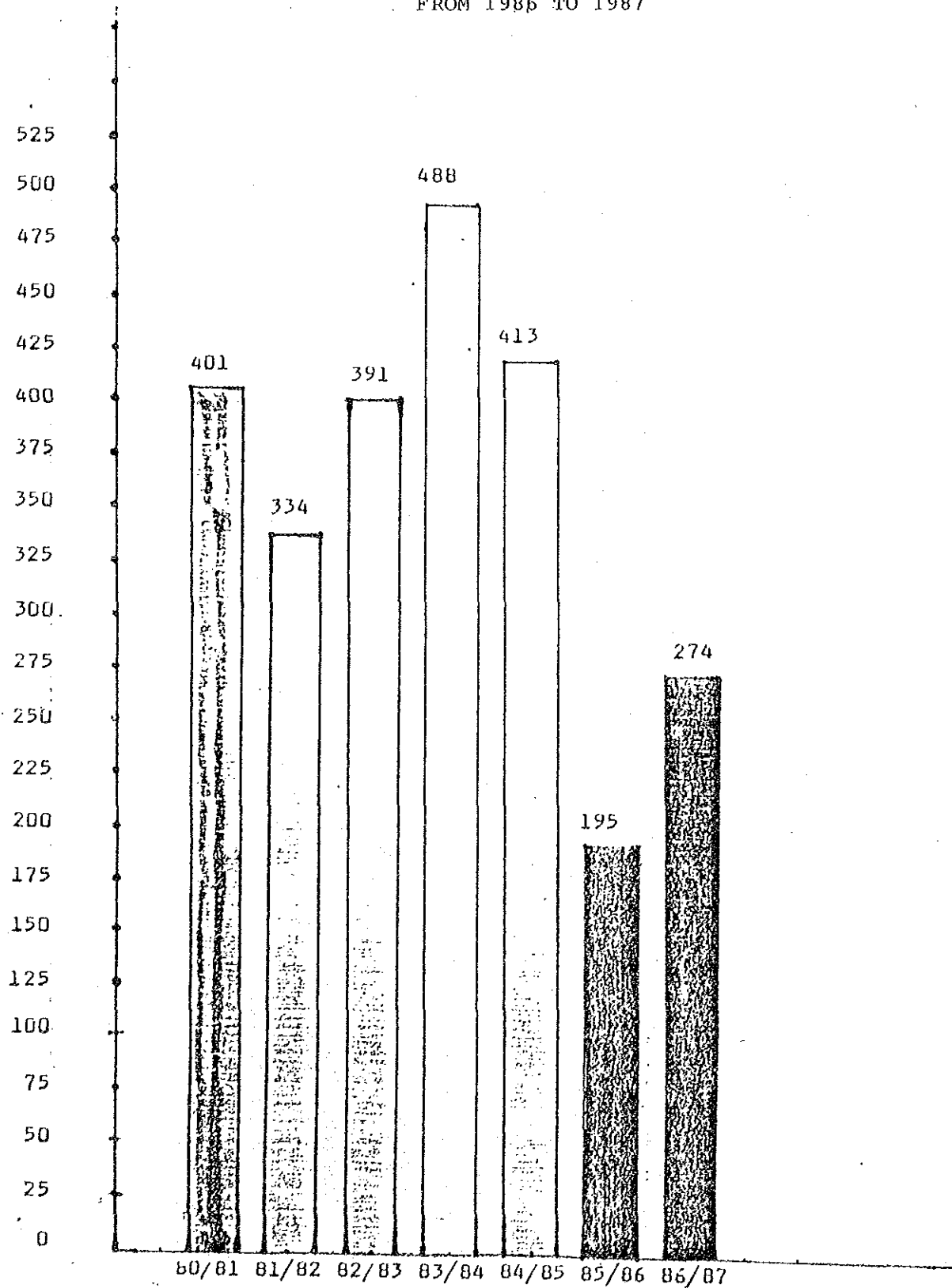
2. Course title . PLANNING.

3. Contents
- 1. Economic Planning
 - 2. Statistics
 - 3. District, Regional and National Development Planning Pattern
4. Required qualifications of Participants
- 1. 4th Eselon.
 - 2. Officials who are in the Data Analysis and Planning field.
 - 3. Official with 2 years term on duty
5. Organization of the Participants
- The Department of Trade
6. No. of Instructors : 20 instructor.
7. Recruitment of Instructors
- Government Officials
8. Frequency/year 1 (one)
9. Duration/course 3 months.
10. No. of Participants 30 Participants
11. Teaching method Lectures, discussions/seminars , examination
12. Teaching equipments Slide, films etc.

1. Object To educate the Officials with practical and technical knowledge dealing Trade problems
2. Course title PRACTICAL AND TECHNICAL TRADE
3. Contents International Trade, Production Management, Marketing etc.
4. Required qualification- Passed the Pre Personnel Practice III (Latihan Pra Jabatan tingkat III)
 tion of participant Official with 2 years experience
 Max age 35 years
5. Organization of Participant The Department of Trade
6. No. of Instructor 30
7. Recruitment of instructor Government officials
8. Frequency/year 1 (one)
9. Duration/course 2 months
10. No. of participant 50 persons
11. Teaching method lectures, seminars, field trip
12. Teaching equipment slide, films etc.

KEADAAN PERKEMBANGAN PESAWAI DEPARTEMEN PERDAGANGAN
YANG TELAH MENGIKUTI DIKLAT DARI TAHUN
1980/1987

PERSONNEL DEVELOPMENT OF THE DEPARTMENT OF TRADE
WHO HAS FOLLOWED THE EDUCATIONAL TRAINING
FROM 1986 TO 1987



KEADAAN PERKEMBANGAN PEGAWAI DEPARTEMEN PERDAGANGAN
 YANG TELAH MENGIKUTI DIKLAT DAR: TAHUN
 1980/1981 s/d 1986/1987

PERSONNEL DEVELOPMENT OF THE DEPARTMENT
 OF TRADE WHO HAS FOLLOWED THE EDUCATIONAL
 TRAINING FROM 1980/1981 UP TO 1986/1987.

NO	TAHUN ANGGARAN	JUNJAH PEGAWAI YANG DIDIDIK	KETERANGAN
1.	1980/1981	401 orang	11 Macam Pendidikan
2.	1981/1982	334 "	12 - " -
3.	1982/1983	391 "	12 - " -
4.	1983/1984	488 "	14 - " -
5.	1984/1985	413 "	12 - " -
6.	1985/1986	195 "	10 - " -
7.	1986/1987	274 "	10 - " -
TOTAL		2.496 orang	

PUSAT PENDIDIKAN DAN LATIHAN NIAGA
DEPARTEMEN PERDAGANGAN

JUMLAH PEGAWAI YANG DIDIDIK BERDASARKAN JENIS PENDIDIKAN
TAJUAN ANGGARAN 1980/1981 s/d 1986/1987

PERSONNEL WHO HAS FOLLOWED THE EDUCATIONAL TRAINING
BASED ON THE TYPE OF EDUCATION FISCAL YEAR 1980/1981 UP TO 1986/1987

NO	JENIS PENDIDIKAN	JUMLAH PEGAWAI YANG DIDIDIK	KETERANGAN
1.	SEKSA	67 orang	
2.	SERANG	30 orang	
3.	SIBUALA	90 orang	
4.	KEMBARIPILAN TK II	201 orang	
5.	KEMBARIPILAN TK III	270 orang	
6.	MERATAJAN ADMINISTRASI PERKANTORAN	656 orang	
7.	BUDIDIBERAWAN	175 orang	
8.	PERENCANAAN DAN PENGELOLAAN PROYEK	109 orang	
9.	PLANGKARAN KEUANGAN	68 orang	
10.	KEPERJOLAN	62 orang	
11.	OPRATOR PERKANTORAN	19 orang	
12.	AKUISITRASI KEPEGAWAIAN	20 orang	
13.	PERCELITAN PERMAGANGAN-DALAM NEGERI	60 orang	
14.	PERKEMBANGAN PERMAGANGAN LUAR NEGERI	74 orang	
15.	PENGETAHUAN PERDAGANGAN KOMODITI IIA-SIL PERTANIAN	41 orang	
16.	PENGETAHUAN KOMODITI HASIL INDUSTRI	40 orang	
17.	STATISTIK DAN PENELITIAN PERDAGANGAN	29 orang	
18.	ANALISA BATA	60 orang	
19.	ANALISA PASAR	24 orang	
20.	PENGEMBANGAN EKSPOR	25 orang	
21.	PRAKTIS TEKNIK PERDAGANGAN	30 orang	
22.	PERENCANAAN	25 orang	
23.	Bahasa Inggris	4 orang	
24.	PASCA SARJANA	17 orang	
			Di British 1, ELTI 1, ALT 2. IPB 9, UI 8.
		2.496 orang	

NO	JENIS PENDIDIKAN	1980/1981 orang	1981/1982 orang	1982/1983 orang	1983/1984 orang	1984/1985 orang	1985/1986 orang	1986/1987 orang
19.	S E S P A	-	15	-	25	27	-	-
2.	SEPADYA	-	-	-	-	-	30	-
3.	S E P A L A	-	-	-	-	-	30	60
4.	KETRAMPILAN TK. II	77	38	26	30	30	-	-
5.	KETRAMPILAN TK. III	-	-	90	120	60	-	-
6.	ADMINISTRASI PERKANTORAN TK. Ia.	19	11	41	-	-	-	-
7.	ADMINISTRASI PERKANTORAN TK. Ib	17	39	20	20	-	20	-
8.	ADMINISTRASI PERKANTORAN TK. IIa	-	10	21	-	19	20	40
9.	ADMINISTRASI PERKANTORAN TK. IIb.	-	-	-	-	20	-	21
10.	ADMINISTRASI PERKANTORAN DIDAEARAH	78	80	-	60	80	-	-
11.	ADMINISTRASI PERKANTORAN KHUSUS (Es. III)	-	-	-	20	-	-	-
12.	BENDAHARAHAN PUSAT	29	16	22	60	29	34	35
13.	BENDAHARAHAN DIDAEARAH	-	-	70	90	90	-	-
14.	PERENCANAAN DAN PENGELOLAAN PROYEK	44	40	25	-	-	-	-
15.	PENGAWASAN KEUANGAN	-	18	20	30	-	-	-
16.	KEPROTOKOLAN	45	-	17	-	-	-	-
17.	OPERATOR PERKANTORAN	-	-	19	-	-	-	-
18.	ADMINISTRASI KEPEGAWAIAN	-	-	20	-	-	-	-
19.	PENGETAHUAN PERDAGANGAN DALAM NEGERI	-	-	-	-	-	30	30
20.	PENGEMBANGAN PERDAGANGAN LUAR NEGERI	25	-	-	25	24	-	-
21.	PENGETAHUAN PERDAG KOMODITI HASIL PERTANIAN.	21	20	-	-	-	-	-
22.	PENGETAHUAN PERDAG KOMODITI HASIL INDUSTRI.	22	18	-	-	-	-	-
23.	STATISTIK DAN PENELITIAN PERDAGANGAN	-	29	-	-	-	-	-
24.	ANALISA DATA	-	-	-	-	30	-	30
25.	ANALISA PASAR	24	-	-	-	-	-	-
26.	PASCA SARJANA DI I P B	-	-	-	4	2	2	1
27.	PASCA SARJANA DI U.I.	-	-	-	2	2	2	2
28.	PENGEMBANGAN EKSPOR	-	-	-	-	-	25	-
29.	BAHASA INGGRIS DI BRITISH COUNCIL	-	-	-	1	-	-	-
30.	BAHASA INGGRIS DI ELTI	-	-	-	1	-	-	-
31.	BAHASA INGGRIS DI ALT	-	-	-	-	-	2	-
32.	P E R E N C A N A A N	-	-	-	-	-	-	25
33.	PRAKTIS TEKNIS	-	-	-	-	-	-	30

Jakarta, Januari 1987

**PPMB
is one of the
IRA
Regional
Laboratories**

The Centre for Testing and Quality Control (PPMB) is the technical executive unit in the quality control of commodities within Department of Trade Republic of Indonesia.

In 1979, the Centre for Testing and Quality Control began to function actively in the analytical quality control of commodities, together with 8 Regional Laboratories for Testing and Quality Control, and The Research Institute for Estate Crops in Medan, functioning as testing laboratories in a network system. Now Mini Laboratory Bengkulu had been functioning as to Testing Laboratory.

In 1981, after the Centre for Testing and Quality Control had been active, the function as a control laboratory for SIR formerly performed by Research Institute for Estate Crops in Bogor and Medan was transferred to the Centre for Testing and Quality Control.

Aside from functioning as the Control Laboratory of SIR, the Centre for Testing and Quality Control also functions as the Standards Laboratory.

The testing laboratory network system under Department of Trade Republic of Indonesia, essentially involves the SIR Factory Laboratories, the Testing Laboratories, the Control Laboratory and the Standards Laboratory.

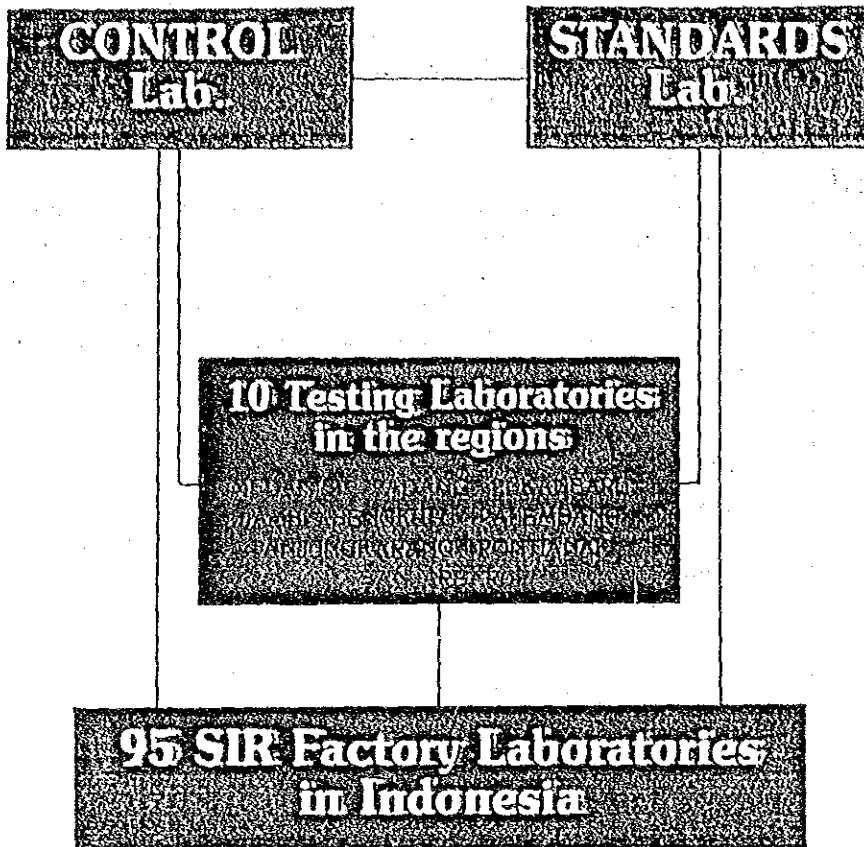
Staff :

20 skilled personal who have been trained in their specific disciplines.

**Testing
Facilities**

The PPMB Laboratory has complete testing facilities for :

- all kinds of Technically Specified Rubber (TSR) such as TSR/ SIR 5 – 50, including CV and LV rubber.
- concentrated latex.
- cure – characteristics vulcanization test of rubber compounds.
- other testing methods for research purposes.
- calibration activities of laboratory equipment.

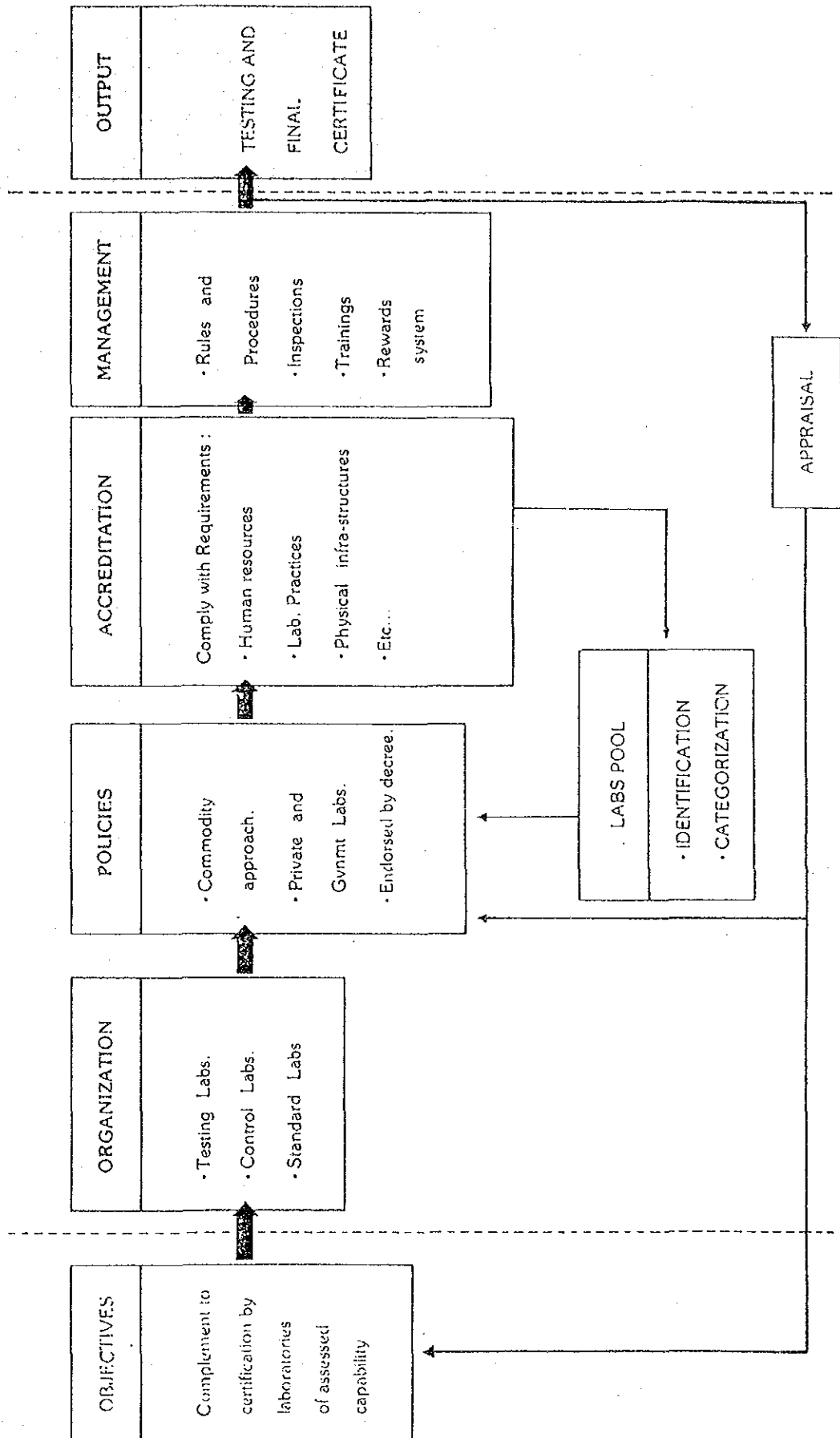


Laboratory Network System in the Quality Control of SIR

1. Perform crosschecking on samples received from testing laboratories.
2. Offer services on the calibration of laboratory equipment.
3. Perform inspection as means of supervision and extension work, to all the laboratories involved.
4. Monitor all the activities of the Testing Laboratories and Factory Laboratories.
5. Organize training courses to ameliorate the skills of the technical staff.
6. Organize technicals meetings to discuss problems encountered by each laboratory.
7. Conduct investigations / research on analytical methods or the kind of laboratory equipment to be used.
8. Offer other services to public such as advice, analyses / testing and extention services.

Activities

LABORATORY NETWORK MANAGEMENT SYSTEM BY THE
CENTRE FOR TESTING AND QUALITY CONTROL IN INDONESIA





PUSAT PENGENDALIAN MUTU BARANG
DEPARTEMEN PERDAGANGAN DAN KOPERASI - REPUBLIK INDONESIA

Centre for Testing and Quality Control - Ministry of Trade and Cooperatives

JL. RAYA BOGOR KM. 26 • KOTAK POS 4235 JAKARTA TIMUR INDONESIA • TEL. 870321 - 323

**DEVELOPMENT OF NETWORK SYSTEM
OF TESTING LABORATORIES IN INDONESIA.**

Introduction

The Centre for Testing and Quality Control, an Institution within the Ministry of Trade and Cooperatives, was inaugurated as a realization of a Ministerial Decree of 1977.

The main responsibility of the Centre is to operate control scheme in order to ensure that the practice of testing and certification of products carried out by laboratories of assessed capability is constantly in conformity to adopted standards.

The system is so designed so that the certificate produced is final thus promoting Indonesian products.

Organization

Organization of the system follows a pattern developed since 1969 for control of Standard Indonesian Rubber (SIR) in which laboratories being categorized between process control, testing, control and standard laboratories.

Accreditation

Accreditation of testing laboratories is carried by Control Laboratory which is a division of the Centre for Testing and Quality Control, using commodity approach.

It is based on certain general criteria which include human resources, good laboratory practices, physical infra-structures, calibration and safety.

Management

Management of the system is being carried out through routine cross checkings, inter-laboratory tests, on-the-spot inspections and regular training.

Some Results

It is important to note that currently the system is being carried out to traditional agricultural products of Indonesia, such as technically specified rubber (SIR), coffee, essential oils and spices, amounting up to 16 commodities, which are compulsory for certification.

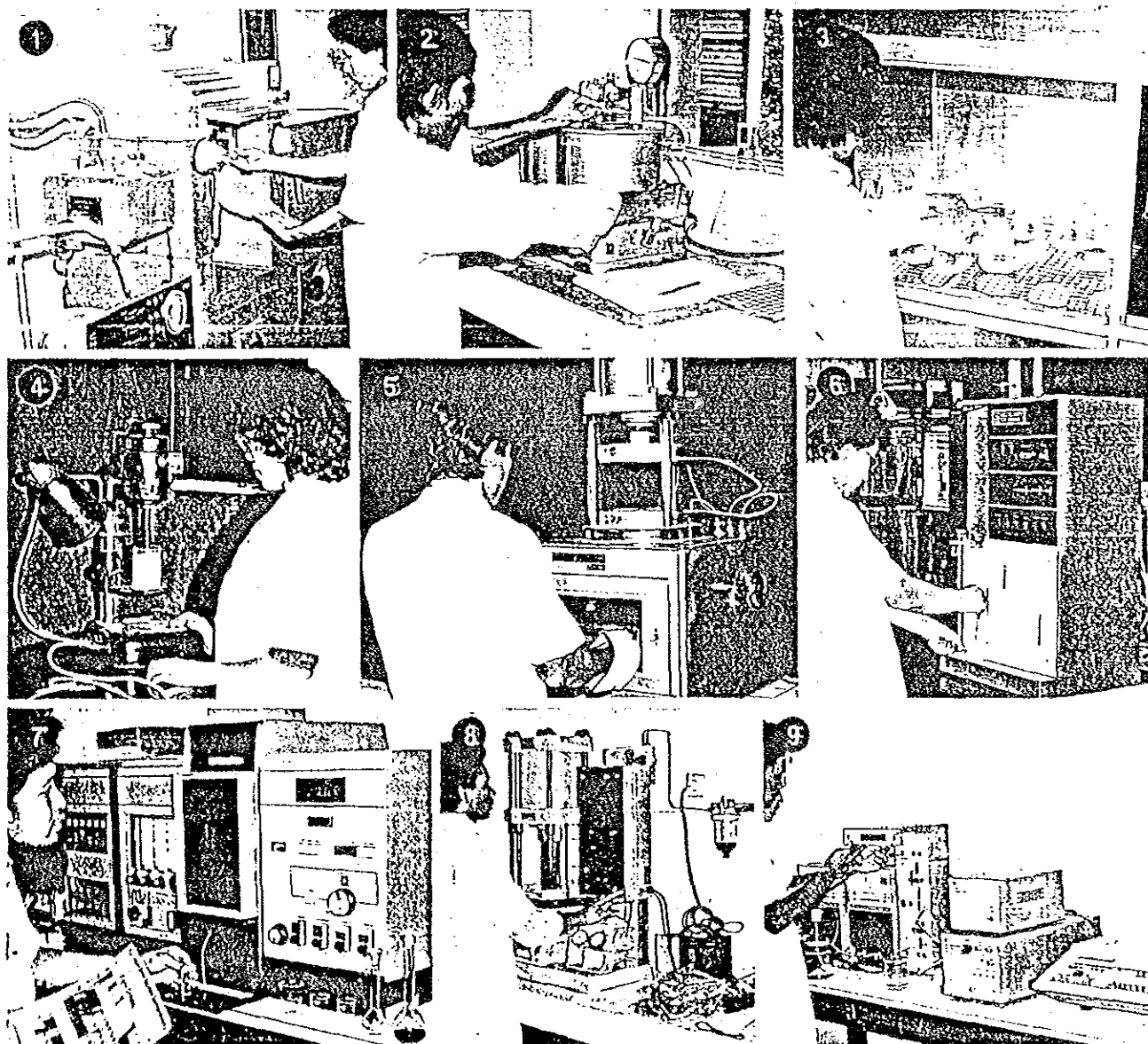
Related scheme for industrial manufacturing products is now under preparation.

The scheme has attained significant achievement : that Standard Indonesian Rubber (SIR) as from early this year has been included in the future trading system in major international markets.

We are looking forward for improvement of the accreditation programme as complement to our certification scheme, so that our test results (certificates) is final in Indonesia, that is accepted at international level.

**Several
equipment /
laboratory
facilities
in PPMB.**

1. Lab. Mill, for homogenisation of rubber sample.
2. Plastimeter, to test Plasticity Retention Index (PRI).
3. Infra Red Heating Unit, to dissolve rubber in determination of dirt content.
4. Klaxon Stirrer, to test mechanical stability of concentrated latex.
5. Rheometer, to test cure-characteristics vulcanization of rubber compounds.
6. Kjeltec Auto, for semi-micro determination of nitrogen.
7. Atomic Absorption Spectrophotometer, for determination of metal ions.
8. Viscometer, to test viscosity of rubber or other polymers.
9. High performance liquid chromatography, to identify rubbers or other polymers.



THE CENTRE FOR TESTING AND QUALITY CONTROL

Is a technical unit for the quality control of export commodities within the Indonesian Ministry of Trade. The Centre for Testing and Quality Control was established in 1979. The Centre is situated 26 Km from Jakarta and is comprised of ten commodities and two standards laboratories and monitors the work carried out in fourteen regional laboratories, twelve of which undertake the examination of Green Coffee Beans and four laboratories of P.T. Sucofindo and one laboratory of P.T. Carsurin are also licensed to examine Green Coffee Beans.

DEFINITION

Green coffee beans shall be the seeds of the coffee plant (*coffea spp*) in the naked form and before roasting.

TESTING METHODS

Based on Standard of trade — Standard for Testing Method, consisting of :

- Visual tests : — Extraneous matter
 - Presence of live insects
 - Total value of defects
- Organoleptic tests : — Stinker beans, mouldy odour and mouldy beans
- Physical tests : — moisture content
- Physic tests : — Sieve Tests

QUALITY CONDITION

Based on SP — 16 1975
Revised August 1982

General requirements

- A. Dry processed : — Moisture, max 13% (weight/weight)
 - Extraneous matter which consists of sticks, stones, pieces of hard earth and others max 0,5% (weight/weight)
 - Free of live insects
 - Free of stinker beans, mouldy odour and mouldy beans
 - Beans shall be retained by a 3 mm × 3 mm (8 mesh) screen with a max of 1% (weight/weight) passing through.
 - The beans may be specified as large beans, if they fulfil the requirement of being retained by a 5,6 × 5,6 mm (3,5 mesh) screen with a max of 1% (weight/weight) passing through.
- B. Wet processed : — Moisture, max 12% (weight/weight)
 - Extraneous matter which consists of sticks, stones, pieces of harg earth and others max 0,5% (weight/weight)
 - Free of live insects
 - Free of stinker beans, mouldy odour and mouldy beans.
 - Robusta coffee shall be classified as :
 1. Large beans, retained by a screen having round holes of 7,5 mm diameter, with a max of 2,5% (weight/weight) passing through.
 2. Medium beans, passing through a screen having round holes of 7,5 mm diameter and retained by a screen having round holes of 6,5 mm diameter, with a max of 2,5% (weight/weight) passing through.
 3. Small beans, passing through a screen having round holes of 6,5 mm diameter and retained by a screen having round holes of 5,5 mm diameter with a max of 2,5% (weight/weight) passing through.
 - For other than Robusta varieties, the beans size is not specified.

Specific requirements

Grade classification according to the defect system

GRADE	REQUIREMENT
Grade 1	Total value of defect maximum 11
Grade 2	Total value of defect between 12 and 25
Grade 3	Total value of defect between 26 and 44
Grade 4	Total value of defect between 45 and 80
Grade 5	Total value of defect between 81 and 150
Grade 6	Total value of defect between 151 and 225

NO.	TYPE OF DEFECTS	VALUE OF DEFECTS
1.	1 (one) black bean	1 (one)
2.	2 (two) partly back beans	1 (one)
3.	2 (two) broken black beans	1 (one)
4.	1 (one) husk coffee	1 (one)
5.	4 (four) brown beans	1 (one)
6.	1 (one) large husk fragment	1 (one)
7.	2 (two) medium husk fragments	1 (one)
8.	5 (five) small husk fragments	1 (one)
9.	10 (ten) beans in silverskin (for robusta coffee, wet processed)	1 (one)
10.	2 (two) beans in parchment	1 (one)
11.	2 (two) large parchment fragments	1 (one)
12.	5 (five) medium parchment fragments	1 (one)
13.	10 (ten) small parchment fragments	1 (one)
14.	5 (five) broken beans	1 (one)
15.	5 (five) immature beans	1 (one)
16.	10 (ten) beans with one hole	1 (one)
17.	5 (five) beans with more than one hole	1 (one)
18.	10 (ten) spotted beans (for wet processed)	1 (one)
19.	1 (one) large stick, piece of hard earth or stone	5 (five)
20.	1 (one) medium stick, piece of hard earth or stone	2 (two)
21.	1 (one) small stick, piece of hard earth or stone	1 (one)

DETERMINATION OF THE VALUE OF DEFECTS OF GREEN COFFEE BEAN

- ☒ Regional Laboratory for Testing and Quality Control Medan
- ☒ Regional Laboratory for Testing and Quality Control Padang
- ☒ Regional Laboratory for Testing and Quality Control Palembang
- ☒ Regional Laboratory for Testing and Quality Control Tanjungkarang
- ☒ Regional Laboratory for Testing and Quality Control Singaraja
- ☒ Research Institute for Estate Crops Medan
- ☒ Research Institute for Estate Crops Jember
- ☒ Institute for Research and Industrial Development Medan
- ☒ Institute for Research and Industrial Development Semarang
- ☒ Institute for Research and Industrial Development Surabaya
- ☒ Institute for Research and Industrial Development Ujungpandang
- ☒ Institute for Research and Industrial Development Manado
- ☒ P.T. Sucodindo Medan
- ☒ P.T. Sucofindo Jakarta
- ☒ P.T. Sucofindo Semarang
- ☒ P.T. Sucifindo Surabaya
- ☒ P.T. Carsurin Jakarta

TESTING LABORATORIES

1. To implement the quality control testing of export commodities and to issue certificates of export.
2. To perform certificate control by :
 - carrying our frequent cross checks on samples which have already been issued with a certificate by a testing laboratory
 - carrying out inspection of certificates of quality which have already been issued by the testing laboratory, sampling body and exporter.
3. To continually monitor the grade of Green Coffee Beans
4. To carry out internal inspection of the quality control system and also to give advice.
5. To organize training to increase the technical skill of the quality control staff.
6. To offer services the private sector such as technical advice, analytical / testing and extension services.

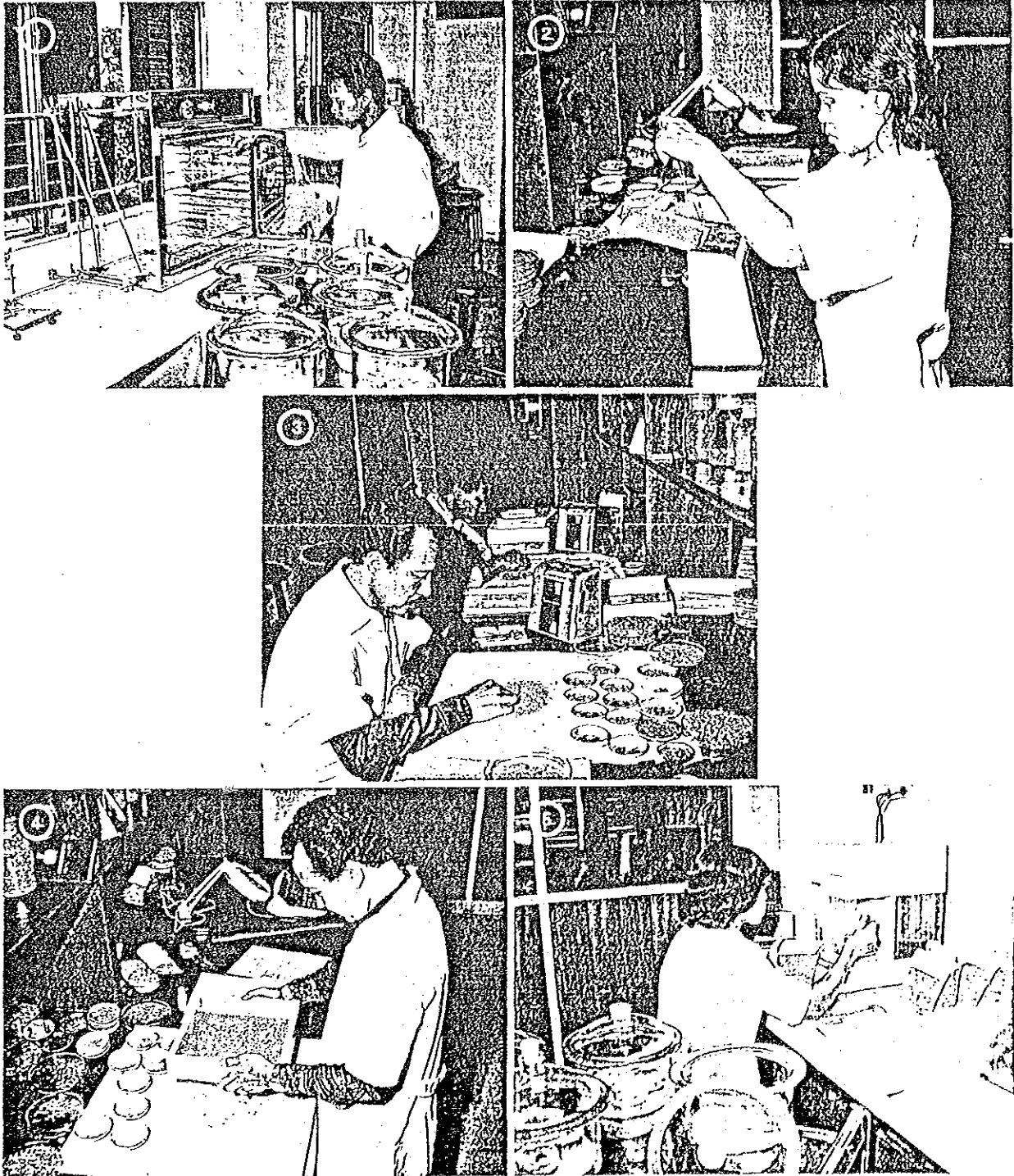
ACTIVITIES

TESTING FACILITIES

The laboratory for the examination Green Coffee Beans has a staff of ten qualified chemists and laboratory assistants, which has a fully equipped laboratory for the examination of Green Coffee Beans.

1. Oven, desiccator, for determination of moisture content.
2. Cera tester, for determination of moisture content.
3. Petridish, for determination of defects.
4. Sieving, for determination beans size.
5. Analytical balance, for weigh of the samples

□□



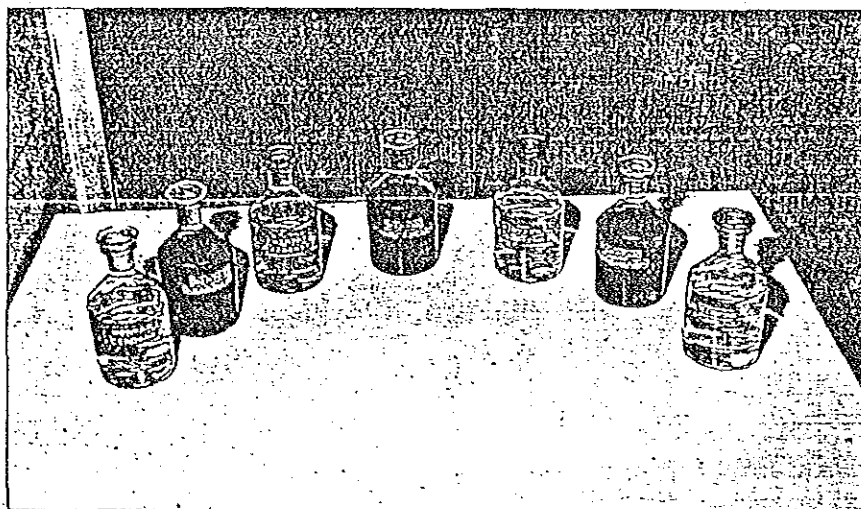
P P M B
is one of
the I F E A T/
International
Federation of
Essential oils
and Aroma
Trades.

The Centre for Testing and Quality Control is a unit of the Department of Trade, responsible for the testing and quality certification of trade commodities.

The Centre started to function in 1979 and consist of a network of Regional Laboratories, a Control Laboratory and a Standard Laboratory. The Control and Standards Laboratories are located in Jakarta.

In 1980 the Centre for Testing and Quality Control started to carry out quality supervision on essential oils for export :

- Citronella oil
- Clove leaf oil
- Nutmeg oil
- Cananga oil
- Patchouli oil
- Vetiver oil
- Sandalwood oil
- Cajeput oil



The Sample of essential oils were carried out of the quality supervision

STAFF

staff consisting of :

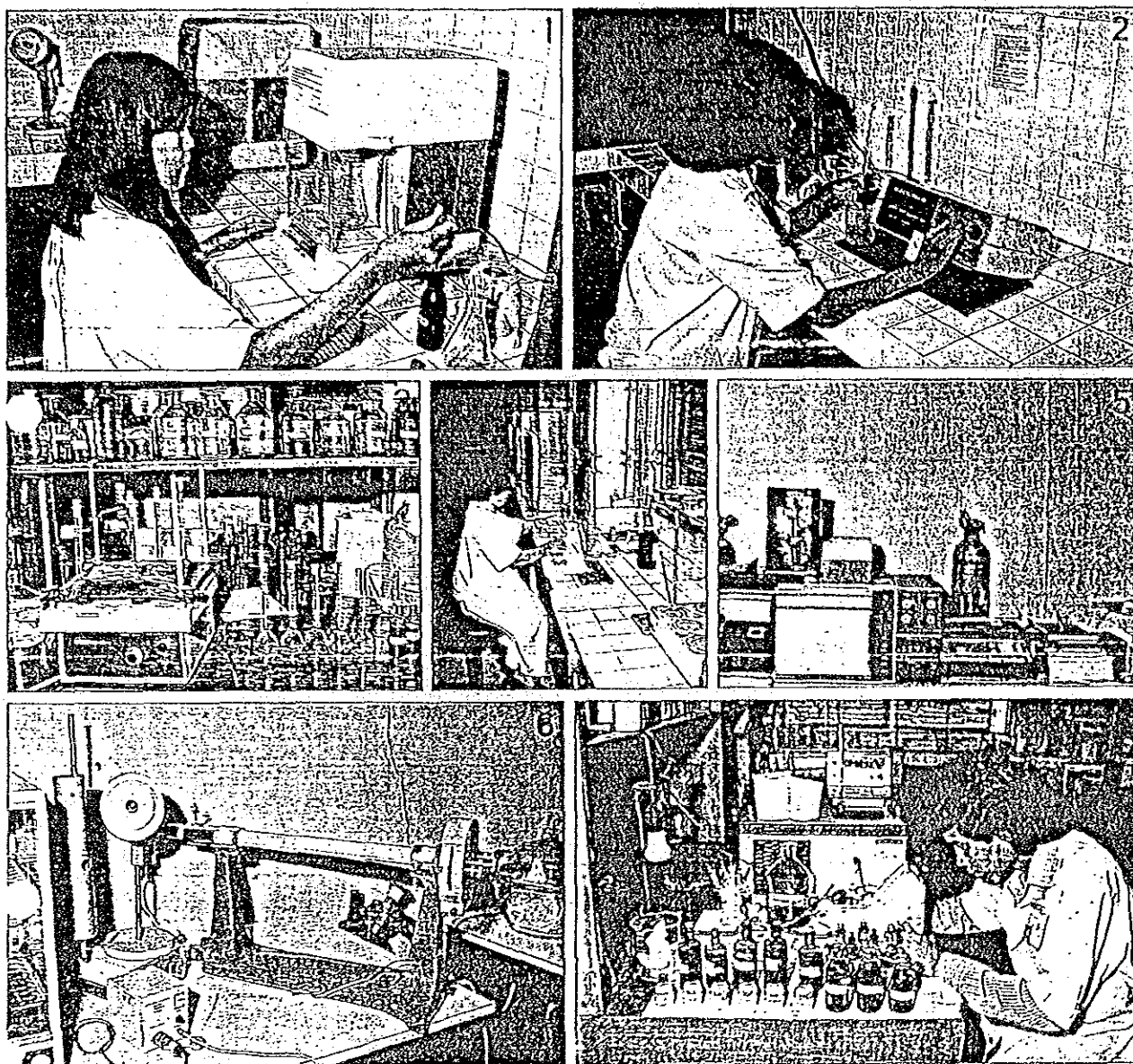
- * Chemists
- * Assistant Chemists
- * Analysts Chemists

Each qualified and trained in their field.

The eleven Regional Laboratories now in existence are also responsible for providing assistance requested essential oil producers for quality improvement of their products and one network system of testing laboratories was formed.

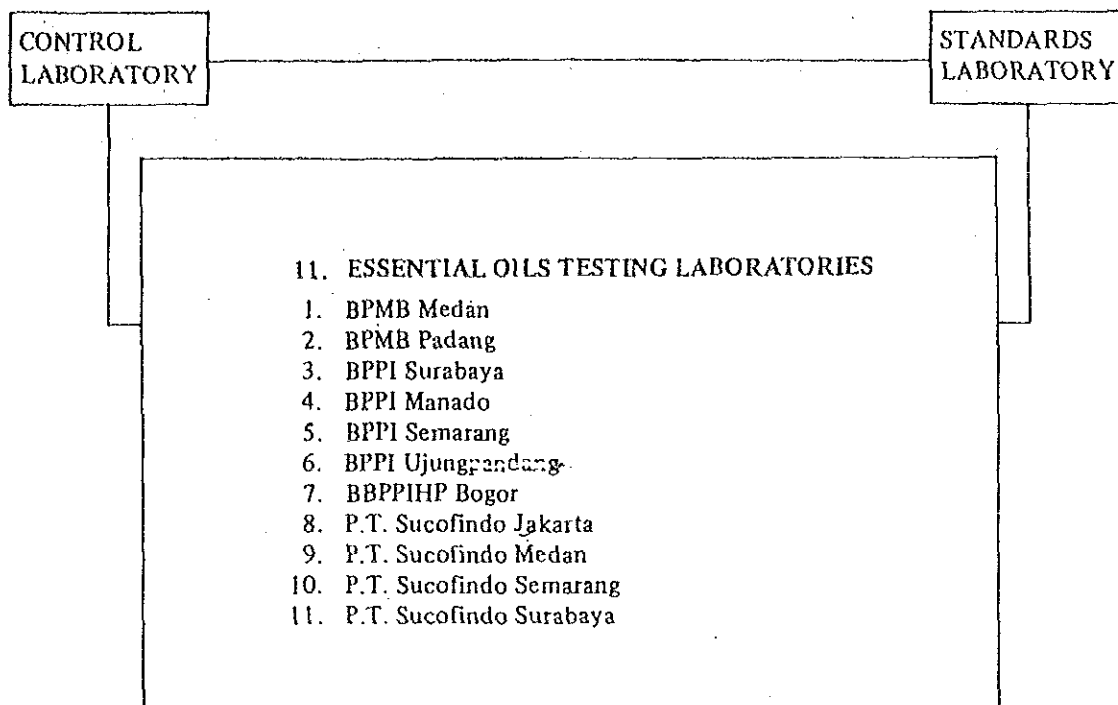
TESTING FACILITIES

The Centre for Testing and Quality Control is fully equipped for testing of all essential oil commodities which should comply to the standard :



1. ANALYTICAL BALANCE SARTORIUS, for weight the sample.
2. pH METER, for determination pH of the essential oil.
3. CASSIA FLASK & SHAKER MACHINE, for determination eugenol content in clove leaf oil.
4. BURETTE, ERLLENMEYER, VOLUMETRIC PIPET, for determination of Citronellal content in Citronella oil.
5. GAS CHROMATOGRAPHY (G.C), for the detection of adulteration in the essential oils.
6. POLARIMETER, for determination optical rotation.
7. REFRACTOMETER, for determination refractive index.

LABORATORY NETWORK SYSTEM IN THE QUALITY CONTROL OF ESSENTIAL OILS



ACTIVITIES OF THE CENTRE FOR TESTING AND QUALITY CONTROL

1. To carry out cross check testing on samples from regional testing laboratories.
2. To carry out quality testing and to issue export quality certificates.
3. To offer a service for the calibration of laboratory equipments.
4. To carry out inspection and checking of testing laboratories.
5. To monitor all the activities of the testing laboratories.
6. To organize training for the purpose of improving the skills of technical staff.
7. To organize technical meetings in order to discuss problems encountered by each laboratory involved.
8. To search for improved analytical methods and equipments in order to increase the efficiency of existing methods of analysis.
9. To offer a public service such as advice, testing or on practical field activities related to the quality of essential oils produced.

JICA