

Table II-4-7 Labour Cost in Spinning & Weaving Industries  
in major competing countries (Summer, 1990)

	Total Labour Cost per Hour (Local currency)	Exchange Rates (US\$=)	Total Labour Cost per Hour (US Dollar)	Index (US=100)
U. S. A.	10.02	1.00	10.02	100
Sri Lanka	9.57	39.32	0.24	2
Indonesia	451	1,833	0.25	2
China	1.75	4.72	0.37	4
* Pakistan	8.31	21.55	0.39	4
Egypt	1.22	2.71	0.45	4
Phillippine	15.07	22.65	0.67	7
India	12.40	17.28	0.72	7
Malaysia	2.33	2.71	0.86	9
Thailand	20.05	25.34	0.92	9
Morocco	10.96	8.53	1.28	13
Argentina	7,501	5,285	1.42	14
Turkey	4,864	2,677	1.82	18
Brazil	130.94	66.47	1.97	20
Mexico	6,335	2,872	2.21	22
Portugal	396	144	2.75	27
Greece	948	162	5.85	58

Note: Exchange Rate at July 1990

(Source) Werner International Managng Consultants

Table II-4-8 Raw Cotton: Production by Countries

(Unit: 1,000 tons)

Crop Year	80/81	85/86	88/89	89/90	90/91 <sup>1</sup>	91/92 <sup>1</sup>
World Total <sup>2</sup>	13,844	17,395	18,372	17,431	19,006	19,746
China	2,706	4,147	4,149	3,788	4,470	4,574
U. S. A.	2,422	2,924	3,356	2,655	3,400	3,713
U. S. S. R.	2,661	2,782	2,766	2,662	2,634	2,547
India	1,362	1,964	1,802	2,307	2,074	2,234
* Pakistan	714	1,216	1,425	1,455	1,581	1,547
Brazil	594	793	709	676	740	825
Turkey	500	518	650	617	650	618
Australia	99	258	292	313	352	363
Argentina	84	120	195	274	296	317
Mexico	353	220	308	167	172	297
Egypt	529	435	311	288	296	293
Paraguay	105	107	220	225	245	274
Greece	117	163	235	264	210	219

*Note: 1. Provisional for 90/91, Estimates for 91/92*

*2. Including estimates*

(Source) SENN-I SOGO KENKYUUSHO: "Textile Handbook 1991 & 1992"

(Original data: ICAC: "Cotton: World Statistics")

Table III-1-1 COTTON VARIETIES UNDER COMMERCIAL CULTIVATION  
IN PAKISTAN (UPLAND) 1989-90

Variety	Year of Release	Staple Length (m.m.)	Micronaire air Value	Pressley Tensile (000 lbs. per sq. inch)
<u>PUNJAB</u>				
B-557	1975	26.1	4.45	92.9
MNH-93	1981	28.5	4.47	94.0
NIAB-78	1983	26.1	4.46	92.5
MS-84	1983	31.7	3.90	91.3
SLH-41	1984	26.1	4.40	95.8
CIM-70	1986	29.3	4.20	92.5
MNH-129	1986	26.1	4.40	95.4
S-12	1988	28.2	4.30	79.0
FII-87	1988	27.8	4.20	95.4
<u>SIND</u>				
M-4 ) N.T.	1942	23.8	4.50	85.0
M-100) N.T.	1963	26.1	4.00	85.0
H-59-1 (Qallandari)	1974	28.5	3.70	90.0
S-59-1 (Sarmast)	1975	28.5	3.70	92.7
K-68/9	1977	30.1	4.30	96.1
TH-1101 (Rehmani)	1985	26.1	4.40	90.0

Source: The Pakistan Cottons October-1989  
(Pakistan Central Cotton Comitee (PCCC))

Table III-1-2 OVERALL EVALUATION OF SPINNING MILLS

	Evaluated Grades										
	A			B			C				
	A+	A	A-	B+	B	B-	C+	C	C-		
Raw Cotton			*****	**	*****						
Quality of Yarn (Product)		****	*	**	*	**	*		*	*	
			**	**	*	***	*		*	*	
Machinery	****	**	*	**							
Production		***	*	**	***			**			
Auxiliary		*	*	**	*			**			
Inspection	*****	*	*	**	*			**			
Human Resources		***	**		***	**					
Technology			***	***	*****	***	*	*	*	*	
Production				**	***	*	*	*	*	*	
Maintenance				**	*****	**	*	*	*	*	
Control				*	*****	**	*	*	*	*	
Labour Productivity				*	***	****	**	*	*	*	

Notes: 1) For comparison purpose, Japan/Indonesia joint venture mills in Indonesia have been assigned to "A" grade.

2) One asterisk \* in the table represents one mill surveyed.

Table III-1-3 QUALITY OF PAKISTAN YARN COMPARED WITH JAPANESE YARN

Inspection Item	Measuring year												Comparison with Japanese yarn
	20s (Carded)			30s (Carded)			40s (Carded)			30s (Combed)			
	Pakistan	Japan		Pakistan	Japan		Pakistan	Japan		Pakistan	Japan		
	'89	'90	'91*	'89	'90	'90	'89	'90	'90	'89	'90	'90	
1 Deviation of yarn length (%)	+1.5	+1.3		+0.8	+0.4	+1.8	+0.7	+2.8	+0.2	+0.4	+0.9	△	
2 Deviation of min yarn length (%)	+0.6	+0.5		+0.5	-0.5	+0.9	+0.4	+2.1	+0.4	-2.4	+0.6	△	
3 Co-efficient variation of yarn length (%)	0.6	0.6		0.2	0.6	1.0	0.2	0.7	0.2	0.5	1.7	△	
4 Deviation of yarn weight (%)	+2.9	+2.9		+1.3	+2.5	+4.2	+1.0	+5.0	+1.1	+3.1	+2.8	△	
5 Deviation of yarn count (%)	-1.4	-1.6		-0.5	-2.1	-2.0	-0.4	-2.2	-0.4	-3.0	-2.4	△	
6 Co-efficient variation of yarn count (%)	2.1	1.8		1.3	1.7	1.9	1.9	1.5	1.9	2.0	1.9	1.6	
7 Single yarn strength (g)	439	424	475	423	281	265	263	185	208	289	294	307	○ △
8 Co-efficient variation of single yarn strength (%)	9.1	9.5	6.8	8.9	9.7	9.6	10.0	10.0	10.2	9.1	8.7	8.0	
9 Min. single yarn strength (g)	371	357	360	360	235	223	219	157	173	244	247	243	
10 Yarn elongation (%)	6.1	5.9	6.2	6.5	5.1	5.3	5.9	4.8	5.5	5.3	5.1	6.0	
11 Number of twist : twist per inch	17.8	17.9	17.8	17.9	21.0	21.9	21.6	24.2	24.6	20.8	20.8	20.2	
12 Co-efficient variation of number of twist (%)	4.6	4.4	2.8	5.3	5.4	5.0	4.7	5.0	5.1	4.7	4.8	4.7	
13 Scriplane yarn evenness (Point)	97	97	94	94	95	97	87	97	86	93	94	95	○ =
14 Scriplane yarn veps (Point)	95	97	97	97	89	92	89	91	87	89	98	98	○ =
15 Uster yarn evenness (U%)	11.5	11.4	9.8	13.0	12.9	13.0	14.9	13.9	15.1	11.2	11.1	11.6	○ =
16 IPI value : thin / 1000m	2	3	5	19	18	16	70	41	85	3	2	5	○
17 IPI value : thick / 1000m	34	31	5	103	74	62	314	94	338	10	8	25	○
18 IPI value : nep / 1000m	131	123	30	153	284	229	463	320	556	36	27	25	○ △
19 Classimat value : Large defect / 100,000m	6	5	0	2	3	2	1	1	2	1	0	0.3	△
20 Snarl index	4.3	4.3	4.2	4.5	3.7	4.1	4.4	4.2	4.3	3.9	3.8	4.1	△
21 Fluff index : number / 10m	255	271	431	191	194	228	187	197	194	252	284	215	△
22 Number of measuring	57	34	1	7	7	5		1		13	4		

Note: \* 20s (Carded) '91: The sample obtained by the Study Team

△: Inferior, ○: Better, =: Equal

Source: Nippon Boseki Kensa Kyokai "BOKEN REPORT"

Table III-1-4 OVERALL EVALUATION OF WEAVING MILLS

	Evaluated Grades, Karachi, Rawalpindi and Nowshera Districts										Evaluated Grades, Lahore, Faisalabad and Multan Districts									
	A			B			C				A			B			C			
	A+	A	A-	B+	B	B-	C+	C	C-	A+	A	A-	B+	B	B-	C+	C	C-		
Quality of yarn (raw material) 20 <sup>s</sup> -30 <sup>s</sup> 40 <sup>s</sup>		**			**	**	*				**				*					
Quality of cloth (product)				*	*	*	*			*	**							*		
Machinery Warper/Sizer Loom	*		**	*	*	**	*		*	*	**	*	*		*			*		
Human resources						*												*		
Technology Production Control Inspection					*	**	*			*	**	*	*	*	*	*	*	*		
Mill management						*					**							*		
Cloth structure Plain Drill Satin				*		**	*		*	*	**	*	**		**			*		
Use Home use Garment			*		**	*	*		*	*	*	*	*	*	*	*	*	*		
Labour productivity					*	**	*				**	*	**		**			*		
Utility (Power supply)						*			*		**				**			*		

Notes: 1) For comparison purpose, Japan/Indonesia joint venture mills in Indonesia have been assigned to "A" grade.

2) One asterisk \* in the table represents one mill surveyed.

Table III-1-5a INSPECTION DATA OF THE CLOTH  
IMPORTED FROM PAKISTAN

1. Description Shirting 30 x 30 / 68 x 68  
 2. Width x Length 50 inch x (Disorder Length) 10 packages  
 3. Total Length 1186 yards  
 4. Defect : Total 1723, 1.46 per yard

5. Details in package

No.	W x L (inch x yard)	Defect		(Point: defects/points)			
		Total	Per.Yard	1	3	5	10
1.	50 1/8 x 121	63	0.53	-	1/3	4/20	4/40
2.	120	235	1.96	-	-	3/15	22/220
3.	120	90	0.75	-	-	4/20	7/70
4.	121	160	1.33	-	-	2/10	15/150
5.	112	184	1.65	7	4/12	1/5	16/160
6.	111	147	1.33	4	6/18	1/5	12/120
7.	121	423	3.50	-	1/3	6/30	39/390
8.	120	106	0.89	4	4/12	-	9/90
9.	120	192	1.60	1	2/6	3/15	17/170
10.	120	123	1.03	-	1/3	2/10	1/10

Table III-1-5b INSPECTION DATA OF THE CLOTH  
IMPORTED FROM PAKISTAN

1. Description           Sheeting 20 x 20 / 60 x 60  
2. Width x Length       50 inch x (Disorder Length) 10 packages  
3. Total Length           1245 yards  
4. Defect : Total        753, 0.61 per yard

5. Details in package

No.	W x L (inch x yard)	Defect		(Point: defects/points)			
		Total	Per. Yard	1	3	5	10
1.	50 x 126	80	0.64	6	8/24	4/20	3/30
2.	49 7/8 x 127	109	0.86	13	7/21	3/15	6/60
3.	50 x 125	121	0.97	14	9/27	6/30	5/50
4.	50 1/8 x 126	44	0.35	8	7/21	3/15	-
5.	50 x 126	98	0.78	8	5/15	9/45	3/30
6.	50 1/8 x 121	63	0.53	-	1/3	4/20	4/40
7.	120	235	1.96	-	-	3/15	22/220
8.	120	90	0.75	-	-	4/20	7/20
9.	121	160	1.33	-	-	2/10	15/150
10.	112	184	1.65	7	4/12	1/5	16/160



Table III-1-5c INSPECTION DATA OF THE CLOTH  
IMPORTED FROM PAKISTAN

1. Description           Satin 20 x 16 / 105 x 60  
2. Width x Length       149 cm x (110m) 10 package  
3. Total Length         1041 m  
4. Defect : Total        160, 0.15 per yard

5. Details in package

No.	W x L (cm x m)	Defect		(Point: defects/points)			
		Total	Per.Yard	1	3	5	10
1.	149.2 x 111.4	11	0.10	11	-	-	-
2.	149.6 x 91.5	14	0.15	4	-	-	1/10
3.	149.5 x 110.7	19	0.16	6	1/3	-	1/10
4.	149.0 x 110.8	20	0.17	10	-	-	1/10
5.	149.5 x 107.5	10	0.09	5	-	1/5	-
6.	149.5 x 95.2	15	0.15	12	1/3	-	-
7.	149.4 x 108.2	30	0.26	10	-	-	2/20
8.	149.0 x 111.1	18	0.15	8	-	-	1/10
9.	149.0 x 89.3	16	0.17	6	-	-	1/10
10.	149.0 x 110.6	7	0.06	7	-	-	-

Table III-1-6 OVERALL EVALUATION OF PROCESSING UNITS

	Evaluated Grades											
	Home Use			Garment			Knit Wear					
	A	B	C	A	B	C	A	B	C			
Quality of finished cloth	←	●	→		←	●	→	←	●	→		
Machinery		←	●	→	←	●	→	←	●	→		
Dyeing		←	●	→	←	●	→	←	●	→		
Printing	←	●	→	←	●	→	←	●	→			
Finishing	←	●	→		←	●	→	←	●	→		
Man Power		←	●	→	←	●	→	←	●	→		
Technology	←	●	→	←	●	→	←	●	→			
Production Control		←	●	→	←	●	→	←	●	→		
Inspection		←	●	→	←	●	→	←	●	→		
Laboratory	←	●	→	←	●	→	←	●	→			
Working area conditions		←	●	→	←	●	→	←	●	→		

Notes: 1) For comparison purpose, Japan/Indonesia joint venture mills in Indonesia have been assigned to "A" grade.

2) One dot ● indicates the average merit of the units surveyed, and the lines with arrows ← → cover the distributed merit of the same.

Table III-2-1 PRESENT STATUS EVALUATION FOR GARMENT MANUFACTURING FROM PLANNING TO DELIVERY IN ASEAN AND NIES

Process	ASEAN	NIES	Remarks
Information and Analysis	X	O	Life style survey Sales and price data ] -> Demand forecast Information for consumer ]
Marketing policy	X	X	Merchandizing policy, Distribution policy Price policy, Sales policy, Promotion policy
Technology development	X	Δ	Computerization (Grading, Cutting) Automation, Cost control, Quality Body style, Patterning, Sewing system
Quality control	X	Δ	Physical test Quality standard Communication with consumer's (organization)
Market plan	X	O	
Sales plan			
Production plan			
Advertising	X	O	
Promotion			
Product planning	Δ	O	
Product exhibition	Δ	O	Bland wise concept Meeting with sales section Exhibition plan
Product order	Δ	O	
Production	O	⊙	
Inspection	O	O	Inspection for each product
Import	-	-	
Inland transportation	-	-	
Hanger delivery system	-	-	
Delivery	-	-	

⊙: Good, O: Average, Δ: Poor, X: Impossible

Table III-2-2a POSSIBLE ITEMS FOR GARMENT MANUFACTURING IN ASEAN AND NIES

Men's Garment

Item	Country	Thailand	Malaysia	Singapore	Indonesia	Philippines	Taiwan	Hong Kong	S. Korea	China
Lounge Suits		X	X	X	X	X	X	O	O	X
Jacket		Δ	Δ	Δ	X	X	X	O	O	X
Bussiness Trousers		Δ	Δ	O	Δ	Δ	O	O	O	X
Shirt		O	O	O	O	X	X	O	O	O
Necktie		Δ	X	X	X	X	X	O	X	X
Jacket		Δ	Δ	Δ	X	X	X	O	O	X
Trousers		O	O	O	Δ	Δ	X	O	O	O
Shirt		O	O	O	O	O	X	O	O	O
Sweater		X	X	X	X	X	O	O	O	Δ
Blouson		O	O	O	X	O	X	O	Δ	Δ
Jeans		O	O	O	O	O	X	O	O	Δ
T-Shirt		O	O	O	O	O	X	O	O	O
Sweat Suits		O	O	O	O	O	Δ	O	O	Δ
Training Suits		O	O	O	O	O	X	Δ	Δ	Δ
T-Shirts		O	O	O	O	O	X	X	X	O
Polo Shirt		O	O	O	O	O	O	X	O	X
Shirt		Δ	O	O	O	O	Δ	O	O	Δ
Dinner Suits		X	X	X	X	X	X	Δ	Δ	X
Dress Shirt		X	X	X	X	X	X	O	O	X
Tie		X	X	X	X	X	X	O	O	X

O:Possible

Δ:Conditional (Requiring effort)

X:Impossible

Table III-2-2b POSSIBLE ITEMS FOR GARMENT MANUFACTURING IN ASEAN AND NIES

Lady's Garment

Item	Country	Thailand	Malaysia	Singapore	Indonesia	Philippines	Taiwan	Hong Kong	S. Korea	China
Suits		-	-	-	-	-	X	O	O	X
Jacket		Δ	X	Δ	X	X	X	O	O	X
Slacks		O	O	O	Δ	Δ	X	O	O	X
Bussiness Blouse		O	Δ	O	Δ	Δ	X	O	O	X
Sweater		X	X	X	X	X	O	O	O	X
Skirt		O	O	O	O	O	O	O	O	O
Jacket		Δ	Δ	Δ	X	X	X	O	O	X
Slacks		X	X	X	X	X	X	O	O	X
Shirt		O	O	O	O	O	O	O	O	X
Sweater		X	X	X	X	X	O	O	O	X
Blouson		X	Δ	Δ	X	X	X	O	O	X
Jeans		X	O	O	Δ	O	X	O	O	Δ
T-Shirt		O	X	X	O	O	O	O	O	O
Sweat Suits		O	O	O	O	O	X	O	O	O
Training Suits		O	O	O	O	O	X	O	O	O
Polo Shirt		O	O	O	O	O	X	O	O	X
Shirt		O	O	O	O	O	X	O	O	X
T-Shirt		O	O	O	O	O	O	O	O	O
Dress		O	X	O	O	O	X	O	X	X
Wedding Dress		X	X	X	O	O	X	X	X	X
Blouse		O	X	X	O	O	X	O	X	X
Skirt		O	X	X	O	O	X	O	X	X

O:Possible

Δ:Conditional (Requiring effort)

X:Impossible

## **ANNEXES**



## ANNEX - I

### LIST OF THE VISITED MILLS AND OTHER ORGANIZATIONS

#### A. Mills

"X" Group  
(Export Purpose)

"Y" Group  
(Trying to Export)

##### (A) Integrated Mills

- |   |                                       |
|---|---------------------------------------|
| (1) Colony Sarhad Textile Mills Ltd.,<br>Nowshera | (1) Star Textile Mills Ltd., Karachi  |
| (2) Kohinoor Textile Mills Ltd.,<br>Rawalpindi    | (2) Colony Textile Mills Ltd., Multan |
| (3) Gul Ahmed Textile Mills Ltd.,<br>Karachi      |                                       |
| (4) Nishat Mills Ltd., Faisalabad                 |                                       |
| (5) Crescent Textile Mills Ltd.,<br>Faisalabad    |                                       |
| (6) Mahmood Textile Mills (Pvt).,<br>Muzaffargarh |                                       |
| (7) Zahur Textile Mills Ltd., Lahore              |                                       |

##### (B) Independent Mills

- |  |  |
|--|--|
| (1) Mehr Dastgir Textile Mills Ltd.,<br>Multan                                     | (1) Allawasaya Textile & Finishing<br>Mills Ltd., Multan |
| (2) Neelum Textile Mills, Faisalabad   |  |
| (3) Liberty Mills Ltd., Faisalabad   |  |
| (4) Al-Abid Silk Mills Ltd., Karachi   |  |
| (5) Ihsan Yousaf Textiles (Pvt) Ltd.,<br>Faisalabad                                |  |
| (6) Sitara Textile Ind. (Pvt) Ltd.<br>Faisalabad                                   |  |
| (7) Several Units of All Pakistan<br>Cotton Power Looms Association,<br>Faisalabad |  |



(C) Knitting Units

- |  |   |
|--|---|
| (1) Ammar Textile Mills Ltd., Lahore         | (1) Omega Hosiery Mills (Private) Ltd., Karachi |
| (2) Alif Textile Industries Ltd., Karachi    |   |
| (3) Comfort Knitwears (Private) Ltd., Lahore |   |

(D) Garment Manufacturers

- (1) Associated Industries (Garment) Pakistan (Pvt) Ltd., Nazimabad, Karachi
- (2) Tabani Corporation (Pvt) Ltd., Karachi
- (3) Pakistan Textile Corporation Ltd., Karachi
- (4) Artistic Milliner (Pvt) Ltd., Karachi
- (5) Joe's Fashion Export (Private) Ltd., Karachi

B. Industrial Organizations

- (1) Karachi Cotton Association
- (2) Pakistan Cotton Ginners' Association, Karachi
- (3) All Pakistan Textile Mills Association, Principal Office, Karachi
- (4) All Pakistan Textile Mills Association, (Punjab zone), Lahore
- (5) All Pakistan Cotton Power Looms Association, Faisalabad
- (6) All Pakistan Textile Processing Mills Association
- (7) Pakistan Cloth Merchants' Association, Karachi
- (8) All Pakistan Cloth Exporters Association, Faisalabad
- (9) Pakistan Readymade Garments Manufacturers and Exporters' Association, Karachi
- (10) Pakistan Cotton Fashion Apparel Manufacturers and Exporters Association
- (11) Pakistan Knitwear and Sweaters Exporters Association, Karachi

(12) Pakistan Hosiery Manufacturers Association

(13) Multan Chamber of Commerce and Industry

#### C. Training Institutions

(1) Department of Textile,  
Government College of Technology, S.I.T.E., Karachi

(2) Garment Section,  
Pakistan-Swedish Institute of Technology, Landhi, Karachi

(3) Pakistan Knitwear Training Institute, Karachi

(4) National College of Textile Engineering, Faisalabad

(5) Textile Department,  
Poly Technique Institute, Multan

#### D. R & D Institutions

(1) Textile Industry Research and Development Centre (TIRDC), Karachi

(2) Pakistan Cotton Standards Institute

(3) Pakistan Institute of Cotton Research and Technology

(4) Central Testing Laboratories

(5) Pakistan Standards Institution

#### E. Government Agencies

(1) Ministry of Industries

(2) Economic Affairs Division

(3) Planning and Development Division

(4) Textile Commissioner's Organisation

(5) Ministry of Commerce

(6) Manpower Division, National Training Bureau

(7) Central Board of Revenues

(8) Export Promotion Bureau

(9) Investment Promotion Bureau

(10) Export Processing zones Authority

F. Financial Institutions

- (1) State Bank of Pakistan
- (2) Industrial Development Bank of Pakistan
- (3) Regional Development Finance Corporation

G. Others

- (1) Mr. Siddiq Bokhari's  
Progressive Cotton Breeding Farm, Multan
- (2) Masood Cotton Ginners, Multan
- (3) Three Companies in K.E.P.Z.
- (4) Hilal Fabrics (Pvt) Ltd., Multan
- (5) State Engineering Corporation, Islamabad
- (6) Textile Machinery Corporation of Pakistan, Karachi

## **ANNEX-II**

### **QUESTIONNAIRE FOR TEXTILE ENTERPRISES**

0. (Introduction)
- I. Outline of firm
- II. Sales and market
- III. Raw materials and auxiliary materials
- IV. Machinery and utility
- V. Production technology, quality control and standardization
- VI. Manpower and training
- VII. Research and development
- VIII. Factory management and future plan
- IX. Fund-raising
- X. Request for the government, R & D organizations and industry organizations

- 0 Introduction
- 001 Reference No. : \_\_\_\_\_
- 002 Date of survey : \_\_\_\_\_ 1991 ( )AM.  
( )PM.
- 003 Name of firm:
- 004-1 Address of office:
- 004-2 Address of mill/factory
- 005 Interviewee (Name and Status)
- 006 Industry organization(s) which your firm belongs
- I. Outline of firm
- 101 Year of establishment: 19\_\_\_\_\_(Year)
- 102 Type and kind of firm:
1. ( ) Integrated  
( ) Single
  2. ( ) Spinning  
( ) Weaving  
( ) Knitting  
( ) Finishing/dyeing  
( ) Sewing
- 103 Number of employees:
1. Fixed employees: \_\_\_\_\_
  2. Temporary employees: \_\_\_\_\_
  3. Total employees: \_\_\_\_\_
- 104 Total annual sales:  
\_\_\_\_\_Rs.(1989)

105-1 Composition of capital (paid in equity)

Government \_\_\_\_\_ %  
 Private \_\_\_\_\_ %  
 Foreign \_\_\_\_\_ %

105-2 In case of equity participation of foreign capital,

Country : \_\_\_\_\_  
 Reasons for joint venture : \_\_\_\_\_  
 \_\_\_\_\_

106 Product items and monthly output

Kind of products	Materials	Quantity/month(with unit)
Example		
Span yan	Cotton 100	xxxx kg/month
T-shirts	C100 and PE/C	xxxx pieces/month

II. Sales and market

201 Sales market of products

Domestic market \_\_\_\_\_ %  
 Export market \_\_\_\_\_ %  
 ( ) Direct export \_\_\_\_\_ %  
 ( ) In-direct export \_\_\_\_\_ %

202 Export items by destinations

Product (with spec) Main destination (country)

203 Annual value of exports

US\$ (19 )

204 Destination of country

Country ratio (%)

205

Export channels:

1. Buyer

- Through export trading firms : \_\_\_\_\_ %
- Through domestic manufacturer : \_\_\_\_\_ %
- Direct export : \_\_\_\_\_ %
- Others: \_\_\_\_\_ : \_\_\_\_\_ %

2. Final importer

- Apparel maker
- Importers and wholesalers
- Department stores
- Volume scale chainstores
- Unknown
- Others: \_\_\_\_\_

206

Claim or complaint from buyers

1.  Quality

Delay of delivery

Packaging

Others: \_\_\_\_\_

2. Details of claim and complaint

207

Export promotion activity:

1. Experience of participation in overseas trade fairs:

yes  no

2. Activities for promotion of export sales:

3. Means of obtaining information for export expansion

4. Field of products where export expansion is desirable

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

5. Difficulties or barriers for export expansion

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

III. Raw materials and auxiliary materials:

301 Total amount used annually:

<u>Raw/auxiliary Materials</u>	<u>Amount used Annually</u> (with unit)	<u>Domestic products/ Import</u> (%)/(%)	<u>Country of origin</u>
_____	_____	_____	_____

302 Purchasing channels of raw and auxiliary materials

<u>Raw/auxiliary materials</u>	<u>Supply source</u>	<u>Purchasing channel</u>		
		<u>via trading firm</u>	<u>direct</u>	<u>others</u>
_____	_____	( )	( )	_____

303 Problems with acquisition of materials

- ( ) Quantitative availability
- ( ) Time of delivery
- ( ) Quality
- ( ) Price
- ( ) Import duties
- Others:

304 Quality of raw materials

- ( ) No problem
- ( ) Problems



- 305 Use of man-made fiber/yarn or fabrics  
(including cotton blended):
- 1)  No  yes
  - 2)  Domestic products  Imports
  - 3)  Polyester:  fibers  filament  
 textured yarn  
 Polyester/cotton blended yarn  
 Polyester/cotton blended fabrics  
 Polyester filament fabrics  
Others: \_\_\_\_\_

IV. Machinery and utility

401 Outline of production facilities (Table-1)

402 Problems relevant to machinery and equipment

403 Electricity

- 1) Primary voltage of transformer : \_\_\_\_\_ KV  
Transformer capacity : \_\_\_\_\_ KVA
- 2) Electric stoppage: \_\_\_\_\_ times/month(week)
- 3) Voltage stability: + \_\_\_\_\_ %(voltage)
- 4) Problems with Electricity acquisition  
 Supply shortage  
 Electric stoppage  
 Unstable voltage

404 Water

- 1) Consumption of water: \_\_\_\_\_ /day
- 2) Resources of water  
 well  
 river  
 city water
- 3) Pretreatment of water  
 yes  no
- 4) Problems with water acquisition  
 Quantative availability  
 Quality:

(Table-1) 401 Outline of Production Facilities (1/3)

Equipment	Number of units/ Capacity	Manufacture (Country)	Year made/ Age of usage	Remarks
<u>A. Spinning</u>				
1. Total system		( )	19 / /	( ) card ( ) combed
2. Spinning frames				
2-1 Ring Sp. m/c	spindles	( )	19 / /	spindle rotation
2-2 Open end m/c	rotors	( )	19 / /	roller speed
3. Winder	frames	( )	19 / /	yarn speed
<u>B. Weaving</u>				
1. Preparatory equipment (warper/sizing m/c)	line	( )	19 / /	
2. Looms	looms	( )	19 / /	
2-1 Shuttle looms	looms	( )	19 / /	width
2-2 Rapier looms	looms	( )	19 / /	width
2-3 Air-jet looms	looms	( )	19 / /	width
2-4 Water jet looms	looms	( )	19 / /	width
2-5 Other looms	looms	( )	19 / /	width
		( )	19 / /	width

(Table-1) 401 Outline of Production Facilities (2/3)

Equipment	Number of units/ Capacity	Manufacture (Country)	Year made/ Age of usage	Remarks
<u>C. Knitting</u>				
1. Circular knitting machine	_____ units	_____ ( _____ )	19 / _____	diameter _____
Sinker ( _____ gauge)	_____ units	_____ ( _____ )	19 / _____	diameter _____
Single jersey ( _____ gauge)	_____ units	_____ ( _____ )	19 / _____	diameter _____
_____ ( _____ gauge)	_____ units	_____ ( _____ )	19 / _____	diameter _____
_____ ( _____ gauge)	_____ units	_____ ( _____ )	19 / _____	diameter _____
2. Other knitting machine	_____ units	_____ ( _____ )	19 / _____	diameter _____
_____	_____ units	_____ ( _____ )	19 / _____	diameter _____
_____	_____ units	_____ ( _____ )	19 / _____	diameter _____
<u>D. Finishing/dyeing</u> (Total capacity _____ m/day for ( _____ ) woven cloth ( _____ ) knitting cloth)				
1. Yarn dyeing machine	_____ units	_____ ( _____ )	19 / _____	type _____
2. Bleaching machine	_____ line	_____ ( _____ )	19 / _____	type _____
3. Dyeing machine	_____ line	_____ ( _____ )	19 / _____	type _____
3-1 Continuous dyeing system	_____ units	_____ ( _____ )	19 / _____	type _____
3-2 winch dyeing machine	_____ units	_____ ( _____ )	19 / _____	type _____
3-3 Jigger	_____ units	_____ ( _____ )	19 / _____	type _____
3-4 Printing	_____ line	_____ ( _____ )	19 / _____	( _____ ) screen ( _____ ) roller

(Table-1) 401 Outline of Production Facilities (3/3)

Equipment	Number of units/ Capacity	Manufacture (Country)	Year made/ Age of usage	Remarks
4. Processing machine	_____ units	( _____ )	19 _____ / _____	
	_____ units	( _____ )	19 _____ / _____	
	_____ units	( _____ )	19 _____ / _____	
<u>E. Sewing</u>				
1. Preparatory equipment (Patterning/cutting)	_____	( _____ )	19 _____ / _____	
2. Sewing-machine	_____ units	( _____ )	19 _____ / _____	
	_____ units	( _____ )	19 _____ / _____	
	_____ units	( _____ )	19 _____ / _____	
	_____ units	( _____ )	19 _____ / _____	
3. Finishing equipment	_____ units	( _____ )	19 _____ / _____	

405

Steam and fuels

1) Steam consumption

Pressure  $\text{kg/cm}^2$ : \_\_\_\_\_ ton/day

2) Fuel and consumption

Heavy oil (Banker oil) \_\_\_\_\_ l/day

Natural gas \_\_\_\_\_  $\text{m}^3$ /day

Coal \_\_\_\_\_ ton/day

3) Boiler capacity

Pressure  $\text{kg/cm}^2$   
ton/day

4) Problems with steam generation and supply

406

Effluent treatment

1) Problems with waste water

acidity/alkalinity

BOD/COD

Colour

Others:

2) Facilities for effluent treatment in your firm

yes (Details)  no (Reason)

407

Possibility for increasing production at present site in view of unitity condition and environmental regulation

possible  difficult

V. Production technology, quality control and standardization

501 Production technology

- own development
- from domestic textile firm
- from domestic consultant
- from foreign textile engineering firm
- from foreign machinery manufacturer
- from foreign textile manufacturer
- Others (specify)

502 Self evaluation of your firm's technology

- International level
- High class in Pakistan (within 10% from the top)
- Middle class in Pakistan (within 10-40% from the top)
- Low class in Pakistan
- Comment (if any)

503 Evaluation of quality of your products

- Exportable level for developed countries  
(U.S.A., EC, Japan etc.)
- Exportable for developing countries  
(competitive with some developing countries)
- Potentiality for export
- The level for domestic market only

504 Operation instruction and record

1. Standard operation manual
  - prepared
  - not prepared
2. Check list for the trouble with quality and equipment
  - prepared
  - not prepared

3. Instruction sheet of operation condition

- prepared
- not prepared

4. Record of operation

- make record and report
- no record, no report

505 Production cost

Material cost	%
Labour cost	%
Utility cost	%
Maintenance cost	%
Factory overhead	%

506 Inspection system

<u>Inspection method</u>	<u>Product and inspection items</u>	<u>Sample size</u>
<input type="checkbox"/> Visual and manual inspection	_____	_____
<input type="checkbox"/> Inspection by instrument	_____	_____

507 Inspection instrument/equipment

<u>Process</u>	<u>Instrument</u>
----------------	-------------------

508 Quality standard for inspection

- Own standard
- Customers requirement
- Industrial standard
- Pakistan standard
- Other standard:

509 Problem in improvement of product quality

- 1)
- 2)
- 3)
- 4)
- 5)

510 Maintenance system

- 1) Overhaul interval of main machinery  
Machinery                  Interval
- 2) Replacement and repair of parts  
( ) by own maintenance technician  
( ) by serviceman from agent  
( ) by machine manufacturer's serviceman  
Others specify:

- 3) Purchase and stock of parts  
( ) stock in the firm  
( ) stock in Pakistan service shop  
( ) purchase from manufacturer  
Others specify: \_\_\_\_\_

511 Problems in improvement machinery operation rate

- ( ) Shortage of raw materials
  - ( ) Sales down
  - ( ) Failure of machinery and equipment
  - ( ) Difficulty of procurement of the parts of machinery
  - ( ) Utility trouble (electricity stoppage)
  - ( ) Shortage of skilled workers
- Others specify:



VI. Manpower and training

601-1 Number of employee

0. Total
1. Production including inspection and maintenance
2. Utilities and environmental
3. Administration
4. Sales

601-2 Level-wise number of employee

1. Engineer (University/College graduate)
2. Technician (High School graduate)
3. Foreman
4. Skilled operator level
5. Operator level
6. Officer/accountant
7. Sales chief

602. Working system      Applicable employment categories

Daily

2 shift/day (    hour/shift)

3 shift/day (    hour/shift)

603 Wage system and applicable employment categories

Piece rates    : for \_\_\_\_\_

Time rates    : for \_\_\_\_\_

Fixed salaries : for \_\_\_\_\_

Other systems

604-1 Utilization of subcontractors

(   ) yes    (   ) no

604-2 Details of subcontractors job

- 1)
- 2)
- 3)

605 Methods of training for engineers and technicians

	Training Item	Method
1)	Engineers	
	1)	
	2)	
	3)	
	4)	
2)	Technicians	
	1)	
	2)	
	3)	
	4)	

606 Methods of training for skilled workers

- ( ) Only on-the-job-training (OJT)
- ( ) Utilization of vocational training organizations
- Other methods (in details)

VII. Research and development

701 Planning and development

<u>Planning/development item</u>	In-house (Original)	from Customer
<u>Product planning</u>	( ) %	( ) %
<u>Design development</u>	( ) %	( ) %
<u>Material development</u>	( ) %	( ) %
<u>Test marketing</u>	( ) %	( ) %

702 Investment for R & D

( ) no (why?)

( ) yes

Details:

Reasons:

703 Experience of official R & D organization

no (why?)

yes

Details:

Reasons:

VIII. Factory management and future plan

801 Important items for factory management  
(Show 5 items with priority order in parentheses)

Increase of production

Decrease of product loss

Stabilization of products quality and production

Upgrading of products quality

Reduction of production cost

Improvement of products design

Development/introduction of new technology

Development/introduction of new products and design

Modernization/replacement of machinery

Machinery expansion

Export market expansion

Development of new export destinations

Training of manpower

Others

802-1 Intention of tying-up with foreign capital:

no intention of new tying-up

Technological co-operation

OEM production (supply to customer's broad)

Joint venture

802-2 Benefits hoped by tying-up

- Technology
  - Sales channels
  - Funds
- Others:

802-3 Necessary informations for tying-up

803-1 Modernization/expansion plan of machinery

- No plan
- Modernization
- Expansion

803-2 Difficulties or obstacles for modernization/expansion plan

- Technology
  - Manpower (Engineer, Technician, Skilled)
  - Raw materials supply
  - Land/utilities
- Others:

IX. Fund-raising

901-1 Financial source for bollowing fund:

- Commercial banks
- Governmental or official organization
- Others, specify:

901-2 Use of bollowing fund:

- Factory and machinery investment
- Research and development
- Operating funds
- Others:

902 Loan condition from commercial banks:

Amount of loan : \_\_\_\_\_

Repayment period : \_\_\_\_\_ Years

Interest rate : \_\_\_\_\_ % annum

903 Utilization of official soft loan systems:

( ) Yes ( ) No

If "no", why :

904 Utilization of credit supplementation systems:

( ) Yes ( ) No

If "no", why :

905 Problems in raising funds for factory and machinery investment:

906 Request for government in the area of financial systems:

X. Request for the government, R&D organizations and industry organizations

1001 Request for the existence R&D organizations, like TIRDC (Textile Industry Research and Development Centre), the engineering universities and colleges, etc.

1002 Please show your request for the government to support and develop your firms and Pakistani textile industry.

1003 Please show your request for the textile industry organizations like APTMA (All Pakistan Textile Mills Association), or Pakistani Readymade Garments Manufacturing & Exporters Association, etc.

## ANNEX-III

### OUTLINE OF RESULTS OF THE QUESTIONNAIRE SURVEY

#### 1. Firms concerned in the Questionnaire

The survey by Questionnaire was conducted to supplement the result of a survey by direct visits to firms for in-depth interview survey. The firms concerned were chosen with the cooperation of the Ministry of Industries acting as the counterpart in Pakistan. Answers to the questionnaire shown in Annex II were collected (this work being carried out by the local consulting company). Initially these questionnaires were sent to fifty firms, but as answers were not received from some of these an additional twelve firms were sent questionnaires. Also the 22 firms which were directly visited were also presented with the same questionnaire and their replies included.

The recovery rate for the questionnaire were as follows:

Firms actually visited	Total 22	No. of replies	12 recovery	(rate 55%)
Firms sent questionnaires	Total 62	No. of replies	44 recovery	(rate 71%)
Total		81*	53*	(rate 65%)

\* note): The totals are as shown above because three of the firms which were concerned in the questionnaire survey were also visited during in-depth interview surveys and so were covered in both the questionnaire and in-depth interview survey. In the following analysis these three firms are classed under firms directly visited during the in-depth interview survey (the three firms concerned by the questionnaire survey were visited directly during the supplementary in-depth interview survey).

The firms covered by surveys and details of replies are as shown on the attached separate sheets. Roughly the 53 firms which returned questionnaire answers can be classified as follows:

### FIRMS

		<u>visited</u>	<u>Firms returning questionnaires</u>	<u>Total</u>
A	integrated spinning,weaving and dyeing firms	6	7	13
B	independent mills for spinning, weaving or dyeing	3	11	14
C	Knitting firms	2	4	6
D	Garment manufacturers	1	19	20
	A + B = textile firms	27		
	C + D = knitwear and garment firms	26		

Since there are many differences in the industrial structure, markets and technical aspects of the upstream industries (textile industries) of the spinning, weaving and dyeing-finishing sectors and the downstream industries of the knitting and garment manufacturing sectors, the questionnaire replies have been divided into these two groups and analysed accordingly as well as being reviewed generally. In the following the industries in groups A and B will be referred to as the textile industries while industries in groups C and D are referred to as the knitwear and garment industries.

The following is an outline of survey results by item and of questionnaire reply totals.

MILLS COVERED BY THE QUESTIONNAIRE SURVEY (1/2)

Group A: Integrated Mills  
 B: Independent Mills  
 C: Knitting Units  
 D: Garment Manufacturers

Answer ○: Answered  
 ×: No Answered

(1) Mills for In-Depth Interview

Group	Company	Place	Answer
A	Kohinoor Textile Mills Ltd.	Rawalpindi	○
	Colony Serhad Textile Mills Ltd.	Nowshera	○
	Gul Ahmed Textile Mills Ltd.	Karachi	×
	Star Textile Mills Ltd.	Karachi	○
	Mahmood Textile Mills Ltd.	Muzaffargark	○
	Colony Textile Mills Ltd.	Multan	×
	Zahur Textile Mills Ltd.	Chunian	○
	Nishat Mills Ltd.	Faisalabad	○
B	Crescent Textile Mills Ltd.	Faisalabad	×
	Mehr Dastgir Textile Mills Ltd.	Multan	○
	Allawasaya Textile & Finishing Mills Ltd.	Multan	×
	Neelum Textile Mills	Sheikhupura	×
	Liberty	Karachi	×
	Al-Abid Silk Mills Ltd.	Karachi	○
C	Ihsan Yousaf Textile Ltd.	Faisalabad	○
	Omega Hosiery Mills Ltd.	Karachi	○
	Alif Textile Industries Ltd.	Karachi	○
	Ammar Textiles Ltd.	Lahore	×
D	Comfort Knitwears Ltd.	Lahore	×
	Associated Industries Pakistan Ltd.	Karachi	×
	Tabani Corporation Ltd.	Karachi	×
	Pakistan Textile Corporation Ltd.	karachi	○

(2) Mills selected for Questionnaire Survey

Group	Company	Place	Answer
A	Al-Karam Textile Mills Ltd.	Karachi	○
	Husein Industries Ltd.	Karachi	○
	Mohd. Farooq Textile Mills Ltd.	Karachi	×
	*1 Nishat Mills Ltd.	Faisalabad	○
	Kohincor Industries Ltd.	Faisalabad	○
	Shams Textile Mills Ltd.	Faisalabad	×
	Sargodha Textile Mills Ltd.	Karachi	○
	Alliance Textile Mills Ltd.	Karachi	○
	Harappa Textile Mills Ltd.	Lahore	○
	Lyalpur Cotton Mills	Faisalabad	○



MILLS COVERED BY THE QUESTIONNAIRE SURVEY (2/2)

Group	Company	Place	Answer
B	Elite Textile Mills Ltd.	Karachi	○
	Shahyar Textile Mills Ltd.	Karachi	○
	Accord Textile Mills Ltd.	Lahore	○
	Gulistan Textile Ltd.	Karachi	×
	Nagina Cotton Mills Ltd.	Karachi	○
	Kohat Textile Mills Ltd.	Peshawar	×
	Godoon Textile Mills Ltd.	Sawabi, N.W.F.P.	×
	Ajax Industries Ltd.	Karachi	○
	Kapur Textile Mills Ltd.	Sheikhupura	×
	Sadiqsons Weaving Mills Ltd.	Karachi	×
	*2 Ashfaq Textile Mills Ltd.	Faisalabad	○
	*1 Al-Abid Silk Mills Ltd.	Karachi	○
	Rauf Textile & Finishing Mills	Karachi	○
	*2 Sitara Textile Industries Ltd.	Faisalabad	○
	Faisal Textile Industries	Gujranwala	○
	Mohib Textile Mills Ltd.	Lahore	×
	Sadiqabad Textile Mills	Karachi	○
	Fateh Textile Mills	Hyderabad	○
	Jananade Malucho Textile Mills	Karachi	×
	Khyber Textile Mills Ltd.	Karachi	×
C	Akbar Fabrics Ltd.	Faisalabad	○
	Paramount Hoisery Mills Ltd.	Karachi	○
	Dilkhush Hoisery Mills Ltd.	Faisalabad	○
	Schon Hoisery Mills	Karachi	○
	*1 Omega Hoisery Mills	Karachi	○
D	Mercury Garments Industries	Karachi	○
	Metro Garments Industries	Karachi	○
	Abdullah Garments Ltd.	Karachi	○
	Fazal Garments Ltd.	Karachi	○
	Shahbaz Garments Ltd.	Karachi	○
	Nephew and Nephew Ltd.	Hyderabad	○
	Kaiser Arts & Krafts Ltd.	Karachi	○
	Seasonal Creation	Karachi	○
	Modes Ltd.	Hyderabad	○
	Lead Garments Ltd.	Lahore	×
	Ayesha Apparel	Karachi	×
	*2 Artistic Milliner	Karachi	○
	Soorty Enterprises Ltd.	Karachi	○
	Zainab Garments	Karachi	×
	Fateh Apparel Ltd.	Karachi	○
	Delta Apparel Ltd.	Karachi	×
	International Foundation & Garments Ltd.	Karachi	○
	Nawabdin Garment Industry Ltd.	Karachi	○
	Cambridge Garments Industries	Karachi	○
	Eve Garments	Karachi	○
	Aneeza Garments Ltd.	Karachi	○
	Sufi Apparel Ltd.	Karachi	×
	Venus Garments Ltd.	Karachi	×
Wawa Industries Ltd.	Karachi	×	
Kaz International Ltd.	Karachi	○	
Meridian Corporation Ltd.	Lahore	×	
Ahmad International Ltd.	Lahore	○	

Note - \*1: Included in the list of In-Depth Interview Survey  
\*2: Visited mills in the Supplementary Survey

## 2. Outline of Questionnaire Survey Results

### 2-1. Outline of Firms

The following indicates the nature and industrial structure of firms. With the exception of one garment firm with 51% foreign capital the firms are all private firms funded with Pakistan capital and none of the firms involve national or local government capital equities.

Type of firm:

Integrated mills with spinning, weaving and dyeing-finishing

Independent specialist spinning mills

Independent specialist weaving mills

Independent specialist dyeing-finishing firms

Knitwear firms (integrated knitting, dyeing and sewing)

Garment manufacturers

In terms of the number of employees and annual sales the industrial scale of the knitwear and garment firms is small compared to the scale of the textile firms. A large number of the knitwear and garment firms have less than 500 employees while textile factories with more than 1,000 personnel account for more than half of these. Further the ratio of temporary operatives is high among the knitwear and garment firms.

#### NUMBER OF EMPLOYEES (UNIT: NUMBER, INCLUDING TEMPORARY EMPLOYEES)

	Total	A-B	C-D
1 - 500	22	6	16
501 - 1000	8	3	5
1000 -	13	10	3
Total	43	19	24

**TOTAL ANNUAL SALES (UNIT: MILLION RUPEE 1990)**

	Total	A-B	C-D
- 50	9	3	6
50 - 100	4	1	3
100 - 500	10	3	7
500 -	4	4	4
Total	27	11	16

**2-2. Sales and Markets**

A large number of textile firms undertake sales to both the domestic and export markets. In the case of the knitwear and garment firms almost all output is exported, and domestic sales are not undertaken. The export channels of knitwear and garment firms are negotiated directly with buyers (trading firms, department stores, large sales outlets) in the export market countries. In the case of export of yarn or woven cloth, these exports are carried out through trading companies of the importing country or through domestic Pakistan exporters (detailed data is omitted here).

Of the 38 firms which returned answers, 18 declared that they had not received any claims from the importing clients. Those who registered claims indicated that the most frequent cause of claim was belated delivery (16 firms), which was followed by claims regarding product quality (7 firms).

**SALES MARKET OF PRODUCT**

	Total	A-B	C-D
Export only	18	5	18
Export & domestic	19	15	4
Domestic only	5	4	1
Total	42	19	23

**ANNUAL VALUE OF EXPORT (UNIT: MILLION US\$ 1989)**

	Total	A-B	C-D
- 5	21	5	16
5 - 10	4	2	2
10 - 20	6	4	2
20 -	3	3	0
<b>Total</b>	<b>34</b>	<b>14</b>	<b>20</b>

With regard export promotion replies indicated that by far the most frequently adopted policy was to maintain close and active contact with buyers through overseas visits and dispatch of export personnel or sales representatives. These measures were followed by such sales strategies as participation in trade fairs or the dispatch of samples. 23 of the 38 firms (representing about 70% of the total) which returned questionnaire replies said that they had participated in overseas trade fairs. In addition to the above methods (also used for the collection of data for expanding exports), a large number of replies indicated that publications were used to stimulate consumption. The factor most indicated as an obstacle to export expansion was quota restrictions which were mentioned by 16 firms.

### 2-3. Raw Materials and Auxiliary Materials

The main raw material of the spinning industry is locally produced raw cotton, but three firms of the 15 spinning firms concerned did indicate that they imported small amounts of raw cotton. Further, 7 firms replied that they made use of synthetic fibres (mostly polyester and viscose). Both national and imported polyester fibres are used.

The yarn used in the weaving and knitwear manufacturing sectors is of national origin in the case of both the cotton yarn and the cotton-polyester blended yarn. Independent specialist dyeing-finishing firms also use domestically produced grey cloth. 16 of the 17 garment firms replied that they use locally produced grey cloth, but 8 firms said they also concurrently use imported grey cloth. The grey cloths which are imported are of a synthetic type such as acrylic, viscose or nylon.

There is a high proportion of dyes and chemicals used in the dyeing-finishing sectors which are imported. However, there is a high ratio of the auxiliary items and materials used in sewing which are produced locally.

Of the 25 firms which returned replies concerning the purchasing channels for the raw cotton, synthetic fibres, and yarns indicated that purchases were made directly (25 firms) or through trading firms (13 firms), so that

the proportion of firms carrying out purchases directly is shown to be high. Of the 16 garment firms returning replies 10 indicated that they carry out direct purchasing while only 6 purchased via trading firms. The proportion of purchases effected through trading firms is much higher in the case of dyes and chemicals while the proportions for purchasing directly or through trading company channels were about the same in the case of auxiliary items and materials.

Problems relating to the reception of raw materials were customs duties in the case of the textile firms, while problems of belated delivery dates, product quality and pricing were most frequently cited in the case of the knitwear and garment firms.

A large number of textile firms replied that there were no problems regarding the quality of materials. Of problems which were mentioned poor quality of raw cotton was the most frequent. In the knitwear and garment firms replies were about equally divided between those which recognized problems as existing and those which replied that there were no problems. Problems cited were related to defects in woven cloth such as fabric defects, poor or defective dyeing, mixing of yarns, etc.

#### PROBLEMS WITH ACQUISITION OF MATERIALS

	Total	A-B	C-D
Quantitative availability	6	3	3
Time of delivery	15	2	1
Quality	17	4	13
Price	17	5	12
Import duties	13	7	6
None or no	8	5	3
<b>Total</b>	<b>41</b>	<b>17</b>	<b>24</b>

#### QUALITY OF RAW MATERIALS

	Total	A-B	C-D
No problem	22	11	11
Problems	19	6	13
<b>Total</b>	<b>41</b>	<b>17</b>	<b>24</b>

## 2-4. Equipment and Utilities

Items of particular note relating to production equipment are as follows.

Spinning processes: The spinning frames are of Japanese, British, American and Chinese manufacture. Recently much of the new equipment is of Chinese or Japanese make. The upper limit for spindle revolutions of spinning machinery is generally high (with more than 50% of machines having revolution speeds above 14,000). The BMR of existing mills is outdated and the modernization of winders is not progressing. The vast majority of winders which have been introduced are of Japanese manufacture. 11 of the 16 firms concerned replied that they have installed combers.

Weaving processes: the proportion of new equipment introduced as of 1980s in the weaving preparation stages is low (only 20% for warpers and 30% for sizing machinery). 4 of the 10 companies with shuttle looms had installed looms with a wide span of more than 100 inches. There is little changeover to shuttleless looms and modernization is slow. In terms of ratio to overall looms count only 8% of looms has been changed over to shuttleless looms (in consideration of revolution counts the shuttleless looms represent about 25% of the total). The overwhelming majority of the shuttleless looms are of Sulzer manufacture.

Dyeing-finishing processes: the main equipment such as scouring-bleaching machinery, jiggers, printing machines, tenter machines are installed but there is a large proportion of old equipment. Only 6 firms of the 15 which returned replies said that they possessed a jet dyeing machine. Also only 3 firms had newly installed continuous dyeing machinery while the other firms possessed only old models so that sufficient operating rates cannot be expected. Five companies replied that they have mercerizing equipment and 3 firms possess sanforizing equipment. Only about 2 of the firms therefore would be equipped to undertake piece dyeing in technical terms.

About half of the firms returning replies said that they saw no problems in terms of the equipment available. Those comments identifying problems referred to the superannuation of equipment, the difficulty of obtaining spare parts (pricing, delivery dates, unavailability), insufficient after sale service, maintenance problems (inadequate technical expertise, expense involved).

#### PROBLEMS RELEVANT TO MACHINERY AND EQUIPMENT

	Total	A-B	C-D
No or nil	15	7	8
Comments	21	10	11
Total	36	17	19

As regards electricity almost all firms noted the shortage of supply, power failures and instability of voltage as problems.

#### PROBLEMS WITH ELECTRICITY ACQUISITION

	Total	A-B	C-D
Supply shortage	26	13	13
Electric stoppage	32	13	19
Unstable voltage	26	12	14
No problem	1	0	1
Total	37	16	21

Water consumption is particularly large in the case of the dyeing-finishing firms and knitwear firms with dyeing units. Water sources include well water, tap water and river water, etc. These firms returned replies citing problems with the quantity and quality of water available. Problems of salt content, impurities and hardness were pointed out in relation to water quality. Only a few firms carry out treatment before using water.

### PROBLEMS WITH WATER ACQUISITION

	Total	A-B	C-D
Quantitative availability	13	6	7
Quality	12	6	6
No problem	8	2	6
Other	3	3	0
Total	39	14	15

#### 2-5. Production Technology, Quality Control and Standardization

More than half of the firms returning replies in the form of a self evaluation of their technical level indicated that they believed their technical level was to international standards or was of a high level among firms in Pakistan. Moreover more than 90% of the firms replied that their output was to sufficient level to be exported to the developed countries.

### SELF EVALUATION OF YOUR FIRM'S TECHNOLOGY

	Total	A-B	C-D
International level	22	8	14
High class in Pakistan	14	6	8
Middle class in Pakistan	5	4	1
Low class in Pakistan	1	1	0
Total	42	19	23



### EVALUATION OF QUALITY OF YOUR PRODUCTS

	Total	A-B	C-D
Exportable level for developed countries (USA, EC, Japan etc.)	40	15	25
Exportable level for developing countries (competitive with some developing countries)	1	1	0
Level for domestic market only	3	3	0
<b>Total</b>	<b>44</b>	<b>19</b>	<b>25</b>

With regard to the ratio of production costs there is a large disparity from one firm to another, but the average results for each item considered show that the raw material costs account for about 60% of overall costs. In the knitwear and garment industries labour costs account for just less than 20% while these represent just more than 10% of costs in the textile sector. While utility costs are 12% in the textile sector these are 6% in the knitwear and garment sectors.

### PRODUCTION COST (AVERAGE PERCENTAGE)

	Total	A-B	C-D
Material cost	60.4	62.0	59.1
Labour cost	14.5	19.5	17.7
Utility cost	8.7	11.7	6.2
Maintenance cost	4.7	5.3	4.1
Factory overhead	11.9	10.6	13.0
<b>Total (answer)</b>	<b>38</b>	<b>17</b>	<b>21</b>

There were 12 firms of the 42 replying which had no standard operation manual, while 15 out of 40 firms indicated that they had no checklist for troubles in quality and equipment. Further, 14 of the 42 firms replying said they have no instruction sheet of operation conditions.

A large number of firms replied that they follow the standards indicated by clients as criteria for inspection of products.

### QUALITY STANDARD FOR INSPECTION

	Total	A-B	C-D
Own standard	15	6	9
Customer's standard	36	15	21
Industrial standard	8	6	2
Total	43	19	24

27 firms out of 38 replying indicated subjects to be undertaken for the improvement of product quality. In all stages of production the poor quality of raw materials was frequently mentioned in replies. Following this the most frequent problems cited were connected with utilities and in particular power failures, fuel shortages and water shortage were mentioned. While the superannuation of equipment and machinery was mentioned by textile firms, the knitwear and garment firms cited problems with operators such as the shortage of skilled operators and working attitudes.

The most frequently cited of problems connected with improving the operating rate of equipment was trouble with utilities (cited by 28 of the 39 firms answering). This was followed in order of importance by the shortage of skilled operators (cited by 20 firms) and the difficulty of obtaining parts (16 firms).

#### 2-6. Personnel and Training

There are few engineers and technicians and 18 out of the 24 firms of the knitwear and garment firms which answered indicated that they had no engineers, while 19 firms said they had less than 5 technicians. Among textile firms 14 out of the 18 firms had less than 5 engineers, and 11 firms stated that they employ less than 15 technicians. There are even some firms in the knitwear and garment firms which are without foremen.

### ENGINEER

	Total	A-B	C-D
0	20	2	18
1 - 5	18	12	6
over 6	4	4	0
Total	42	18	24

### TECHNICIAN

	Total	A-B	C-D
0 - 5	26	7	19
6 - 15	8	4	4
over 16	9	8	1
Total	43	19	24

With regard to the training of technical staff, 17 out of 21 firms replied they provide no training for engineers, while 9 out of 18 firms said they provide no training for technicians. Almost all firms replied that training if given was on an OJT basis and no use was made of external institutes. All 41 firms returning replies stated that they carry out OJT for training of skilled workers, while 5 of the textile firms indicated that they make use of vocational training centres and institutes for this.

The organization of workshifts in the textile sector is largely on a three shift basis with a mixed system of three shift and two shifts used in some workplaces. In the knitwear and garment firms single dayshifts is the main form adopted, and this is followed by workplaces using a mixed single dayshift and two shift system. The working hours in the majority of firms are eight hours but some firms have a ten or twelve hour day.

7 of the 19 textile firms replying stated that they pay wages on a piece work basis while piece work payment is employed in 17 out of 25 firms in the case of the knitwear and garment firms. 5 firms in the textile firms use the time wage system. There were 11 firms in the textile firms which apply the fixed wage system for all personnel, and 8 of the firms in the knitwear and garment firms applying this system.

20 out of the 44 firms replying indicated that they use subcontracting. In addition to the subcontracting of auxiliary operations such as packing or loading-unloading, some firms subcontract works such as weaving (2 firms), sewing by sewing machines (8 firms), press operations (2 firms), etc.

## 2-7. Research and Development

Firms are about equally divided between those which decide on product planning themselves and those which follow indications from clients. Design planning is decided in line with the wishes of clients in the majority of cases.

### PRODUCT PLANNING

	Total	A-B	C-D
In-house	12	4	8
In-house/customer	10	4	6
Customer	15	6	9
<b>Total</b>	<b>37</b>	<b>14</b>	<b>23</b>

### DESIGN PLANNING

	Total	A-B	C-D
In-house	2	1	1
In-house/customer	15	3	12
Customer	14	4	10
<b>Total</b>	<b>31</b>	<b>8</b>	<b>23</b>

6 out of the 38 firms replying stated that they undertake investment for Research and Development. The majority of the 32 firms which do not invest in Research and Development stated in their comments that they did not consider R and D necessary. Companies investing in R and D gave product improvement, quality control, product development, etc. as the main motives.

6 out of the 38 firms replying stated that they make use of the public R and D organizations. The most frequent reason given by firms which do not use their services was that the use of such bodies was not considered necessary, although some firms indicated that they had not known of the seminars and workshops held by the TIRDC. On the other hand, a large number of companies using the official organizations gave the name of the TIRDC. Firms indicated that they aimed to test their products or raw materials, or to obtain information relating to the latest technology for products and raw materials or relating to international standards.

#### EXPERIENCE OF OFFICIAL R&D ORGANIZATION

	Total	A-B	C-D
No	31	10	21
Yes	6	3	3
Total	37	13	24

#### 2-8. Industrial Management and Future Planning

As a result of totaling the replies given for the five most important aspects of factory management in order of importance on a point system we find that the aspect most emphasized was expansion of production followed by reduction of costs, upgrading of product quality and stability of production. In addition to the above, many of the textile firms mentioned modernization of equipment, while a large number of the firms in the knitwear and garment firms cited expansion of export markets, development of new markets as important factors. Interest in improving product planning, the development and introduction of new technology on the other hand was very weak.

### IMPORTANT ITEMS FOR FACTORY MANAGEMENT

	Total	A-B	C-D
A. Increase of production	25	9	16
B. Decrease of product loss	11	5	60
C. Stabilization of product quality and production	14	8	6
D. Upgradeing of product quality	17	8	9
E. Reduction of product cost	22	10	12
F. Improvement of product cost	4	1	3
G. Development/introduction of new technology	7	4	3
H. Development/introduction of new products and design	9	1	8
I. Modernization/replacement of machinery	17	12	5
J. Machinery expansion	7	4	3
K. Export market expansion	16	6	10
L. Development of new export destination	10	5	5
M. Training of manpower	10	7	3
N. Other	1	0	1
<b>Total (Number of companies)</b>	<b>34</b>	<b>16</b>	<b>18</b>

With regard to willingness to undertake tie-ups with foreign capital, 28 out of the 43 firms returning answers said they were without interest while 11 companies expressed interest in joint ventures and 8 firms desired technical linkages. Firms cited benefits of such linkage with regard to sales routes, technology or capital, but only thirteen firms returned comments.

### INTENTION OF TIE-UP WITH FOREIGN CAPITAL

	Total	A-B	C-D
No intention of tie-up	29	10	19
Technological co-operation	8	7	1
OEM production	1	1	1
Joint venture	11	6	5
<b>Total</b>	<b>43</b>	<b>19</b>	<b>24</b>

As regards expansion or modernization plans, 28 out of the 43 firms replying said they had modernization plans and 23 said they have expansion plans, so that just over half of the firms had such plans (data is omitted here). Many firms cited problems with personnel or technology as obstacles to modernization or expansion plans.

**DIFFICULTIES/OBSTACLES FOR MODERNIZATION/EXPANSION PLAN**

	Total	A-B	C-D
Technology	11	3	8
Manpower	13	4	9
Raw material supply	7	2	5
Land/utilities	5	1	4
None/others	9	4	5
<b>Total</b>	<b>43</b>	<b>19</b>	<b>24</b>

**2-9. Capital Funding**

42 out of the 43 firms replying said that the source of borrowed capital was commercial banks while 9 firms replied that they had concurrently used governmental or public bodies. Borrowed capital was used as working capital (28-firms) or equipment investment (28 firms) (the supporting data is omitted here). The most frequently mentioned amount borrowed was between 100,000 and 500,000 Rupees, while many textile industries tended to borrow more than this and many of the knitwear or garment firms tended to borrow under this. Repayment periods were long in the case of textile firms (between 3 to 10 years) but in the case of the knitwear or garment firms were shorter than six months or were revolved. The interest on borrowed capital was stated to be between 15-17% in the case of many of the textile sector firms, while interest was reported as between 6-17% by the majority of firms in the knitwear or garment sectors.

### AMOUNT OF LOAN

	Total	A-B	C-D
None	6	2	4
Less than 10 million Rs	5	0	5
10 - 50 million Rs	14	5	9
50 - 100 million Rs	5	3	2
100 - 500 million Rs	6	5	1
<b>Total</b>	<b>36</b>	<b>15</b>	<b>21</b>

### INTEREST RATE

	Total	A-B	C-D
Less than 10%/year	11	2	9
5 - 20%/year	8	1	7
More than 10%/year	13	10	3
<b>Total1</b>	<b>36</b>	<b>15</b>	<b>21</b>

25 firms (representing 65%) out of the 40 firms replying said they had made use of public financing systems. The following were the main comments of firms who had not used such systems as to their reasons.

- such facilities not necessary (4 firms)
- no system available, or not eligible to make use

23 out of the 38 firms (60%) replying said they had made up of supplementary security systems. The following were the main reasons given by firms who had not used such facilities.

- such borrowing not necessary (5 firms)
- did not know of such systems, had not had an opportunity to make use of these

Of the 34 firms which returned answers concerning the problems encountered in relation to capital funding for equipment investment, 10 firms stated that no problems had been experienced. The main adverse comments



cited the difficulty encountered in borrowing from banks as follows.

- the procedures involved too complicated
- time consuming and responses very slow
- money not lent easily
- high interest rates

#### 2-10. Requests towards the Government, Public Bodies and Industrial Organizations

6 of the 36 firms replying stated that they had no requests which they wished to direct to the public research bodies such as the TIRDC or NETC. The main requests which were voiced relating to technology were for responsiveness to new technology, training and nurture of required personnel, reinforcement of research and development activities.

Comments specifically received from the textile firms were as follows:

Comments relating to TIRDC were:

- they wished to be informed more about functions and services
- desired the establishment of training and supporting measures
- desired the setting up of regional branch offices
- shortage of new facilities, insufficiency of research activities

Comments relating to universities were:

- desired an expansion of textile engineering in universities
- criticised the lack of experience of university graduates regarding practical shop floor duties
- criticised the shortage of centres for engineering training and instruction
- stated that industry needed to set up a university for carrying out practical training

The comments of the knitwear and garment firms were:

- they desired some research facility or centre
- they desired some educational training centre for operators
- they desired the creation of a university or school where skilled operators could be trained.

35 firms replied that they had some request to make to the government (2 firms had no request to make), and the requests were varied. The following are the main comments sent in.

- setting of export quotas for new businesses
- increase the export of high value added products (rethink exports)
- facilitate the obtaining of domestic raw cotton yarn and fabric (this request issued by the knitwear and garment sectors)
- reduce customs duties imposed on raw material, chemicals and parts
- solve the shortages of electricity and water utilities
- reinforce research centres and training institutes
- give technical support
- establish a training centre for operatives
- keep wage rises within reasonable limits
- make borrowing of low interest government funding easier and give precedence to the regions

10 out of the 36 companies returning answers to the questionnaire replied that they have no particular requests of the industrial organizations. The main requests made regarding the industrial organizations were related to the following:

- problems relating to labour laws
- the simplification of the Textile law
- implementation of a program for upgrading product quality
- the drafting of a manual relating to existing uniforms and work overalls
- establishment of training institutes for operators working in the garment industries

Comments regarding the APTMA were extremely positive on the one hand while negative remarks included comments such as those which saw APTMA as an organization which produced more problems than it actually solved or which remarked that the contributions paid out to APTMA should be reduced.

The comments received from other associations indicated that association members felt that the association

concerned did little or nothing. Some comments were extremely negative and indicated that there was no circulation of information whatsoever. Such negative comments indicated that information regarding quotas or other subjects was not circulated, and the associations were considered unnecessary.

## ANNEX-IV

### (A) PLAN FOR INDUSTRY STUDY (INDONESIA)

ITEM TO BE STUDIED : Garments

[1] [SITC] Division 84

[2] [HS] Chapter 61 (61.01-61.17) Articles of apparel and clothing  
accessories, knitted or crocheted

Chapter 62 (62.01-62.17) Articles of apparel and clothing  
accessories, not knitted or crocheted

[3] [CCCN] Chapter 60 Articles of apparel and clothing  
accessories, knitted or crocheted

Chapter 61 Articles of apparel and clothing  
accessories, not knitted or crocheted

(N.B.) The study should focus on cotton garments (made of cloth or knitted fabric), but products of other materials could be included depending on the item under study. When this is the case, the type of material, such as cotton, wool, silk, chemical and synthetic fabric, should be made clear.

COUNTRY OR TERRITORY TO BE STUDIED : Indonesia

STUDY OUTLINE :

1. Summary : Summary of the study results

## 2. Trends in the textile industry

### (1) History of the industry

The course of development of the textile industry (spinning-weaving-secondary products) from establishment to the present situation should be surveyed.

### (2) Structure of the industry

The current structure of the textile industry should be examined, including : the raw material sector, spinning, weaving, secondary products (garments), the vertical division of labor in the relevant processing industries and the structure of the industry (number of firms, etc.).

### (3) Trends in production

Trends in production (shipment) of SITC Chapter 84 articles in the past five years classified by chief products should be clarified. Although quantitative data are preferred, data in value terms will suffice if quantitative statistics are unavailable. (If both are unavailable, this should be reported.)

### (4) Relevant industries

The general situation of [1] the weaving industry and [2] the dyeing and finishing industries and their linkage with the garment industry should be made clear.

### (5) Raw materials

The actual situation of raw material (cotton and synthetic fabrics) purchasing and the main purchasing sources of the garment industry should be clarified. Any problems with raw materials should be identified.

(6) Equipment

The current situation of mechanization and automation in the garment industry should be clarified. Any problems with equipment should be identified.

(7) Standards management

Standards generally in use for garments and their enforcement should be clarified.

(8) Mid-level engineers

Any problems with the employment of engineers in the garment industry, together with systems for their supply and retraining, should be made clear.

3. Export trends

The following points for study are all limited to the study of garments or the garment industry.

(1) Export trends

Changes in the export trends of SITC Division 84 articles classified by chief products and main destinations should be outlined on the basis of export statistics for the past five years.

(2) Export routes

The extent of OEM-type exports should be surveyed for each of the main markets. The most common form of exports, aside from OEM-type, should be considered.

(3) Development of products and designs

General trends in product and design development, whether these activities

are done voluntarily by manufacturers or based on specifications from foreign buyers, should be clarified. Any moves toward voluntary development should be made clear.

(4) Development of overseas markets

Any marketing activities and sales promotion efforts made for the development of overseas markets should be clarified.

(5) Product inspection

If any type of product inspection, including quality inspection of products for export, is in practice, the standards of inspection, methods and inspecting organs should be outlined.

4. Industry development and export promotion measures

(1) Industry development measures

[1] Textile industry development measures

Any policy measures (financial, tax and other steps) taken in the past and those which are being taken now for the development of the textile industry should be clarified. The details of such measures should be provided in concrete terms.

[2] Engineer training plan

The specifics (courses, trainees, scale, methods, etc.) of any public or private training facilities for textile-related (including spinning and weaving) engineers should be explained in detail.

[3] Cooperation with private bodies

The details and degree of cooperation of any cooperative relations between garment-related industry organizations and the government should be clarified.

(2) Export promotion measures

Any policy measures taken in the past and those that are currently being taken for the promotion of garment exports should be made clear. Generally, it seems that there are not promotion measures for garments alone. If this is the case, export promotion measures in general should be clarified.

5. Future outlook

The future of the garment industry should be briefly analyzed based on changes in competitiveness in the international market and, if any, shifts of production sites overseas.

**METHOD OF STUDY :** Interviews with manufacturers, industry organizations and others should be used for information which cannot be obtained through statistical research.



(B) PLAN FOR MARKET RESEARCH (U.S.A)

ITEM TO BE STUDIED : Garments

[1] [SITC] Division 84

[2] [HS] Chapter 61 (61.01-61.17) Articles of apparel and clothing  
accessories, knitted or crocheted  
Chapter 62 (62.01-62.17) Articles of apparel and clothing  
accessories, not knitted or crocheted

[3] [CCCN] Chapter 60 Articles of apparel and clothing  
accessories, knitted or crocheted  
Chapter 61 Articles of apparel and clothing  
accessories, not knitted or crocheted

(N.B.) The study should focus on cotton garments (made of cloth or knitted fabric), but it may be difficult to collect information on cotton products alone, either in statistical research or in interviews. Accordingly, products of other materials can be included as occasion demands. In this case, however, the type of material, such as cotton, wool, silk, chemical or synthetic fabrics, should be clarified as far as possible.

COUNTRY TO BE STUDIED : United States

STUDY OUTLINE :

1. Summary : Summary of the results of the study

2. Import trends :

Imports of SITC-Type 84 articles should be clarified quantitatively using trade statistics for the past five years classified by chief items (SITC-841, 842, 843, 844 and 845) and by main source countries.

In addition, import trends and changes therein should be qualitatively analyzed and the information used for analysis should include interviews with importers. In particular, trends and changes should be clarified regarding imports from the Asian NIEs, Southeast and Southwest Asian nations and Caribbean countries.

3. Situation of competition :

Trends in recent years regarding competition between domestic products and imports and among imports themselves should be clarified through interviews with retailers or importers.

Competition among imports from the Asian NIEs, Southeast and Southwest Asian nations and Caribbean countries, and, if possible, estimated changes in their respective market shares, should be touched on.

4. Appraisal of Southwest Asian products :

Appraisal of the quality, prices, delivery and distribution channels of the products currently imported from Southwest Asia and comments concerning expected improvements should be gathered as far as possible through interviews with retailers, importers and related industry organizations. In particular, efforts should be made to obtain comments on Pakistani products in comparison with Caribbean products.

5. Market requirements :

What do consumers generally demand of products in the low and medium-priced product market? From the viewpoints of material, design, price range and

fashion, the recent trends and changes in women's garments and casual clothing (jeans, T-shirts, etc.), including products of materials other than cotton, should be clarified.

6. Trends in OEM-type imports by manufacturers :

Any distinctive trends in OEM-type imports by garment manufacturers or retailers, such as changes in sources and anticipated moves, should be identified through the abovementioned interview results and compiled.

7. Future outlook and suggestions :

Based on the study results, suggestions for the expansion of exports in the future should be made from the viewpoints of quality, design and selling methods of Southwest Asian manufacturers in the cotton garment market and the improvement of tie-up relations with U.S. manufacturers.

METHOD OF STUDY : Interviews with importers, retailers and relevant industry organizations should be used for information which cannot be obtained through statistical research.

## ANNEX-V

### STRUCTURE AND POLICY FORMULATION SYSTEM OF MITI

In relation to this subject, a simple explanation will be given below on what kind of concepts the Japanese Ministry of International Trade and Industry (MITI) is organized, what kind of structure it has and, what kind of process is followed for drafting policies.

#### 1. Organizational Structure of MITI

The organization and activities of MITI are determined by the Ministry of International Trade and Industry Establishment Law (hereinafter referred to as "the Law") based on the National Administration Organization Law.

A look at the current organizational structure of MITI shows that (1) it is basically comprised of a suborganization for administering international trade matters and a suborganization for administering industry, (2) it has both a horizontal division of work and a vertical division of work, (3) it establishes specialized outside bureaus such as the Agency of Natural Resources and Energy, the Patent Office, and the Small and Medium Enterprise Agency for administering resource and energy matters, patents, and small and medium businesses, (4) it promotes testing and research and development in industrial technology in the Agency of Industrial Science and Technology, and (5) deploys eight regional bureaus and one branch office in diverse regional locations in Japan (Fig. I).

In trade policy, the International Trade Policy Bureau has the responsibility for foreign trade policies regarding sweeping international trade problems, economic cooperation, etc. The International Trade Administration Bureau has jurisdiction over trade promotion, export and import control, exchange, financing, trade insurance and other domestically oriented aspects of trade administration.

Regarding industrial administration, there are three vertically divided *Genkyoku* having the function of drafting industry-wise policies, i.e., the Basic Industries Bureau, the Machinery and Information Industries Bureau, and the Consumer Goods Industries Bureau. The Industrial Policy Bureau handles horizontal problems like the industrial structure, financing, taxation, business activities, commodity prices, consumer protection, and distribution, and the Industrial Location and Environmental Protection Bureau deals exclusively with the industrial infrastructure, pollution, and regional development (Fig. II).

In addition to this line organization, there are established such policy drafting organization as the Industrial Structure Council. It is established by Cabinet Ordinance under the Law. There are the Textile Industry Council, Chemical Product Council, and various other advisory committees or inquiry commissions which are not based on the Law. These councils research and deliberate on important matters in industrial policy in response to queries from the Minister of MITI and submit their opinions to the Minister. The councils have the nature of staff organizations, in the parlance of industrial organization theory, with the duty of providing advice and recommendations.

According to the Industrial Structure Council Ordinance, the Council is comprised of within 130 members designated by the Minister of MITI from among knowledgeable persons in the financial, relevant industrial, and academic fields. Members serve for two years on a rotating basis. The chairman of the Council is selected by vote of the members and presides over the Council's affairs. The Council may establish within it sub-councils with chairmen and members designated by the Council Chairman. The general affairs of the Council proper are handled by the Industrial Policy Bureau (more specifically, the

Industrial Structure Division). As for the subcouncils, the General Affairs Divisions of the respective *Genkyoku* handle the same. The organizations and activities of the other councils and committees are substantially the same as this, with the General Affairs Divisions of the corresponding *Genkyoku* dealing with their general business.

The Agency of Industrial Science and Technology provides support for private sector R&D activities through financial subsidies, commissioning of research, commissioned tests and research, public use of facilities in the 16 attached research institutes and laboratories, etc. and tackles technical development difficult for the private sector to handle due to large risks.

The organization of MITI is modified extremely flexibly in accordance with changes in the foreign and domestic environment. This enables new policies meeting with environmental changes to be drawn up quickly. The organizational reforms may be made easily by amendments to the Ministerial Ordinance of the Regulations on MITI's Structure and the Cabinet Ordinance on MITI's Structure.

Recently, in the South Asia-East Europe Division of the International Trade Policy Bureau, a special section called the Soviet Union East Europe Office has been established to enable faster response to the changes in the political climate in the Soviet Union and Eastern Europe. Also, the Bio-industry Office established in the General Affairs Division of the Basic Industries Bureau was raised in status to the Biochemical Division.

## 2. Policy Formulation in MITI

What kind of process is followed in the determination of industrial policies in Japan? An objective overview will be given here with mention of postwar trends.<sup>(6)</sup> Figure II-5 and II-6 shows the following concepts in a chart form.

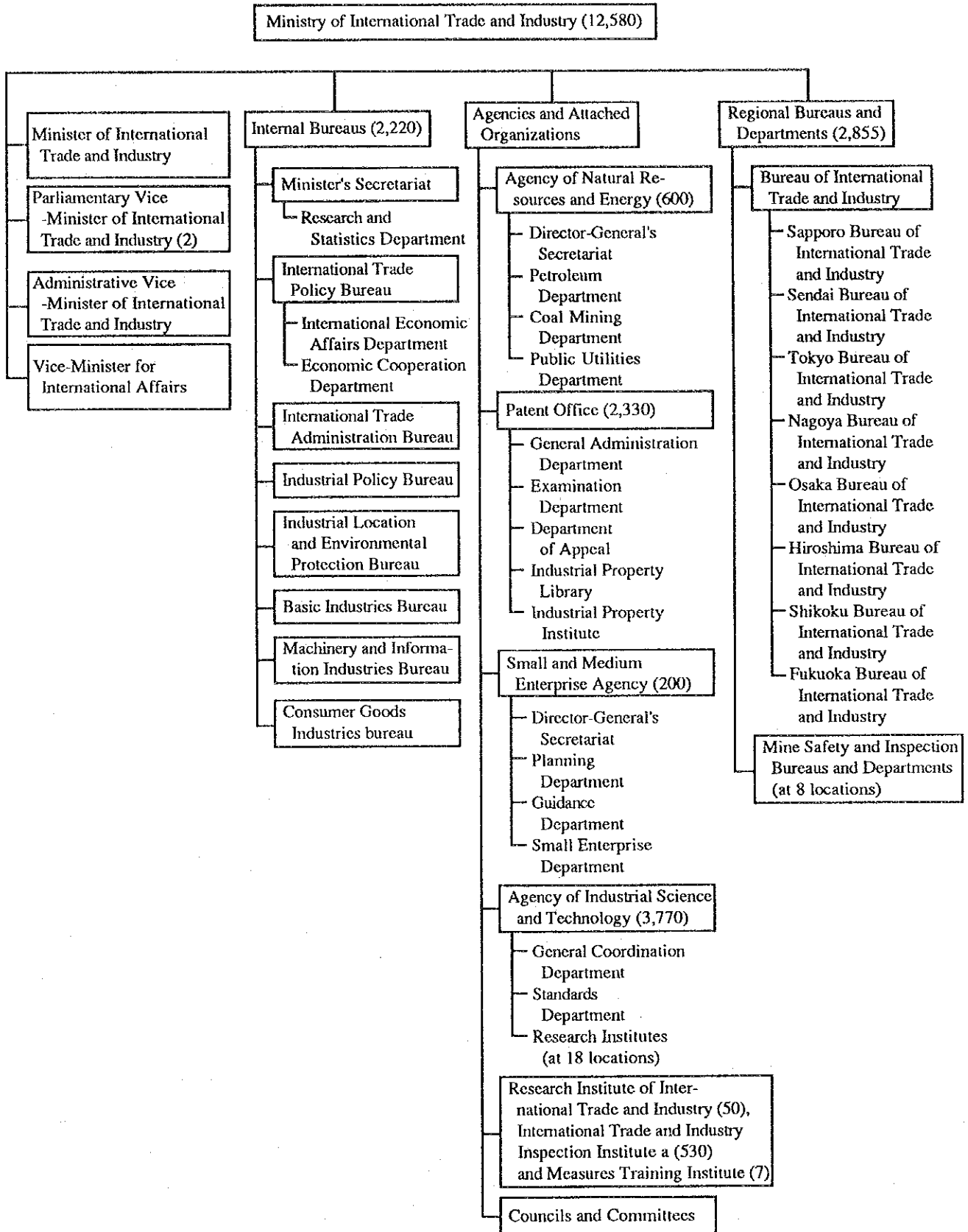
In the decisionmaking process for industrial policies, the entity with the most important role is not the legislative sector of the government, but the sections in charge of the industries and in charge of coordination in the ministries and agencies. On the private sector side, there are the various industrial organizations. Further, the various advisory councils and inquiry commissions, which are by nature somewhat intermediate entities between the government and private sector (though belonging to the government in form), play considerably important roles. Further, the financial circle and the banking world, which supplies funds to industry, have considerable influence in industrial policy.

### 1) *Genkyoku* and Coordinating Authorities

Playing a central role in the determination of industrial policy have been the government administrative bureaus known as the *Genkyoku*. A *Genkyoku* is a bureau in charge of particular industries in the ministries and agencies. There is a separate *Genkyoku* for each group of industries which monitors the industry group and is responsible for all policies concerning that group of industries.

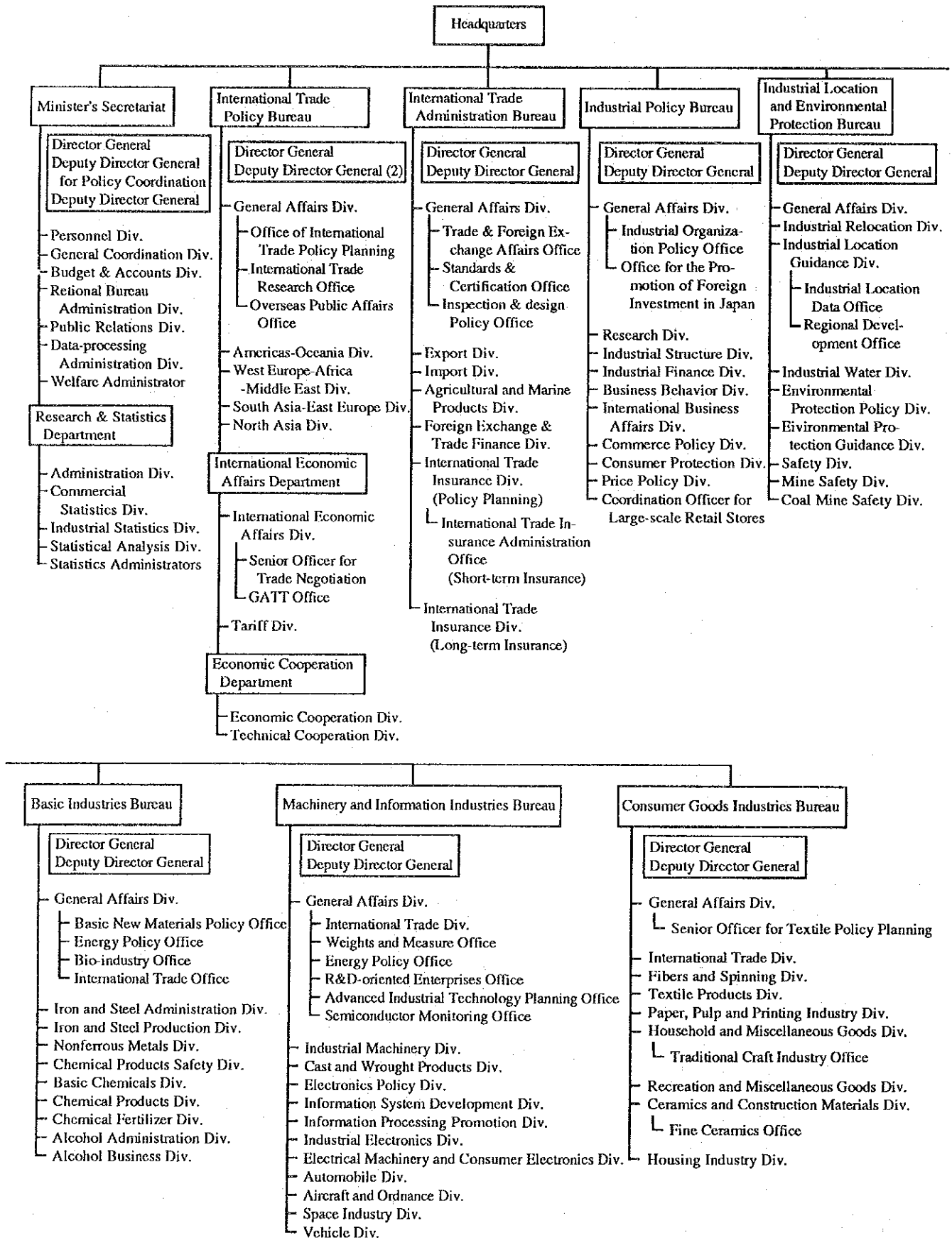
MITI is the ministry with the most such *Genkyoku*. As of 1970, five of the nine bureaus of MITI were so-called *Genkyoku*, that is, the Heavy Industry Bureau, the Chemical Industry Bureau, the Textile and Sundry Goods Bureau, the Coal Industry Bureau, and the Public Works Bureau. These bureaus were further divided into smaller "divisions", most of which were what are known as *Genka* in charge of subsectors of the related industry group. For example, the Heavy Industry Bureau had divisions in charge of iron & steel, industrial machinery, electronics, automobiles, aircraft, and vehicles.

(Fig. 1) Whole Organization of MITI



Note: Figures in parentheses represent the approximate number of personnel as of February 1990.

(Fig. II) Organization of Internal Bureaus of Ministry of International Trade and Industry (MITI)



The *Genkyoku* and *Genka* make up the vertical organization, but there are also horizontally organized bureaus and divisions in MITI. The horizontal bureaus as of 1970 included the International Trade Bureau, the Trade Promotion Bureau, the Enterprise Bureau, and the Pollution and Safety Bureau. These horizontal bureaus and the Minister's Secretariat primarily held the power over policy decisions regarding horizontal policy matters, but at the same time functioned to coordinate among the various bureaus within MITI. Usually, the General Affairs Divisions handled coordination in each bureau.

In the ministry there were various periodic meetings held, such as the meetings of the heads of the General Affairs Divisions and other administrative level meetings (once a week), a legal examination committee (twice a week), bureau meetings, officer meetings, ministerial meetings (each once a week), etc. In addition, at the working level, members of the related bureaus and divisions assembled as needed for irregular meetings to exchange information and opinions. Further, quick communication of intent with local organizations was promoted through the meetings of the Director-Generals of the regional bureaus of international trade and industry and the meetings of the directors of their general coordination departments (each once a month). Above the ministerial meetings, there were meetings of the Administrative Vice-ministers (twice a week) and above that the Cabinet meetings (twice a week). There were also meetings to exchange information at all levels of the organization with related sections in the other related ministries and agencies so as to strive for coordination of policies. In this way, there was a closeknit network of communication and cooperation formed between divisions, between bureaus in MITI, and with related sections in other ministries and agencies.

Further, MITI dispatches its staff to other ministries and agencies and also to local agencies, related organizations and institutions, etc. for temporary tours of duty. This interchange of personnel also plays a large role in the quick communication of intent with related sectors.

The *Genkyoku* and *Genka* were in charge of the drafting of policies relating to the various industries under their supervision. For example, the laws known as the "laws for particular industries", such as the Law on Temporary Measures for the Promotion of the Machinery Industry (1956), the Law on Temporary Measures for the Promotion of the Electronics Industry (1957), and the Petroleum Industry Law (1962) were drafted and implemented primarily by the *Genkyoku* and *Genka*.

The draft policies regarding special treatment in taxation for specific industries, changes in the tariff rates, liberalization of imports, and liberalization of capital were all prepared by the *Genkyoku* and *Genka*. The permits for contracts with foreign enterprises regarding patents and knowhow, permits for joint ventures, permits for establishment or augmentation of facilities in cases requiring approval under the laws for particular industries, etc. were also under the jurisdiction of the *Genkyoku* and *Genka*. The *Genkyoku*, *Genka*, or the Ministry had the decisive grip on the distribution of funding from government affiliated financial institutions.

Those of the draft policies prepared by the *Genkyoku* and *Genka* of MITI which related to other ministries and agencies were adjusted within MITI and then sent on to the related ministries and agencies where they were studied by the sections in charge and then were checked in terms of content by the Cabinet Legislation Bureau from the legal standpoint. However, it was extremely rare that any change be made at the level of the other ministries or agencies or the Cabinet in the decisions or requirements of MITI. The reason is, as mentioned earlier, several meetings were held at the administrative level and higher to achieve a consensus and agreement on policy matters relating to the other ministries and agencies before the draft policies were officially sent on, i.e., coordination and agreement with those ministries and agencies had been achieved in advance.



The industrial policies proposed by MITI may be roughly divided into two groups. One is the formulation of long-term visions for the industries as basic policies for the same. The other is the creation of special measures each fiscal year, referred to as "new policies". Long term (10 year) visions of the overall industrial structure, sectorial future outlooks, and other long term basic policies and yearly policies are prepared making use of the Councils and Commissions (Fig. III) (Fig. IV).

The work of drafting the yearly plans, i.e., "new policies," starts one year before. The process is as follows: [1] Each division holds industry hearings, [2] the opinions of other departments of MITI, the regional bureaus of international trade and industry, and other ministries and agencies are heard and a consensus obtained within the government, then drafts of the divisions are prepared, [3] these are deliberated upon in the Councils, [4] the drafts of the various divisions are collected at the general coordination divisions of the departments, [5] the general coordination divisions of the departments adjust the division drafts, then put together plans of the departments, [6] the drafts of the departments are collected at the general coordination division of the Prime Minister's Secretariat where coordination and collation of the ministerial level are performed, [7] a draft request for budgetary allocation is made to the Ministry of Finance, and [8] necessary procedures are followed to revise the related laws, tax regulations, a.s.o. (Fig. IV)

Since the 1970s, there have been some changes made, for example, the role of the horizontal bureaus has increased in importance compared with the vertical bureaus and the number of cases where the horizontal bureaus have taken the initiative in drafting policies has increased. This is because the policy needs relating to the interests of specific industries have diminished and MITI is becoming increasingly pressed to deal with horizontal policy issues relating to a wider scope of industry than specific industries or the economy as a whole, such as pollution measures, industrial redeployment, promotion of adjustment of structurally recessed industries, development of advanced technology, energy measures, and trade friction.

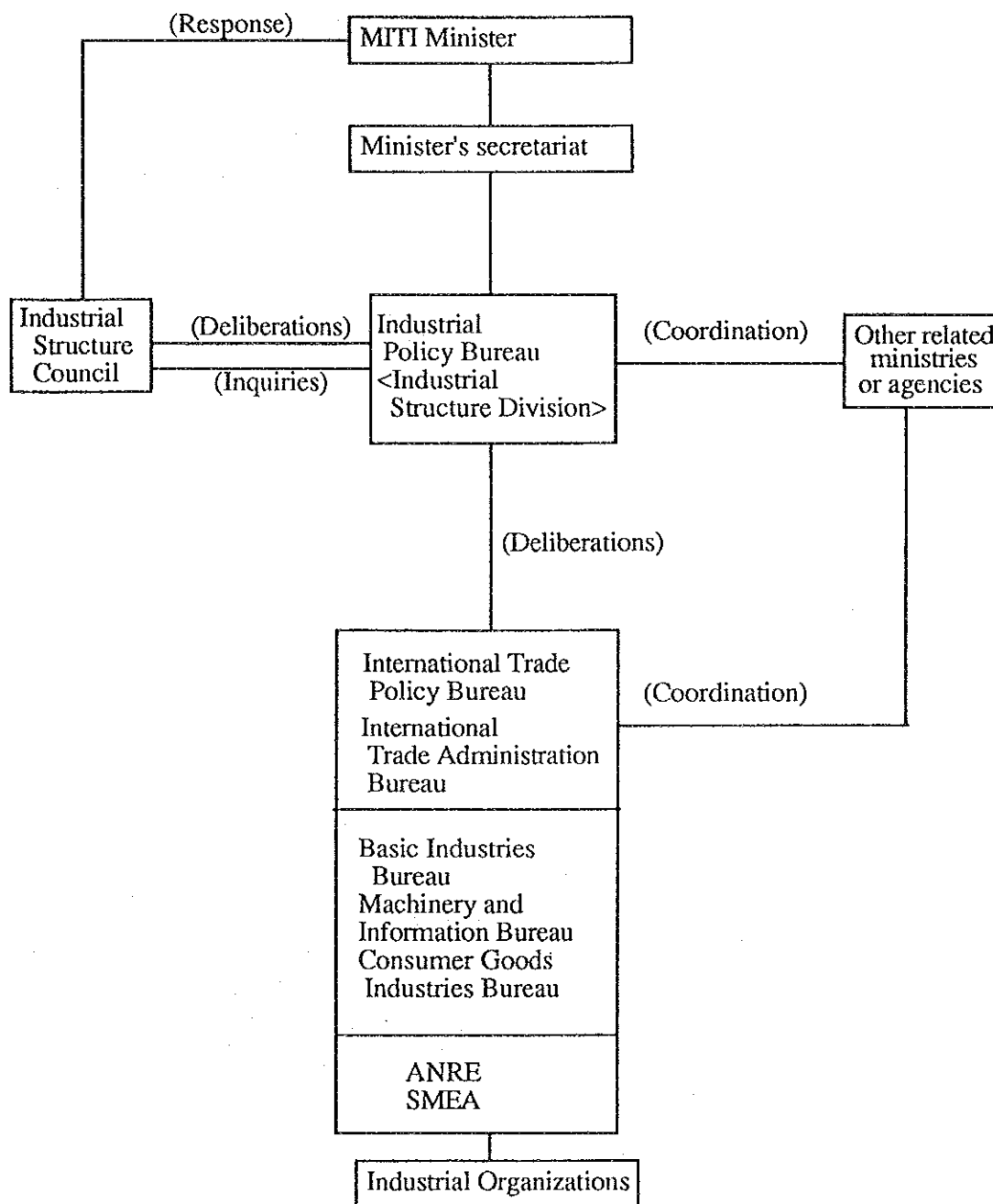
Note that the Fair Trade Commission, which is in charge of antioligopoly measures, is another important government organization in the process of determination of industrial policies. In the 1950s, the stress in industrial policies was placed on the minimization of competition. So, the Commission was pretty much ignored. Through the 1960s and 1970s, however, the past industrial policies, which restricted competition, were reconsidered. Along with this, the relative importance of the Commission gradually rose. In the future, the participation of the Fair Trade Commission the drafting industrial policies will become increasingly important. Particularly the elimination of cartels, which in the past were considered exempt from the application of the Antimonopoly Law, will be the major issue.

## 2) Industrial Organizations

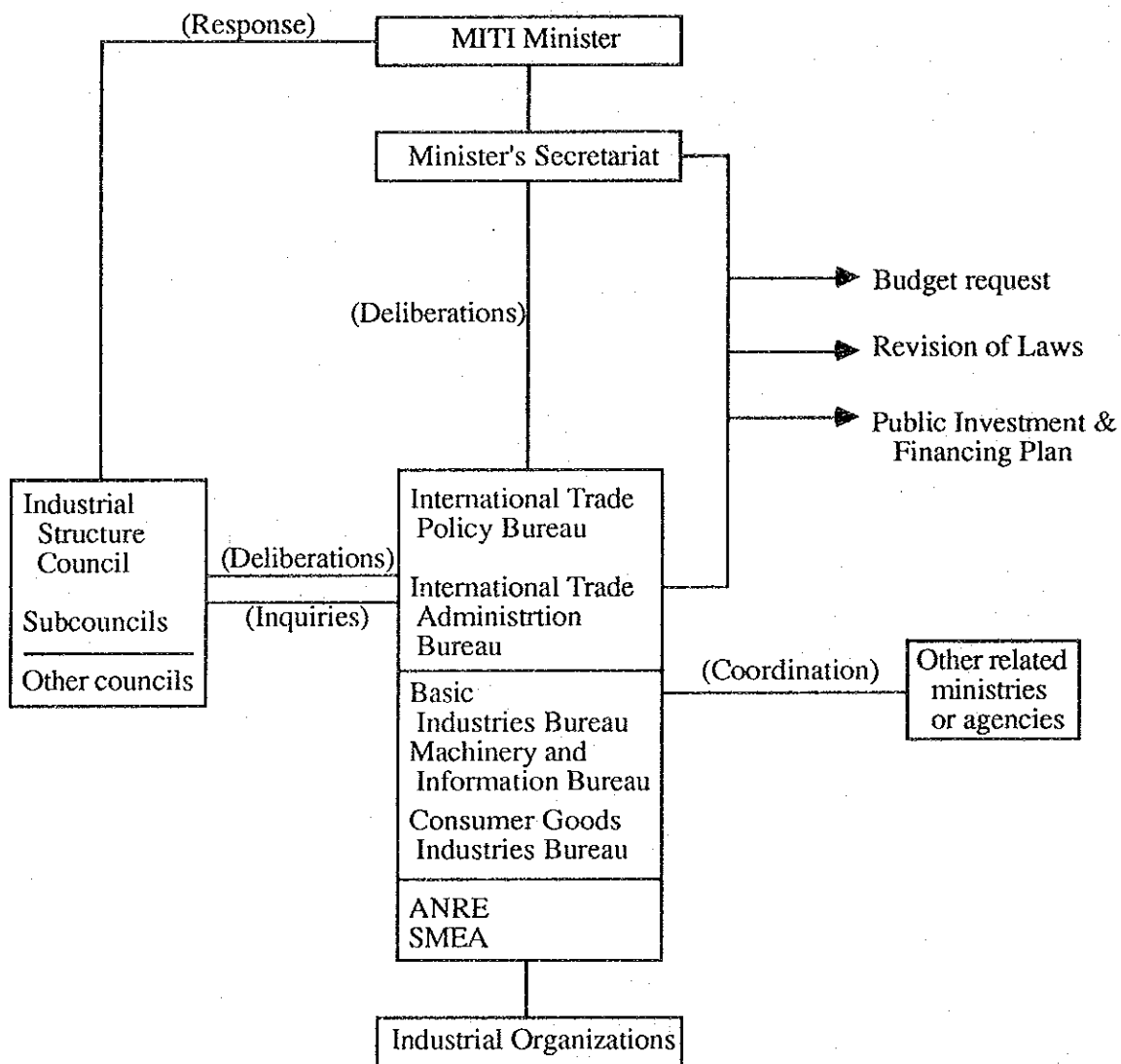
There are hundreds of industrial organizations related to MITI, for example, the Japan Iron and Steel Federation (JISF), the Japan Association of Automobile Manufacturers (JAMA), and the Japan Porcelain Manufacturers Federation (JPMF). These industrial organizations work in close cooperation with MITI as counterparts of the *Genka* and *Genkyoku*. The main role of the industrial organizations is to persuade the *Genka* and *Genkyoku* to adopt policies advantageous to their industries (or leading companies). Due to this relationship, some organizations hire retired MITI bureaucrats as their officers. The lobbying with politics constitutes one of the key functions of the organizations.

Regarding the relationship with the *Genka* and *Genkyoku*, in the early postwar years, there was a strong tendency for the government to direct industry, but along with the growth of industry, the government gradually became an intermediary, making adjustments and acting as a mediator in line with its long-term vision.

(Fig.III) Policy Drafting Process of MITI  
 — the mapping-out of Industrial Structure Visions —



(Fig. IV) Process of Drafting Policies at MITI  
 — the formulation of "New Policies" —



(Note) "New policies" are prepared for each fiscal year to go with the industrial structure visions, sectorial visions, and other long term visions and these lead to budgetary requests, revision of Laws and public investment & financing plans. Overall coordination within MITI is handled by the Minister's Secretariat. The new policies are prepared, making use of the various councils and commissions, by the Industrial Policy Bureau and the Industrial Location & Environmental Protection Bureau in the case of horizontal policy issues and by the three *Genkyoku* in the case of policies of individual industries.

Today, the policies of MITI basically serve to set a future "vision" for an industry, i.e., to show what the industry should be in the future. In principle, the policies are not forced on anyone. A concrete example of this is the "New Textile Vision" formulated by the Textile Industry Council, recorded in the second year report of this survey mission.

MITI has been clearly shifting its industrial policies away from the restrictive policies of the postwar years to guiding policies.

### 3) Advisory Councils and Research Commissions

In postwar Japan, when the ministries or agencies decided on key matters of policy, the "council system" was used, wherein opinions were solicited from advisory councils or research commissions comprised of private parties (including retired bureaucrats) and policies were determined based on responses to the same.

As of 1970, MITI had 27 advisory councils and research commissions which provided responses to inquiries by the Minister on various issues. Among these, 15 councils studied problems in industrial policies. The Industrial Structure Council deliberates over industrial policies in general, but there are also advisory councils and research commissions which cover individual fields such as the machinery industry, petroleum, the coal industry, electronic data processing, the aircraft industry, and energy as a whole.

As of February 1990, there were 34 advisory councils and research commissions, first and foremost being the Industrial Structure Council, related to MITI (including the Agency of Natural Resources and Energy, the Patent Office, the Small and Medium Enterprise Agency, and the Agency of Industrial Science and Technology). Further, special councils are established for chemical products, aircraft, the textile industry, the traditional craft industry, petroleum, coal, and data processing. In addition, there are subcommittees for individual industries in the Industrial Structure Council.

The members of the advisory councils and research committees are appointed by the Minister of MITI and mostly are industrial leaders, members of the financial sector, and retired bureaucrats. In addition, there are academics (university professors), journalists (newspapers), and other knowledgeable persons and, if necessary, consumer representatives. The primary selection of members is made by the *Genka* in charge.

The advisory councils, by nature, coordinate opinions of government and industry and serve as the forum for coordination of interests among different industries and enterprises. Therefore, passage of the deliberations of the advisory councils means the coordination of various interests has already ended and that the policies agreed upon there will be subsequently implemented smoothly at least insofar as the related industries go.

A point about the functions of the advisory councils which should be viewed with great importance is the exchange of information and mutual persuasion which go on. The advisory councils have been extremely effective for the collection, exchange, and dissemination of information regarding the industries. This is highly evaluated as having contributed greatly to the development of the Japanese economy. At the advisory councils, estimates are made of the future demand for various products both in Japan and overseas, new technologies are introduced, projections made of required equipment, funds, and supply of materials, and efforts made to coordinate the investment, production, and funds from a macroeconomic viewpoint. This accumulated information and the medium and long term visions announced by the government present to the private sector projections on the demand and prices for various industries, thereby supplying information on a free basis. Further, the repeated supply of such information

enables a more suitable equilibrium to be found and strategies for achieving that equilibrium to be presented to private economic interests.

### **3. Statistics Prepared by MITI**

Statistical data provides the basic information for all sorts of policies. Whether industrial policies or agricultural policies, no policy can be suitable if not based on statistics. Further, in the drafting of industrial policies, use is made of a wide range of statistics covering everything from population to education, not only production statistics and imports or exports.

In Japan, there are statistics for almost all fields, including industry. Numerous people in government ministries and agencies, government affiliated organizations, private organizations, etc. are engaged in preparation of such statistics.

The statistics handled by MITI include industrial statistics (statistics for individual industries, covering number of business establishments, number of employees, wages paid, value of materials used, values of shipment, values of production, added values, investments in tangible fixed assets, etc. by type of industry, by scale of firms and by regions), statistics for individual industries covering production, shipments, inventories, orders received, and capacities of equipment, statistics on natural resources and energy, commercial statistics, etc. These statistics are put together by the Research and Statistics Department of the Minister's Secretariat. For collection of data from the industrial world, active use is made of various industrial organizations through the various *Genka* or *Genkyoku*.

## ANNEX-VI

### TEXTILE INDUSTRY POLICIES IN ASIAN NIES AND JAPAN

#### 1. Hong Kong's Textile Industry Policies

The Hong Kong authority has adopted a thoroughgoing non-interventionist and open economic policy, and as such has not adopted measures for assisting specific industries. But despite this policy the importance of the garment industry to Hong Kong has resulted in efforts being made to foster personnel. This year (1989) the Hong Kong Garment Center is being established in order to provide training in production technology such as cutting, etc. The center is funded by the industry and operated by the authority. With 600 sewing machines the center is said to be the largest training center of its kind in the world.

Export promotion activities are carried out by the Trade Development Center (TDC), and these consist of a wide range of promotional activities which include holding exhibitions in Hong Kong as well as in other countries, and the establishment of a fashion library for the purpose of fostering designers. Other main activities carried out by the TDC include opening up new markets and supplying information on new technologies.

Efforts are being made to open up markets in Europe and Japan as a means of correcting the trade imbalance which exists between Hong Kong and United States. As an example of export promotion activities undertaken by the TDC, in 1988 it held more than 10 exhibitions in Japan in cities such as Tokyo, Osaka, and Nagoya. The "Made In Hong Kong Apparel Fair" which is held twice yearly in Tokyo and Osaka has been rated highly for its scale and contents.

#### 2. Korea's Textile Industry Policies

##### (1) Industry Promotion Policies

###### 1) An Outline of Policy Changes

The textile industry has played an important role in the recovery of the Korean economy and has been a key industry in regard to the acquisition of foreign currency. The government has adopted generous measures of support in relation to investment in plant and equipment and export promotion in a bid to protect and develop the industry.

Up until 1966 such measures were limited to making adjustments to price and demand and supply, and expanding spinning and weaving equipment through the induction of foreign capital. But the enactment of the "Interim Measures Law for Textile Industry Equipment" in 1968 resulted in greater control and assistance. The law made the registration of manufacturers and processors of textile products compulsory and the introduction of new and additional equipment became subject to approval. The law also made it possible for the government to put out orders banning the use of equipment and to direct manufacturers to make alterations to and scrap out-of-date equipment. Subsidies were granted and finance made available for altering and scrapping equipment.

With these sorts of adjustments to equipment, financial assistance and preferential loans offered in the case of exports, it was from about this time that the textile industry began to grow rapidly as an export-oriented industry.

In 1980 the Interim Measures Law for Textile Industry Equipment was replaced with the enactment of a new law: the "Textile Industry Modernization Promotion Law". A basic plan for modernization was set out in accordance with the law. As well as setting as its basic targets making improvements to the structure of the textile industry, raising quality levels and diversifying products, and diversifying export markets, the Korean Textile Industries Federation was also established as a public organization responsible for operating and controlling the promotion of modernization and the modernization fund. Controls and measures of assistance relating to modernization projects and the replacement of equipment were administered under this modernization fund.

However, as the emphasis of Korea's industrial policies shifted to the heavy chemical industries sector, changes have appeared in policy measures taken in regard to the textile industry.

At the end of 1985 the "Textile White Paper", containing a long-term vision taking the textile industry up to the year 2,000, was issued. Then, in 1986, the Textile Industry Modernization Promotion Law was abolished. Today, textile industry policies are included along with those for other industries in the Industry Development Law which was enacted in July 1986.

The Industry Development Law calls for the modernization of equipment and stronger international price competitiveness for all industries. As for the textile industry, the cloth industry and the dye processing industry have been designated as industries to undergo rationalization in 1987 and 1988 respectively under the law. Efforts are also being made in the areas of the development of new materials and technological development.

With the abolition of the Textile Industry Modernization Promotion Law the Korean Textile Industries Federation, which had been established under the law, was turned into a private organization.

The production and export structure of the textile industry which the government and industry organizations are aiming to create is shown in the following diagram.

Present	Direction of development (Make production structure into a dual structure)
<p>&lt;Mass production of medium and low priced items&gt;</p> <ul style="list-style-type: none"> <li>* Price competitiveness</li> <li>* Large-scale equipment</li> <li>* Imbalance in growth of industries</li> <li>* Subcontractor-type structure of buyers</li> <li>* Adjustments to demand and supply &amp; equipment</li> <li>* Production structure centering on apparel</li> <li>* Over-reliance on markets of advanced countries</li> </ul>	<p>&lt;Small lot-expensive product production&gt;</p> <ul style="list-style-type: none"> <li>* Technological development</li> <li>* Training of technical and design development personnel</li> <li>* Fostering of small and medium specialist companies</li> <li>* Make priority of developing weak areas</li> <li>* Export of special brands</li> </ul> <p>&lt;Increased competitiveness of mass produced items&gt;</p> <ul style="list-style-type: none"> <li>* Full automation of processes (Use of robots etc, to replace workers)</li> <li>* Expand production of non-apparel items</li> <li>* Expand exports to developing countries</li> </ul>

## 2) Textile Industry Estates

The government has been directing its efforts towards the creation of textile industry estates and to encouraging companies to re-locate to these estates. In 1987 there were 7 industrial estates under the direct control of the government and 21 which were operated by local public bodies. In addition to this number there are a number of industrial estates which are being established and developed privately. At any rate, it would seem that in the case of the dye processing industry, an industry which is susceptible to pollution problems, the concentration of dye processing companies in dyeing estates (Banweol Estate, Bisan Estate) has proven an effective means of rationalizing the supply and disposal of water and of increasing efficiency.

## (2) Export Promotion Policies

Measures aimed at promoting exports include a customs duty rebate system for raw materials used in the manufacture of exports. One particular measure of assistance which is unique to Korea and which is proving successful is the trade finance system which was instituted in 1961. This trade finance system comprises of institutional finance supplied over a short term which provides loans required for exports and imports before the exports and imports take place. This separate institutional trade finance was set up to assist exports owing to the relatively high interest rates which are applied to general loans made to all companies in Korea. (In 1979 interest rates for loans by banks were 18.5% per annum compared to 9% per annum for trade finance, and since 1982 interest rates have been 13% and 10% respectively.)

However, today with an increase in the supply of currency and a worsening of trade friction between Korea and other countries as a result of the surplus in the balance of Korea's current account the trade finance system is playing a smaller and smaller role. In addition to the abolition of assistance with export finance for large companies in February 1988, the unit value of loans made to the small and medium companies still eligible to receive finance was decreased. (Whereas it had been 740 Won/US\$ in July 1985, it had decreased to 670 Won by October 1986 and then further to 450 in February 1988.)

### **3. Taiwan's Textile Industry Policies**

#### **(1) Industry Promotion Policies**

The Taiwanese authority has been implementing protective policies aimed at developing the economy and promoting industrialization in accordance with the country's stage of development. These measures have centered on putting in place a base for industrial development through establishing an infrastructure, and securing cheap electricity and natural fuel resources. No special policies have been adopted for actively developing and strengthening the textile industry through the enactment of related legislation, and instead the industry has been included in general policies aimed at industry. These policies contain the following main measures:

##### **1) Tax system protection**

- the preferential application of corporate tax exemptions for a fixed period and advanced depreciation as set out in the 1961 Investment Promotion Law;

Although the textile industry had originally been included among industries eligible to receive incentives, amendments made in conjunction with the development of the heavy chemical and precision industries resulted in the removal of the majority of textile items (there were a few exceptions) as preferential items.

##### **2) Tax rebates**

- Import duty exemptions for raw cotton and raw materials for synthetic fibers were included among items covered by the Textile Tax Rebate Improvements Law (1977)

Measures including import restrictions and export licenses were adopted frequently in line with changes in the situation of self-supply and internal and external demand and supply trends as they occurred in relation to synthetic fiber raw materials and synthetic fibers.

##### **3) Promotion of the introduction of foreign investment and foreign technology**

Measures have been taken to promote the introduction of foreign capital and the latest in overseas technology by enacting various foreign investment laws. These have included the Foreigner Investment Law (1954), the Technical Cooperation Law, and the Chinese Returnees to Taiwan Investment Law.

In regard to textiles, advances were made in the introduction of secondary products such as spinning and weaving, synthetic fiber, dyeing, and the sewing of knit fabrics. Recently, however, the introduction of foreign investment and



technology has stopped in most areas except for new areas such as synthetic fiber raw materials.

In 1980 the Spinning Machinery Industry Development Project was implemented for the purpose of promoting structural improvements to the spinning industry (that is, for promoting joint ventures, scrap-and-build, automation, and semi-automation and making improvements to the management of operations), expanding exports (gathering information from overseas), establishing modern dye processing and high-grade sewing factories, and training technicians and workers.

However, even though the authority has been encouraging the many small-scale manufacturers in the spinning industry to expand their operations by forming joint ventures and has called on the synthetic fiber industry to cancel its plans for increasing equipment, the authority's intention is not necessarily reflected in the industries due to the failure on its part to adopt forceful measures.

At the present time, steps are being taken to open markets, free up exchange controls, reduce import duties, and encourage investment overseas in an attempt to reduce the region's huge trade surplus and its foreign currency reserves. As a result of considerable reductions in duties which were made in April 1987 the duty on yarns decreased to 4.5%, cloths 12.5%, and apparel 15%.

An overseas investment plan calls for investment in the United States to the tune of \$1.25 billion and investment in Southeast Asia to the value of \$150 million. In regard to Southeast Asia in particular, the plan aims to encourage investment in the region by small and medium-scale companies.

## (2) Export Promotion Policies

### 1) Export finance

During the 1960s and the 1970s various measures, such as L/C re-finance made through the central bank, were implemented for providing preferential export finance at interest rates which were lower than general market rates. However, the criticism has been made that these measures had little practical effect due to the tightness of Taiwan's finance system at the time.

### 2) Export processing zones

Following on the establishment of the Kaoshun Processing Zone in 1966, a number of export processing zones have been established around the region. Certain tax exemptions are made to foreign companies situated in the zones, among which are a substantial number of textile-related enterprises.

### 3) Export approval system

An inspection system applied to export companies for the purpose of maintaining and improving quality standards for export items has been implemented. As well as inspecting items produced by the spinning and weaving industries etc, the system has designated certain factories as export approved factories.

### 4) Textile Exports Promotion Association

In 1975 the Textile Exports Promotion Association was formed by industry organizations under the direction of the authority. As a private-sector organization the association carries out various activities aimed at opening up new export markets. These activities include: 1- controlling export quotas; 2- raising quality and design standards and promoting technology; and 3- undertaking surveys of overseas markets and sponsoring exhibitions.

## 4. Japan's Textile Industry Policies

Since the end of the Second World War a wide range of policies affecting the textile industry have been implemented in accordance with the changes of the times. Policies for the reconstruction of industries and for the development of export industries have given way to policies centering on adjustments to production and equipment,

structural improvements, opening up markets, and raising the standard of technology and design, etc. These policies can be divided into five different periods according to their emphasis and the type of measures which they involved.

The first period was the period of reconstruction after the Second World War from 1945-1948; the second period was the period of export expansion from 1949-1965; the third was the first phase of structural adjustments which took place from around 1965-1973; and this was followed by the fourth period from 1973-1979 when the second phase of structural adjustments took place. The fifth period belongs to the '80s and is a period in which qualitative changes are being forced upon the textile industry.

A general outline of the changes which have taken place in policies related to the Japanese textile industry is provided below.

(1) First Period: Postwar Reconstruction Period (1945-1948)

During this period the reconstruction of the textile industry centered on securing adequate supplies of clothing for the people and on obtaining foreign currency. Thoroughgoing controls were imposed on textile equipment and the demand and supply and price of textile products, and efforts were made to restore equipment and to increase the number of cotton spinning and synthetic fiber manufacturers.

As equipment was restored and new and additional equipment was put in place on a large scale, funds required for introducing equipment were supplied by syndicate groups on behalf of the Reconstruction Finance Bank and the Bank of Japan.

These comprehensive control policies and financial assistance proved effective, and by 1948 the restoration of equipment to the textile industry had gotten well underway.

(2) Second Period: Export Expansion Period (circa 1949-1965)

With the recovery of the balance in demand and supply in the textile industry, controls affecting textile products and textile equipment were removed in 1950 and 1951. It is since this time that textile industry policies have centered on: 1- the expansion of exports; 2- the rationalization and modernization of the textile industry; and 3- the stabilization of the textile industry. The laws and systems on which the various types of measures being implemented today are based originate from this period.

1) Measures for the expansion of textile trade

The various types of measures which were adopted for expanding trade were aimed at: a) promoting trade; b) making adjustments to exports; and c) maintaining and raising the quality of export items.

a) The promotion of trade

The major policies and measures adopted for promoting trade are listed below:

- [1] A system for linking exports to the demand for foreign currency funds for importing raw cotton, sheep's wool, and pulp for use in chemical fiber  
This system proved effective in increasing the volume of textile product exports, stabilizing prices, and raising the operation levels of manufacturers. On the other hand, however, it came in for increasing criticism from the IMF and various countries due to the intensification in competition for cheap textile products and the fear of overconsumption of raw cotton which it generated. As a consequence, the linkage ratio was gradually decreased and amendments were made to the quota procedure.
- [2] A foreign currency funds system for promoting exports  
This system was implemented in order to encourage exports by trading companies.
- [3] The formation of a joint public-private sector committee to discuss the promotion of chemical fiber exports and measures taken to encourage the establishment of an export product promotion association by industry organizations.

- [4] The establishment of a textile product export conference within the Textile Bureau of the Ministry of International Trade and Industry. The conference was divided into subcommittees which covered specific areas such as cotton cloth, wool and linen products, and secondary products. The subcommittees set export targets for each area and examined problems related to exports.
- [5] Import finance for textile raw materials with Bank of Japan usance

b) Export adjustments

The enactment of the "Export Trading Law" (amended in 1953 to the "Export and Import Trading Law")

The law is aimed at prohibiting unfair export trade which obstructs the right of countries to which Japanese-made goods are exported to have their own industries, and also at establishing an orderly system for export trade. The conclusion of exporter agreements and the formation of export associations is permitted under the law in special situations.

Export associations such as the Japan Cotton Yarn Export Association were formed on the basis of the law. These associations carry out activities for preventing unfair export trade through industry agreements related to quality, price, volume etc.

c) Maintaining and raising the quality of exports

- [1] The revision and tightening up of the Export Goods Control Law  
As demand for textile products with a consistently high level of quality grew on overseas markets, Japanese products became increasingly unpopular. It was in order to remedy this situation that the Export Goods Control Law was revised and subsequently tightened on several occasions. The law introduced a registration system for private export inspection organizations, raised the required standards for the different classes of goods by expanding and tightening up inspections and inspection methods used for color fastness and other checks, and established minimum standards for each country to which Japanese goods were exported.
- [2] The abolition and substantial reduction of import duties imposed on dyes and pigments  
These measures were taken for the purpose of increasing the use of dyes which had high color fastness levels.
- [3] The establishment of the Japan Textile Design Center (1955)  
The center was established for the purpose of raising the level of textile product exports by undertaking surveys and research into textile designs, preventing the violation of design rights, and by fostering high quality designs.

2) The rationalization and modernization of the textile industry

a) Modernization of equipment and machinery

After the Korean War in 1953 the world economy began to stabilize and export competition intensified. It was no longer possible for the Japanese textile industry to expand in terms of volume as it had been doing, and it became necessary to modernize textile industry equipment in order to strengthen its international competitiveness and to maintain and also expand its overseas markets. Measures of assistance related to tax and finance were adopted for specific industries and specific types of machinery.

In particular, Japan lagged behind western European countries considerably in regard to its dye processing sector- an area which is vital for raising the standard of textile products for export-, and this prompted the adoption of policies which gave priority to the modernization of equipment within the dye

processing sector. Examples of the preferential measures which were adopted are provided below:

- Specific types of machinery

- [1] Import duty exemptions for important machinery such as continuous cotton spinning machines;
- [2] The application of special depreciation (50% depreciation of the purchase price was allowed in the first year) for spindles and for special dye-related machines;
- [3] A substantial shortening of the fixed asset depreciation period for machinery and equipment, such as chemical fiber and dyeing machinery and equipment, which becomes out-of-date quickly.

- Specific industries

- [1] Dye industry  
With the application of the Company Rationalization Promotion Law (enacted in 1952) modern machinery and equipment were subject to special depreciation, the level of fixed asset tax was reduced, and subsidies were granted for experimental research. (Note- the law was enacted with the objective of promoting the rationalization of key industries, and comprised of preferential tax measures and the granting of subsidies which were applied to specific industries)
- [2] Chemical fiber  
With the aid of finance provided by the Development Bank of Japan subsidies were granted for industrialization and applied research, and permission was given for the introduction of technology from overseas.
- [3] Weaving industry

Subsidies were granted to small and medium-sized companies for modernizing their equipment through finance provided by the Small and Medium Enterprise Finance Corporation which made loans for replacing and rebuilding out-dated equipment.

b) Modernization through structural adjustments

Efforts were made to modernize the industry by making structural adjustments within the textile industry.

This consisted of paying particular attention to chemical fibers, the raw materials for which could be supplied domestically, instead of natural fibers such as raw cotton and wool for which there was an almost total reliance on imports. The main measures taken in relation to this are listed below.

- [1] The drawing up of Measures for the Development of the Synthetic Fiber Industry (1953) and other support measures  
These measures consisted of making reductions and exemptions for corporate taxes and business taxes, and shortening the depreciation period for fixed assets in order to create demand and establish a mass production system for synthetic fibers such as vinyl and nylon.
- [2] Measures implemented for making adjustments to the raw material sector and for securing supplies of raw materials: Measures for the Development of the Acetic Acid Fiber Industry; Measures for the Development of the Petrochemical Industry; and Measures for the Development of the Carbide Industry and the Tar Industry

As a result of these successive measures taken by the government for the development of the textile industry, preferential tax measures, finance provided by the Development Bank etc, the introduction of technology from overseas, and preferential measures for assisting with research into new technologies, gradual progress was achieved in introducing new and additional equipment within the textile industry.

c) Establishing a quality labelling system

As chemical fiber production increased it became more difficult for the general consumer, and even for manufacturers, to discriminate between different quality standards, and the situation arose where inferior goods were being sold at unfair prices. At the end of several years of investigation into setting up legislation for guaranteeing quality and fair trade the Textile Products Quality Labelling Law was enacted in 1955.

The object of the law was to safeguard the interests of the general consumer by introducing proper labelling for the quality of textile products. It stipulated that: [1] yarn, cloth, knitted fabric, and the main types of apparel made from cotton, wool, and the main types of chemical fibers are textile products which are subject to the law; [2] correct labels should be attached when making quality labels for textile products, and that the name of the labeler should be shown on the label; [3] textile products which are designated by government ordinances when the need arises must carry prescribed quality labels; and [4] certain quality standards which are subject to compulsory labelling are required to undergo compulsory inspection.

With the enactment of the law measures were taken voluntarily by the various textile industry organizations to implement a uniform labelling system in line with the spirit of the law.

3) Stabilization of the textile industry

Adjustments to production for the purpose of stabilizing prices are inevitable in the case of the textile industry with its mass production and abrupt changes in demand and supply. Extra equipment which is introduced to meet the increase in demand in times when the economy is healthy is liable to be in oversupply when there is a downturn in the economy and changes in demand occur.

Adjustments to production comprised a major part of textile industry policies, and as time passed related legislation was enacted and adjustments made to the industry.

The major measures taken comprised of the following:

a) The application of the Small Enterprises Stabilization Law (1954) (the law preceded the present Law on Organization of Small and Medium Enterprises)

The law consisted of: 1- approval for voluntary production adjustments by manufacturers' associations belonging to industries which were experiencing a slump and which had been designated under government ordinances; 2- the invocation of orders and giving advice to outsiders not belonging to industry associations where necessary; and 3- making it possible to control the introduction of additional equipment by all manufacturers, irrespective of whether they be members of industry associations or outsiders.

b) The enactment of the Law on Extraordinary Measures for the Textile Industry Equipment (1956) (usually referred to as the old Textile Law)

The law was enacted on the basis of the report submitted by the Textile Industry Comprehensive Measures Council which had been established a year earlier in 1955. The findings of the report stated that "Comprehensive measures required by the textile industry consist mainly of adjustments to equipment within the industry and the development of synthetic fibers, and in the case of equipment adjustments in particular, the enactment of legislation is considered necessary".

The objective of the law was to "rationalize the textile industry by placing controls on equipment in order to contribute to the normal development of exports of textile products". This was to be achieved through the following measures:

- [1] the registration of spindles and cloth tenters according to the different textiles which are manufactured and processed by those machines, with the use of unregistered equipment to be banned;

- [2] setting a quota for spindles and tenters for which additional equipment is required while taking into consideration the demand and supply situation for textiles;
- [3] scrapping or storing equipment from areas in which there is a surplus, and which have been registered under the law or the Small Enterprises Stabilization Law, in order to dispose of a certain amount of surplus equipment. This is to be done through joint action and through directions issued to manufacturers by the Minister of International Trade and Industry;
- [4] the disposal of the surplus equipment described in [3] above is to be achieved by implementing regulations worked out by the Adjustments Association, and in cases where the involvement of the Minister of International Trade and Industry is necessary, the Minister is to be empowered to order non-members to obey the regulations for the disposal of equipment.

(3) Third Period: The First Period of Structural Adjustments (circa 1965-1973)

Policies which had been adopted in relation to the textile industry up until this time had centered on the development of the chemical fiber industry and on the formation of cartels and also on guidance provided by the government in an attempt to avoid excessive competition. However, the tendency towards controls as seen in the old Textile Law had the adverse effect of hindering the vitality of companies and their ability to respond with flexibility, and had a growing negative effect as far as the operation of enterprises was concerned. Also, the sharp increase in labor wages which accompanied the period of rapid economic growth made maintaining and improving international competitiveness a major task.

Amidst such changes in the environment it became necessary to re-examine the fundamental basis of existing policies. A new policy structure was formulated on the basis of the following three main measures: 1- the Law on Extraordinary Measures for the Textile Industry Equipment (commonly known as the new Textile Law) was enacted and applied to the spinning industry; 2- the Small and Medium Enterprises Modernization Promotion Law was applied to the weaving industry; and 3- the Chemical Fiber Equipment Cooperation Meeting was established to consider the synthetic fiber industry.

- [1] Law on Extraordinary Measures for the Textile Industry Equipment (1964)  
The law was aimed at modernizing equipment over a four-year period by approving the scrap-and-build method through the implementation a 2:1 ratio for old and new spinning industry equipment accumulated under the old Textile Law. It also aimed at establishing an industry structure which, as a result of the systematic disposal of equipment, could withstand free competition.
- [2] The Law on the Promotion of Modernization for Small and Medium Enterprises (1963)  
The law was implemented in order to modernize industries, such as the cloth industry, in which a great many small and medium-scale manufacturers existed by making a priority of implementing measures aimed specifically at small and medium enterprises.
- [3] The establishment of the Chemical Fiber Equipment Cooperation Meeting  
This joint public-private sector meeting was established to replace the old Textile Law in respect of the chemical fiber industry, and adjustments to the introduction of new and additional equipment were made on the basis of these public-private sector discussion meetings. Rigid standards and controls on equipment which were established by the meeting were enforced up until 1968, after which time the introduction of new and additional equipment has been left up to the discretion of individual companies.

A new system for textile policies was finally established in 1964. However, it was exactly at this time that the textile industry was confronted with yet another serious depression.

Consequently, additional measures, like the ones listed below, were implemented in order to transform the industry into one which was able to keep up with the changing times.

[1] Law on Extraordinary Measures for Structural Improvement of Specific Textile Industries (1969)

The enactment of the law saw the launching of the structural improvements project (old project). Under the project companies were brought together, equipment was modernized and surplus equipment was disposed of using low-interest funds provided by the Small and Medium Enterprises Project Association. The four industries covered by the law were the spinning industry, cloth industry, dye industry, and the knit manufacturing industry.

[2] The modernization of the other industries was carried out with the revision of the Small and Medium Enterprises Modernization Promotion Law which established a system for carrying out structural improvements.

[3] The buying up of equipment under the Interim Textile Special Case Law (1971)  
Equipment from 13 industries, including the cloth and spinning industries, which were found to have a surplus of equipment as a result of controls imposed on exports to the U.S. on the basis of a textile agreement worked out by the Japanese and U.S. governments, was bought up by the government with the help of industry associations. Although this proved successful to a certain extent in that it facilitated the modernization of equipment and did away with surplus equipment, it was not successful in encouraging company operators to adopt a strongly independent stance in regard to bringing companies together, as it should have been.

(4) Fourth Period: The Second Period of Structural Adjustments (1973-79)

In the early 1970s the textile industry was confronted by new problems, namely, a slump in exports caused by gains made by Japan's neighbors and by the appreciation of the yen, and the change in consumer demand towards greater emphasis on fashion.

It was in response to these developments that in 1973 the Textile Industry Council and the Textile Sectional Meeting of the Industrial Structure Council jointly put out a report which recommended what sort of policies should be adopted for the textile industry during the 1970s. The report stated that "Based on the premise that an international division of labor is to occur in the textile industry it will be necessary to foster know-how-intensive groups and to pay particular attention to the "soft" sector in order to meet the diversifying needs of the people".

The Law on Extraordinary Measures for Structural Improvement of the Textile Industry was enacted in 1974 on the basis of this report. The law resulted in the formation of companies groups which linked different industries such as the spinning and cloth industries, and aimed at turning the textile industry into a know-how-intensive industry.

Structural improvements were made to the textile industry by making improvements to the structure of industries experiencing hard times due to structural factors, and by improving the business activities of small and medium companies.

[1] The application of the Law on Extraordinary Measures for the Stabilization of Depressed Industries (1978)

The law was aimed at making structural improvements to structurally depressed industries and disposing of surplus equipment which existed within those industries in order to stabilize operations and to overcome the slump which they were experiencing. As for the textile industry, four synthetic fiber industries and two spinning industries were designated as depressed industries, and the disposal of equipment was carried out in accordance with each of the basic plans for the stabilization of the respective industries.

[2] The implementation of the Joint Equipment Scrapping Project  
(Note- An outline of the main project undertaken for carrying out structural improvements is provided in the appended material.)

(5) Fifth Period: A Period of Transition (1980s)

As the textile industry entered a new decade the yen continued to appreciate sharply and the efforts by Japan's neighbors to catch up also continued. Despite some degree of variation from industry to industry, in general the textile industry found itself facing a harsh environment.

As a result, the various measures which have been implemented by the government have focussed on making further improvements in order to strengthen the industry. Along with the expansive implementation of adjustments to production and equipment and the structural improvements project which have been implemented since the later 1970s (refer to the appended material), guidelines were worked out for the future direction of the textile industry on the basis of a textile vision. These guidelines call for raising technology and design standards as a means of turning the industry into a know-how-intensive industry in line with the changes in the times.

In 1983 a "New Textile Vision" was announced in order to transform the textile industry from a labor-intensive industry into a technology- and capital-intensive industry which fulfills lifestyle needs. The revision of the Law on Extraordinary Measures for Structural Improvement of the Textile Industry was carried out to accommodate this new vision.

However, owing to the considerable changes which have subsequently taken place in the internal and external economic environment affecting the textile industry, a further report was completed on "The Future of the Textile Industry and Future Industry Policies" (a new "New Textile Vision").



## ANNEX-VII

## VARIOUS SCHEMES OF JAPANESE COOPERATION

	Operating Organization	Main Content, Condition Etc.	Local Organization To Contact	Time To Apply
Specialist Dispatching	JICA	To dispatch experts in broad fields upon government's requests in developing countries/international organizations. 2 types of duration are available: short term (less than one year) and long term (more than one year)	Japanese Embassy JICA Pakistan Office	September of Previous year
	JODC	To dispatch specialists in technology and management upon request of private enterprises/organization in developing countries. Duration is either short term (less than one year) or long term (1-2 year), but one year extension is possible. According to cost sharing, 2 types of project are available: 1. General type (3/4 government support, 1/4 local enterprise) 2. Private cooperation type (3/8 Japanese enterprise, 3/8 government support, 1/4 local enterprise)	1. JETRO Karachi Office 2. Direct application to JODC via a partner, a Japanese private enterprise	Anytime (when necessary)
	JETRO	To dispatch specialists for market opening of products from developing countries to Japan.	JETRO Karachi Office	December of previous year
	JETRO	To dispatch specialists who will help trade or industrial associations strengthen their unity base and guide or advise them to undertake cooperative business activities.	JETRO Karachi Office	December of previous year
Training/Seminar (Local)	AOTS	Seminars such as Q.C., computerized production system, maintenance and servicing of motor vehicle etc.	AOTS, Tokyo	Feb or March
	JETRO	To hold seminars or to give guidances locally concerning trade practice and management etc. for management level as the fostering project for managers of small and medium sized enterprises in developing countries.	JETRO Karachi Office	December of previous year
Training/Seminar (Japan)	AOTS	Organizing training courses for private sectors in developing countries. Orientation in AOTS training centre, Practical training in respective private firms in Japan.	AOTS, Tokyo	Anytime (examination committee is held twice a month)
	JICA	To hold trainings in various fields based on governments recommendation of developing countries. There are 2 types of training: group training on settled themes which are common for developing countries and individual training by individual request from each country.	Japanese Embassy JICA Pakistan Office	September of previous year

	Operating Organization	Main Content, Condition Etc.	Local Organization To Contact	Time To Apply
Information Data Supply	JETRO	Information service on trade promotion such as access to Japanese market etc.	JETRO Karachi Office	Anytime (when necessary)
Provision of Equipment	JICA	Upon requests from developing countries, required equipment is provided in the case that technical training, transfer and dissemination etc. are not undertaken smoothly or existing technology cannot be used effectively because of lack of machines and of materials.	Japanese Embassy	September of previous year
Project Type	JICA	An technical cooperation as one combined project, where expert dispatching, trainee acceptance and provision of equipment and material, 3types of cooperation are unified in coordination. Joint implementation by Japanese government and developing country's government.	Japanese Embassy JICA Pakistan Office	July of previous year
Investment Promotion	JETRO	Information service concerning setting up joint ventures and technical tie-ups between Japanese firms and foreign counterparts. Matchmaking is also provided under "JOIN SCHEME"	JETRO Karachi Office	Anytime (when necessary)

ANNEX - VIII

LIST OF STEERING COMMITTEE MEMBERS

<u>Name</u>	<u>Composition</u>
1. Mr. Viqar Rustam Bakhshi, Additional Secretary (D) Ministry of Industries	Chairman
2. Mrs. Nighat Parveen, Joint Secretary (A) Ministry of Industries	Member
3. Mr. Saiyid Zafar Ali Naqvi, Joint Secretary (D) Ministry of Industries	Member
4. Mr. Muhammad Afzal Bajwa, Joint Secretary, Ministry of Commerce	Member
5. Mr. G. K. Dakhan, Joint Secretary, Economic Affairs Division	Member
6. Mr. Ahmad Shamsul Huda Joint Secretary, Economic Affairs Division	Member
7. Mr. Nasir Ahmad, Joint Secretary, Finance Division	Member
8. Mr. Tajammal Hussain, Chief (I & C), Planning & Development Division	Member
9. Mr. G. N. Khan, Textile Commissioner, Ministry of Industries.	Opted Member
10. All Pakistan Textile Mills Association (APTMA)	Opted Member
11. Pakistan Readymade Garments Manufacturers and Exporters' Association	Opted Member



JICA