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06793

UNIDO

PARIS
UNIDOP

10/10.217/4
4 September 1975
Original English

United Nations Industrial Development Organization

Second training programme on the production and application of synthetic fibres

Paris, 10-14, 17-21 September - 30 October 1975

TRANSFORMING THE OLD FUTURE: PLANNING AND
IMPLEMENTATION OF THE SYNTHETIC FIBRES INDUSTRY
IN ASIA

by

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Burma covers an area of 261,750 square miles, 61 percent of which is forest land. It has a population of approximately 35 million. The demand for synthetic fibres in Burma is increasing yearly as in the rest of the world due to the superior qualities of these products. People are gradually changing over to the use of these fibres for clothing, industrial textiles in addition to other domestic, agricultural and industrial uses.

TEXTILE INDUSTRY OF BURMA

Burma has at present thirty-three State-owned textile mills with a total number of 174,534 spindles and 5,761 looms for both cotton and synthetic fibres. In the private sector, there are about 2,635 power weaving looms, mostly made locally, which can produce only coarse cotton fabrics. There are also about 122,893 hand looms, scattered all over the country of which about 110,000 looms are in operation every year. Existing capacities based on total domestic production and imports for the next five years are shown in Appendix A.

The per capita consumption of textiles in Burma is far behind the consumption of other Asiatic countries (4.4 lbs/capita). Therefore effort is being made by the Government to raise the standard of living including the consumption of textiles by the population.

The target is to increase the per capita consumption of textiles to about 7 lbs during the next decade. The present demand and supply together with imports of textile fibres for the past five years and next three years is given in Appendix B.

Additional 40,000 spindles is being added to the existing textile mills at Keiktila with a yearly production capacity of 4.46 million pounds of yarn which is scheduled to completed by April 1976.

Another two smaller mills each with 20,000 spindles and 200 looms are being planned. When completed by the end of 1977, these two mills will be able to produce 746 million pounds of grey yarn and 2.95 million yards of grey cloth annually.

A list of the textiles and allied products produced by the textile industries is given in Appendix C.

Although producing a high proportion of her own cotton and silk and having a well established weaving industry, Burma imports annually some 100 million square yards (equivalent to 20,000 tons) of textiles together with synthetic yarns and fibres worth twenty million U.S. dollars which would be substituted to some extent by synthetic fibres if they were produced locally. The following raw materials have to be imported for the textile industry.

<u>Raw Materials</u>	1974-75		1975-76	
	lbs.	Kyats (,000)	lbs.	Kyats
1. Synthetic fibre	1190934	7772	1129762	9590
2. Cotton	401496	3745	3185346	31557
3. Sewing Thread	176056	1262	475758	3829
4. Others	298560	556	1464309	5065

(1 US\$ = 6.3 Kyats)

If the per capita consumption of textiles be increased to 7 lbs. a year, it will require a total production of 210 million lbs.

Currently, there is a demand for cotton seed oil, locally produced cotton is inferior in quality and an R&D project is underway for cotton grading and the development of improved strains of cotton. Considering cotton production, it is quite reasonable to assume a total demand i.e. 32 million lbs. or 23,000 tons of synthetic fibres. Present position in production and uses indicate that it would be best to concentrate on rayon and polyester in the ratio of 3 : 1. This would lead to a yearly requirement of 17,250 tons of rayon or 5750 tons of polyester.

However, the textile industry is facing the same problem as the plastic and rubber industries in that, the availability of the necessary raw materials depends on the petrochemical industries which is one of the most capital intensive, averaging several hundred million U.S. dollars for a single petrochemical complex and the associated processing facilities to manufacture the required consumer goods from the intermediate petrochemicals. Also due to lack of trained personnel and research facilities, there is not a single synthetic polymer producing unit in the country to supply the needs of the plastic, rubber and synthetic fibre industries, although Burma possesses a range of raw materials suitable or potentially suitable for the development of the synthetic polymer industries.

However, the textile industry is in need of expansion in the synthetic fibre production including regenerated cellulosic fibre yarns in order to supply the population which is growing year by year. The Industrial Planning Corporation has plans to

produce polyester synthetic fibres in the near future. Regarding cellulose based fibres, Burma is very fortunate to have enormous resources of bamboo and tropical hardwoods. Rayon fibre production based on bamboo has been well established in India. Rayon may be turned into cheap clothing and it may also be blended with polyester and cotton for quality clothing. A feasibility study for the integrated forest industries in Burma is also in progress to explore the possibility of the indigenous forest resources for pulp, paper and other allied forest industries including dissolving pulp manufacture. There are also plans for the establishment of pilot plant research facilities at the Paper Research Department, Central Research Organisation to investigate the suitability of the locally available raw materials for the integrated forest industries. This opens a splendid opportunity for the establishment of rayon and other cellulosic yarns industries to meet the requirements of the ever expanding textile industry.

APPENDIX A

Existing capacities with the domestic production and Imports for the past five years

(i) spinning (in million)

Figures in million

S/N	Year	Existing Capacities		Domestic Production		Import		
		State	Private Total	State	Private Total	State	Total	
1	1970-71	12	-	12	17	-	17	13
2	1971-72	22	-	22	15	-	13	36
3	1972-73	27	-	27	17	-	19	33
4	1973-74 (6mths)	13.5	-	13.5	8	-	8	8
5	1974-75	27	-	27	22	-	22	14

(ii) weaving

Figures in million (sq.yds.)

S/N	Year	Existing Capacities		Domestic Production		Import		
		State	Private Total	State	Private Total	State	Total	
1	1970-71	20	121	201	79	100	179	43
2	1971-72	87	121	204	76	76	151	35
3	1972-73	107	121	228	36	90	170	13
4	1973-74 (6mths)	63	61	114	35	40	75	14
5	1974-75	107	121	228	105	60	165	18

(iii) Bleached and Dyed Yarn

Figures in million

S/N	Item	A/U	1970-71	1971-72	1972-73	1973-74 (6) mths	1974-75 (Projected)
1	Existing Capacities	lbs	-	-	16	8	16
2	Domestic Productions	lbs	-	-	2	2	7
3	Imports	lbs	3	4	1	4	-

(iv) Bleached, Dyed and Printed Fabrics

Figures in million

S/N	Item	A/U	1970-71	1971-72	1972-73	1973-74 (6) mths	1974-75 (Projected)
1	Existing Capacities	yds	67	67	86	43	36
2	Domestic Production	yds	41	49	49	21	58
3	Imports	yds	25	33	32	8	6

Demand and Supply together with Imports for the next five years and next three years

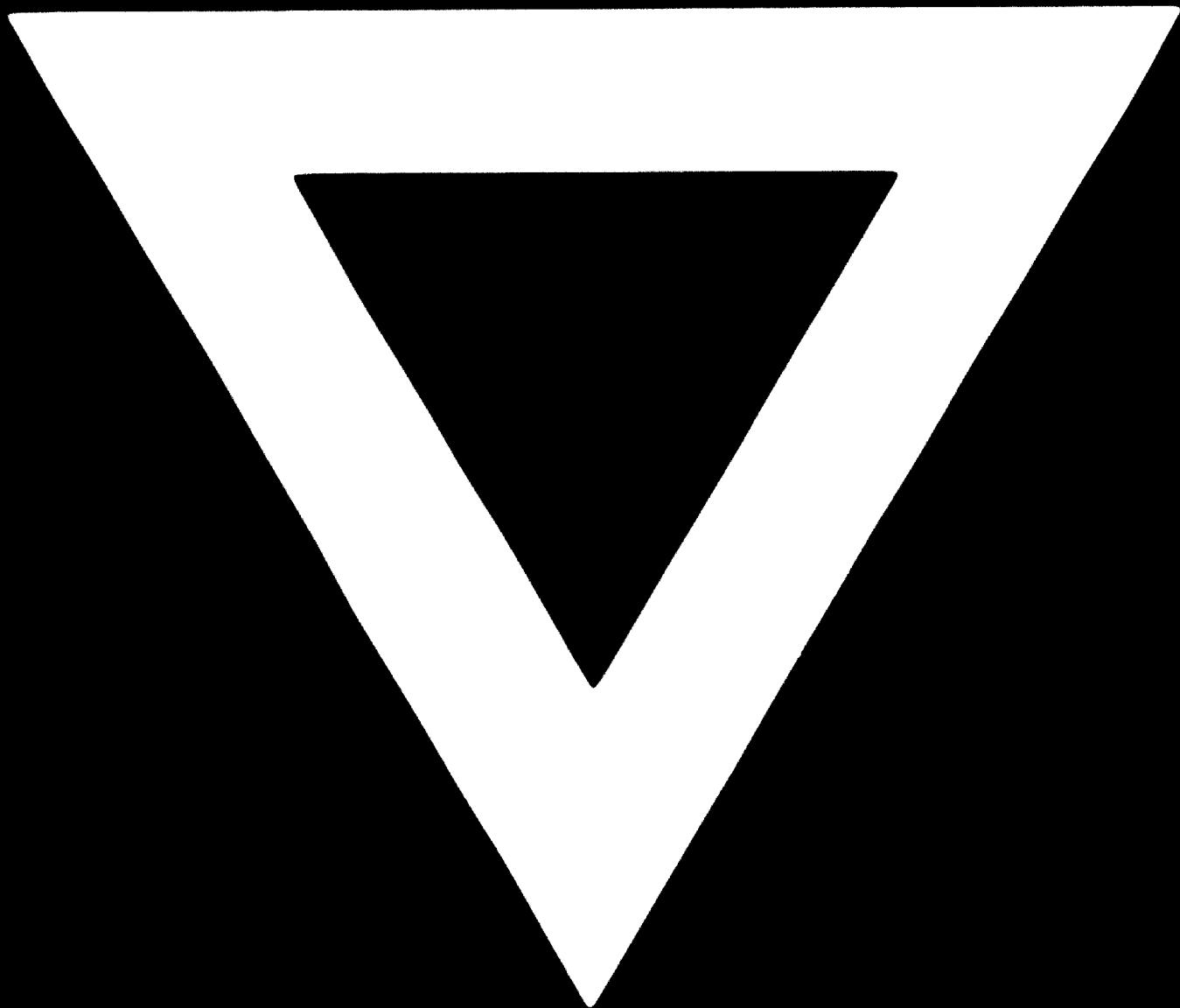
S/R	Year	Population	Estimated annual growth rate (%)	Demand and Production (Cloth in yds.)		
				Production	Imports	Total
1	1970-71	27.50	30.63%	107.08	12.2	120.37
2	1971-72	29.30	30.72	112.07	14.17	131.67
3	1972-73	31.27	317.51	116.63	13.57	130.10
4	1973-74	33.50	324.75	118.17	17.37	135.54
5	1974-75	35.77	331.97	119.25	21.14	140.04
6*	1975-76	38.07	339.17	125.27	17.57	141.44
7**	1976-77	40.41	346.39	131.00	14.24	145.24
8**	1977-78	42.81	353.61	137.08	18.82	148.10

* 1974-75 to 1977-78. Figures are projected figures for the second four year plan.

** For the purpose of calculating the demand of textiles by the population, per capita consumption of 4 lbs. of yarn (11 yds of cloth) is being taken as a basis.

The following textiles and allied products are produced by the textile industries in Burma.

- (a) Yarn, Cotton, Grey, bleached and dyed (Count No. 1/1 to 1/40) and blended yarn
- (b) Threads, Sewing, Cotton
- (c) Yarn Silk
- (d) Hoses, Cotton
- (e) Cotton Fabrics, Grey, bleached, dyed and printed of following varieties :- lawn, Shirting, sheeting, Drill, Cellular, Poplin, Flannel, Laces, Cotton.
- (f) Synthetic fabrics, bleached and dyed of following varieties :- Polyester-Cotton blended lawn and Shirting, Polyester-Cotton blended Suiting, Nylon mosquito netting, Raschel knitted lace, Nylon umbrella cloth
- (g) Canvas, bleached, dyed and water proof
- (h) Tarpaulins and Canopies
- (i) Silk fabrics
- (j) Made-up articles as under :-
Vest Cotton, Blanket Cotton sised, Towel Cotton, Longyi Cotton
- (k) Ready made garments
Shirts, trousers, Net Mosquitos, Coat and Cape water-proof, Drawers Cotton, Socks Nylon, Field Jackets, Caps and Hats, Hospital Clothing, Flags
- (l) Small wares
Tapes Cotton, Cotton Wool, Bandage Cotton, Gauze Cotton, Cotton Finishing Nets, Web Cotton
- (m) Bags, Socks, Messian Cloth, Jute Canvas, Jute Carpet, Jute Twine.



76.02.03