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The United Nations Industrial Development Organization  
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the developing countries.

PRESENT STATUS AND FUTURE PLANS OF THE  
DEVELOPMENT OF THE SYNTHETIC FIBRE INDUSTRY  
IN INDONESIA<sup>1/</sup>

by

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<sup>1/</sup> The views and opinions expressed in this paper are those of the author and do not necessarily reflect the views of the secretariat of UNIDO.

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**THE PRODUCTION AND APPLICATION OF SYNTHETIC FIBRES**  
**IN INDONESIA**

**1. HISTORICAL BACKGROUND.**

The production of synthetic fibres in Indonesia is still in its early state and has been started only since 1969, where the FIVE YEAR DEVELOPMENT PLAN was introduced.

If we look back at the development of the Indonesia textile industry before the start of the Five Year Development Plan, we will note the followings :

1. The capacity between some sectors of the textile industry was unbalance the capacity of the spinning mill and the finishing mill were very low compared to the capacity of the weaving mill.
2. The majority of the weaving and knitting mills could be classified as small scale industry and on top of this the range of the machinery or equipment was not complete, where as the location were spread over the country.
3. The efficiency, skill and quality of the product were generally low.
4. Most of the raw materials needed were imported from foreign countries.

To overcome this problem, in 1968 the government introduced the first five years development plan (Kepelita I), in which it includes the strategy for the development of the Textile Industry. The development of the Indonesia textile production and the consumption per capita in Indonesia since 1960 up to 1967 can be seen on table 1.

It showed that the consumptions per capita still low.

**PERIODE KEPELITA I (1969/1970 - 1973/1974).**

In Kepelita I The Development of Textile Industries took an important role besides agriculture and was oriented at import substitution, saving foreign exchange, labour intensive so that it can create a quick multiplying effect.

## THE OBJECTIVES TO BE ACHIEVED FROM REPELITA I.

- To balance the capacity between each sectors of the textile industry mills. For this purpose the government planned to increase the number of spindles with 292,000 spindles.
- To increase the productivity.
- To set the layce of the fabric production at 900 million meters, in the end of Pelita I.

In the beginning of Repelita I (1969/1970) the textile production was about 450 million meters with the ratio of cotton and non cotton with the ratio of 3 : 1 while the yarn production was about 170,000 bales.

At the end of Pelita I (1973/1974) the textile production reached 926.9 million meters with the ratio of cotton and non cotton 53.5 % to 46.5 % and the yarn production was about 316,000 bales.

It is clear that the textile production in Pelita I had surpassed the target and encouraged us. Detail of this development appears on table 2.

From table 2 we could see that the development of the textile industries progressed rapidly and the production of synthetic fibres show us the amount of 6,480 ton.

## II. PRESENT STATUS AND FUTURE PROSPECT.

### a. Manufacturing facilities.

At the end of Pelita I (1973/1974), the world economy faced some crisis : monetary, energy, food etc. Those crisis have great influence on the development of textile industry in Indonesia too.

## THE POLICY OF THE GOVERNMENT IN REPELITA II (1974/1975-1978 / 1979) can be summarized as follow :

- Extension and Rehabilitation of factories.
- Restriction of new investment for manufacturing the saturated products.
- To increase the manufacture of raw material and auxiliaries.

To increase the management and technical skill by giving assistance to the factories.

The objectives in Repelita II can be seen on table 3. Table 2 and 3 show us that the production of synthetic fibres in Indonesia started only in 1969/1970 and the establishing of synthetic fibre making plant are still in progress.

At the end of Repelita II, the production can be expected to reach 20,000 tons a year.

Table 4 show us the development of synthetic fibre making plant from 1969 - 1974.

From this table, we could see that the progress are encouraging and it is expected that the production of polyester staple fibre will reach 95.20 million kgs.

#### Raw material supply.

At present the raw material still imported from abroad and unfortunately the import figure are not available.

From table 2 in 1973/1974 it can be seen that the production of synthetic fibres was only 6,460 tons.

From table 3 in 1974/1975 the need was 12,060 tons, while at the end Repelita II the need will be expected about 75,800 tons.

The difficulties which are faced by the synthetic fibre industry can not be explained yet because the project is still on development.

#### Demand for synthetic fibres:

Data of the application of synthetic fibre in the past is unfortunately not available too.

From the previous explanation, in 1973/1974 the yarn production was about 316,000 bales. Assuming that 50 % of the total figure are cotton yarn and the rest 50 % are polyester cotton blending yarn (65 % polyester, 35 % cotton) then the synthetic fibre we need.

$$\frac{65}{100} \times \frac{50}{100} \times 316,000 \times 200 \text{ kg} = 20,540 \text{ tons.}$$

From table 4 it can be seen if the Indonesia synthetic fibre industry were running well the production will be 95,200 ton. In the future the synthetic fibre will have a good prospect because our country only produce small amount of cotton fibre.

d. INFRA STRUCTURE FOR SYNTHETIC FIBRE INDUSTRY.

Institut Teknologi Tekstil (ITT) and Indonesia Petroleum Institute, are the only institution which could offer service to the synthetic fibre industry.

III. PROBLEMS AND NEED FOR TECHNICAL ASSISTANCE.

Because the synthetic fibre industry in Indonesia are still on development the problem and the difficulty cannot be presented here.

The assistance which will be beneficial are advice on general and specific technical problems.

For this purpose, it is most desirable to have the service of a UNIDO expert in ITT, to give supervisory assistance to the staff member of ITT.

TABLE 1

INDUSTRY PRODUCTION AND CONSUMPTION UP TO 1967

No.	Year	Production (million metre)	Consumption/capita (metre)
1	1960	262,0	6,5
2	1961	374,0	6,66
3	1962	307,1	7,0
4	1963	268,3	4,0
5	1964	236,6	4,6
6	1965	456,0	7,3
7	1966	250,6	6,8
8	1967	225,0	6,54

TABLE 2

INDUSTRY PRODUCTION AND CONSUMPTION AND THE TARGET AND THE RESULT OF PELITA I

Description	Before Pelita	The target of Pelita I	The result of Pelita I
Production (metre)	275 million	900 million	927 million
Spindles	480,000	892,000	729,620
Spinning fibres	-	-	6,460
Looms	30,000	60,000	53,691
Handlooms	324,000	60,000	50,000
Printing machine	4,000	5,000	7,377
Finishing/dyeing/printing (F/D/P) (metre)	260 million	630 million	720 million
Wool (metre)	50 million	90 million	70 million
Textile Importation	522,9 million	213,5 million	300 million
Textile Exportation	5,5 million	-	9,3 million



- 1 -

TABLE 3  
THE TARGET OF PELITA II

Discription	• The first year 1974/1975	• The target of Pelita II	
Production (metre)	• 973,1 million	• 1,250 million	million
Spindles	• 884,708	• 1.222 million	million
Synthetic fibres	• 12,000	• 75,000 tons	tons
Looms	• 59,027	• 63,000	
Handlooms	• 5,000	• 60,000	
Knitting Machine	• 7,649	• 6,000 *)	
P / D / P	• 884 million	• 925 million	million
Batik	• 115 million	• 100 million	million
Konf kai (metre)	• -	• 290 million	million
Textile Importation	• 700 million	• 360 million	million
Textile Exportation	• 1,154,169 kg	• 270 million metre	

TABLE 4

INDONESIAN FOREIGN INVESTMENT IN CHEMICAL AND FIBRE MAKING PLANTS FROM 1969 TO 1974

No.	Factory	Location	Investment (US\$ Million)	Production type	Amount (US\$)	Production type	Notes
<b>I. In 1969/1970:</b>							
1.	P.T. Indonesia Ray Synthetic (P.T. IRS)	Panararang	64.15	Fibre making plant	1 unit	10.80 kgr	10.80 kgr
<b>II. In 1970/1971:</b>							
2.	Indonesia Chemical Industry (P.T. Indaci)	Patiuhur	15.53	Fibre making plant (cellulose spinning) (top)	2 units	1.50 kgr	1.50 kgr
<b>III. In 1971/1972:</b>							
<b>IV. In 1972/1973:</b>							
<b>V. In 1973/1974:</b>							
3.	P/S BIRMA AG, Westerland	Jakarta / West Java	19.3	Rayon fibre plant	1 unit	8.64 kgr	8.64 kgr
4.	P.T. Duka Industry	West Java	63.70	Pol. fibre plant	1 unit	16.00 kgr	16.00 kgr
5.	P.T. Melis Indonesia Fibre Corp.	West Java	17.57	Pol. fibre plant	1 unit	4.50 kgr	4.50 kgr
6.	P.T. Purabaya Fibres (P.T. Furarater)	West Java	47.00	Pol. fibre spinning machine	1 unit	20.80 kgr	20.80 kgr

No.	Factory	Location	Investment million	Machinery Type	Amount	Production capacity Type	Amount	Notes
7	P.T. Nitika	West Java	40.--	"	"	Pol. Staple Fibre Pol. Fil. Yarn Nyl. Fil. Yarn	21.60kg. 14.40kg. 21.60kg.	
8	Pt. Rempas-Phone Lene Textile Industry	Tangerang	33.60	Pol. Fil. Yarn Plant	1 unit	Pol. Staple Fibre	8.50kg.	
				Spinning & Drawing Pol. Fibre.	1 unit	Pol. Fil. Yarn	3.40kg.	
				Polymerzasi	1 unit			
9.	Bharat Commerce & Industries	Jawa	13.--	"	"	Cellulosic Viscose Rayon Staple Fibre	14.60kg.	
				Total	438.88		182.04	

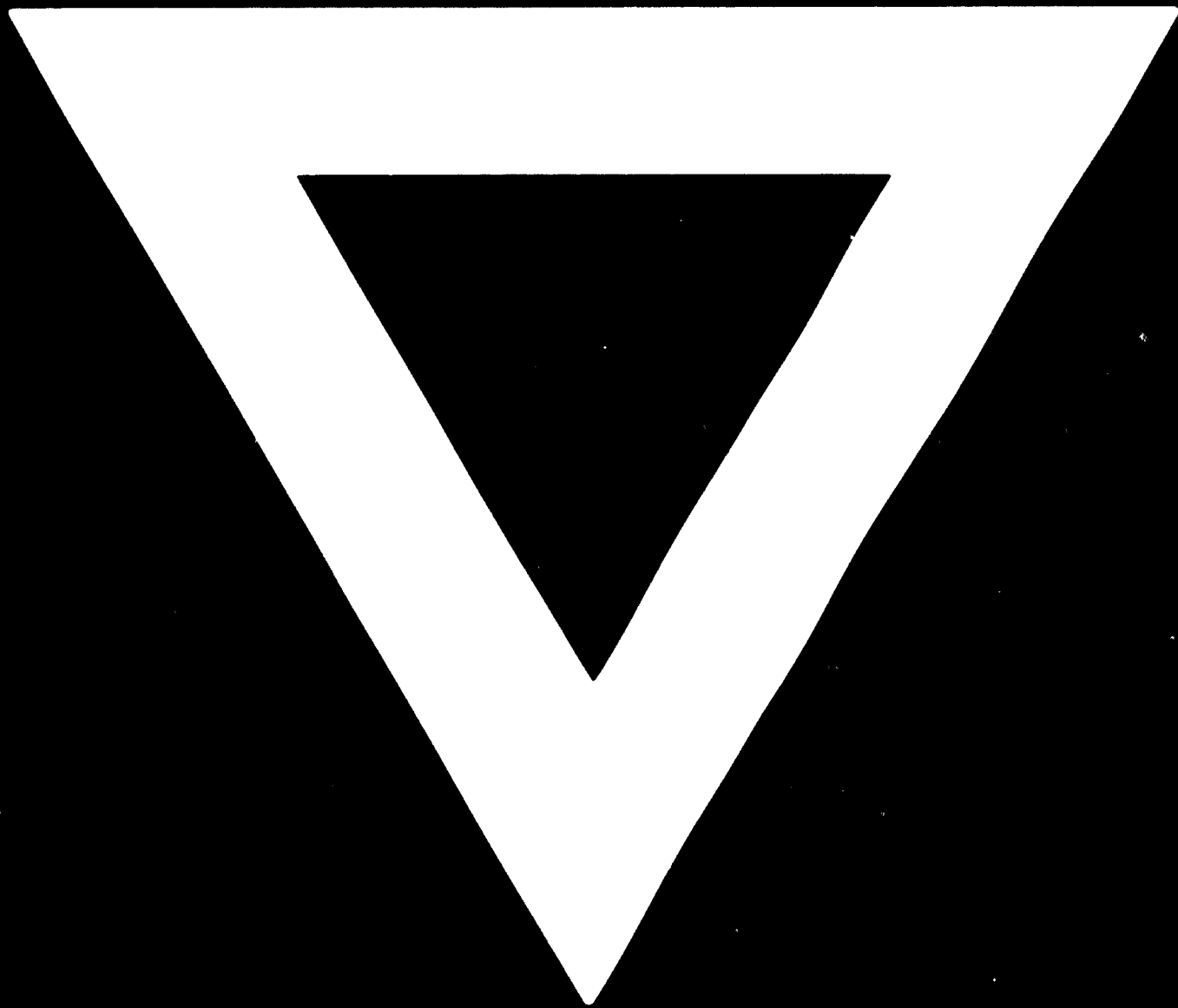
April 1974 up to October 1974

Resume :

*) Polyester staple Fibre	= 95.20 million kgs.
Rayon staple Fibre	= 23.24 million kgs.
Polyester Filament	= 32.80 million kgs.
Nylon Filament yarn	= 29.70 million kgs.
Acrylic Yarn	= 1.10 million kgs.
<b>Total</b>	<b>= 182.04 million kgs.</b>

Notes : \*) = The number of machineries are not available.





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