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THE TEXTILE INDUSTRY IN IRAN

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The Textile Industry in Iran

Bureau of Information and Reports

Plan Organization of Iran

April 1968



The textile industry has a long and honored history in Iran, but it only became mechanized about 65 years ago. In this short time it has made rapid and impressive progress. During the Development Plans the industry has always received close attention, and government investment in this sector of the economy has served to encourage the private sector to invest, and has provided a valuable advisory service.

This booklet aims at giving the reader an account of the transformations undergone by the textile industry, especially the effects of mechanization in the production of cotton, synthetic, woollen and jute textiles, from the start of mechanization through the First, Second and Third Development Plans.

The Persian text was prepared by Mr. Kazem Salmasi, a specialist of the Bureau of Information and Reports, and was translated by Mr. Roger Cooper. It is hoped that it will prove useful to interested parties.

Bureau of Information and Reports
Plan Organization of Iran

The Textile Industry Before the Development Plans

The mechanization of the textile industry was one of the earliest manifestations of the industrial revolution in Iran. It was introduced by the British in 1872.

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The Textile Industry Before the Development Plans

The mechanization of the textile industry was one of the earliest manifestations of the European industrial revolution of the second half of the eighteenth century.

After a period of development in the developed industrial countries mechanization of the textile industry reached Iran about the end of the last century. The first textile factory to be established in Iran along modern lines was a 1200-spindle mill, which was purchased from Switzerland by San'i-od-Dowleh and installed in Tehran in 1901. In 1910, a second spinning mill was established in Tabriz by Haj Rahim Agha Ghazvini.

Up to the end of the Ghajar dynasty period the modern textile industry was limited to these two mills. During the reign of Reza Shah the Great, however, when tremendous efforts were made to introduce twentieth-century standards into Iran, mechanization of the spinning and weaving industries was undertaken within the framework of the government's overall policy to industrialize the country, and effective measures were taken to develop the textile industry. During this period, although the government did not itself make any direct investment in the textile industry, it did create a healthy climate for its development by implementing progressive policies such as granting tax exemptions and long-term, low-interest loans, and reviewing its import policy as regards foreign textiles. The combination of these policies and the efforts of private investors led to a large number of textile mills being established in various parts of the country, and as a result the need to import textiles declined, thus effecting a considerable saving in foreign exchange. The capacity of textile mills in Iran before World War II was as follows:

Capacity of textile mills before World War II

Type	No. of mills	No of spindles	No. of looms
Cotton	30	222,840	2,487
Wool	7	24,250	381
Silk	1	7,340	220
Jute	2	2,360	100

Four of the above mills were established on the orders of Reza Shah the Great. His intention was both to increase the domestic production of textiles as far as possible and to offer guidance and encouragement to the private sector. As was to be expected, both these objectives were achieved, and wealthy individuals, when they saw how the mills belonging to the Crown were operating and were convinced of their profitability, began to invest their capital in this field. In the type and number of machinery they chose, in the use they made of this machinery, and in their methods of management they followed the precedents established by these mills. In this way they were successful in creating businesses that were profitable to themselves and the nation as a whole. At the same time these mills were most effective in meeting the popular demand for textiles. All in all, it can be claimed that the Iranian textile industry achieved during this period an honourable place in the nation's economy.

The capacity of the Crown mills was as follows:

Capacity of the Textile mills belonging to the Crown

Name of mill	Type of process	No. of spindles	No. of looms
Behshahr textile mill (Nasaji Behshahr)	cotton spinning and weaving	32,000	1,000
Shahi textile mill (Nassaji Shahi)	cotton spinning and weaving	25,000	350
Chalus silk mill (Harirbafi Chalus)	silk spinning and weaving	7,334	220
Shahi jute weaving mill (Gunibafi Shahi)	jute spinning and weaving	1,280	60

Apart from these mills, all textile mills in Iran before the war were owned by the private sector and there was no direct investment in the industry on the part of the government. Nevertheless, in 1938 the government did take preliminary measures to establish a textile mill in the south of Tehran, which subsequently became Chitsazi Tehran, but because of the outbreak of the war the project was delayed.

The government's main role during this period was restricted to guidance and supervision, and the creation of a healthy atmosphere that would encourage private investors to embark on sound textile projects. In carrying out this policy really valuable work was done and every aspect of the textile industry, from the supply of raw materials to problems of distribution and marketing, was subjected to careful government scrutiny at all stages. As a result of this wise policy, the textile industry was able to develop in accordance with the requirements of the country and the available material and human resources, and at the same time the interests of consumers and investors were protected.

The following points summarize the state of the textile industry in the period under review.

1. The total production from textile mills and the machine-loom of the cotton textile industry in the years immediately before World War II was about 50 million metres, the equivalent of about half the total domestic consumption of textiles, which has been estimated of 120-130 million metres.
2. The annual consumption of woollen textiles during the period has been estimated at between 3 million and 3.2 million metres, of which about one third was supplied by domestic machine-loom.
3. About half the output of the spinning mills was used by domestic machine-loom, the remainder being used for hand-woven textiles, carpets and hosiery.
4. The silk-weaving mill at Chalus, although it never operated at full capacity, did produce between 500 thousand and 600 thousand metres of silk fabric per year, which was sufficient to meet about half the domestic demand.
5. The country's requirements of jute sacking, burlap, thread and hemp twine were almost completely covered by the production from the Shahi Jute Mill.
6. The raw materials used by the textile factories (cotton, wool, silk and jute) were produced in the country and imports of these items were therefore unnecessary.

It will be gathered from the foregoing that the textile industry made remarkable progress in Iran during the short period before the war,

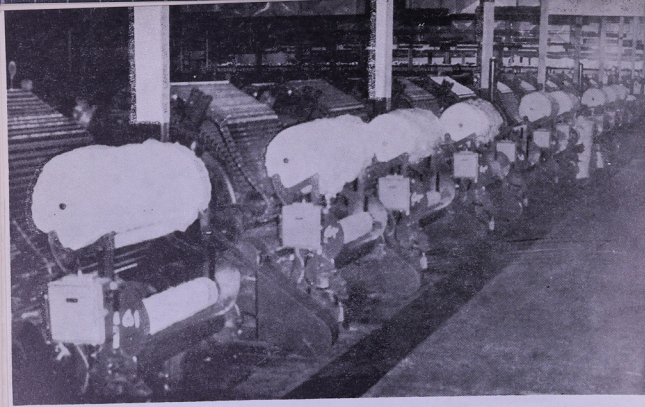
although it started from virtually nothing. It was before long able to supply a large part of the domestic demand. But with the outbreak of war, which quickly affected Iran, the textile industry soon lost its previous orderly state, which had resulted from a planned economy and the unrelenting supervision of the government, and became subject to uncertainty and crisis.

There is no doubt that one of the most important factors in causing this disruption in the textile industry was that mills began to be run without due attention to technical and economic principles. The reason for this was that with the halt in imports the demand for domestic textiles rapidly increased and in order to profit from the consequent rise in prices mill managers increased their production without regard for the capacity of their means of production. The latter soon began to show signs of excessive use. At the same time no steps were taken to replace and repair the worn-out machinery and parts, which had now become absolutely essential, and the large shareholders who controlled the mills showed little inclination to invest in capital expenditure because of the lack of political security, the uncertainty of the future and the difficulties involved in importing new machinery. In the mills belonging to the Crown, which after the events of August 1941 were transferred to the government, proper management was ignored, and as a result of excessive use, the machinery of these mills came to need extensive and pressing overhauls. Unfortunately nothing was done about all this.

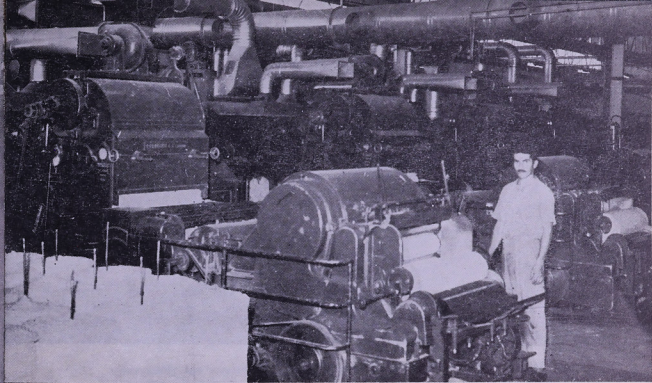
In the post-war period, the rapid increase in imports of Iran of fibres and textiles led to the development of an extremely serious state of affairs and a number of mills which had old and dilapidated machinery could no longer produce goods competitive in price and quality with imported products and were obliged to limit their production or even go out of business.



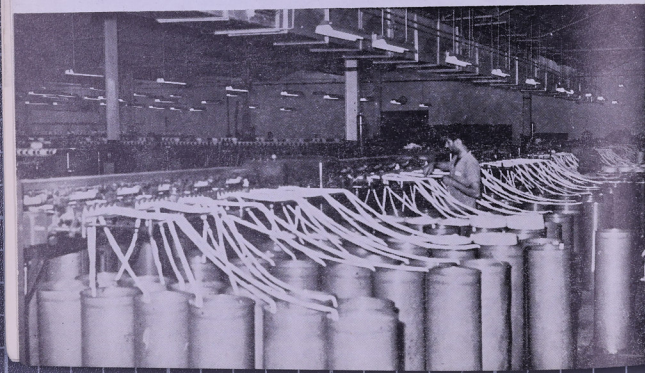
General view of Shahi No. 2 textile mill



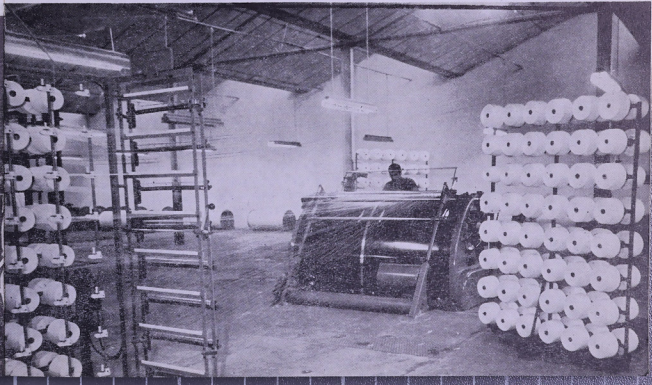
Carding section at Shahi No. 1 mill



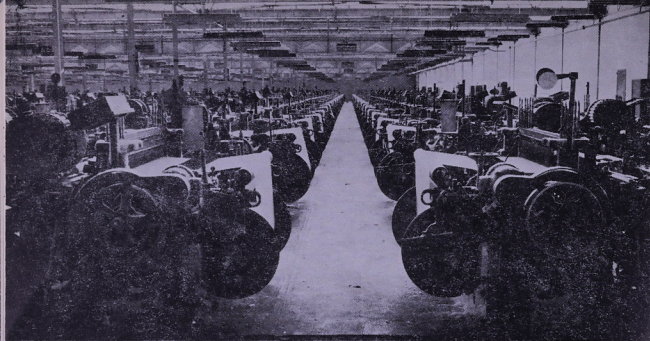
Warping machine in operation



Drawing section at Shahi No. 2 mill

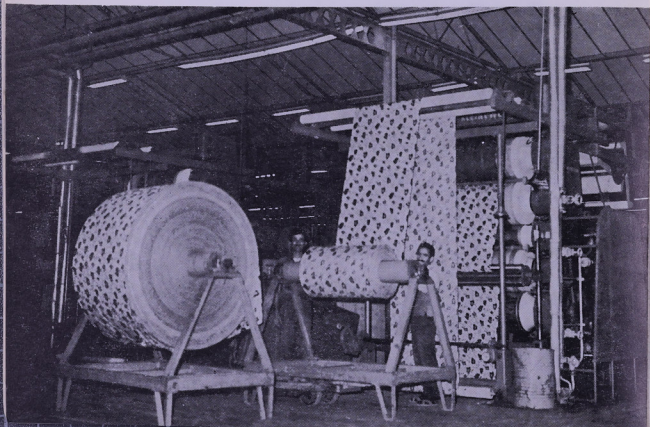


Warping machine in operation



Weaving section at Shahi No. 2 mill

Finishing plant at Shahi No. 2 mill



The Textile Industry during the First Development Plan

Iran's First Seven-Year Development Plan, the total credits for which amounted to 21 billion Rials (\$280 million), was launched in 1948.

With the start of this Plan, it was expected that as a result of both public and private investment in various economic and social sectors of the economy marked changes of a desirable nature would occur, that agricultural and industrial production would show a rapid increase and that a better life would be possible for the population as a whole. But because of difficulties arising from the nationalization of the oil industry and the drop in foreign exchange earnings the opportunities for carrying out development activity and achieving the objectives of the Plan became limited.

Inevitably the execution of a number of projects was postponed until the Second Plan.

Since in the First Plan the overhaul and development of existing industries and the increased output of essential and widely used industrial products were envisaged, a substantial part of the investments made by the public sector was for the textile industry and the amount of 502 million Rials (\$6.7 million) was invested by the government in the industry, as follows:

Type of Investment	Amount Invested (in millions of Rials)
Part payment of the purchase price of Textile Mill No. 1 (at Shahi) and Chitsazi Tehran	225
Cost of constructing and establishing Chitsazi Tehran	117
Purchase of 10,000 spindles and 304 machine-loom plus various finishing and printing equipment for Chitsazi Tehran	160
Total	502

These investments, in view of the limitations of the government's financial resources and in comparison with the investments made in other industries, formed an important part of the credits of the First Development Plan, which amounted in all to 1180 million Rials (\$ 15.2 million).

In the private sector, efforts were made to overhaul the productive machinery and to create additional capacity. At the end of the First Development Plan, Iran's textile industry had the following capacities:

Capacity of the textile industry at the end of the First Development Plan

Branch of industry	No. of mills	No. of spindles	No. of looms
Cotton	41	335,840	4,337
Wool	7	24,130	381
Silk	1	7,344	220
Jute	2	2,360	100

Capacity of government textile mills at the end of the First Development Plan

Name of mill	Type of process	No. of spindles	No. of looms
Behshahr Textile Mill	cotton spinning and weaving	32,000	1000
Shahi Textile Mill	cotton spinning and weaving	25,000	350
Chitsazi Tehran	cotton spinning and weaving	10,000	304
Chalus Silk Mill	silk spinning and weaving	7,344	220
Shahi Jute Mill	jute spinning and weaving	1,280	60

The cotton spinning and weaving industry increased during the First Plan over the pre-war period by 113,000 spindles and 1850 looms. Of this additional capacity 10,000 spindles and 304 looms were for the government sector, and were installed at Chitsazi Tehran. There was no increase in capacity in wool, silk or jute mills, nor were any mills established in these sections of the industry.

As regards production, Iran's textile industry was suffering from strong competition from imported goods, defective machinery and inefficient management. These factors forced a large number of mills to close down and those which continued to operate did so at below their full capacity, so by the end of the First Development Plan the country was to a large extent dependent on imported textiles.

The Textile Industry during the Second Development Plan

After the settlement of the oil crisis and the establishment of political and social stability, the government decided to mobilize the entire resources of the country in order to achieve a rapid increase in GNP (Gross National Product) and to raise the standard of living of the entire population. In order to achieve these objectives, the First Seven-Year Plan, which was no longer in conformity with the new conditions and expectations of Iran, was terminated, and the Second Seven-Year Plan was prepared within the framework of the resources and requirements of the country. It had four sectors : agriculture, communications and tele-communications, industry and mining, and social affairs, and was implemented with credits totalling 84 billion Rials (\$ 1,120 million).

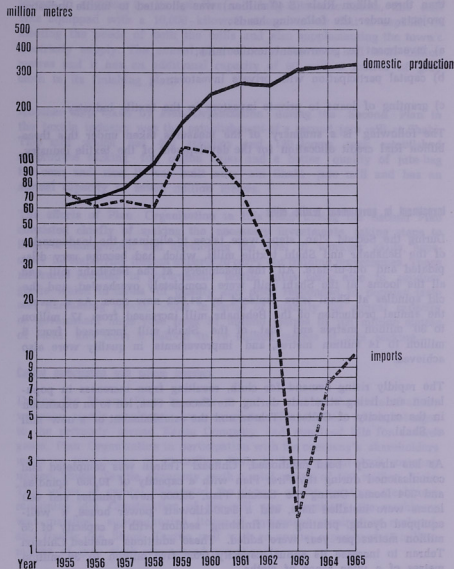
During the Second Plan period, from September 1955 to September 1962, Plan Organization alone made investments totalling 75 billion Rials (\$ 1,000 million) which, coupled with other government development activity and the efforts of the private sector, resulted in an average annual increase in the national income of five per cent, and Iranians of all classes enjoyed a better standard of living.

During the Second Plan, in spite of the massive attention paid to strengthening the economic infrastructure and making improvements in the social welfare programme, industrial development did not lag behind, and some nine billion Rials (\$ 120 million) was spent on the following projects :

- a) increase in production of popular and essential fabrics;
- b) increase in output of raw materials for the textile industry as a result of agricultural activity;
- c) reconstruction and re-equipment of existing mills in order to achieve higher productivity;
- d) technical assistance and advice to private investors in the execution of new industrial projects.

In this context it should not be forgotten that the four principal guide-lines in the achievement of these objectives were the satisfaction of consumers, growth of the national income, creation of new employment and saving of foreign exchange.

Graph showing domestic production and imports of cotton and synthetic cloth from 1955 to 1965



The development of the textile industry, which was entrusted a very important role in achieving these objectives, was recognized as an essential measure in the industrial sector of the Second Plan. As a result, more than three billion Rials (\$ 40 million) was allocated to textile industry projects, under the following heads:

- a) investment in government textile mills;
- b) capital participation with private investors;
- c) granting of loans to private investors in the textile industry.

The following is a summary of the measures taken under this three billion Rial credit allocation for the development of the textile industry.

Investment in government textile mills

During the Second Plan, steps were taken to eliminate the inadequacies of the Behshahr and Shahi textile mills, which had become very dilapidated and out-of-date. All the machinery at the Behshahr mill and all the looms at the Shahi mill were completely overhauled, and the old spindles at Shahi were replaced by 21,632 new ones. As a result, the annual production of the Behshahr mill increased from 17 million to 30 million metres and that of the Shahi mill increased from 5 million to 14 million metres, and improvements in quality were also achieved.

The rapidly rising demand for cloth, resulting from increases in population and living standards during the Second Plan, led to an expansion in the capacity of Chitsazi Tehran and the establishment of a new mill at Shahi.

As has already been mentioned, Chitsazi Tehran was completed and commissioned during the First Plan with a capacity of 10,000 spindles and 304 looms. During the Second Plan, 30,800 new spindles and 980 looms were installed here, and a 5400-kilowatt power house, a well-equipped dyeing, printing and finishing section with a capacity of 36 million metres per year were added. These additions enabled Chitsazi Tehran to increase its annual capacity from five million to 36 million metres of a wide range of cloths.

During the Second Plan, a new mill, known as Shahi No. 2, was established at Shahi, with a capacity of 30,720 spindles and 1,020 looms. In addition to its spindles and fully-automatic looms, this mill was equipped with a 10,000-kilowatt steam turbine that is capable of meeting the needs of both the mills and also supplementing the town's electricity supply. The annual production of the new mill is 25 million metres and it has an additional capacity of 60 million metres of grey cloth in its finishing plant.

Another step taken by Plan Organization during the Second Plan in the textile industry was the establishment of a second jute mill at Shahi. This mill which has 480 spindles and 120 looms, was established to produce sacking for cotton bales and a better quality of jute-bag for corn and rice. It was built near old Shahi jute mill and has an annual capacity of seven million metres.

The efforts of Plan Organization in this field during the Second Plan consisted chiefly of making the necessary investments, taking steps to improve management and developing the level of workers' skills, especially by employing foreign experts to carry out training programmes. These measures resulted in government textile mills being able to produce goods which in terms of quality and price responded to popular taste and purchasing power, while in terms of quantity the annual capacity of government mills rose from 31 million metres to 105 million metres of cloth and from 3 million to 10 million metres of jute sacking.

Capital participation with private investors

During the Second Plan, in order to put an end to the state of affairs whereby textile machinery for a complete mill at Ahwaz, which belonged to the privately-owned Kerun Company, had remained idle for several years, Plan Organization in participation with the company's shareholders made an investment of 40 million Rials to form a joint-stock company named Shush Textile Company, with a total capital of 100 million Rials. This influx of capital eliminated the danger of the existing machinery remaining idle. Construction of the mill was completed, the machinery was installed, superannuated items of equipment repaired or replaced, and finally the Shush Textile mill with an annual capacity of 15 million metres of grey cloth commenced operations.

Granting of loans to private investors in the textile industry

During the Second Plan period, loans were made available from development funds to several private textile enterprises in order to help the private sector of the industry. These loans, which were paid through the Industrial Credit Bank to suitable applicants, amounted in all to about 373 million Rials (\$ 49.7 million). The government's assistance to the private sector was not, however, restricted to the granting of these loans. As a result of the Law on the Revaluation of Currency Backing, which was enacted in the spring of 1957, an additional sum of two billion Rials (\$ 26 million) was made available in the form of loans to private textile companies for development projects.

The granting of government loans from these two sources, development credits and the revaluation of currency backing was extremely effective in developing participation on the part of the private sector in the textile industry. More than seven billion Rials (\$ 93.3 million) was invested by the private sector during the Second Plan in extensions to existing textile mills and the establishment of new ones.

Changes in the productive capacity of the textile industry

During the Second Plan period, as a result of the great interest in investing in the textile industry shown by both the public and the private sector, the industry's capacity was increased by 341,574 spindles and 10,325 looms for cotton and synthetics, and by 18,680 spindles and 380 looms for woollen fibres. At the same time in the jute textile industry two new mills were established with a total capacity of 2,280 spindles and 252 looms. The following table shows the capacity of Iran's textile industry during the Second Plan:

Capacity of Iran's textile industry at the end of the Second Plan

Branch of industry	No. of mills	No. of spindles	No. of looms
Cotton and synthetics	59	677,414	14,662
Wool	11	42,830	761
Silk	1	7,344	220
Jute	4	4,640	352

Included in the above table are ten cotton and synthetics mills with a total capacity of 45,914 spindles and 258 looms, two wool mills with a total capacity of 9,420 spindles and 150 looms, and one jute mill with a capacity of 2,350 spindles and 90 looms, none of which were in operation. As regards the natural silk industry, the Chalus silk-weaving mill had scarcely any work other than the production of a quantity of silk cloth for making flags for government offices, while the silk-winding mill at Rasht was working at half its full capacity, i. e. only 90 machines were in operation. The following table shows the capacity of mills which were in operation at the end of the Second Plan:

Capacity of textile mills which were in operation at the end of the Second Plan

Branch of industry	No. of mills	No. of spindles	No. of looms	Annual productive capacity
Cotton and synthetics	49	631,500	14,404	418 million metres of grey cloth and 440 million metres of finished cloth
Wool	9	33,410	611	7 million metres of cloth
Silk	1	90 machines	-	17 tons of silk yarn
Jute	3	2,299	262	10 thousand tons of sacking and other jute products

Of the mills in operation in Iran seven were government-owned. Their capacities are given in the following table:

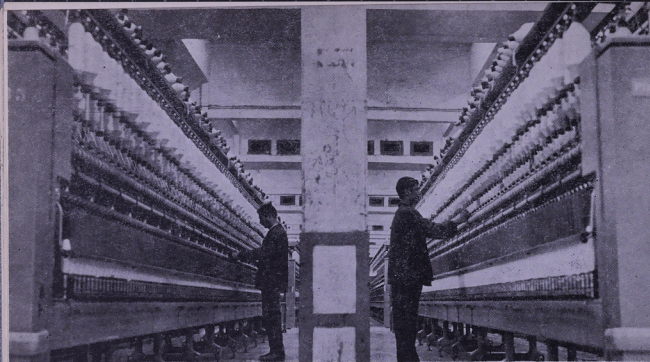
Capacity of government textile mills at the end of the Second Plan

Name of mill	No. of spindles	No. of looms	Annual productive capacity
Chitsazi Tehran	40,800	1,284	36 million metres of grey cloth and the same amount in the finishing section
Behshahr Textile Mill	32,404	1,201	30 million metres of grey cloth and the same amount in the finishing section
Shahi No. 1 Textile Mill	21,632	544	14 million metres of grey cloth and the same amount in the finishing section
Shahi No. 2 Textile Mill	30,720	1,020	25 million metres of grey cloth and 60 million metres of finished cloth
Rasht Silk-winding Mill	90 machines	—	17 tons of silk yarn
Shahi No. 1 Jute Mill	1,280	60	—
Shahi No. 2 Jute Mill	480	120	Total capacity of both mills is 6 thousand tons of jute products

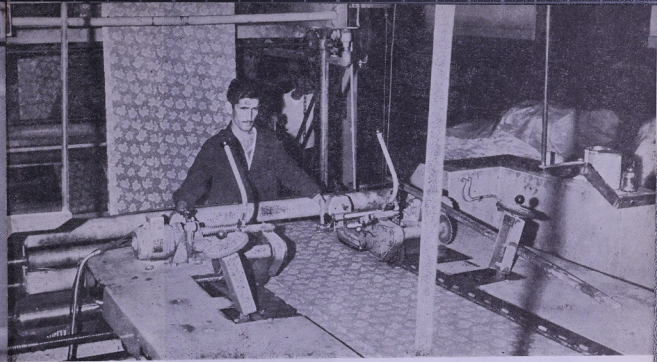
It should be mentioned that although the operational capacity was not being fully utilized at the end of the Second Plan the output of various textile products rose considerably during the Plan period (1955-1962). Thus, the output of cloth woven from cotton and synthetic fibres rose from 62 million metres to 262 metres during the period, that of woollen cloth rose from about 1 million to 4 million metres, and that of jute products rose from 2,000 tons to about 4,000 tons.



General view of the Rey mill

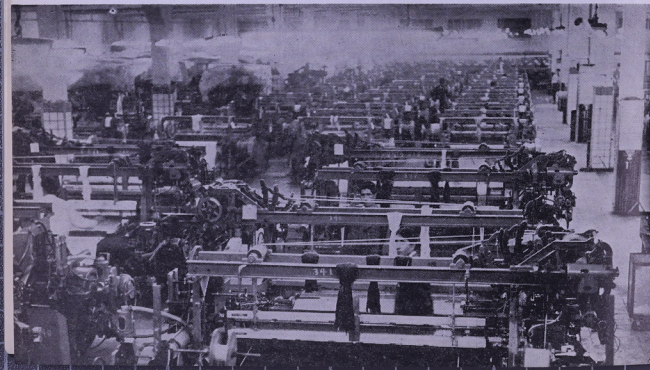


Spinning equipment at the Rey mill

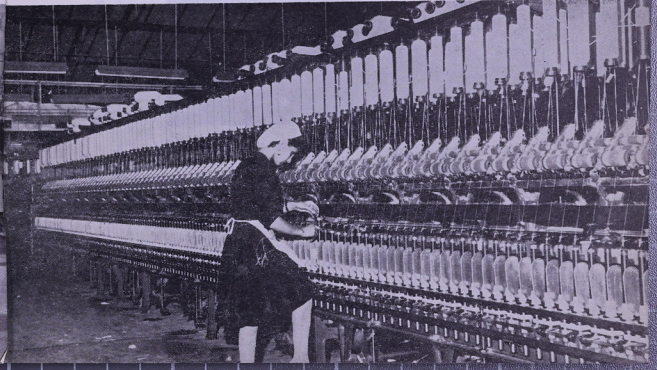


Finishing plant at the Rey mill

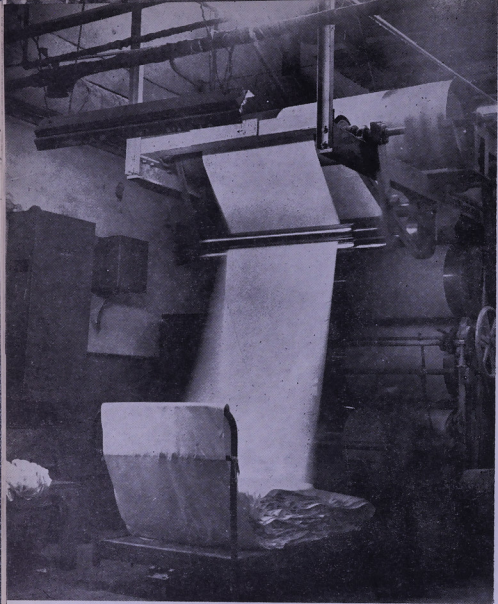
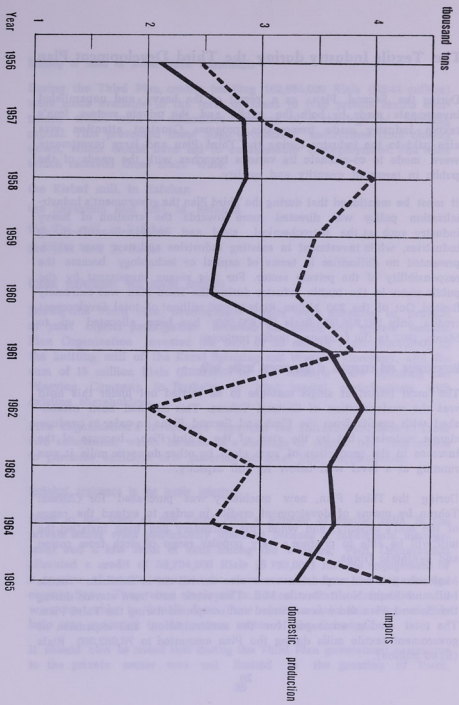
Weaving section of the Rey mill



Modern spinning equipment at the Behshahr mill



Graph showing domestic production and imports of woollen cloth between 1955 and 1965



Quality control at the Behshahr mill

The Textile Industry during the Third Development Plan

During the Second Plan, as a result of the heavy and unparalleled investments made by both the public and the private sectors, Iran's textile industry made tremendous progress. Constant attention was also paid to the industry during the Third Plan and large investments were made to co-ordinate its various branches with the needs of the public in terms of quantity and quality.

It must be mentioned that during the Third Plan the government's industrialization policy was directed more towards the creation of heavy industry such as the petrochemical, steel and machine-manufacturing industries, while investment in existing industries and new ones which presented no difficulties in terms of capital or technology became the responsibility of the private sector. For this reason investment by the public sector in the textile industry during the Third Plan was extremely limited. Out of the 230 billion Rials (\$3766 million) of total development credits, only 362,626,000 Rials (\$4,835,000) had been allocated up to March 1967 to the following textile projects:

Modernization and expansion of government textile mills

The most important single measure to be carried out under this head was the modernization of Chitsazi Tehran. This mill had been established with credits from the First and Second Plans in order to produce simple materials, but by the start of the Third Plan, because of the increase in the production of such cloth by other domestic mills it was running at a level well below its full capacity.

During the Third Plan, new machinery was purchased for Chitsazi Tehran by means of development credits in order to extend the range of the mill's capacity, and when this machinery has been installed the mill will be able to produce a very popular range of cloth from cotton and synthetic fibres.

Modernization and expansion were also carried out in Behshahr Textile Mill and Shahi No. 1 Textile Mill. This work had been started during the Second Plan and was continued and completed during the Third Plan. The total credits envisaged for the modernization and expansion of government textile mills during the Plan amounted to 76,982,000 Rials (\$1.03 million).

Granting of loans to private textile industrialists

During the Third Plan, credits totalling 182,850,000 Rials (\$2.44 million) were made available in the form of loans to four private textile companies which were in difficulties because of a shortage of working capital. This prevented these large productive enterprises from closing down, which would have led to considerable unemployment. The mills which received these loans were:

- the Risbef mill, in Esfahan
- the Zayandeh Rud mill, in Esfahan
- the Taj mill, in Esfahan
- the jute mill in Rasht

Capital participation with private investors

During the Third Plan, development credits were allocated to projects of joint capital participation between the public and private sectors. Plan Organization invested the sum of 29 million Rials (\$380,000) in the knitting mill of the Karaj Spinning and Weaving Company, and the sum of 15 million Rials (\$200,000) in the Khalije Fars Spinning and Weaving Company in Bushehr, as joint capital participations with existing shareholders.

Plan Organization's investment improved the financial situation of these two companies, which because of a shortage of capital had been unable to purchase sufficient raw materials to meet their requirements.

Technical assistance to the textile industry

Since at the start of the Third Plan a number of textile mills in the private sector were inefficiently operated because of inadequate management and a low level of skill among the workers, Plan Organization allocated a credit of 58,794,000 Rials (\$783,000) for the engagement of a number of textile experts who were recruited from leading foreign organizations. They were employed in domestic textile companies who were best able to benefit from their advice and in this way valuable help was extended to the private sector of the industry.

It should also be noted that during the Third Plan government assistance to the private sector was not limited to the granting of loans,

capital participation and technical assistance, but also included a sensible tariff policy. As a result of these factors, private investors showed greater interest than ever before in developing this sector of the economy. All in all, the various measures taken by the government affecting the textile industry, as well as the loans granted by specialized banking institutions such as the Industrial Credit Bank, the Industrial and Mining Development Bank of Iran and the Industrial Guarantee Fund, led to greater utilization of existing productive facilities and the establishment of new textile mills on the part of the private sector.

Productive capacity of the textile industry at the end of the Third Plan

During the Third Plan, in addition to the measures taken to improve the quality of production in textile mills, the capacity of privately-owned mills also increased.

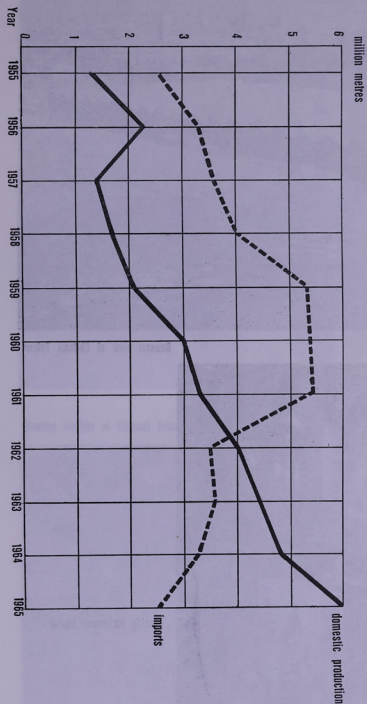
In 1966 there were about 680,000 spindles and 15,000 looms in the cotton and synthetics branch of the industry, and 45,000 spindles and 850 looms in the wool branch. In that year the capacity of mills that were in operation was as follows:

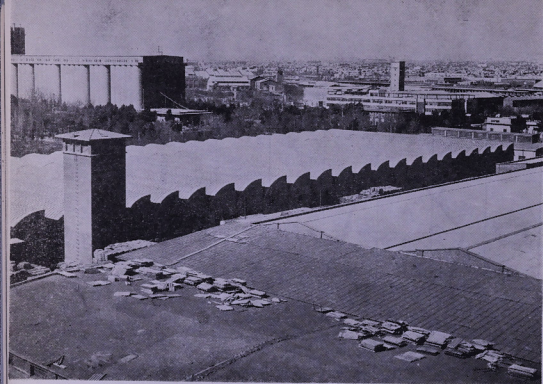
Utilized capacity of the textile industry in 1966

Branch of industry	No. of mills	No. of spindles	No. of looms
Cotton and synthetics	54	650,000	14,200
Wool	10	40,000	760
Silk-winding	1	90 machines	—
Jute	3	2,290	262

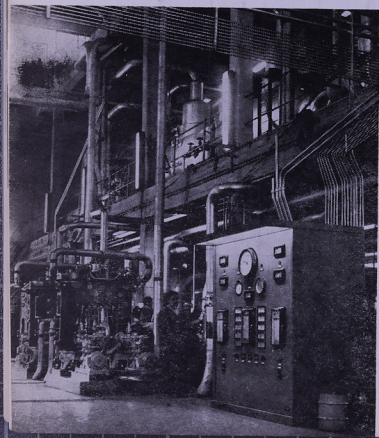
From 1962 onwards, the domestic production of cotton, synthetic and woollen textiles increased steadily, and as a result, although consumption increased, by 1966 it was no longer necessary for Iran to import any cotton textiles and only about one third of the country's requirements of woollen textiles and blankets was imported.

Graph showing domestic production and imports of jute products between 1956 and 1965

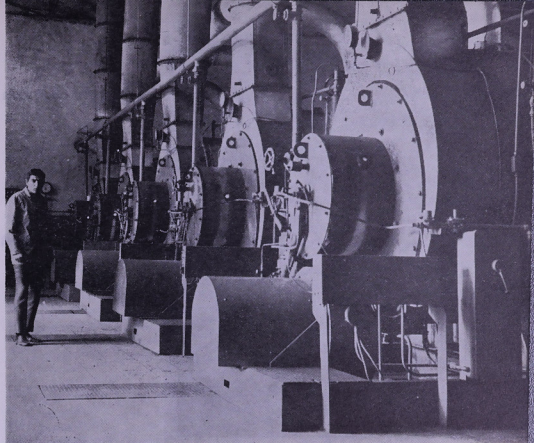




General view of Chitsazi Tehran

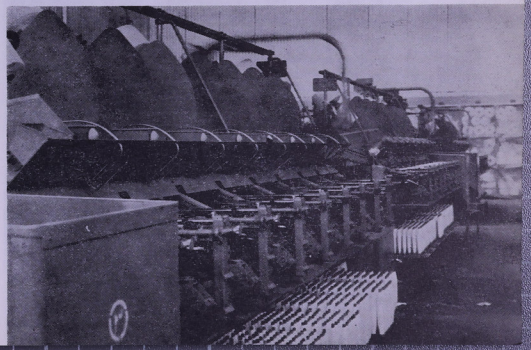


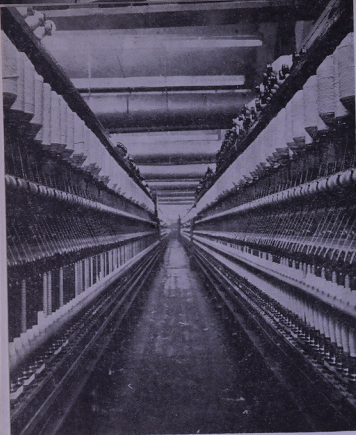
Inside the power house



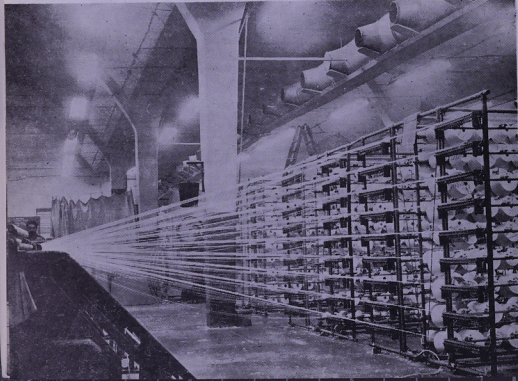
Steam generating plant at Chitsazi Tehran

Blowing section at Chitsazi Tehran





Spinning equipment at Chitsazi Tehran



Warping section at Chitsazi Tehran

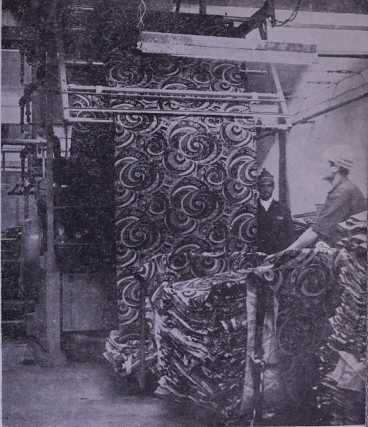
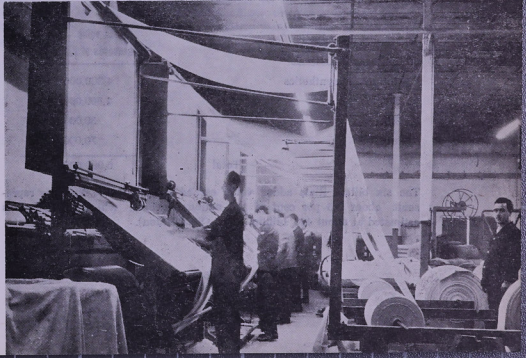
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Finishing section of Chitsazi Tehran

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Quality control at Chitsazi Tehran



In 1966 total sales of domestically-produced cotton reached 380 million metres, of which 320 million metres was produced by mills, with the rest coming from hand-looms. In the same year total sales of woollen textiles and blankets totalled 12.5 million metres, of which 8.5 million metres was manufactured in Iran and the rest was imported. It is hoped that when new wool mills now under construction are completed and projects under study are implemented the necessity to import woollen cloth will be completely eliminated.

Value of production of the textile industry and its proportion of the national income

In 1966, the added value produced by the textile industry was about six billion Rials (\$ 80 million). This figure represents the difference between the price of the finished goods produced by the textile mills at market prices (outputs) and the price of goods and services purchased from other sectors of the economy (inputs).

In the year under review the total value of inputs in the textile industry was about eight billion Rials (\$ 106.7 million) and the total value of outputs was about 14 billion Rials (\$ 186.7 million). The difference between these two amounts is the so-called added value earned by the textile industry.

The distribution of this added value was as follows:

Branch of industry	Added value (in thousands of Rials)
Cotton and synthetics	4,300,000
Wool	1,600,000
Silk	30,000
Jute	70,000
Total	6,000,000

The six billion Rials added value earned by the textile industry represents about 1.5 per cent of the national income, which in 1966 was estimated at about 400 billion Rials (\$3.3 billion).

Employment effects of the textile industry

The development of the textile industry had a favourable effect on the level of employment, since the number of workers in the industry increased from 15,000 at the start of the Second Plan to more than 55,000 by the end of the Third Plan. The distribution of employment in the textile industry was as follows:

Branch of industry	No. of employees
Cotton and synthetics	46,310
Wool	8,216
Jute	1,024
Silk	265
Total	55,815

It should be noted that the above figures only refer to personnel permanently employed in the industry. Temporary employees and those engaged in agriculture and animal husbandry for the production of raw materials for the textile mills (synthetic fibres are not at present manufactured in Iran) are not included. Similarly those engaged in marketing textile products are excluded.

Statistics for domestic production, imports and total sales of cotton and synthetic cloth, March 1955 - March 1966

Year	(in metres)		
	Domestic production	Imports	Total
1955	62,000,000	72,470,000	134,470,000
1956	67,000,000	62,610,000	129,610,000
1957	77,000,000	66,500,000	143,500,000
1958	101,000,000	62,190,000	163,190,000
1959	169,000,000	125,372,000	294,372,000
1960	236,000,000	118,158,000	354,158,000
1961	269,400,000	77,610,000	347,010,000
1962	262,000,000	33,000,000	295,000,000
1963	320,000,000	1,594,729	321,594,729
1964	330,594,000	7,432,895	338,026,895
1965	338,800,000	11,179,974	349,979,974

Statistics for domestic production, imports and total sales of woollen cloth March 1955 - March 1966

Year	(in metres)		
	Domestic production	Imports	Total sales
1955	1,336,000	2,527,000	3,863,000
1956	2,360,000	3,362,000	5,722,000
1957	1,420,000	3,663,000	5,083,000
1958	1,740,000	4,050,000	5,790,000
1959	2,130,000	5,343,000	7,473,000
1960	3,030,000	5,371,000	8,401,000
1961	3,360,000	5,425,000	8,785,000
1962	4,000,000	3,501,000	7,501,000
1963	4,400,000	3,579,000	7,979,000
1964	4,800,000	3,323,000	8,123,000
1965	6,000,000	2,481,000	8,481,000

Statistics for domestic production, imports and total sales of blankets,
March 1955 - March 1966.

Year	(in pieces)		
	Domestic production	Imports	Total sales
1955	144,232	3,737	147,969
1956	454,620	6,306	460,926
1957	850,416	2,523	852,939
1958	960,970	2,956	963,926
1959	994,925	2,331	997,256
1960	810,110	12,435	822,545
1961	780,444	3,033	783,477
1962	503,511	12,190	515,701
1963	483,370	527	483,897
1964	710,274	614	710,888
1965	700,000	572	700,572

Statistics for domestic production, imports and total sales of jute products,
March 1956 - March 1966

Year	(in tons)		
	Domestic production	Imports	Total sales
1956	2,164	2,437	4,601
1957	2,862	3,022	5,884
1958	2,879	4,015	6,894
1959	3,664	3,463	7,127
1960	2,574	3,329	5,903
1961	3,622	3,832	7,454
1962	3,934	2,097	6,031
1963	3,644	2,965	6,609
1964	3,688	2,628	6,316
1965	3,364	4,181	7,545

Personnel employed in the cotton and synthetics branch of the textile industry, by location
1965-66

Location	No. of unskilled workers	No. of skilled workers and foremen	No. of technicians	No. of engineers and directors	Total personnel employed
Esfahan	15,735	1,190	17	68	17,010
Tehran	10,190	778	111	44	11,123
Mazandaran	6,229	476	28	27	6,800
Kashan	3,162	241	34	13	3,450
Yazd	2,456	158	26	10	2,650
Semnan	1,063	81	11	4	1,159
Mashhad	891	67	9	3	970
Ahwaz	533	40	5	2	580
Fars	916	70	10	4	1,000
Ghazvin	331	25	3	1	360
Ghom	192	14	2	—	208
Other locations	916	70	10	4	1,000
Totals	42,614	3,210	306	180	46,310

Personnel employed in the woollen textile industry, by location
1965-1966

Location	No. of personnel employed
Esfahan	2,554
Yazd	2,361
Tehran	1,342
Tabriz	921
Ghazvin	325
Other locations	713
Total	8,216

Personnel employed in the jute textile industry, by location
1965 - 1966

Location	No. of personnel employed
Shahi	890
Mahmudabad	133
Total	1,023

Fixed capital investment in the textile industry

Branch of industry	(in thousands of Rials)			
	Value of land	Value of buildings	Value of machinery	Total
Cotton and synthetics	641,690	3,166,509	11,626,745	15,434,944
Wool	307,155	954,291	1,764,406	3,025,851
Jute	45,101	129,209	220,571	394,881
Silk	9,431	14,380	4,826	28,637
Totals	1,003,377	4,264,389	13,616,548	18,884,313

Apart from the above investments the Ministry of Economy issued licences to private investors between March 1966 and June 1967 for the importation of new machinery to expand seven woollen textile mills and 17 cotton textile mills. During the same period licences were also issued by the Ministry of Economy for the establishment by the private sector of eight new woollen textile mills and eight new cotton textile mills.

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