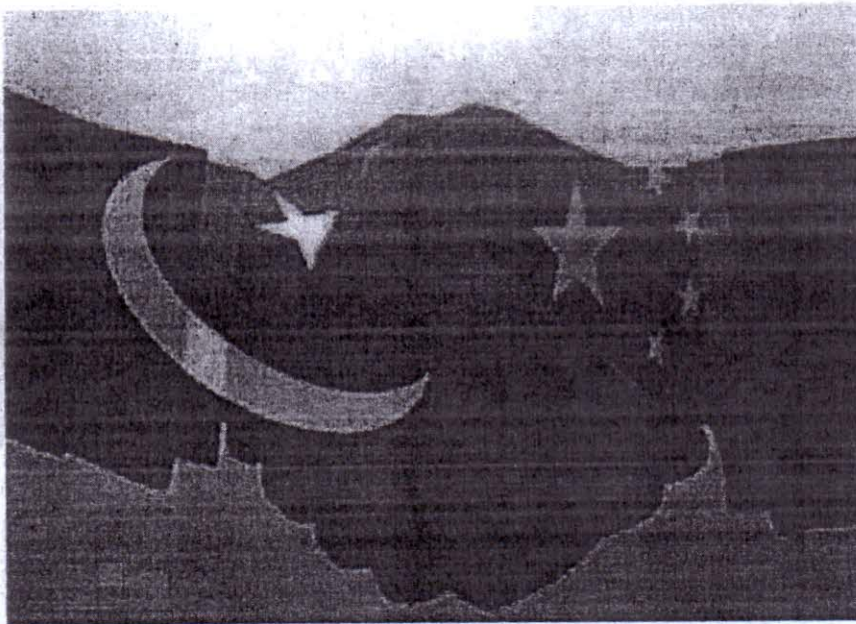




**Chinese Expert Group on Industrial Cooperation of  
China-Pakistan Economic Corridor  
Findings Report for the First Site Investigation on  
Textile Industry Diagnosis**



**China International Engineering Consulting Corporation**

**November 2019**

# Chinese Expert Group on Industrial Cooperation of China-Pakistan Economic Corridor

## Findings Report for the First Site Investigation on

### Textile Industry Diagnosis

Now it is the fifth year for the construction of the China-Pakistan Economic Corridor, and both China and Pakistan have recognized the increasing importance to strengthen cooperation on industries and industrial parks. On November 4, 2018, during the visit of Imran Khan, Prime Minister of Pakistan, in China, China and Pakistan jointly issued the *Joint Statement on Strengthening Sino-Pakistan Long-term Strategic Partnership and Building a More Intimate Sino-Pakistan Community with Shared Future*. Both countries unanimously emphasized the concept of "focusing on economic and social development, creating employment and improving people's livelihood, accelerating cooperation in industries, industrial parks and agriculture, and striving to release the full potential of the China-Pakistan Economic Corridor as early as possible."

To promote practical and tangible achievements of industrial cooperation under the Corridor Framework, the Secretariat of China-Pakistan Economic Corridor under the NDRC entrusted China International Engineering Consulting Corporation (CIECC) as the leader unit to jointly carried out the diagnosis on Chinese and Pakistani textile enterprises with related experts. As entrusted by the Secretariat of the Chinese side, CIECC invited Xu Hong, Secretary General of China Textile Engineering Society, Huang Jianjun, Chairman of Shandong Textile Industry Association, Wang Huitao, Vice President of Jiangsu Xuzhou Textile Industry Association, and Chi Yuwen, President of Shandong Tongchuang Chamber of Commerce of Garment Industry, to form a Chinese expert group for the diagnosis of the textile industry of Pakistan under the Sino-Pakistan cooperation. The Expert Group visited Pakistan for the survey and investigation of the textile industry in Pakistan from October 14 to 19, 2019.

Under the arrangement of the BOI, the Expert Group (7 members in total) exchanged the purposes and research proposals of the textile industry diagnosis in Islamabad with the Federal Investment Commission and the Textile Division. The Expert Group visited six large-sized textile companies including KLAŞH, SADAQE, Shanghai Challenge in Faisalabad and Lahore as well as the Faisalabad M3 Industrial Park. The

Expert Group also had informal discussions with the Punjab Branch of the APTMA and Faisalabad Industrial Real Estate Development and Management Company. Through the survey and investigation, both sides exchanged the demands and prospects for the textile industry diagnosis and cooperation and obtained further understandings of the development of the textile industry in Pakistan.

Based on the information collected from the preliminary survey and investigation in the six enterprises and through informal discussions, and with reference to the experience in the development of the textile industry of China, the Chinese Expert Group initially proposed recommendations as follows on the development features of the textile industry in Pakistan and possible cooperation orientations between China and Pakistan on textile industry in the near future. Such recommendations are shared with Pakistani friend and for the reference of the Palestinian side.

## I. Pakistan Has a Favorable Foundation for the Development of the Textile Industry

### (I) The textile industry is a dominant industry in Pakistan

The cotton spinning industry in Pakistan has a relatively favorable industrial base with a certain degree of self-sufficiency. Pakistan is the fourth largest cotton producing countries in the world with a cotton planting area of 2.6 million hectares. It has a complete cotton spinning industrial chain with raw materials, spinning, weaving, knitting, dyeing and finishing as well as and home textiles. Pakistan is the world's second-largest cloth producer and third-largest cotton producer, and is also a major producer of towels and clothing. Currently, Pakistan has 1,221 ginning mills with a total of 13.3 million spindles, 375,000 electric looms, 30,000 air-jet shuttleless looms and 40,000 knitting machines<sup>1</sup>. The cotton spinning industry system in Pakistan is relatively complete. In the textile-based city of Faisalabad, there are not only cotton yarn factories but also upstream and downstream enterprises such as weaving factories and printing and dyeing factories.

In 2018, the textile industry of Pakistan accounted for 8.5% of the national GDP and offered job opportunities for 40% of the industrial labor force (15 million people were directly or indirectly engaged in the textile industry), and the textile export accounted for 58% of the total value of exports. In recent ten years, the export and import volume of Pakistan has increased slightly. However, the development pace is still slower than that of Southeast Asian countries. In 2018, the export value was USD 13.2 billion, ranking only the 14<sup>th</sup> in the world behind India, Bangladesh, Vietnam, etc. The most exported textile products in Pakistan are cotton fabrics such as bedding, towels and napkins. Other knitted fabrics and related garments, denim fabrics and related garments are also the main exports. Among the exported products, 22% are knitted garments, 17% are beddings, 16% are cotton cloths. And the main export destinations are the United States (22%), the United Kingdom (10%), China (8%),

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<sup>1</sup> Source: Textile Division of Pakistan

Germany (8%), Spain (6%), etc.<sup>2</sup>.

**(II) The government departments and industry associations of Pakistan are jointly promoting the development of the textile industry<sup>3</sup>**

The competent department on textile industry in Pakistan is the Textile Division, which is responsible for formulating national textile industry policies, coordinating and liaising with federal agencies, provincial and local governments (and their entities), promoting the development of the textile industry, setting industry standards and conducting Industry statistics, collecting international textile information, organizing trainings for textile technicians, etc. The Textile Division also manages the subordinate body all across Pakistan such as the All Pakistan Textile Association, the Pakistan Textile Standards Association, the Garment Association and the Textile University.

In addition to government administration departments, the Pakistan All Pakistan Textile Mills Association (APTMA) and its local branches also play an important role in the development of the textile industry with major activities as follows: First, participating in the formulation and implementation of the textile industry policies of the government; second, strengthening the self-discipline of the textile industry, such as providing trade dispute arbitration, etc.; third, working on textile trade promotion and investment promotion, such as cooperation with the government in organizing and participating in various domestic and foreign trade and investment exhibitions; fourth, protection and self-redemption of the textile industry, for example, requiring the government to initiate anti-dumping and anti-subsidy investigation against imported products on behalf of the member enterprises, etc.

**(III) The textile enterprises in Pakistan are distributed in a centralized manner**

According to the survey and investigation, it is learned that there are about 35,000 textile enterprises in Pakistan, of which only 300 are large-scale spinning or combined spinning-textile enterprises, while the remaining are small and medium-sized enterprises. In addition, there are also several thousands of small textile mills engaged in various kinds of textile production. The total number of garment manufacturing enterprises is 4,500, of which 80% are small workshop-style enterprises and 20% are large-scale industrial enterprises equipped with industrial sewing machines.

About 70% of textile companies in Pakistan are concentrated in Punjab, and around 30% are in Sindh. Faisalabad in Punjab is a famous textile-based industrial city in Pakistan. It has a textile enterprise cluster consisting of large, medium and small textile mills and workshops. And its textile export volume accounts for 58% of the total of Pakistan. Presently, in the downtown and around the suburbs of Faisalabad,

<sup>2</sup> Source: Pakistan National Textile Association

<sup>3</sup> Source: Textile Division of Pakistan

clusters of textile enterprises with large, medium and small textile mills and workshops have been established. The main textile technology resources of Pakistan are also concentrated in Faisalabad such as the Pakistan Agricultural University, the National Textile University of Pakistan, the Pakistan Cotton Research Institute and the Pakistan Agricultural Research Institute.

#### **(IV) Current Sino-Pakistan textile cooperation is dominated by trade**

Presently, the textile cooperation between China and Pakistan is mainly based on the trade of raw materials and equipment. Under the *Sino-Pakistan Free Trade Agreement*, in addition to chemical fiber products, tariff reductions of 20%-50% or tariff exemptions are granted to most of China's textile exports to Pakistan. In addition, tariff reduction and exemption are also granted to most of the Pakistan's textile exports to China. Among them, cotton yarn and cotton cloth are the largest types of products imported from Pakistan, and clothing is one of the important products of China's exports to Pakistan. Presently, China has surpassed Japan and Germany and become the largest import source of textile machinery in Pakistan, and currently ranks third among textile export destinations of Pakistan.

In 2018, China exported USD 2.974 billion textile products to Pakistan, accounting for 17.4% of the total exports of China to Pakistan, and China imported USD 1.067 billion textile products from Pakistan, accounting for 48.8% of the total imports of Pakistan from China. The textile products mainly exported to Pakistan from China are functional fibers (e.g. synthetic fibers such as polyester and acrylic; man-made fibers such as viscose and lyocell; and other functional chemical fibers; various types of high and medium count pure or blended yarn products; various types of high-tech textile fabrics, etc.). Textile products exported by Pakistan to China are mainly concentrated in cotton, 10-32 count cotton yarns, knitted and woven fabrics.

## **II. The Textile Industry of Pakistan Has Development Potentials in the Future**

### **(I) The Pakistani government has formulated preferential policies to promote the development of the textile industry**

To promote the development of the textile industry and further expand exports, Pakistan has also formulated a series of preferential policies. Such policies mainly include exemption of import tariffs and sales taxes for textile machinery equipment and cotton, price reduction of the electricity for the industrial sector from 15-16 Pakistan rupee/kWh to 11 Pakistan rupees/kWh and guarantee of uninterrupted power supply, increase of export tax rebate, etc. Meanwhile in FY2016-17, preferential tax rates were granted to the five major export sectors, including the textile industry. To encourage the development of the textile industry, the Pakistani government rebated levy tariffs, surtaxes and sales taxes on imported cotton from February 1, 2019 to July 31, 2019. Pakistan and the European Union has reached a GSP agreement that from

2019 to 2023, all textiles exported to EU countries from Pakistan may enjoy tariff-free concessions in hope of attracting more investors.

### (II) The textile industry of Pakistan has cost superiorities

Pakistan is the fourth largest cotton producing country in the world, with an annual output of about 14 million bales, accounting for about 1/7 of the world's total annual output. And the cost of cotton resources is relatively low. Meanwhile, Pakistan has abundant labor resources with low costs. According to investigation, the wage level of the most skilled textile workers for the textile industry in Punjab is currently 18,000 Pakistan rupees (US\$110) per month. In addition to labor resources, Pakistan also has certain advantages in terms of production costs such as electricity and steam related to the textile industry.

**Table 1 Comparison of Production Costs Between Pakistan and Other Countries**

#### Within the Region

Element	India	China	Bengal	Vietnam	Pakistan
Electricity price (US cent/kWh)	9	9	10	7	7.5*
Natural gas (US dollar/mmBTU)	7	-	*5.2	4.2	6.5*
Minimum wage (US dollar/month)	140	240	95	140	111
Venue rental (US dollar/m <sup>2</sup> )	80	40-80	-	140	20-50
Industrial water (US cent/m <sup>3</sup> )	46	45	30	48	18
Steam (US Cent/kg)	1.3	1.64	-	1.2	1.1
Transportation (diesel US Cent/L)	98	90	77	71	81

Note: VATs of 17% are included in the electricity and gas prices.

Source: Pakistan National Textile Association (Punjabi Branch)

### (III) The Pakistani government has formulated a future plan for the development of the textile industry.

According to the survey and investigation, it is learned that the Textile Division of Pakistan and the All Pakistan Textile Industry Association have organized a special team to prepare the *2019-2023 National Textile Policy* with the goal of increasing Pakistan's cotton production to 20 million bales, accounting for world textile exports.

Reaching 3%, increasing the textile export volume to USD 26 billion and offering job opportunities for 60 million laborers within the textile industry. The new policy will focus on the added value of textile products, attach importance to the quality of cotton seeds and provide more professional skill trainings for textile practitioners and tax incentives for imported advanced equipment. The Pakistani government also plans to launch about 120,000 textile skill development projects within five years through national vocational training institutions. The state will invest about PKR 6.5 billion to support a large number of skilled textile workers.

### III. Briefing of Survey and Investigation of Textile Enterprises and Informal Discussions with Industrial Associations in Pakistan

#### (I) Survey and investigation of large-sized textile enterprises in Pakistan

Under the arrangement of the Federal Investment Commission of Pakistan, the Expert Team visited three textile companies of the KLASH Textile Mills (sports knitwear production and export), Sadaqat Limited (bedding production export) and Kamal Limited (combined textile-weaving factory) in Faisalabad and other three textile companies of Kohinoor Textile Mills (fabric production and export), US Demit (denim fabric production and export) and Shanghai Challenge (sports and apparel garment processing) in Lahore, and preliminarily understood the production processes such as raw materials, spinning, weaving, knitting, dyeing and finishing, home textile garment sewing, etc. All of these enterprises are large-scale textile factories with international standards in Pakistan.

##### (1) KLASH Textile Mills

The company is a large-scale knitwear enterprise mainly engaged in the processing of large and medium-sized processing with supplied samples for sports and leisure clothing. According to the company, it has about ten production plants, and about 180 sets of garden dyeing and finishing equipment made in Europe, Japan, Germany, etc., 4,000 sets of sewing equipment as well as over 9,000 routine labors (mainly male workers). The main production lines of the Company are knitwear leisure products for European and American orders. The Expert Group made field visit to a fabric production workshop. The main circular knitting machines, rope dyeing machines and stereotype equipment were European equipment, with the level equivalent to the manufacturing technology of China in 2000. The number of production orders was small, but the number of batches was large, and the operation conditions for varieties and products were just ordinary. The production processes were generally simple, and the dye was mainly available by import. In terms of on-site management, the technical layout for equipment in the old plant was crowded, and there were many leakage points in the steam pipe network. The storage methods of cotton yarn and fabric were unreasonable with certain unsafe factors.

##### (2) Sadaqat Limited

The company is a cotton spinning enterprise with a history of 68 years and mainly produces four series of products, such as home textiles, denim and knitwear. The company has branches in the United States, Germany, etc., and its main products are exported to Europe, America and China. The company employs 11,000 people and has an expansion plan. At present, the company has sufficient orders, stable production and excellent benefits. The Expert Group mainly visited three workshops of pure polyester series mattress cover workshop, sewing workshop and sample display room. The products were of regular specifications, the automatic hanging and automatic packaging equipment were in good condition, the production processes were arranged normally, and the production workshop was clean and sanitary. The overall level of the enterprise was equivalent to the production management and equipment and skill level of China around 2010.

### (3) Kamal Limited

The company is a spinning and weaving joint venture. The Expert Group visited and surveyed the new spinning mill of 21,000 spindles put into operation in July 2019. The main raw materials were the blending of cotton and cotton, and the production cost of raw cotton was relatively high comparatively. The overall process of spinning was introduced from Switzerland, Italy and Japan. The company adopted new equipment process technology in 2015-2018, and some of the equipment are world leading. Presently, the main products are 21-40 count yarns and 30 count fine yarns. The company has 1,632 fine and tight spindles with the rotation speed up to 21,500 rpm. The on-site investigation showed that the breakage rate and efficiency were satisfying, and the basic yarn quality indicators were excellent. The workshop management was relatively favorable. However, the process configuration system of the air conditioning system had some problems, and the temperature and humidity configuration should be further optimized. As introduced by the company, the factory had about 200 labors working on spinning with 21,000 spindles. And the labor required per 10,000 spindles was up to 140, which was 3-4 times the average employment in China, and the labor efficiency was low. The weaving factory inspected by the Expert Group had 192 sets of air-jet woven weaving loom made in Japan with four types of widths within the range of 180-340. The main products were plain cloth, flannel cloth and special home textile cloth. The operating efficiency of the machinery and equipment was about 94%, and the overall production was under good operation conditions. However, there were still shortages such as intensive labor and low efficiency. One worker could only operate six machines at the same time, compared with the fact that one worker can operated 15 machines at the same time in China.

### (4) Kohinoor Textile

The company is a factory mainly engaged in the production and export of woven fabrics. The company manufactures over 500 kinds of cotton fabric products, and has an annual output of about 40 million meters of greige cloth and 50 million meters of printing and dyeing cloth. The company had no ready-made garment workshop, and mainly worked on selecting fabrics with suitable colors, widths and quality according



to the garment orders of the clothing enterprise customers in Europe and America. Presently, the company is in full production with orders. The weaving and dyeing equipment of the factory were sourced from European countries such as Germany. The 260 looms were in various categories with an average efficiency of 90-92 %. Each worker could operate 6 looms at the same time, which was 2 to 2.5 times that of China. The labors were mainly for male workers.

#### (5) US Demit

The company mainly produces denim fabrics and denim garments. It has a one-stop production capacity of ball warp dyeing, bundle dyeing, slashing, weaving, shaping and finishing. The production line of the plant was in good conditions. The main equipment were European and Japanese machines. The production management was in good order, the sanitation was excellent and the production line was in good conditions. The company has an annual output of about 50 million meters of denim, and the quality of on-site management was relatively high and presently is in full production. The American-style factory equipment put into operation in 2017 were advanced, and the digital information management of one-stop on-site cleaning, setting, signing and warehousing was also advanced and in good conditions, representing a high level of modern denim production line.

#### (6) Challenge

The company is a branch of the Shanghai-based knitwear garment factory established in Pakistan in 2013. It is currently a sole proprietorship and is the only Chinese-owned textile company in Pakistan. The Chinese side appointed 31 production experts to manage 2,200 local employees. The company has over 1,600 regular sewing equipment and mainly produces world-class sportswear products such as Adidas. Presently, the Company is in full production with stable quality. The annual output is 6 million pieces of garments, and the average monthly salary of employees is RMB 1,500. The annual output of the enterprise is about USD 4 million, and the profit rate is up to about 10%, and the tax rebate rate for the company is more than 7%. Therefore, the company is high profitable at level higher than that of domestic medium-sized garment plants in China. It is a typical successful case of the Chinese investment projects in Pakistan. Challenge brought more developed production industry and enterprise management from China to the textile industry in Pakistan. Chinese technicians trained local employees and attached great importance to the skills training for unskilled women workers. It is understood that the company planned to further expand the reproduction. It has planned to build a new 400-acre plant in Lahore, introduce fabric production lines and extend the product chains, and 15,000 employees are planned to be newly recruited by 2024.

## **(II) Information discussions with government departments and industrial organizations**

During the survey and investigation, the Expert Group also held themed informal

discussions with the Pakistan Federal Investment Commission, the Textile Division of Pakistan, the Faisalabad Industrial Real Estate Development and Management Company (FIEDMC), the Pakistan National Textile Industry Association (APTMA) and the textile business owners in Punjab. Through such communications and exchanges, it is understood that the textile industry, as a traditional advantageous industry and the most important export industry in Pakistan, has always been highly valued by the state in terms of industry planning, preferential policies and personnel trainings. Industrial authorities, industry associations and Pakistani textile companies in Pakistan are all positive in developing cooperation between Chinese and Pakistan textile companies, and are keen to further expand cooperation in trade, investment and technology exchanges on Chinese textiles. The large-scale textile enterprises in Pakistan have expressed the willingness to establish joint ventures with Chinese textile companies in Pakistan, and they also hope to introduce Chinese management technology to improve production efficiency and production quality.

The Expert Group also visited and surveyed the Faisalabad M3 Park and discussed with the management organization FIEDMC and the Chinese enterprises residing in the Park. During the survey and investigation, it was learned that the land reserves for first and second phases of the M3 Industrial Park had been basically occupied. The construction of the Allama Iqbal Industrial Zone, which was among the first batch of projects promoted under the China-Pakistan Economic Corridor, had not yet started. And it's scheduled to officially started in December this year under the witness of the Prime Minister. The development contractor has been awarded to the China Railway 17th Bureau Group Co., Ltd., and the development fund will be provided by FIEDMC. Presently, two Chinese-funded ceramic enterprises have confirmed their entry into the Zone. Presently, there is only one textile enterprise in the M3 Park, which is the carpet factory invested by the Chinese enterprise, the planned Allama Park is planned with an area of 560 acres for Chinese enterprises, and the textile industry zone has been initially planned within the Park.

According to related interviews, it's learned that enterprises and park operator still have many demands for preferential policies of the Park. Such demands mainly include: (1) Presently, Pakistan's preferential policy for SEZ (10-year income tax exemption for enterprises) will expire in June 2020. The management of the Park and the enterprises within the Park have proposed that the policy will be further extended until June 2030 and that the Federal Investment Commission will issue a formal extension announcement as soon as possible. (2) The enterprises in the Park hope to introduce "tariff exemption on raw materials for the development and construction of the Park" in the preferential policies of SEZ. The current policies only exempt tariffs on imported construction equipment. However, the enterprises are required to import a large amount of steel in the construction process, which is not tax-free. (3) The supporting infrastructure of the Park should be put into place. Presently, water, electricity and gas facilities outside the red line of the Allama Park have not been appropriately implemented. The power supply of the entire M3 Park has been quite tight, and the power supply problem of the new park has not been resolved yet. During the survey and investigation, it was learned that a 240 MW independent

power station was already being built outside the Allama Park. However, according to the regulations of the Pakistani government, the power generated by the power station should be directly supplied to the grid and will not be directly supplied to the Park. The Park Management Committee plans to build another 220 MW captive power plant (CPP) in the new park. However, as it lacks funds, it is hoped to have Chinese-funded enterprise undertake the construction. As it is impossible to clarify the power solution of the Allama Park as soon as possible, and problems such as sewage treatment and land leveling should also be solved by the enterprises themselves, the investment decisions of enterprises have been greatly affected.

#### IV. Problems of Large-sized Cotton Textile Enterprises in Pakistan

Through the survey and investigation, the Expert Group also preliminarily found some problems in the textile industry of Pakistan.

##### (1) The labor productivity of enterprises should be further improved

From the labor arrangement of the textile factories visited by the Expert Group, the labor efficiency of spinning mills has reached 3-4 times that in China, and for the weaving mills, the labor efficiency is twice that of China. A Chinese worker can operate 15 looms at the same time. However, in the large-sized factories in Pakistan, a work can only operate about 6 looms at the same time, and advanced production equipment have not been fully utilized. This is related to the level of workshop management, the level of workers' skills as well as the low labor costs in Pakistan.

**Table 2 Comparison of Production Efficiency of Spinning and Weaving Between China and Pakistan**

No	Classification	Item	Industrial Standard	China	Pakistan	Remark
1	Spinning	Size of spindles	Small-sized spinning	6.24 million spindles	21,000 spindles	Comparison of the new equipment put into production in Xinjiang in 2017 and those in Pakistan in 2019.
2		Equipment manufacturing	No	20% from Switzerland and 80% sourced domestically	100% from Europe, America and Japan	The textile machine applied in Pakistan represent the present advanced textile machine level in the world
3		Spun yarn efficiency	95%	93-96%	94-97%	The efficiency of fine yarns by imported equipment is 1-2% higher than that of Chinese equipment.
4		Yarn count product	High school and low support	Compact spinning JC40-60S	Compact spinning JC30-40S	Production of medium and low count stretch and bedding special yarns account for a relatively high proportion.
5		Raw material selection	100% raw cotton	Xinjiang machine picking/hand	US cotton/blended in Pakistan	All 100% of the original cotton

				picking cotton		
6		Product grade	Middle and top grade	Fine and high-count product	Medium and fine count product	The varieties under 30 counts in Pakistan accounts for more than 50%, and the proportion of denim stretch fabrics is relatively high.
7		Power supply method	Power grid	Power grid supply RMB 0.35/kWh	Independent power generation RMB 0.45/kWh	The power grid in Pakistan is unstable and the price is RMB 0.5/kWh. All of the surveyed enterprises have their own captive power plants.
8		Average yarn count	Fine count	52 counts	32 counts	
9		Fine spindle speed	High speed	19,000 r/min	20,200 r/min	The spinning in Pakistan is equipped with 1,632 spindles of Italian fine yarn with the rotation speed up to 21,500 r/min, and the spindle speed is about 6.5% greater than that of China.
10		Capacity per 10,000 spindles	120-140	130 tons/month production	140 tons/month production	Converted to the equivalent capacity of 40 count, it is at the advanced level in terms of monthly production capacity in the same field of China.
11		Labor per 10,000 spindles	15-30 labors	28 labors per 10,000 spindles	120 labors per 10,000 spindles	The male labors account for over 98% in the spinning field, which is a relatively high proportion.
1	Weaving	Size of weaving	Small-sized enterprises	228 air-jet looms	192 air-jet looms	Comparison and Analysis Between New Equipment in Pakistan in 2019 and Used Equipment in China in 2010
2		Equipment Conditions	Advanced	2005 weaving level	2018 weaving level	Equipment used in China were introduced from Japan 15 years ago, which the equipment used in Pakistan are latest and advanced equipment imported from Japan and Belgium and put into operation in July 2019.
3		Speed of Loom	Advanced	550-650r/min	700-800r/min	The rotation speed of air-jet looms in China is generally 550-700r/min.
4		Loom Efficiency	Over 92%	90-94%	92-95%	Pakistan is at an advanced level.
5		Product Structure	Ordinary	Shirt fabric	Stretch and bedding fabric	Pakistan has relatively high proportion for stretch and bedding fabrics.
6		Basic monthly output	1.8 million meters	1.55 to 1.7 million meters	1.8 to 2 million meters	Pakistan is in full production and is equivalent to the advanced level in China in terms of monthly output.
7		Weaving Operation	8 looms/person	10-12 looms per operator	6 looms per operator	The male labors account for over 98%. The production efficiency is relatively low.
8		Weaving	Weaving	Weaving I:	Weaving I:	The male labors account for

		labor	1:1.35	1.2-1.3	1:1.5	over 98% in the spinning field, and the total labor required is about 280.
<b>Note</b>						
1. The main product structure and grades of textile enterprises in China and Pakistan are quite different. In this survey and investigation, only data on capacity, energy, employment and efficiency was collected for simple analysis.						
3. Information on the three aspects of knitting, dyeing and finishing was not analyzed due to the lack of data for comparison.						

### **(II) The energy supply is not stable enough**

Due to the long-term power shortage in Pakistan, the textile industry had been greatly affected before 2013 and even presented a downward trend. With the construction of the China-Pakistan Economic Corridor for several years, the power shortage situation in Lahore and other places has been greatly alleviated, and the power supply for the development of the textile industry has also been guaranteed. However, during the survey and investigation, it was found that the unstable power supply still restricted the development of enterprises and was also one of the important factors affecting the investment of Chinese-funded enterprises. Due to the current unstable power supply of the power grid in Pakistan, many power grids are not able to supply power to enterprises. All the textile enterprises visited by the Expert Group have to build captive power plant to basically satisfy their own needs for power consumption, resulting in the increase of the cost of textile mills to by 10-20%. This further increases the investment cost and is not favorable for business promotion and investment invitation. Moreover, the textile enterprises visited basically produce steam from the self-built boiler workshops to satisfy the demand of dyeing and finishing production, resulting in the investment cost increase by about 10%, which is unfavorable for enterprises to control costs and also presents fire hazards. Textile enterprises in China have utilized waste heat from power plants to supply steam to textile mills. The steam price is RMB 80-200/ton, which is lower than the cost of self-produced steam from enterprise boilers.

### **(III) The state policies on textile industry parks are not clear enough**

Presently, the Pakistani government and industrial organizations have developed industrial development plans to attract foreign investment, further develop the textile industry, and planned to build textile industrial parks. However, preferential policies and specific development models supporting such parks are not clear enough. For example, during the survey and investigation of the Allama Park, although the Park planned a textile industry area, it lacked the investment target plan for the textile sector project. The textile industry chain was not clear, and more favorable policy conditions were not available to attract investment, keeping the textile investors waiting for a long period and unable to promote the investment. Moreover, during the visits to other textile mills, it is also known that the government departments in Pakistan provide little support for the pollution discharge and treatment of enterprises, and no construction of supporting sewage treatment facilities has been made. In the

future, to further develop the textile industry, the government departments in Pakistan must plan in advance and work appropriately in supporting the construction of sewage and environmental protection facilities.

## V. Key Aspects for Sino-Pakistan Textile Cooperation Based on Preliminary Diagnosis

Through the 6-day survey, investigation and informal discussion, the Expert Group has established an intuitive understanding about the highest level of the textile industry in Pakistan. It is also understood that the Pakistani government, industry and enterprises are attaching great importance to the cooperation between China and Pakistan textile enterprises with full expectations. The textile industry in Pakistan has a relatively strong industrial base, low labor costs and overall low production costs. The equipment of large-scale textile enterprises in Pakistan are quite advanced, and the concept, scale and management are also keeping pace with international levels, and the profitability of the enterprises is also satisfying. Pakistan has abundant textile labor resources. At present, 95% of textile workers are male with a certain skill level. Their ability to accept and learn new technologies is also favorable. Recruitment is not difficult and the labor costs are not high.

Through this survey and investigation, the Expert Group initially reached a consensus that there is a large potential for Sino-Pakistan textile industry cooperation, and it is possible to explore cooperation in four areas in the near future.

### (I) Garment production

Garment production is a labor-intensive industry that can solve a large number of labors and employment and produces high value-added textile products. China and Pakistan have relatively great number of complementary advantages for future cooperation. China has strong technical and management advantages in garment manufacturing as well as a large number of orders in the international market. Pakistan has a large number of textile labors as well as first-class fabric manufacturers. It has also preferential export tariff policies and hopes to expand clothing production and export. Therefore, it is quite beneficial for Chinese garment enterprises to invest in Pakistan. Shanghai Challenge's investment in Pakistan is currently in good operation conditions and is a successful case with steady increase in production and excellent production efficiency. The construction scale of garment factories is relatively small compared to textile and fabric factories. After the plan is further refined, it may be implemented in the near future. However, more detailed investigations and comparisons are still required to compare whether Pakistan has an advantage over Southeast Asian countries such as Vietnam, Myanmar, Cambodia and Bangladesh.

### (II) Artificial fiber manufacturing

Presently, the raw materials for the textile industry in Pakistan are basically only cotton and do not involve man-made fibers. All raw materials are required to be imported, adversely affecting the diversity of textile products of Pakistan. Judging from the development experience of China, the Expert Group supposes that there is a broad prospect for cooperation on man-made fibers in Pakistan. Pakistan is rich in cotton. And the surplus cotton products may be further processed into viscose fibers and natural fibers may be applied to produce chemical fibers. If viscose may be produced in Pakistan, there will be a promising market prospect. China is a big country in viscose production, and a 50,000-ton viscose production line may be considered in Pakistan. However, further research is still required to determine the conditions of local raw materials.

### **(III) Textile skill training**

From the survey and investigation, the cotton textile enterprises in Pakistan should further improve labor efficiency as well as product quality and grade. And Pakistani enterprises have repeatedly expressed the willingness of learning advanced management experience from China. The Chinese textile colleges, textile associations, textile enterprises may cooperate with the textile institutes and textile associations of the Pakistani side. First, data and indicators in the production processes of the Pakistani textile enterprises may be provided to the Chinese side for analysis and to identify key issues. Then professional and technical personnel may be selected from Pakistani textile enterprises to study in China so that practical problems can be solved and on-site training on different topics may be carried out. Personnel training is a long-term and gradual process instead of an accomplishment in an action. Related departments of China and Pakistan should jointly attach important and give supports in terms of policies and funds to enable smooth progress of the plan.

The China Textile Engineering Society has established close cooperation relationship with various textile colleges and universities and has established a number of textile technology R&D centers and industrial clusters with various textile companies throughout China. It has also established the B&R Textile Industry Alliance. Some textile colleges and universities in Pakistan have also joined the Alliance. Therefore, the advantages of can give full play to the advantages of the China Textile Engineering Society may be fully utilized in technical training.

## **XI. Proposals for Further Efforts**

### **(1) Establishing a long-term cooperation mechanism for industrial diagnosis**

Industrial diagnostic cooperation is a long-term process. It is impossible to figure out and solve all problems just in one diagnosis. Therefore, the governments of China and Pakistan should attach great importance to this by establishing a long-term cooperation mechanism, guaranteeing special funds, and carrying out related tasks on a regular basis. Under the leadership of the Chinese Secretariat of the China-Pakistan

Economic Corridor, the Chinese side can use CIECC as a platform to organize experts in production technology, process equipment and enterprise management in related industries in the China (especially with experience in production and management in practical enterprise operation). Technical experts) to visit Pakistani enterprises and carry out management consulting and information services in a deep-going manner. The Pakistani side is led by the Ministry of Planning and Development of the Pakistani Government with the Federal Investment Commission as the platform. Related industrial competent department, industrial associations, key enterprises and related institutions in Pakistan should participate in. Medium and small sized enterprises with specific demands or that are representative may be selected as pilot enterprises to cooperate with the Diagnostic Expert Group of the Chinese side. Both China and Pakistan may determine the industry (industries) to be diagnosed for the next year at the annual working group meeting for industries and industrial parks, and preliminarily determine the contents for cooperation.

The working capital may be composed of two parts. First, the NDRC may set up special funds for the diagnosis of Chinese and Pakistani enterprises in the annual plan, mainly for the daily office expenses, expert fees, conference fees, travel expenses, reception fees, etc. of the Diagnose Office; Second, if diagnose is request spontaneously by the Pakistani government or enterprises to invite the Chinese side to Pakistan, he expenses incurred thereof should be borne by the Palestinian side.

## **(II) Survey and inspection of the small and medium-sized enterprises and cotton raw material production in Pakistan**

The duration of current survey and investigation is relatively short. And the Expert Group only examined the textile enterprises with the highest textile level in Pakistan without examining the small and medium-sized textile enterprises that solved the most important labor employment and social and people's livelihood issues in Pakistan. Such enterprises represent the average level of the textile industry of Pakistan and are also in the most urgent need for transformation and upgrading. The survey did not examine the upstream of the textile industry and the cultivation and processing of cotton raw materials in Pakistan. According to experts, the levels of cotton varieties and matching techniques in Pakistan are relatively low, and there are still many areas to be improved. The quality of cotton is related to three important aspects of efficiency, output value and cost of textile enterprises. It is recommended that the two of the above-mentioned aspects should be considered in the next survey and investment.

## **(III) Carrying out industrial diagnosis in other fields at different levels**

The work of the Chinese Expert Group consists of two levels, of which one is the policy level and the other is the plant technical level, and the future industrial diagnosis is also based on these two levels in related work. According to the experience of Chinese experts, for the technical level, the Chinese side may select appropriate experts to visit enterprises in Pakistan, and investigate the problems of



production management and technical equipment in a detailed manner. Desired results may be anticipated in half a year or a year. At the policy level, the Pakistani government should attach great importance to the upgrading and transformation of the textile industry, establish a stable mechanism, and continue to invest in the development of the textile industry, so that the international competitiveness of the textile industry can be further improved in the future.

**CIECC will continue to make the best of the expert groups, continuously expand the team of experts as needed, and carry out diagnostic cooperation in industries such as steel, petrochemical and high-tech industries in accordance as requested by the Pakistani side, and visit the enterprises in Pakistan in a deep-going manner so as to contribute to the cooperation between China and Pakistan.**

**WORKSHOP PROGRAM**

<b>January 22<sup>nd</sup> , 2020</b>	
<b>1000 HRS-1015 HRS</b>	<b>Welcome Remarks by Mr. Qasim Raza Khan,</b> Executive Director General, Board of Investment
<b>1015 HRS-1045 HRS</b>	<b>Review of Textile Diagnostics Study</b> <b>Speaker:</b> Mr. Asim Ayub Project Director, PMU ICDP, Board of Investment
<b>1045 HRS-1115 HRS</b>	<b>Analysis/Feedback of Textile Diagnostic Study</b> <b>Speaker:</b> Mr. Kanwar Usman Director, Textile Industry Division
<b>1115 HRS-1145 HRS</b>	<b>Review of the Problems Identified by CIECC of Large-Scale Textile Mills</b> <b>Speaker:</b> Mr. Shahid Sattar All Pakistan Textile Mills Association (APTMA)
<b>1145 HRS- 1215 HRS</b>	<b>Review/Feedback on Textile Diagnostic Study</b> <b>Speaker:</b> Representative from Pakistan Textile Exporters Association
<b>1215 HRS - 1245 HRS</b>	<b>Q &amp; A/Discussion</b>
<b>1245 HRS - 1300 HRS</b>	<b>Closing Remarks by BOI</b>
<b>1300 HRS</b>	<b>Lunch</b>

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