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Japan International Cooperation Agency.

International Development Center of Japan.

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## Towards a Vision 2030: Direction of industrial development in Pakistan

### **Cover Page Footnote**

A Summary of the study conducted by: Japan International Cooperation Agency and International Development Center of Japan \* Presented by Hisaaki Mitsui and Hisaya Oda at the JICA Seminar held on November 29, 2006 in Avari Hotel, Karachi, Pakistan

January - June 2007

#### RESEARCH

### Towards a Vision 2030\*

Direction of Industrial Development in Pakistan A Summary of the Study conducted by

> Japan International Cooperation Agency and International Development Center of Japan

#### I. OBJECTIVES AND METHODOLOGY OF THE STUDY

P akistan needs to find out ways to promote expansion of the dynamic market economy. This Study attempted to present ways to promote industries, specifically in order to achieve "well-directed economic development" to be broken down into: upgrading of industrial structure, control of the underground economy and proper development of economic infrastructure. In addition, in relation to "building economic clusters, unique to its locality", concrete recommendations should be presented for the purpose of "well-directed regional development". The Study selected seven manufacturing sectors – textile, food processing, automobile, electronic & electrical, chemical, housing related and IT industries –, and looked into their current situations to know future prospects of growth, and identified things to be done for development. Moreover, the Study covered a whole country with emphasis on four cities, namely, Lahore, Karachi, Peshawar and Quetta. The Study attempted to identify the Leading Industries, which should drive the Pakistani economy in the future. Furthermore, the study analyzed the industrial clusters in several areas, which could contribute to vitalize regional economy.

The Study had the following two objectives:

- (1) Reveal the current state of the Pakistani industrial structure and of industrial policy, and identify future tasks in this regard; and
- (2) To consider and recommend future courses of Japanese support, in the light of the findings mentioned above as well as consultations with Pakistani authorities and the ODA Task Force stationed in Pakistan, concerning the Research Team's draft proposals on the country's industrial structure and industrial policy to be pursued in future.

The Study team subcontracted a Pakistan consulting company to conduct an manufacturing establishment surveys in order to identify leading industries and formulate recommendable industrial policy. From June to September 2006, the interview was made with the CEO of the surveyed firm. Various aspects of business information were obtained from over 500 firms from this survey. The surveyed firms are categorized by industrial classification and city in Table 1. Reflecting the structure of the industrial

<sup>\*</sup> Presented by Hisaaki Mitsui and Hisaya Oda at the JICA Seminar held on November 29, 2006 in Avari Hotel, Karachi, Pakistan.

establishment in the country, textile/clothing and food process sectors account for over one-half of total firm. Regarding the regional distribution, Karachi has 205 firms, make up 40% of total, following Lahore has 147 firms.

Table 1: The composition of industrial classification/city classification on research firm

	Daska	Faisalabad	Gujranwala	Hyderabad	Karachi	Lahore	Peshawar	Sargodha	Wazirabad	All cities
Textile Clothing	0	37	19	10	91	47	4	2	1	211
Food Processing	2	3	0	7	20	16	13	7	3	71
Automobile & Parts	2	0	2	0	21	14	0	0	0	39
Electronics	0	0	2	0	6	5	1	0	0	14
Chemicals	0	0	0	1	28	19	8	1	0	57
Housing related	0	0	2	5	35	39	14	1	6	102
Information Technology	0	1	0	0	3	0	2	0	0	6
Others	0	0	0	0	1	7	0	0	0	8
All sectors	4	41	25	23	205	147	42	11	10	508

Source: JICA Study Team

#### II. THE PRESENT SITUATION OF THE PAKISTANI INDUSTRIAL SECTORS

#### II-1 The Present Situation of the Pakistani Economic and Social Development

In 2005-06, the services sector accounted for over 52.3 per cent of GDP, and manufacturing is the second largest sector of the Pakistan's economy accounting for 18.2 per cent of GDP. The growth rates of manufacturing sector were remarkable during the last several years, 14.0 per cent in 2003/04, 12.6 per cent in 2004/05 and 8.6 per cent in 2005/06 respectively. The manufacturing sector and industrial sectors development are the government policy with overriding priority.

The first thing we should point out is that the share of industrial sectors has rather fixed in the past several decades. The traditional products such as food and textile still dominate the industrial sector. Food and Fiber System that consists of food including tobacco and textile is the main industry and its share did not change so much from 43.2% in 43.7% in a decade from 1985/86 to 1995/96. The share is still dominant in the whole industrial sectors. Food and Fiber System has dominated the export market as well. Cotton manufacturers, leather, rice and synthetic textile account for 71.8% of the total exports in 2004/05, of which, cotton manufacturer accounts for 57.4%. In the international market, cotton yarn, cotton cloth and leather products belong to a group of industries whose growth rates are the lowest. Even a country, which has experienced the rapid export growth of such products in the past, will easily loose its share in the market once the labor costs increase compared with other competitive countries. Furthermore, the fact that types of cotton fiver are limited in short and medium staple length in Pakistan and downstream of the woven cloth chain has not been well developed yet, the country mainly exports low value added and low quality cotton yarn, instead of high value added cotton products.

Labor productivity growth rate of Pakistan's industrial sector from 1992 to 2001 remained 1.48%, which is far less than those of other Asian countries such as India, Sri Lanka, Bangladesh, Malaysia, Taiwan and South Korea. Labor productivity growth rate of Pakistan's Manufacturing sector from 1992 to 2001 is 2.23 %, which is higher than those of Bangladesh and India, but less than those of Sri Lanka, Taiwan and South Korea. The main reasons of low rate of labor productivity in Pakistan can be derived from low rate of capital spending and low rate of human resource development including lack of education and training.

#### II-2 Importance and Direction of the Pakistani Manufacturing Industry

At the National Economic Council on the 27th May 2005, the following statement of Vision 2030 was accepted. It was also approved that the Planning Commission would prepare to draft a long-term plan to realize this vision. In February 2006, the Planning Commission presented the Approach Paper to show the orientation of economic development to achieve Vision 2030<sup>1</sup>. This paper sets specific quantitative targets as follows: "Pakistan per capita GDP (at constant market prices of 2004/5<sup>2</sup>) is expected to near quadruple by 2030, advancing from Rs. 43,000 (US\$ 742) in 2005 to Rs. 164,000 (US\$ 3,000) in 2030. For three decades from 1971 to 2000, the annual growth rates of the agriculture and services sectors are 3.89% and 5.82% respectively. If the two sectors continue to have comparable growth rates, the industrial sector, which includes the manufacturing sector, should grow by 9.83% per year to achieve the target of 7.0% annual growth rate of GDP until 2030. In any cases, the manufacturing industry should keep growing by near 10% a year on average in order to achieve the quantitative targets, highlighting the important role of manufacturing industry for the realization of Vision 2030.

Currently, Pakistani manufacturing industry is internationally competitive in low-tech and generally low value added products such as textile and food. This is clearly shown in the composition of exports of the country. Pakistan's highly competitive export products, mostly textile items and low-tech, still lead the domestic manufacturing. Due to their low-tech feature, however, foreign countries can easily enter into the market, and the price rather than the quality of the products determine the competitiveness in the market. Pakistani textile industry would remain competitive in the future by keeping and improving the competitiveness of products. However, if the manufacturing industry should grow by 10% a year, it is imperative to promote more high-tech, high valued manufacturing, which could expect increasing demand in the world market.

#### II-3 Selection of Leading Industries Following the Outcome of the Survey

This study is expected to specify "leading industries", which could lead the economic growth of the country to achieve the target of Vision 2030. From the viewpoint of leading

<sup>&</sup>lt;sup>1</sup> Approach Paper: Strategic Directions to Achieve Vision 2030, Government of Pakistan, Planning Commission, Islamabad, February 2006.

<sup>&</sup>lt;sup>2</sup> Pakistan's fiscal year starts on 1st July and ends on 30th June the following year.

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the economic growth for a long period, the leading industries should have some specific requirements. From the viewpoint of technological progress and quality improvement, the partnership with foreign firms in industrialized countries is the most effective.

Therefore, the industry, which has already established intimate partnership with sophisticated foreign industries, or the industry, which are highly export oriented, can be candidates of the leading industries. Therefore, the local manufacturing establishments survey, which is currently on progress, asks various questions focusing on the following three aspects (3L).

Linking: how manufacturers link with foreign capital or overseas markets

Learning: how manufacturers introduce new technology from foreign partners, promote R&D and train employees

Leveraging: how spillover effects are observed in other industries

On the basis of the analyses of the survey results, the possibility of each industry to be leading industry of the country shall be examined below.

#### **Textiles/Clothing:**

The export ratio is high and the sector is linked with foreign markets most closely among all sectors. After the removal of MFA, the export of denim and made-ups are particularly considerable. Moreover the magnitude of its value added and employment is so large, that it will certainly continue to form a backbone of the country's economy. Compared with the other sectors, however, the Textile/Clothing sector does not seem eager to introduce new foreign technology or carry out in-house R&D. It is expected that the sector should produce more high valued added goods in order to remain competitive in the international market. For this purpose, the sector should make much effort to introduce new foreign technology or to increase in-house R&D activities, so that it could develop new materials or design as well as strengthen the marketing capability.

#### **Food Processing:**

Oriented to domestic markets, this sector is not closely linked with foreign markets: only a few firms receive foreign technical support or import foreign equipment. R&D is not being eagerly carried out. Most firms are passive investors, and appear inclined to maintain status quo. The Food Processing sector has a close link with agriculture, and the sector is expected to play an important role in generating employment. However, from the viewpoint of 3L in this study, the Food Processing sector is less likely to be the leading industry, which drives the rapid economic growth in the country.

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#### **Automobiles/Parts:**

The sector is not closely inked with foreign markets, due to the large domestic demand. Exporting very little, the sector is not closely inked with foreign markets. Automobiles/Parts makers, however, are actively introducing foreign technology, and transacting with foreign or foreign-affiliated firms, which provide technical support on many occasions. Foreign equipment is being imported actively. Recently, the plant utilization is high and therefore equipment investment is being made actively. As the analysis of the input-output tables of Japan, Korea and Thailand was outlined in Chapter 1, the auto industry in every country is supported by wide-ranging industries enjoying substantial backward linkage effects. The sector consequently is likely to develop into a leading sector that will serve as an engine of the entire economy.

#### **Electronics:**

Though oriented to domestic markets like the Automobiles/Parts sector, the Electronics sector often enjoys chances to transact with foreign-affiliated firms in Pakistan, and to enter into a licensing agreement directly with foreign firms. Notably, R&D is being actively conducted and public R&D institutions are used frequently. Though adverse effects of smuggled electric appliances for home uses have been a cause of concern, the impact appears less serious than on other sectors. Investment in equipment is also being made actively. The sector, however, suffers low plant utilization in recent years, and firms in this sector are much smaller than in the other sectors. Beside, apart from a small number of large enterprises, manufacturing establishments in this sector are much smaller than those in the other sectors. The Electronics sector may not be able to develop into a growth-driving leading sector, but its future expansion may be hoped for.

#### **Chemicals:**

Being oriented domestically, the sector has only a weak linkage with foreign markets, having limited chances to receive technical support from foreign firms. Meanwhile, R&D is being carried out actively as R&D outlays per firm are in by far the largest amount among all the sectors. The sector's plant utilization is high in recent years. The sector may be expected to lead the economy, if active liaison is pursued with foreign-affiliated firms covering technology introduction, taking advantage of the globalization trend in future.

#### **Housing-related:**

Being inward-looking by nature, the sector has a weak linkage with foreign markets. Chances to receive technical support from foreign firms appear limited. The companies in the sector are not active in R&D, either: their R&D budget is limited in consideration of their large amounts of sales. As expected, the backward linkages with mining and forward linkages with the construction sector are strong, while the linkages with other manufacturing sectors also appear strong. In recent years, their plant utilization is high. Though hopefully the sector may lead the economy as a leading sector, a concern

is felt whether it will be able to maintain its competitive edges when a great deal of foreign competitors products flow into the country or the current construction boom come to an end in the future.

#### IT:

For this survey, IT sample size was very small, and was not enough for detailed examination of the sector's future. To begin with, however, there are only a very few firms belonging to the sector, and this was the reason why only a few samples were taken. It therefore appears safe to assume at this stage that this sector is unlikely to lead the country's growth in future.

# III. INDUSTRIAL DEVELOPMENT STRATEGIES AND THEIR POLICY OPTIONS

As previously pointed out, it is needed to achieve rapid growth of manufacturing industry so as to realize the objectives of the Vision 2030. This Study attempted to identify the leading industries of the country, which would drive the rapid industrial growth for the coming decades. This identification is followed by the suggestion of industrial development strategies and their policy options to promote the growth of the leading industries.

#### III-1 Industrial Development Strategies

The current industrial development policy of the government might not focus on promoting some specific groups of the industry, but on constructing a framework of incentive for all sectors of the industry. It was pointed out that "An old fashioned industrial policy approach, that seeks to promote a specific group of industries at the expenses of others, is eschewed for the simple reason that it rarely works" in the paper presented by the Ministry of Industries in 2005<sup>3</sup>. It seems widely recognized in the government that promotion of specific sectors does not work. Therefore, the government officers might have made little incentive to look at the features of specific sectors in detail, and to examine the possible industrial structure of the country in the future. Moreover, as being a "facilitator", the government officers seem to abandon the idea to seriously consider the direction of industrial development. It is surely an appropriate and valid approach to rely on the function the market economy to allocate economic resources. This should be one of the alternatives for Pakistan to adopt, as the country had a bad experience that the government was deeply involved in the management of the industrial sector, by nationalizing private establishments for instance, and that the economy faced severe recession afterward. However, this experience does not conclude that the government has no role in promoting specific groups of the industry by introducing policy measures. In all of the East Asian countries, including Japan, which achieved rapid industrial development, the government has played an active role in promoting specific groups of industry with a market friendly approach.

<sup>&</sup>lt;sup>3</sup> "Toward a Prosperous Pakistan: A Strategy for Rapid Industrial Growth", January 2005, Ministry of Industries, Production and Special Initiatives.

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With globalization, the manufacturing industry in the world is going to be reorganized. If Pakistan takes easy way to rely on the principle of the free trade and does nothing active to promote the local industry, the country might miss the bus and become an orphan in the middle of the global competition. The country might face the following two alternatives in enhancing industrial development:

- i) To construct the framework of incentives for all groups of industry, and rely on the principle of the free market economy or free trade in allocating economic resources of the country.
- ii) To prioritize the importance of the industrial sectors for the country and concentrate economic resources to promote these sectors in order to effectively utilize the limited resources of the country.

Between the two, which should be the appropriate strategy for the country to adopt in the coming decade? Decision makers in both private and public sectors should make intensive discussion on these alternatives. After the discussion, these decision makers should decide which ways the government takes to promote industrial development. At least, they need to look into the experience of the East Asian countries and examine the reason for their rapid industrialization, before reaching their decision about the Pakistani way for industrial development.

In the following section of this chapter, we suggest two strategies in order to enhance industrial development of the country, which are:

- i) Promoting high valued manufacturing
- ii) Ensuring effective implementing of industrial policy

These strategies are based on the Japanese experience in the post war period as well as the experience of rapid industrialization in Thailand and Malaysia after the mid 1980s. In the international trend of globalization, we believe that Pakistan should take these two strategies to achieve the target of rapid economic growth anticipated in the Vision 2030. Moreover, we have reached conclusion that the country is somehow suitable to adopt these strategies from our comprehensive survey of local manufacturing industries. We hope that our suggestion would be useful for the decision makers to examine the Pakistani way of industrial development.

#### (1) Promotion of Highly Valued Manufacturing

#### **Integral Manufacturing**

Many segments of the Pakistani market are already full of competitive and attractive Chinese products. When the trade with China expands in the process of globalization, it is unavoidable that Pakistani products should face severe competition with Chinese

ones in the domestic market. The Pakistani consumers are attracted to Chinese products due to their low prices. Even though the quality of these Chinese products is not fully satisfactory, it is expected that the demand for these cheap Chinese products might gradually expand in the future. If the Pakistani manufacturers also produce cheap and low quality products to compete with the Chinese ones, these Pakistani might not able to survive in the market. In fact, some Pakistani producers have already started making cheap and low quality goods by imitating the Chinese strategy or even by getting components from China. We do not consider that this is an appropriate strategy for the Pakistani manufacturers. It is needed to avoid direct competition with Chinese products. If cheap, low quality and counterfeit products are easily available in the market, it is very difficult to promote high-valued, high tech, and internationally competitive manufacturing in the domestic industry. The Pakistani should better introduce the strategy to focus on manufacturing highly valued, high quality products, and making its own brand recognized in the market.

One of the ways to realize this strategy is to strengthen the basis of so called "integral type production" for assembly-type manufacturing such as motorbikes, automobiles and electronics, in which product quality heavily depends on intimate coordination of each production process or component designing. The relationship between functions and components of the integral manufacturing is highly intricate. Each component affects each other and determines the quality of final products. Automobile is a typical example. Thus, long-term collaboration among assemblers and vendors is indispensable for this integral manufacturing, because the combination of uniquely designed components/considerably affects the quality of final products. When consumers want "product integrity" in the manufactured goods, or the competitiveness of the products depends on their compactness or weightlessness, in particular, the integral manufacturing is more appropriate. The institutional requirements for the integral manufacturing include 'subtle coordination of component designing', 'consistent control of production process', 'intimate coordination among sections in the company', 'close communication with customers', 'solid and stable interaction with customers', and 'support of multi skilled workers'.

The other type of manufacturing is the modular-type manufacturing. The characteristic of the modular-type products is that the relationship between the function and the component (module) is simple and close to one to one. Each component has it self-contained module, which has a rather independent function. Therefore, the exchange of signals among components is not often required, which means that the interface of production is relatively straightforward. In case one product has ten sets of functions, it is possible to manufacture the product by combining ten self-contained components, corresponding to the ten sets of functions. The designers of each module (component) do not worry about the designing of the other components and freely design their own products, so long as they understand the rule of designing upon the interface. The typical module-type products include personal computers, package software and bicycles.

Japan has an advantage in integral manufacturing, so their automobiles and motorbikes are much competitive internationally, while the US has an advantage in module

manufacturing, so their personal computers have sweeping competitiveness in the world market. China is relatively good at modular type manufacturing, and the Chinese manufacturers are producing labor-intensive modular products by mobilizing cheap labor force. In fact, China is becoming the production base of personal computers. China has rapidly expanded the production of automobiles and motorbikes as well. However, many of these products are made up with a variety of counterfeit and unoriginal components, without intimate and frequent coordination among component designers. Therefore, the quality of these products cannot be very high. In India, on the other hand, these counterfeit automobiles and motorbikes are not likely to be accepted in the market. Several homegrown manufacturers of automobiles have developed indigenous products with intimate and frequent coordination among stakeholders. Integral manufacturing seems to be suitable for the country. Moreover, the East Asian countries, such as Thailand or Malaysia, carefully avoided direct competition with China and achieved rapid industrial growth, by introducing the integral type manufacturing from the Japanese manufacturers.

Which ways does the Pakistani choose as the model of her manufacturing? Would the modular-type manufacturing of the Chinese model be selected, or the integral-type manufacturing of the Indian or the East Asian models be selected (see Figure 1)? One possibility is that Pakistani industry would decide to become a subcontractor of the Chinese industry, by introducing the same modular-type manufacturing. On the other hand, it is also possible to promote the integral type manufacturing in order to avoid direct competition with the Chinese industry. Considering the intense competition with the Chinese products in the domestic market, and the experience of rapid industrialization in the East Asian countries, we believe that the integral type manufacturing should be the appropriate choice for Pakistan so that she could promote high-valued manufacturing.

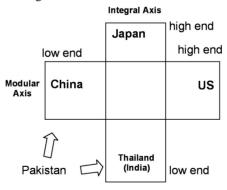


Figure 1: Where Each Country Fits in the Integral and Modular Axis?

In Pakistan, Japanese automobile firms have assembles cars and motorbikes for over 25 years. These assemblers have made significant effort to develop human resources suitable for integral manufacturing. In one of the Japanese assemblers, for example, around 400 senior technical staff workers out of 2,000 had opportunities to be trained at one of the

Suzuki's Japanese assembling plants to learn the root of integral manufacturing. The employees tend to stay long in the firm, and the seniors, who started working at the factory in the 1980s, occasionally instruct the younger staff about the integral manufacturing. Furthermore, these assemblers have kept steady and intimate relationship with domestic vendors for a long period. It is said that around 200 vendors are able to supply parts and components directly to the assembler. Out of these 200, 20% to 30% are regarded as "Tier 1", which could participate in the development process of the final products with the assemblers. For Pakistan, the accumulation of human resources who understand the integral manufacturing should be the outstanding asset. The automobile industry can be the model case for the country to learn the integral manufacturing. The other sectors should possibly learn the fundamental nature of this integral manufacturing by examining the experience of the automobile industry.

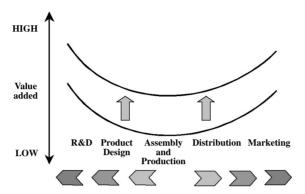
One of such examples would be the textile industry. The integral type manufacturing should considerably improve the international competitiveness of the Pakistani textile industry, by developing so-called 'new synthetic fiber'. 'New synthetic fiber' is produced by adjusting the designing of yarn with the function of fabric. The style of the integral manufacturing should be suitable for producing this kind of fiber. The integral manufacturing should be a key to make the textile industry generate high valued products.

#### Forward and Backward Extension of the Manufacturing Value Chain

The second way to realize the strategy is to extend the value chain of production toward the forward and the backward directions. The technical improvement in the whole part of the value chain is also required. Pakistan has a number of export-oriented SMEs producing a variety of products such as sport goods, surgical instruments, cutlery, bed wear and so on. As the subcontractor of European firms, many of these SMEs are only in charge of simple processing work, or producing low-valued commodities, such as disposable surgical equipments. Product design is usually supplied by European firms, so the potentiality of local Pakistani designers cannot be fully realized. Moreover, these SMEs find it difficult to explore new business opportunities as the European firms control the marketing of the products.

Malaysia had a keen interest in extending the value chain toward the forward and the backward, and improving technical level of the production. So the Malaysia government and presented the direction of the local manufacturing industry using the catch phrase of "Manufacturing Plus Plus" in the Second Industrial Master Plan (1996-2005). Pakistan should also transform its labor-intensive and simple processing manufacturing into high-valued, productive and efficient manufacturing, by extending the production value chain toward forward, backward as well as upward. In some sectors of the industry, such as textile and clothing, the industry associations have led the effort to establish the institutions to develop human resources for industrial designing or marketing. The government should support such effort so as to make full use of the talented and highly motivated young staff in the country.

<sup>&</sup>lt;sup>4</sup> Based on the information from the CEO of a Japanese assembler in Karachi (September 14, 2006)



Source: Malaysian Industrial Master Plan 2

Figure 2: Concept of Manufacturing Plus Plus

#### 2) Ensuring Effectiveness of the Industrial Policy

As previously mentioned, the basic principle of the current industrial policy is being a "facilitator", which might mean that the government constructs the framework of incentives for all groups of industry so that each of them can equally gets benefits from the government policy. Due to this principle, the government officers are declined to introduce any policy measures to support specific sectors of the industry. In addition, the government officers might consider it unnecessary to understand the unique features of each manufacturing sector. Occasionally, several CEOs of major firms are invited by the government to attend meetings, and required to comments on the government policies from the sectoral viewpoints. The government officers might be pleased with themselves in such way of "public-private partnership", but these CEO's comments do not necessary reflect views of the whole segment of the industry, and could mislead the direction of the government policy. Moreover, even though the government officers formulate some industrial policies on their own, their effective implementation and useful monitoring can no longer be realized without pervasive participation and cooperation of the private entrepreneurs. It is useless to have a policy without clear road maps and effective implementing measures. The private sector's view that "the government only presents proposal or vision" could be reflected on such feeble institutional settings.

In the first place, the government officers alone can no longer grasp the realities of business in the manufacturing sectors, which are rapidly changing in the trend of globalization. Unless the frequently updated business information is available, the officers are not able to formulate any appropriate policies. Moreover, unless the wide segment of the private entrepreneurs recognize and support the policies, they cannot be effectively implemented. It is indispensable for the Ministry of Industries to have intimate relationship with the private sector, and to ask the private sector to cooperate in collecting business information, implementing policies as well as monitoring the government programs.

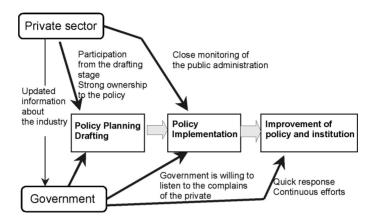
Furthermore, industrial promotion is deeply related to other policy issues, including trade policy, HRD policy, environmental policy, urban development policy as well as infrastructure policy. So, it is also needed for Ministry of Industries to closely coordinate their programs with programs of the other government institutions in charge of those issues. Therefore, we would suggest how to ensure effective implementation of industrial policy from the following two viewpoints;

- Promotion of public-private partnership
- Promotion of intra government coordination.

#### **Promotion of Public-Private partnership**

It seems that the public-private partnership in Pakistan has already been the basis of economic management. The initiative of the current government is positively perceived, even though this partnership has not been fully matured yet. The private sector tends to depend on the government support, while the government hardly understands the realities of private business. The government usually considers that "the private sector iust presents its wish list", while the private people often criticize that "the government only presents proposal or vision (without any road map of implementation)." The private entrepreneurs should make much effort to be self-reliant and become capable of competing in the market on their own without asking for the government support. The government officers, on the other hand, should make considerable effort to understand the realities of business. Occasional meetings with CEOs of major entrepreneurs do not provide precise and comprehensive information about the domestic manufacturing business in the field. After the both private entrepreneurs and government officers make these efforts, they are able to discuss the way to promote industrial development in the country. Following these matured and intimate relationship between the private and the public, it is possible to formulate and implement industrial policies that should truly contribute to the growth of local manufacturing industry.

In the East Asian countries, highly intimate and frequent cooperation between the private and the public has been institutionalized which resulted in substantial industrial development in the last few decades. In fact, public-private partnership is rather broad concept, having a variety of forms. For instance, we find a simple and one-way partnership form, in which representatives of the private sector, usually CEOs of large firms, made comments on the policy documents drafted by the government officials. On the other hand, we can also find more deeply rooted and complex forms of private pubic partnership, in which the private sector participates in the formulation of the industrial policy from the drafting stage, or the whole exercise is even initiated by the private sector. The public-private partnership, which has been observed in the East Asian countries, is the latter form. The involvement of private sector has been very significant, in each stage of drafting, implementing and monitoring the industrial development policy.



The public keeps listening to the voice of the private. Policy is not effective if the private has no interest.

Source: JICA study team

Figure 3: How the Private and the Public Collaborate to Formulate and Implement Industrial Policy

In East Asian countries, the private business organizations, such as industrial associations or chambers/of commerce, have significantly developed their institutional capability. They have developed highly sophisticated system to deliver information to the member companies as well as to collect and analyze domestic and overseas business information. They can provide the most updated business information to the counterpart division in the Ministry concerned, and the private and the public closely collaborate to formulate the industrial development policy. As the private sector has been involved in formulating the industrial policy from the beginning, the private has a strong ownership to the policy. Due to this strong ownership, the private also has a keen interest in the implementation of the policy, and closely watches the performance of implementing agencies. When the private watchdogs find any problems, they have no hesitation to report the problems to the government. The government authorities are willing to receive to any suggestions or complaints from the private businessmen, and immediately cope with these problems to improve business environment (see Figure 3). It is necessary for the government to keep listening what the private sector says. If only the government officers initiates the drafting of industrial policy and private involvement remains very limited, such policy cannot be effectively implemented, because the private sector does not show much interest in the policy.

As previously mentioned, the relationship between the private and the public sectors is rather weak in Pakistan. The private businessmen generally have a sense of mistrust, and this sense could be deeply rooted. This sense of mistrust might have been generated when the government confiscated private business in the 1970s, and this suspiciousness has not been completely wiped out. The subsequent lacks of consistency in the

economic policies and the frequent changes in the policies have failed to build trust to the policy among the private businessmen. At the same time, the government does not have a full confidence in working with private business associations. It sometimes happened that the representatives of major business associations were not invited to the meeting that discuss the critical economic policy that severely affected the sector concerted They could be rather isolated cases of the mutual mistrust between the private and the public. However, such a deep-rooted private mistrust to the government should not generate any benefit to achieve the target of rapid industrialization.

In order to improve the relationship between the private and the public, the attitude of the government officials toward the private sector should be reconsidered. In addition to this, the private sector, the private business organizations in particular, should make utmost effort to develop their capability. There are a variety of business associations or chambers of commerce in the country, but most of them are not equipped with highly sophisticated system to collect and analyze business information, to propose practical policy suggestions to the government and to deliver business and policy information to the member firms. These associations just have engaged in some sorts of shortsighted lobbying or rent-seeking activities. Few of them have developed a long-term strategy to nurture their industry as a whole in the trend of globalization. It is extremely important to enhance the capability of business associations, so that the government can recognize them as fully reliable partners.

Particularly, a large business association like FPCCI needs to have a professional secretariat hiring numerous professionals who will carry out research by means of specialized expertise. As FMM (Federation of Malaysian Manufacturers) is aware, any respectable business association should not be dominated by a small number of its Board members if it intends to fairly represent interest of its constituent industry. Unless the business association acts in proper reflection of the industry's interest, it can neither satisfy its members nor be trusted by the government as its reliable partner. In Pakistan, too, business associations that are equipped with a professional secretariat should be fostered. A meeting between such trustworthy associations, the government agencies and other stakeholders would lead to formation of concrete government proposals and visions, discouraging private associations to stick to their egoistic wish list. Earnest public-private discussions are now essential in order to design strategies and policies that would prevent Pakistan from becoming isolated in global competition, which is restructuring manufacturing sectors of the world.

#### **Promotion of Intra Government Coordination**

A variety of government institutions are directly or indirectly related to the implementation of any industrial promotion programs. Without an effective mechanism of coordination among these institutions, it is difficult to implement industrial promotion programs, which should cover a variety of issues. Pakistan does not seem to have such an effective mechanism. No policy is meaningful, unless it is effectively implemented. The government should make much effort to develop mechanisms to coordinate public programs to support local industry, and to strengthen its capacity to implement and

monitor such programs. It is said that the President and the Prime Minister invite the head of relevant ministries and agencies for every two months and discuss critical economic issues and policies in order to coordinate their strategies and activities. Moreover, Planning Commission should also be responsible for promoting coordination among ministries in charge of economic development. However, a number of private entrepreneurs as well as representatives of foreign donor agencies pointed out that the activities of various ministries are not still well coordinated.

Success in industrial promotion hinges on a variety of policies and permit granting administration consisting of encouragement of, among others, incoming foreign direct investment, SME promotion, urban development, road building, environmental protection, industrial standardization and protection of intellectual properties. Pakistan lacks a strong policy-making body that integrates formulation of such a variety of policies. With strong leadership of the President and Prime Minister, inter-ministerial rivalry should be eliminated and policy-making should be concerted for the purpose of industrial promotion.

In this connection, we should look at the strong leadership of the Malaysian Minister of International Trade & Industry that has effectively facilitated intra-government coordination in the fields of trade, investment promotion and industrial promotion, contributing to efficient management of the Malaysia Industrial Development Agency (MIDA) and other policy execution. Taking into account such success stories in East Asia, Pakistan is advised to form an effective framework of intra-government coordination.

In order to formulate appropriate industrial policies, to execute them efficiently and to monitor them closely, both public-private partnership and intra government coordination should be promoted. Effectiveness of industrial policy is ensured by both business associations armed with capable professionals and the government using decisive leadership (See Figure 4). This is a lesson learned through experiences in such East Asian countries as Thailand, Malaysia and Japan, which succeeded in industrialization. Pakistan is not necessarily advised to copy entire track records of these countries because its social and historical background differs from other countries. Pakistan, however, is at least recommended to take into consideration experiences of these already industrialized countries in order to build her own systems that would match her situations.

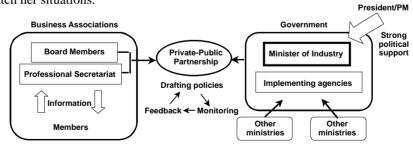


Figure 4: Institutional Framework for Effective Implementation of Industrial Policy

Source: JICA study team

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#### **III-2 Policy Options**

These two industrial development strategies should be applied to a wide segment of manufacturing industry in order to strengthen international competitiveness and to achieve high industrial growth. It is practically feasible to realize these strategies using specific groups of the industry as role models in order to demonstrate the effectiveness of the strategies. Therefore, the study team presents the following three policy options as the role models, which are "promotion of automobile industry", "export-oriented SME cluster production", and "strengthening of industrial design and marketing capability".

#### (1) Promotion of Automobile Industry

The automobile industry<sup>5</sup> is qualified as a leading sector endowed with a potentiality to activate the country's whole private sector and to strengthen industrial competitiveness. The industry is expected to develop into a major engine of the economic growth, due to the following reasons.

- Automobile manufacturing requires a number of parts and components, which
  suggest that automobile industry needs a wide variety of supporting industries and
  that it has large spillover effects to the other segments of the industry.
- Automobile should be a dynamic industry, with the largest and increasing share in the export market in the world.
- Automobile industry is a typical example of integral manufacturing, which generates high value added.
- Automobile industry has recently expanded considerably due to the increasing purchasing power of domestic consumers.
- Automobile industry has attracted several foreign investors for over two decades, resulted in rich accumulation of technological know-how.
- Automobile industry is the representative of domestic engineering industries.
- The Government of Pakistan, Ministry of Industries in particular, places emphasis on the promotion of automobile industry.

It would therefore be wise to designate the automobile industry as a "model sector", which would be designed to demonstrate rationale of Pakistan's industrial strategies.

Ministry of Industries as well as EDB plans to expand motorbike's outputs up to a million units and cars' outputs up to half a million units by 2010. They are of the view

<sup>&</sup>lt;sup>5</sup> The automobile industry is composed of manufacturing of cars, motorbikes, trucks, tractors, and their parts.

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that production of these magnitudes would be enough to induce foreign vendors including Japanese vendors to invest more in Pakistan to accelerate development of auto-linked supporting industries. However, it is too optimistic to assume that the automobile production will increase without concrete policy support. Furthermore, even if the targeted production should be achieved, foreign vendors would not necessarily make desired investment. What should be done to enable the automobile industry to grow rapidly in the face of tough international competition? For the purpose of promoting "high value-added manufacturing industries" and formulating "effective industrial policy", the following four concrete policy proposals are made:

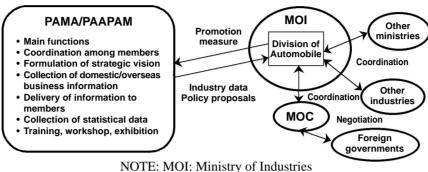
#### To Create an Automobile Division under the Ministry of Industries

Pakistan suffers shortage of professional bureaucrats who have hand-on knowledge in automobile manufacturing and the world trend of the industry. As the Ministry of Industries is organized in accordance with across-the-board functions, no organization specializes in any individual industry. The government consequently is advised to create an Automobile Division under the Ministry of Industries, which is expected to know major tasks faced by the industry, share such knowledge with the industry circle, and draw up a road map for the industry's promotion based on a long run prospect. Policies proposed in the map should be put into practice steadily in collaboration with other agencies concerned. This is the way to ensure consistent policy formulation.

#### **To Strengthen Business Associations**

In the automobile industry, two associations have been founded: PAMA organized by assemblers and PAAPAM by vendors. PAMA has its head office in Karachi, while PAAPAM has offices in Karachi and Lahore. Their duties are to collect industry information, to make a strategic plan, to supply information to the government, and to compile statistics. Among these duties, statistics compilation is of the most urgent needs, because offices do not even know exactly how many units of cars are being sold in the country. The associations are now expected to strengthen manpower of its secretariat and to act as the reliable partner of the government, supplying useful information and helping the government execute its policy.

In liaison with the established Automobile Division, the associations strengthened by such support would realize closer government-industry collaboration in a way that would facilitate drawing-up of the auto industry's promotion policy and its effective execution. Figure 5 depicts the roles of the government and the two associations as well as the relationship between them.



MOC: Ministry of Industrie

MOC: Ministry of Commerce

Source: Study Team

Figure 5: Expected Roles of Division of Automobile and PAMA/PAAPAM

#### To Upgrade Technical Expertise of Vendors

Protected by the Deletion Program in the last three decades, vendors are not eager enough to improve their product quality and delivery accuracy and to cut costs, while they often merely plead assemblers and the government to protect and support them. A few of them, however, have achieved the world class manufacturing standards thanks to a technical tie-up with foreign vendors. Decisive difference is observed respecting mind-set of management and factory technicians as well as skills in their process control between makers with technical support of foreign makers and those without such support. For the purpose of upgrading of technical levels of parts makers, handon support by foreign makers would be most effective. Some types of institutional framework should be developed in order to promote such hand-on support to domestic vendors.

#### To Improve Industrial Infrastructure

Industrial infrastructure of the country is far less developed than that of the East Asian competitors. Poor infrastructure is the severe bottleneck for the promotion of automobile industry. The supply of electricity in Karachi is particularly unstable. Even inside the industrial estate the manufacturers suffer from the frequent blackout. It is extremely necessary to improve the condition of the power supply at the industrial estate immediately. Moreover, in order to attract foreign investors in the automobile industry, the development of fully serviced industrial estates should be taken into consideration.

#### (2) Export-oriented SME Cluster Promotion

As indicated in the previous chapter, SMEs account for 99% of total enterprises in Pakistan. Therefore, vitalizing SMEs has prime importance for the industrial development of Pakistan. Considering the fact that most major companies are located in big cities

such as Karachi and Lahore, it becomes an even more important task to strengthen SMEs as a means to develop regional economies while sustaining the values and cultures in those areas. Compared with SMEs in advanced countries, however, Pakistani SMEs have much lower levels of capacity in terms of technology, finance, and operational and production management, which makes it difficult to raise the overall level of SME capacity. With this background, the study proposes to focus on 'Exportoriented SME clusters'.

There are export-oriented SME clusters in Pakistan such as those in Sialkot and Wazirabad. The government has provided assistance to SMEs and clusters in those areas through various programs. The study does not see any need to propose additional programs. If, however, we evaluate the present programs in terms of promoting export-oriented SME clusters, there are several weaknesses in the programs' direction, as well as impediments in implementation mechanisms. Taking these weaknesses and impediments into account, the study would like to propose the following policy options and future vision for promoting export-oriented SME clusters.

#### Fostering a Favorable Environment for SME Growth

SMEs face various bottlenecks hindering growth in terms of finance, human resources, government regulations, market distortions and infrastructure. Especially the lack of contract enforcement has resulted in compelling SMEs to resort to excessive self-production or long-term transactions with only limited trusted customers, which weakens linkages within the cluster and thus significantly erodes its competitiveness. In addition to institutional deficiencies, bottlenecks caused from bureaucratic burdens, such as corruption, frequent and often multiple inspections, and delayed procedures, heavily undermine SMEs' potential for growth. It should also be noted that these burdens are heaviest for middle-sized enterprises, which may cause SME to choose to stay small. No SME assistance programs can be fully effective unless these bottlenecks are removed. Since there have already been comprehensive policy recommendations made through other studies, these recommendations should be implemented in a timely manner.

Various institutions exist, both public and private, for offering SME assistance, such as SMEDA, EPB, SME Bank and Provincial Small Industries Corporation. However, utilization of their services has not been satisfactory. One of the reasons for low utilization is that these institutions have limited branch networks, and SMEs have difficulties accessing their services. In addition, the fact that these institutions have specific functions but do not have any linkages with each other discourages SMEs from approaching these institutions. It would be desirable in the long run if these services could be integrated into 'one window' for SME users. In the short term, the study proposes that the two steps be taken to improve accessibility for SMEs, which are "Networking of Relevant Institutions", and "One-window for Integrated SME Services".

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#### **Strengthening Business Associations**

Business associations can play a pivotal role in strengthening the competitiveness of both SMEs and clusters, since they are in the best position to identify the exact needs and real views of SMEs in the cluster. The functions of business associations at present are, however, more inclined toward lobbying, especially regarding tax or subsidy issues aiming at favorable treatment. Associations have to develop the capacity to make more concrete and constructive proposals to the Government for their future development based on their study of their own industries and member companies. In addition they have to have the capacity to lead activities for enhancing the competitiveness of their industries by communicating with such organizations as research institutes or other relevant organizations, both domestic and foreign, in order to collect the latest information on markets and technology, and disseminating it thorough seminars or newsletters to their members.

#### **Enhancing the Competitiveness of Clusters**

The government's assistance to clusters lacks focus. In order to strengthen the competitiveness of SMEs, assisting export-oriented clusters whose SMEs have a certain level of competitiveness is effective. For clusters not reaching this level, capacity development of respective SMEs is more important. From this point of view, the study recommends some redirection of assistance policy, focusing specifically on export-oriented SMEs for cluster assistance, while remaining resources should be diverted to capacity development and support for individual SMEs. The principle of competition should be inherent in the selection of SMEs for assistance, with clear and transparent selection criteria established and followed.

# **Establishing Comprehensive Frameworks for Regional Economic Promotion Through Clusters**

Local governments have the advantage of close proximity to the companies operating in the area and thus are in a good position to find out the real needs of SMEs. In addition, since they are responsible for the betterment of the living environment for workers, the improvement of education and health services for their families and the improvement of infrastructure, they can incorporate these functions into an industrial promotion strategy in order to achieve comprehensive regional development. With the view of developing regional economic centers which sustain their own value and cultures, social-sector development should be incorporated with economic development.

The role played by District governments in industrial development is minimal at present. They do not have enough capacity to carry out all the necessary functions for industrial development either. In the long run, however, it is desirable for District governments to take a leading role in industrial development. For this purpose, the District governments should develop capacities and strengthen linkages with relevant organizations such as Provincial governments, SMEDA and EPB through existing frameworks to prepare themselves fully for their future role in industrial development.

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#### (3) Strengthening Industrial Design and Marketing Capabilities

As discussed, it would be the right strategy that industries in Pakistan will focus on producing value added and high quality products to have comparative advantage against products in other countries and to differentiate their product from others, rather than producing low value goods and products. In this context, this section will discuss value addition and differentiation by strengthening 'Design and Marketing' capabilities of industries. In order to improve the capabilities, public-private partnership approach (PPP) is worth considering adopting.

#### **Strengthening Industrial Designing Capabilities**

The industries, which are facing with severe competition in the world markets such as textile, bedware and apparel, fully recognize the limited potential of developing their products as far as they produce foreign branded products. Therefore, with the strong initiative of business associations, various vocational institutes were established. These institutes formulated the curriculum in response to private industrial sectors' demand and hence, designing become one of the major courses in these PPP based institutes. Thus, Pakistan immediately needs to set out policy of industrial design promotion. The policy must reflect high demand for domestic industrial design development and a situation where Pakistani industries are exposed to sever world competition. The policy must show a way to compete rivals. China, South East Asia and India now have associations for advancing industrial design, and organize much different type of projects annually. Pakistan can afford no further delay. The first industry group to examine and improve their design can be textile industry, especially cloths design, curtain and bed sheets. Probably design of furniture, leather products, residential interiors and computer graphics can be another group of good candidates. Design for domestic products or export products is another important issue where strategies and approaches of design development can be completely different.

#### **Strengthening Marketing Capabilities**

The more an industry faces sever competition in global markets, the more it needs to increase the values of the products through improving designs and to improve marketing capabilities of the products. Some industries have already launched on strengthening marketing capabilities. For example, in the case of textile industry, APTMA, which traditionally supported human resource development in the fields of production technology such as processing, engineering and mechanical, established Textile Institute of Pakistan (TIP) in 1999 in order to provide training courses on product development, marketing and designing. TIP has gradually increased the courses and now two courses named "Textile Management and Marketing" and "Apparel Manufacturing and Merchandizing" are organized.

Enhancement of marketing skill is also very important for the export oriented SME clusters. These SMEs are hardly responsible for the development of new products or

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new markets, and their foreign buyers usually take these responsibilities. Therefore, once these SMEs terminate business linkages with the foreign buyers, they might loose any customers in the overseas market. Some types of subsidy scheme should be introduced to strengthen marketing skills or to promote R&D of these export oriented SMEs.

#### Strengthening Public-Private Partnership (PPP)

While industrialists' strong demand for designing and marketing specialists exists, it is costly to train such people in a way that vocational institutions provide students with appropriate teachers/experts who fully understand current market situation, and well maintained, not outdated facilities that are presently utilized by private firms. Under such a situation, it is rather difficult for public vocational schools, which receive nominal tuitions fees and limited budgets, to cope with such strong industrialists' demand. Therefore, it is highly recommended to consider the possibility of adopting the PPP approach to strengthen any private initiatives that try to train necessary people by themselves.

At first step of industrial design promotion, careful study is required to identify what kind of design is premature in which industry. After identification, the study must explore what kind of approaches should be taken. It is strongly stressed there is no easy package type of assistance for supporting industrial design. Government officials must sincerely learn facts from people working at a particular industry. This will be second step. The experiences in Japan, U.S. and Europe clearly show that top-down strategy by government for developing industrial design will be failure. People at the industry know requirement and shortage of design much more and better than government officials. When the Pakistani government plans to establish an industrial design association, some of executive members must be coming from industry sector to directly reflect their needs. In this context, the government officials pay a lot of attention to the fact that no particular company or group can only get benefit for their decision. Here, the government officials are not decision makers, but must be good facilitators to stop any company searching for its own profit. In this way, public-private partnership can benefit the private sector.

No, those who turn good into great are motivated by a deep creative urge and an inner compulsion for sheer unadulterated excellence for its own sake. Those who build and perpetuate mediocrity, in contrast, are motivated more by the fear of being left behind. Jim Collins