

## **Part III: Conclusion and Recommendations**

# **1 Conclusion**

## **1.1 Strategic Direction for Strengthening of Management Capability**

With accession to WTO membership, the Jordanian economy is moving toward a new stage of development, where many export markets become accessible to Jordanian products, while the domestic market is opened to numerous imports. Thus, the manufacturing sector must establish competitiveness against foreign products in the open market, which forms the basis of strengthening the managerial capabilities of domestic enterprises.

### **1.1.1 Major Issues Facing Jordanian Manufacturers and Development Potential**

#### **Previous discussion**

Extensive discussion has been made in Jordan on the issues facing the economy, and particularly on weaknesses. These are narrowed down to the following points, as pointed out in Vision 2020.

- 1) Excessive bureaucracy and red tape
- 2) Lack of a unifying economic vision
- 3) Distrust between the private and public sector
- 4) Corruption and lack of public sector accountability
- 5) Regional instability
- 6) Limited market size
- 7) Water shortages
- 8) Disappointing economic growth rates

In addition, the lack of direct investment from industrialized countries is considered to be a major weakness of the Jordanian economy.

The above are often pointed out by individual enterprises as major causes for difficulty in the work of corporate management. Complexity exists, however, in that these points contain diverse issues that require different solutions, i.e., those that must be addressed by each enterprise as constraints inherent in the country's industry; those that must be analyzed and turned around to be made into advantages; and those that require the government's cooperation or assistance. In particular, individual enterprises must view and accept these issues as challenges they face in the process of developing

competitiveness in the open market.

#### **Major issues facing individual enterprises**

The following issues face Jordanian manufacturers in becoming competitive in the open market.

- 1) Product policy is not established on the basis of in-depth analysis of the market needs and their own management resources. As a result, most companies can only supply products that have no distinguished features compared to imported goods or provide services that cannot be distinguished from those of competitors, and hence they have no choice but to compete on price.
- 2) Most products made by Jordanian companies are offered in the market for a fairly long period of time, without design change or upgrading. As a result, products become obsolete and are not promoted by retailers, who tend to keep them away from consumers.
- 3) To survive in price competition, many companies cut production costs, including costs of raw materials, parts and labor. However, cost reduction efforts are often made for short-term objectives only and weaken the corporate foundation, contrary to the intended idea.
- 4) Overall, most companies appear to maintain a corporate culture similar to that of a trading company (distributor), rather than one suitable to a manufacturer. They are not interested in improving product quality by accumulating production know-how. Thus, manufacturers do not have infrastructure or resources for product development, model changes and product upgrading.
- 5) Most companies do not know their own advantages partly because they lack technical know-how related to product development and production, so that they opt to make products that are popular in the market from time to time, often preventing them from leveraging their previous experience.

#### **Success factors of successful enterprises**

Jordanian manufacturers that operate successfully at present with ensuring the customers stably, are generally described as follows.

- 1) They are mostly characterized as manufacturers having flexible production capabilities (i.e., making a wide variety of products in small quantities), rather than being mass producers.
- 2) They generally strive to meet the customer needs as far as possible, including product specifications and delivery schedule.

- 3) They have technical capabilities (production skills, etc.) to meet the diverse needs of customers. They hire technical staff according to a manpower plan and provide in-house education and training.
- 4) They offer one or two differentiating factors other than price, e.g., performance, precision, quality and service.

#### **Potential Strengths of the Jordanian Economy**

Vision 2020 describes potential strengths of the Jordanian economy as follows.

- 1) Dynamic leadership
- 2) Educated population
- 3) Internal stability
- 4) Open-minded private sector
- 5) Reasonably good infrastructure
- 6) Clear areas of comparative advantage and “sunrise” industries

As viewed from the manufacturer sector and individual enterprises, however, these strengths remain potential and are not fully utilized as yet. What is required is the strategy to turn the potential strengths to real ones.

#### **1.1.2 Required Direction of Strengthening Management Capabilities**

Given the market opening and imminent competition, Jordanian companies are expected to develop management capabilities that allow them to enter the export market with some competitive edges. They should be able to develop and demonstrate their own advantages. In particular, they should have:

- 1) Ability to understand the market needs; and
- 2) Ability to manufacture products and provide services according to customer requirements.

### **1.2 Examination of the Organizational Setup for Implementation of the Plan for Strengthening of Management Capabilities**

#### **Functional Requirements for the Promotion System**

Based on the analysis of the major issues identified in relation to planning and implementation of programs to upgrade management capabilities of domestic manufacturers, the promotion system contemplated in this study must meet the following

requirements:

- 1) It must have the ability to establish a strategic direction of promotional activities and concentrate resources on achievement of the strategic goal.
- 2) Its implementation body (leading organization) must be capable of managing promotional programs in an efficient and effective manner, without losing creative and innovative initiatives
- 3) Programs supporting the target industries should meet the requirements of industry, particularly regarding the improvement of international competitiveness.

To meet the above requirements, the following functions need to be incorporated into the promotion system.

- 1) A function to establish the strategic direction of programs, monitor the progress of programs against the strategic direction, and see to it that they are implemented toward their common goal in a balanced manner (decision making and steering function)
- 2) A function to implement individual programs efficiently, without losing creative and innovative initiatives (program implementation function)
- 3) A function to reconcile the above two functions to deploy the strategic direction to actual programs, while securing resources and tools (including the legal and other systems) required for program implementation (intermediate coordination function)

#### **Difficulties experienced in past program implementation**

Some of the factors causing difficulty in implementing the plans may be as follows:

- 1) Requirement of financially self-supporting organization and program
- 2) Lack of experienced planners and organizers, who could take the initiative in implementation
- 3) Lack of experienced instructors
- 4) Lack of industry's willingness to rely on the Government to lead the programs

#### **Discussion on the organizational setup for the plan implementation**

##### **(1) Steering function**

These functions should be the responsibility of the government or a public organization that has legal authority delegated by the government.

As the strengthening of management capabilities is one of the most important challenges for the country, and in light of the fact that the series of action programs will contribute to closer communication and cooperation between the private and public sectors – another policy agenda at a national level – it is imperative to carry out the program on the basis of the government's commitment.

Accordingly, the function to decide the basic direction of program should be related, one way or another, to decision making at the national level. Therefore, the steering function should be held by the State Minister for economic affairs or a person with a similar level of authority.

It should be noted, however, that these functions should not be performed solely at this highest level. The steering function requires time, which will be difficult for this highest level to make. Thus, it is desirable to delegate them to qualified organizations that are capable of establishing the strategic direction. In Jordan, ad-hoc organizations have been appointed in most cases, a steering committee appointed for a specific project, and task forces for specific purposes such as seen in the activities of the Economic Consultative Council. These organizations are considered to meet the above functional requirements.

The steering committee or other supervisory organization will hold an annual meeting and report the results of discussion to the minister in charge of economic affairs. The minister will direct respective departments or other organizations to take appropriate actions. As described below, the secretariat/coordinating body will be responsible for the setting of agenda at the committee. The agenda should include the following items.

- 1) Planning targets set for the previous year and the actual progress
- 2) Planning targets for the next year
- 3) Modification of targets for upgrading of management capabilities, as required
- 4) Adjustment of coordination between organizations in program implementation (financial, organizational and manpower) and revision of the legal system, as required

## (2) Program implementation function

Unless otherwise dictated, public programs should be implemented by the most qualified organization in the most efficient manner. To this end, the market principle (competition) should be brought into the selection process, while taking into account the ability to make a creative approach to each program as far as possible.

Continuous involvement of the public sector tends to result in a loss of efficiency over time, and it is important to maintain a competitive environment all the time by creating a mechanism to stimulate competition where feasible.

A major consideration in relation to program implementation by the public sector is the level of service provided in a program. Previous experience tells us that program implementation by the public sector tends to be concerned only with the number of performed programs, without considering program contents and its effectiveness. This is because of the fact that a public organization assigned to a program is responsible for the

fact of implementation, and not responsible for the effectiveness. Thus, it is not expected to produce the optimum results. However, the important point is whether the effective programs are available or not.

In consideration of the above factors, general rules for program implementation body should be as follows.

- 1) Long-term programs to be implemented by a permanent organization, with good prospects for immediate or future profitability, should be operated by profit-seeking organizations. Those with a future prospect for profitability, with difficulty being anticipated in the initial phase, should be funded entirely or partly by the government and should be transferred to private ownership when they turn into the black.
- 2) Long-term programs to be implemented by a permanent organization, with a negative prospect for profitability, should be implemented by public organizations, with deficits being covered by user charges including indirect recipients of service (largely tax income or from the government budget).
- 3) Short- or medium-term programs (not implemented on a permanent status) should be implemented by the most qualified organization, that is selected through the competitive bidding process. The programs that last a very long period the implementation body should be selected on a competitive basis at a specific interval.

### (3) Intermediate coordinating function

The organization responsible for coordination between the other two functions should be an organization having the objective, among other things, of upgrading managerial capabilities. Also, it should be a government organization because it is expected to take the lead in policymaking, legislation and budgeting related to program planning and implementation. The organization should be tentatively called the Secretariat for Implementation of Programs to Upgrade Management Capabilities (referred to as the “secretariat”).

In Jordan, the Ministry of Industry and Trade is considered to be the organization that appears to meet the above requirements. In particular, its industrial development department is drafting a new industrial development law and is devising an organization to promote industrial development. However, the ministry has been primarily responsible for registration, regulation and supervision of industries and has a limited number of officials who have experience in industrial development. While it is hiring new staff, it does not seem to be ready for fulfilling the function of promoting industrial development as intended under this study.

On the other hand, HCST has experience in planning and implementing similar promotional activities in the fields of science and technology. Also, it can use research

and testing organizations, led by RSS, to initiate various activities. It can therefore assign necessary staffing to planning, coordination and implementation. Furthermore, it has some budgetary resources that can be used for implementation of its own programs. However, the scope of its services is limited to science and technology, and excludes marketing and management. Also, it will not be capable of taking leadership in preparing and promoting legislation for support of individual companies nor in securing budgetary allocation of the Government, required to carry out various initiatives.

From the viewpoint of developing the public sector in the long run, the Ministry of Industry and Trade is in a position to set goals for industrial development in the country, while HCST is responsible for promotion of science and technology. As the present study aims to upgrade managerial capabilities of manufacturers with the final goal of improving international competitiveness of industries in Jordan and promoting industrial development, it makes more sense if the Ministry functions as the leading agency and has the secretariat/coordinating function.

At the same time, however, field activities to upgrade international competitiveness will be primarily related to the development of production technology and human resources related to industrial technology. Thus, active involvement of HCST is essential.

In overall consideration of the present conditions and major issues, the secretariat and coordination function should be organized as follows.

Case	Government agency/ organization in charge	Board of Directors, Industrial Development Corporation	
		Chairperson	Deputy Chairperson
A	IDD, MIT	Representative from IDD, MIT	Representative from HCST
B	HCST	Representative from HCST	Representative from IDD, MIT
C	Industrial and management aspects: IDD, MIT Technological aspects: HCST	Representative from IDD, MIT	Representative from HCST

### 1.3 Implementation Strategy

In Jordan, a number of industrial support programs have been implemented with



assistance from various foreign governments, and each program has produced some results. Nevertheless, more effective programs are required to address the challenges facing the manufacturing sector as a whole and to promote it.

A common goal has not been set to give direction, so far. The program implementation strategy that prescribes the ways to foster industry should come first and govern operation and management of actual programs.

In particular, the following strategy direction is recommended:

**The promotion of development of original products by Jordanian industries, accompanied by creation of product identity (brand image) should be launched as one of the key thrusts. Another thrust should be the encouragement of quality control to foster manufacturing industries that can supply excellent products incorporated into original products. With these two thrusts in mind, all sectors concerned should be mobilized with a shared vision, and willingness to participate in the process, together with infrastructure development and deployment of activities.**

In addition, at the implementation level, programs should be designed and implemented in such a way that the intent of industries in using a particular program matches that of the implementation organization. At present, most enterprises (particularly SMEs) do not understand the rationale for strengthening of management capabilities.

To resolve the current problem, the following steps should be taken to encourage industries to assume the leadership role in disseminating the intent of the program and promoting participation by individual enterprises.

- 1) Promotion of better understanding on the necessity of strengthening of enterprise capability will be the first step. Most enterprises are not aware of the necessity, or they do not understand it correctly, even if they are aware of it. Thus, the plan will promote better understanding of needs, and encourage enterprises to participate to programs.
- 2) Once the enterprises become aware of the importance of enhancement of managerial capability, the next step will be provision of places for industry to exchange their views and experiences among those who have need to expand their business/industrial opportunity, or need support from different fields of expertise/profession. It will be quite effective in promoting mutual assistance among enterprises, and bringing about eagerness to undertake projects of improving their competitiveness.

- 3) The improvement and development of organizations, systems and facilities to support industry to improve their management should be started after formulation of a consensus among industry that the Government support, or joint efforts with the Government, are essential for enhancement of the management capability.
- 4) In the fourth step, the Government will direct their efforts to encourage enterprises to undertake the effective measures jointly among the enterprises having problems of similar nature.

## **2 Recommendations**

### **2.1 Master Plan for Strengthening of Management Capability**

#### **2.1.1 Industrial Development Goal**

The strategic goal is to develop industries that can understand the market needs, develop original products and services that reflect them, and differentiate themselves from low-cost, volume manufacturers, and to promote a good image of Jordanian products, thereby to help them find niches beyond the Middle East, in the EU and the U.S. that are newly accessible to Jordanian companies.

The Jordanian economy is now entering a new stage of development as a consequence of joining the WTO. This means, many export markets are open to Jordanian products, while Jordan is opened up to imports from a variety of countries. Thus, the manufacturing sector must establish competitiveness against foreign products in an open market environment, which forms the basis of reinforcing management capabilities of domestic enterprises.

The rationale for the above development goal is as follows:

Jordan has a small market and does not produce raw materials that can be used as inputs for industrial production. The work force is relatively small and living costs are relatively high as most goods are imported. These factors make it very difficult for Jordanian manufacturers to exploit comparative advantage in manufacture of volume products.

Under these conditions, a feasible approach to goal setting for industrial development is to select particularly promising industries and concentrate resources on their promotion. By concentrating development efforts on these selected industries, it becomes possible to develop industrial strength quickly and acquire leading industries possessing international competitiveness within a relatively short period of time. In reality, however, Jordan does not have industries that have a comparative advantage over those in other countries. While the Jordanian medical service industry leads the region, related industries such as production of medical equipment are not now internationally competitive. A similar situation is observed in the pharmaceutical field. In the field of chemical fertilizer, the country cannot be a major producing area as evaluated from availability of raw materials. In conclusion, the strategic option of concentrating investment in these industries entails a great risk that is prohibitively high compared to the expected return. There may be other

prospective industries, but a similar risk cannot be denied. The strategic option fails to overcome the country's disadvantages related to the small domestic market and the need for finding profitable export markets.

It is therefore recommended for Jordanian industries to start by using a grass roots, bottom-up approach; to find niches from industries at large and help manufacturers who can excel in niches with some competitive edges, such as quality, efficiency, precision, design or service. As niche manufacturers and other business establishments emerge and prosper, they form a spawning ground for new industries.

Once the new industries reach critical mass, resources may be diverted to them for further development, including the buildup of an internationally competitive industry or the establishment of a center of excellence in terms of design, technology or other aspects.

### **2.1.2 Goal and Strategic Thrusts for Strengthening of Management Capabilities**

To develop management capabilities in all aspects is not always the best approach. The study team believes that management capabilities should be developed through practical experience by setting up opportunities for intensive learning.

#### **Goals for strengthening of management capability**

To help manufacturers make their companies grow and develop, in line with the strategic direction of industrial development in the country, the following goals are set for strengthening of management capability.

- 1) Management capability to identify the market requirements accurately and develop a product or service that satisfies those requirements.
- 2) Management capability related to the manufacture of the product(s) that meet the market requirements as well as maintenance of product performance and quality on a continuous basis, including service capability, that is, fulfillment.

#### **Strategic themes for management capability development**

To accomplish the above goals within a short period of time, the following strategic themes are set:

- (1) Establishment and promotion of originality and identify for Jordanian products (**“Creative Jordan”**)
- (2) Promotion of quality control as part of efforts to develop excellent manufacturing industries (**“Quality Jordan”**)

Under these strategic themes, various initiatives will be made to raise awareness levels in related sectors, encourage their participation in the work at hand, develop infrastructure, and launch field activities.

The master plan should be designed to ensure that the ongoing and future programs are strategically implemented in line with the strategic themes.

The following activities should be developed under each strategic theme:

- 1) Dissemination of basic concepts and enlightenment
- 2) Technology transfer and human resource development
- 3) Exchange of ideas and experience
- 4) Awards and commendations as added incentives
- 5) Advertisement in export markets
- 6) Infrastructure development
- 7) Collection and provision of information
- 8) Research and development
- 9) R&D support

The following are the example of activities under each strategic theme (See Figure SIII-1 for detail).

### **Creative Jordan**

To promote the techniques that develop originality by identifying the customer requirements on the basis of market studies and translating them to actual product development. The primary focus should be placed on design promotion. At the same time, R&D projects will be carried out as required, plus develop a system for support and assistance for individual enterprises related to R&D. At the same time, joint efforts will be made by the public and private sectors to create and promote a common identity for Jordanian products.

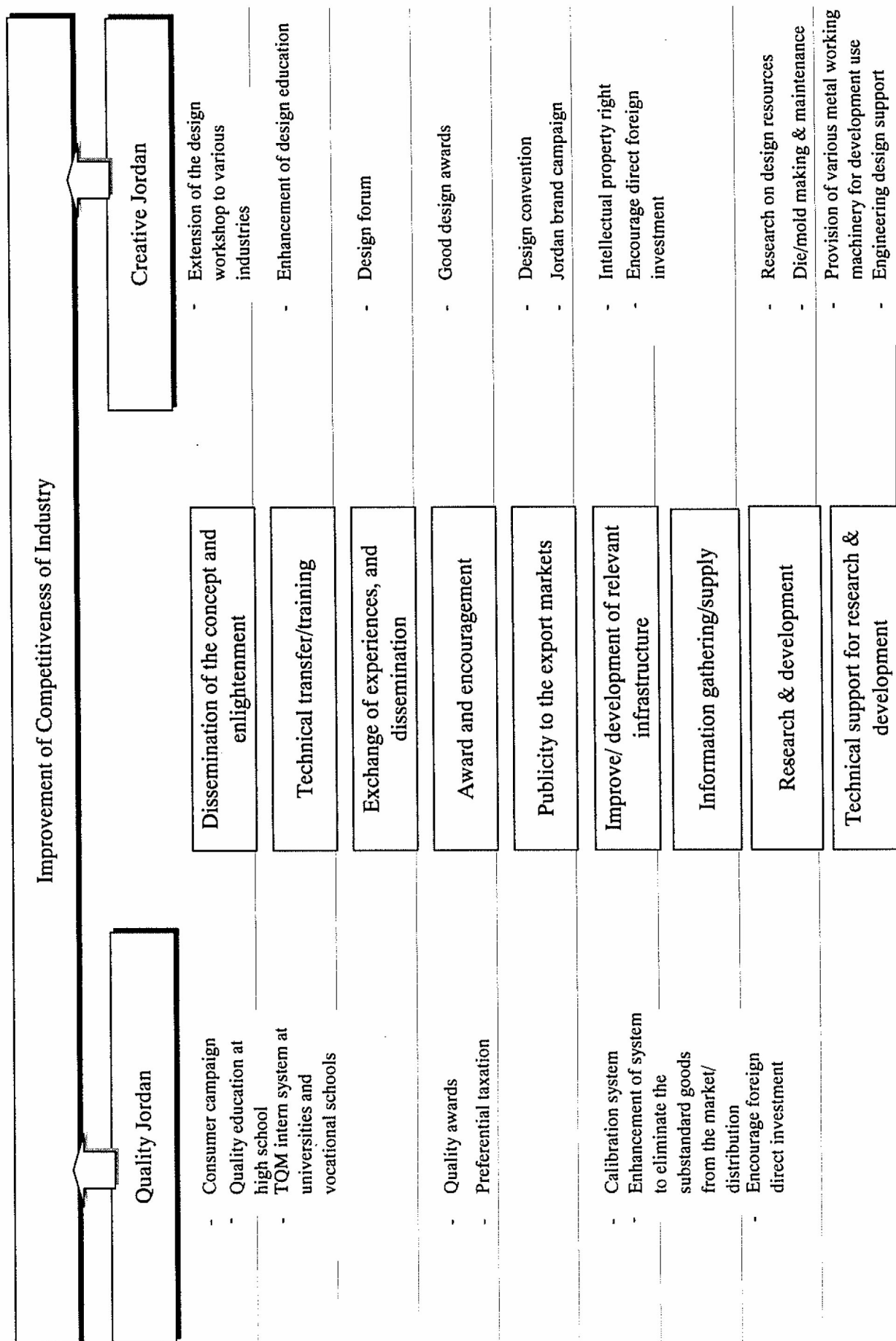
- 1) Dissemination of basic concepts and education

To promote understanding of the design process and marketing techniques (benefits) through the workshop and introduction of successful cases.

- 2) Technology transfer and human resource development

To provide a venue and opportunity for enterprise management and middle administration staff to aware of the effectiveness of “Creative Jordan”, and learn about the significance and method of design process. To upgrade design education at colleges and universities for development of future design resources.

**Figure SIII-1 Strategic Thrusts and Activities for Building up the Enterprise Management Capability**



3) Exchange of ideas and experience

To provide opportunities for information exchange on design improvement and market study work, including a forum for research on Jordan identity for the country and its industries. With such opportunity, promote learning of the method of business development each other, and encourage joint undertakings among the participated enterprises.

4) Awards and commendations as added incentives

To praise good designs and original products publicly and introduce them to overseas markets, encouraging the participation to the program of “Creative Jordan”.

5) Advertisement in export markets

To support the efforts of enterprises in export marketing, promote identity for Jordanian companies and products to export markets, including the sponsoring of international conferences.

6) Infrastructure development

To establish intellectual property rights and a legal system, which is the prerequisite for design promotion.

7) Collection and provision of information

To collect and disseminate market information as well as business information.

8) Research and development

To develop the system for R&D activities to translate the market needs to products, including research associations among the Government, industry, and academe. It should also include the development of a system to encourage introduction of advanced or key technologies. The system should attach the function of transfer of R&D output to industries

9) R&D support

To provide knowledge and equipment for individual enterprises that require research and development, including transfer of R&D techniques and skills.

Initially, design work was an activity to create quality and standardized industrial products with reasonably planned production methods incorporating aesthetics and amenity in the outcome, with an implicit criticism of the deterioration of quality when products made by masterful-hands were replaced by those churned out from machines, while simultaneously (paradoxically) advocating modern, mechanized production to supply products in large quantities. At present, the word "design" is generally understood to plan and design a product in accordance with an intended purpose (the process is called the design process). Design is increasingly used in a wider range of areas nowadays, beyond the traditional areas concerned with "articles", to an effective way of expressing "ideals" including ideas, thoughts and views.

The use of design process brings indirect benefits, in addition to direct and obvious benefits of realizing a more comfortable or desirable color, shape and/or space; it helps people to attain the ability to apply design techniques to various planning practices including public administration and private business in a more rationalized way, which has become the major expectation to the design at present.

### **Quality Jordan**

To help manufacturing industries that are capable of supporting the “Creative Jordan” by focusing on promotion of quality control, with the ultimate goal of ensuring high product quality and efficient management.

#### 1) Dissemination of basic concepts and education

To promote understanding of the difference between quality control and inspection, and major benefits of quality control in different fields, together with public education to teach consumers that high quality products eventually benefit them.

#### 2) Technology transfer

To support implementation of quality control at the level of the shop floor, including education of college students and VTC trainees concerning the fundamentals of quality control and actual quality control techniques.

#### 3) Exchange of ideas and experience

To exchange experience in quality control and learn from each other for better methods and practice.



4) Awards and commendations as additional incentives

To recognize manufacturers who perform excellent quality control practice in order to let them known to the market and encourage other companies to initiate quality control.

5) Advertisement in export markets

To certify manufacturers who participate in Quality Jordan to their customers, and advertise their eagerness to quality to overseas markets, promoting the participating enterprises to take advantage of their participation.

6) Infrastructure development

To provide testing equipment and service required for quality control, including the development and upgrading of the industrial calibration system.

### 2.1.3 Implementation Steps

The implementation steps are proposed to be as follows.

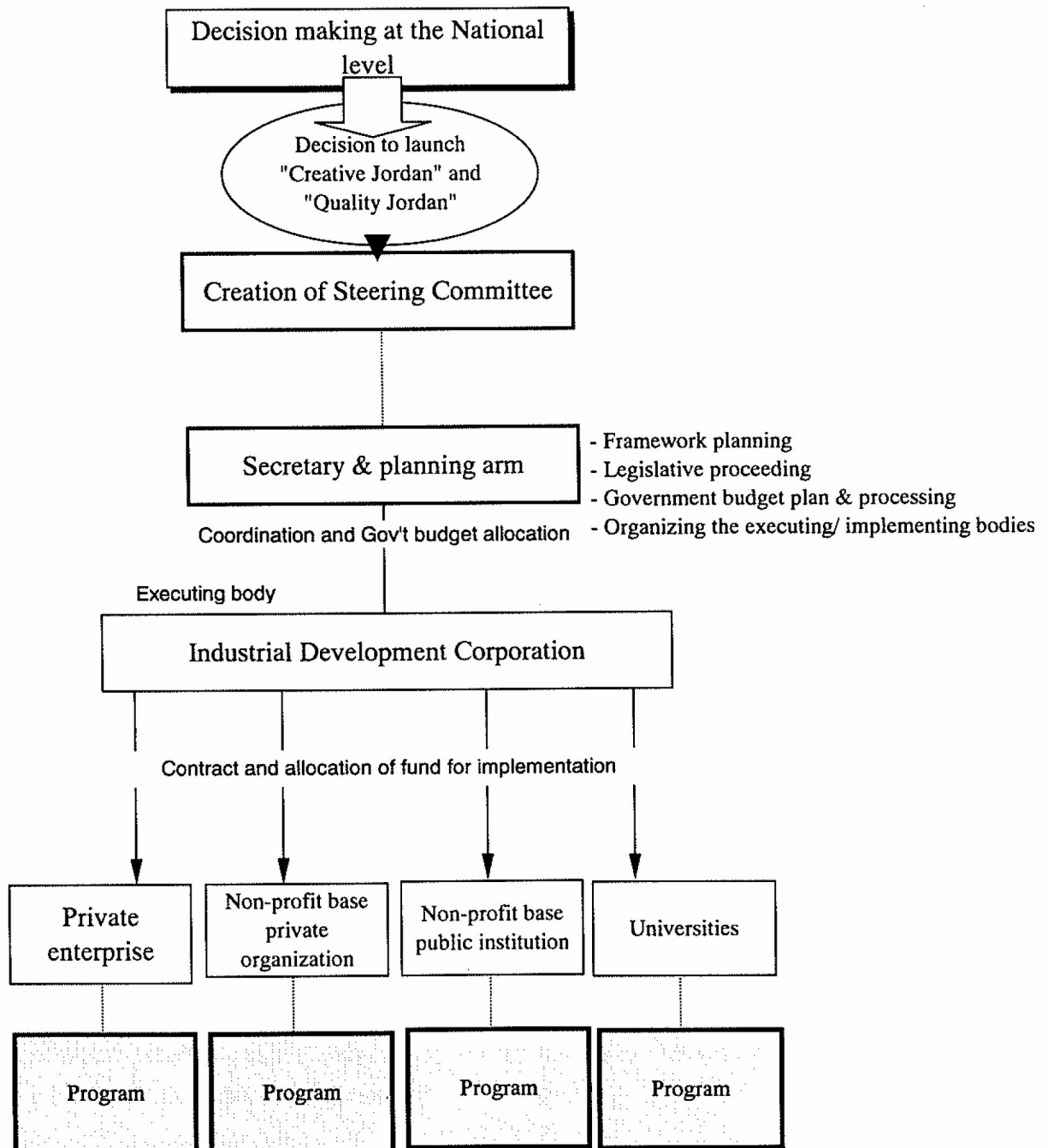
- **Phase 1 (immediate):** To promote understanding of individual enterprises about the need for reinforcement of management capability, and to encourage their participation in the program; to provide opportunities for information change between manufacturers who feel the need for business expansion or support from others having different experience; thereby to promote mutual support between manufacturers.
- **Phase 2 (short- and medium-term):** To continue to provide a forum for information exchange, and to reinforce and upgrade the organization, the institution and facilities to support the improvement of corporate management.
- **Phase 3 (long-term):** To encourage voluntary activities of private enterprises, not depending on the government's support programs, such as implementation of projects to solve problems jointly. (The government serves as a catalyst for joint efforts)

### 2.1.4 Implementation Organization

The following organizations will be used or established, as the case may be, to promote concerted efforts to upgrade management capabilities of manufacturers (see Figure SIII-2).

1) The Secretariat for Implementation of Programs to Upgrade Enterprise Management

**Figure SIII-2:  
Conceptual Chart of Organizational Setup for Program Implementation**



Capabilities (referred to as the “Secretariat”);

- 2) The steering committee to set the direction of the secretariat’s activities and support them from the highest level of the hierarchy; and
- 3) Industrial Development Corporation responsible for implementation of actual programs to independent organizations or private firms that have planning and implementation capabilities.

Individual programs will be operated and managed by various organizations under contract from the Corporation, including technical institutes (e.g., RSS, JISM), industrial development/export promotion organizations (JIB, JEDC), trade associations, consulting firms, universities and VTCs.

At the program implementation phase, the national decision on launch of the program should be announced by the state Minister for economic affairs. Within the framework, basic policy will be established and the steering committee including competent ministers will be formed to ensure that the government will be able to take appropriate action in response to the changing conditions.

The secretariat of the steering committee will be established to set basic policy for upgrading of management capabilities and will support, on the behalf of the government, the startup and management of the Industrial Development Corporation. Also, it will initiate legislative procedures for related projects as required. It should be noted, however, that the secretariat would not be directly responsible for planning and implementation of actual programs.

The Industrial Development Corporation will be primarily funded by related organizations that are involved in industrial promotion and development of science and technology. It will be managed by a board of directors chaired by a representative of the leading agency and represented by the funding organizations and trade organizations to allow industry’s opinions to be reflected in its activities.

As for the support programs conducted by foreign donors, request will be made to implement them through the Corporation, if they are associated with industrial development.

## **2.2 Action Plan**

### **2.2.1 Phase 1 (Immediate Actions)**

#### **Target of actions**

- To demonstrate the importance of management capability and its improvement by showing examples, and encourage individual enterprises to participate in various programs.
- To establish the institutional setup for project implementation within policy making departments, and establish the Corporation that serves as the implementation body for individual actions.
- To provide the place of information exchange for private enterprises which are interested in activities related to the strengthening of management capability.

#### **State Minister of Economic Affairs**

- To decide on a national commitment, to designate a Government agency or organization as the Secretariat agency, and appoint the steering committee.

#### **Actions by the Secretariat agency**

- (1) Institutional setup within the agency
  - 1) To appoint the responsible organization as the Secretariat;
  - 2) To appoint or assign the responsible officials;
  - 3) To establish a plan for immediate activities for preparation; and
  - 4) To establish legal authority and allocate the budget for activities.
- (2) Formulation of policy for Phase 1 activities and approval by the steering committee (with concurrence by the ministries and organizations concerned)
- (3) Establishment of the executing organization (Industrial Development Corporation)
  - 1) Decision making on the various related matters including the preparation of the basic service plan of the Corporation
  - 2) Concurrence by related organizations on the establishment, and the basic service plan
  - 3) Request for legislation, budgeting and funding for the establishment of the Corporation
  - 4) Securing of manpower required for the establishment

In Jordan, a large number of programs to support industrial development have been carried out with foreign assistance. However, they have never been conducted in a systematic manner and under a consistent industrial development strategy. Some were operated by ad-hoc organizations. Some were conducted under supervision of the MIT, but coordination with other programs was left to personnel in charge of each program. Although several government organizations have been established to provide support for industrial development, such as JIB and JEDCO, but they have not yet deployed their activities fully because they have not established the close relationship with industries which are the intended beneficiaries of the programs.

The Industrial Development Corporation, as proposed here, will be established as an organization responsible for planning and implementation of diverse industry support programs under a unified industrial development strategy.

It should be noted that the Corporation will be primarily responsible for supervision of program implementation by outsourcing actual program operation to the most qualified organizations, for the purpose of maintaining program quality at a desirable level. In addition, implementation organizations will be selected through competition (open bidding) to prevent the program from being operated in a mechanical way and invite innovative ideas on the way to conduct the program.

Outsourcing is also designed to allow the Corporation to concentrate on its mandate to maintain consistency among different programs. The Corporation will be organized by representatives of organizations that are involved in industrial development to capitalize on their experience in program operation and management.

**Actions by the executing agency (Industrial Development Corporation)**

- (1) Establishment of activity base (organization, staffing, and rules and procedures)  
(for detail, see Article 1, Attachment)
- (2) Establishment of the implementation plan for Phase 1 and approval by the Board of Directors, and the Secretariat agency
- (3) Implementation of approved projects
  - Creative Jordan design workshop project
  - Quality Jordan technical/management advisor dispatching project

- Technical and market information exchange forum
- 1) Notification, bidding and selection of the implementation body
- 2) Request for support by foreign aid organizations and coordination
- 3) Monitoring of the implementation status and recommendation for modification as required

## **Programs and Projects**

The Industrial Development Corporation will entrust the following programs and projects to companies or organizations that have adequate planning and implementation capabilities.

### **(1) “Creative Jordan” Design Workshop Project**

Design workshops (practical training for product development) will be held for selected industries and geographical areas. The coverage will be expanded gradually to disseminate basic techniques for implementation of the design process to a variety of industries and promote a broader understanding of design techniques and their effectiveness in industrial promotion.

Each workshop will be managed by a special committee that will be established for each industry or geographical area selected for the purpose and organized by representatives of trade organizations and individual firms. The committee will recruit participants and support the workshop operation and management.

- Possible candidate industries include plastics household goods, other household merchandize, packaging, and furniture, etc. The Corporation will solicit proposals from the respective industry or area and will decide on the topics.

In the future, the design workshop will be incorporated into the management training system (discussed later in the Phase actions) to provide continuous learning opportunities.

### **(2) “Quality Jordan” technical/management adviser dispatching project**

Technical (management) advisers will be sent to individual firms upon request to provide technical guidance in selected fields (including production management and business administration), which will be determined on the basis of the questionnaire survey to be conducted by the chamber of industry or other organizations.

- Possible candidate areas include production techniques such as welding, repairing of dies and molds, and plastics molding, production management including quality control and drawing management, and business management including use of IT and cost analysis, with an aim to improve quality of products and

management.

As the number of Jordanian experts with adequate experience is limited, engineers and other experts with experience should be invited as instructors for the initial work at least, because the primary objective is to learn international levels of technology and skills. At the same time, the implementation body should include organizations and individuals who wish to provide technical advice as professional service, as far as possible, in order to transfer guidance techniques to them.

Initially, the number of programs (i.e., the number of firms) covered by foreign advisers is to be limited. Then, domestic advisers will be trained from among the engineers and other experts so as to establish a permanent system for supplying technical advisers on a continuous basis.

### **(3) Technical and market information exchange project**

The project will provide a forum for exchange among firms in different fields, through which each participant is exposed to management resources, including technology and market, and will develop creativity. The following results are expected from the project.

- 1) Business opportunity: Increased business between participating firms and/or others (as intermediary by a participating firm)
- 2) Upgrading of production practice and corporate management: Mutual advice or consultation between participating firms
- 3) Product improvement through technology transfer
- 4) Market development: Expansion of new distribution channels and markets through increased business between participating firms and/or others (as intermediary by a participating firm)
- 5) Joint technological development: To be conducted by participating firms
- 6) Joint product development
- 7) Joint sales activity: Joint sales of products that are jointly developed or offered by participating firms
- 8) Establishment of a cooperative or a company to conduct joint business: Mutual use of resources of participating firms to create synergetic effects

The project is outlined as follows:

- Recruitment and selection of participants: Participants will be recruited through the chamber of industry or other organizations. Owners or managers who understand the intent of the project and are willing to participate in it will be selected. They will be put into groups of 10–30, representing different industries

as far as possible.

- Appointment of advisers: Advisers who have sufficient knowledge and experience in technology- and market-related problems facing SMEs will be appointed to provide advice to the forum.

## **2.2.2 Phase 2 (Short- and Medium-Term Actions)**

### **Target of Actions**

- Continuation of the forum for information exchange
- Implementation of related projects
- Upgrading of the support system and facilities

### **Actions by the Secretariat agency**

- (1) Formulation of policy for Phase 2 activities and approval by the steering committee (under the agreement with ministries and organizations concerned)
- (2) Issuance of the notice to proceed to the implementation body (Industrial Development Corporation) under the approved policy
- (3) Promotion of the following projects
  - 1) Legislation of the “pioneer enterprise” concept and the establishment of incentives
  - 2) Encouragement of foreign companies to participate in the pioneer enterprise program
  - 3) Encouragement of domestic companies and technical support organizations (e.g., the Royal Scientific Society) to participate in the pioneer enterprise program

### **Actions by the executing agency (Industrial Development Corporation)**

- (1) Formulation of the activity plan in Phase 2
- (2) Implementation of the approved projects entrusting to the qualified implementation bodies
  - Design Forum
  - Project to support establishment of the Design Council
  - Support program for the Design Development Organizations
  - Jordan-brand development project
  - “Excellent Design” Award Program
  - Management Training System
  - Project to encourage establishment of Pioneer Technology Enterprises to



introduce advanced technologies, or to acquire the key technologies

## **Programs and Projects**

### **(1) Design Forum**

In Jordan, design professionals are not fully utilized partly because there is no communication channel among designers, design educators and users. This project is designed to hold a forum where the participants are suppliers and users of design products and services. The immediate purpose is to provide an opportunity for them to exchange their views and ideas related to use of design in the product development process. The forum is expected to serve as a core organization that leads activities intended to meet various issues related to design promotion in the future.

The project is outlined as follows:

- Recruitment and selection of participants: Invitation to the Design Forum will be announced at universities, design firms, the chamber of industry, and other organizations.
- Appointment of technical advisers: Designers and other persons who are recognized to have sufficient knowledge and experience in design promotion will be hired as advisers and provide professional advice at the forum. If possible, reputed foreign designers will be invited.
- The Design Forum will be held twice or so per year.

Major topics to be discussed at the Design Forum will include the following:

- 1) Introduction of the design process;
- 2) Design education;
- 3) Design protection;
- 4) International exchange in the design and related fields;
- 5) Actual cases of design development carried out (or planned) by participating firms; and
- 6) Lectures and workshops led by outside instructors

### **(2) Project to support establishment of the Design Council**

In Jordan where there are no governmental or other organizations spearheading design promotion, a core organization is first required to collect opinions of related parties and lead design promotion activities that reflect such opinions. The core organization is also required to represent and communicate opinions of the design community to a

government organization that would be established in the future to develop design promotion policies and programs.

- The Design Council will be established as follows. Based on the results of discussion by participants of the Design Forum, Design Council will be organized by representatives of the design industry, universities, corporate design users, related government bodies (MIT and MOE), and HCST.
- The Design Council will be responsible for discussing and developing design promotion policies and programs in Jordan, which will be implemented by various organizations representing the design community (including users) or in the form of programs planned and implemented by the Industrial Development Corporation. Also, it will confer on possible support activities for Design Development Organization and Jordan Brand Committee.

### **(3) Support Program for the Design Development Organization**

The program is designed to provide support for the Design Development Organization that will promote development and exports of product groups that represent specific industries and geographical areas, with the aim of creating originality in design and improving the general image of Jordanian products. The program will fully support the organization's activities.

#### Program description

The program will provide support for the Design Development Organization (DDO, a private organization) in the following areas:

- Exemption of corporate tax for seven years for the DDO
- Provision of soft loans to cover expenditures of the DDO in the initial startup stage, which can be recouped from business revenues in the future
- Technical support during the startup period (sending of advisers)

(Details of support to be provided under the program are discussed in “Concept of Design Development Organization.”)

#### Concept of Design Development Organization

The Design Development Organization will provide focused support for a group of export industries who operate in a specific area (or those having export potential) or a group of manufacturers that supply distinctive products suitable for exports by assisting them in implementing the design process, so that they can develop products that leverage market potential and domestic characteristics, obtain non-price competitiveness through

exploration of niche markets, and increase value added in their production. The organization will be established under participation of private enterprises.

It will be operated as a private enterprise funded by a large number of companies and will invite designers to propose product designs and market development plans for selected products by using their expertise and experience in target markets. The organization will select prospective proposals and will work with their designers for the development of detailed concept, operationalization of ideas, market study, design work and prototype production.

The organization will evaluate the outcome of the above process and invite private enterprises to participate in a project that commercialize the selected product design. It will provide support for commercialization and conduct sales promotion activities as entrusted by the company that commercializes and sells the product. It will also be responsible for design management, quality control and delivery management. In this connection, the organization will ask the designer to make proposals for sales promotion activities and provide technical support.

The Design Development Organization will promote participation of the foreign enterprises to the Organization.

#### **(4) Jordan Brand Development Project**

The committee will be established to introduce Jordanian products to export markets and conduct activities to improve the reputation of Jordanian products in the international market.

The committee will be organized by representatives of related ministries and organizations, including the MIT, the Ministry of Tourism, the chamber of commerce and industry, and the Industrial Development Bank. Actual operation of the committee will be entrusted to an outside organization selected through open competition. Its activities will be conducted under participation of designers who will be appointed in the selection process, where domestic and foreign designers will be invited to make their proposals.

While details of activities are similar to those of the Design Development Organization, the committee will be a public organization. Nevertheless, if any commercialization project arises, participating companies will be selected through open competition and the project will be carried out as a commercial venture.

#### **(5) “Excellent Design” Award Program**

To promote design so that industries can develop original products and use sophisticated design, efforts should be made to create an opportunity to see good design and conceive creative ideas. Once the opportunity is provided, the design community

can step up to a higher level.

To achieve the objective, the program will proceed as follows:

- 1) Excellent designs of Jordanian products on the market will be selected and so recognized with awards. Then, the designs will be published, displayed or promoted in the export market.
- 2) Design competitions will be held, including those for design students prior to graduation, to raise public recognition on design and its value.
- 3) It should be noted that the excellent designs and award-winning designs in competitions will be selected by juries that include foreign designers in order to reflect international design standards in the evaluation process, i.e., a design that appeals to the export market should be selected, rather than the one that is refined or sophisticated from domestic standards.

#### **(6) Management Training System**

A formal education program for business owners and managers will be established to develop creative and advanced management capabilities. In particular, the program will aim to help improve international competitiveness of individual enterprises in line with the objectives of “Creative Jordan” and “Quality Jordan” projects. To ensure high quality of training, foreign instructors should be hired to teach subjects for which domestic instructors are difficult to find. One solution is to enter into an alliance with a foreign organization reputed for good management education in order to secure technical support.

In the future, distance education may be introduced using the Internet.

#### **(7) Project to encourage establishment of Pioneer Technology Enterprises to introduce advanced technologies, or to acquire the key technologies**

Implementation of competitive production technology starts from imports of the latest technologies available in foreign countries. As imported technologies are mastered, with some localization efforts to optimize them for domestic conditions, they establish themselves as technical know-how. Then, efforts should be continued to upgrade technical know-how by introducing and modifying new technologies. Pioneer technology enterprises will be established to develop technical know-how in selected areas by introducing: 1) leading-edge technologies which adoption serves as a springboard for

technological development in various fields, and 2) key technologies<sup>1</sup> that essential for other industries and their viability. These technologies will then be utilized broadly by various industries and will take root as technical know-how.

The project to encourage the establishment will be as follows:

- Selection and evaluation of pioneer technology will be carried out by foreign experts, who will be hired by the HCST, or through special research and study. The special research and study will be undertaken by the Industrial Development Corporation, through outsourcing. The candidate outsourcing organizations include RSS, universities, and consulting firms.
- The enterprise will be funded through public offering and subscription and any deficit in working capital will be contributed by the government or the Industrial Development Bank. If possible, a foreign partner who licenses use of technology will be authorized to have equity participation.
- The government will provide the following incentives to the pioneer enterprise for the purpose of promoting its growth within a short period of time:
  - Application of currently available most preferential incentives (regardless of geographical area)
  - Exemption from corporate tax
  - Incentives for technology licensing and foreign investment

### **2.2.3 Third Phase (Long-term) Action**

In the third phase, actions taken in the previous phases will be reviewed. Government activities will be limited to those not fully covered by the private sector (including universities). Public support is expected to play a catalytic role during the phase.

As for ongoing programs, such as the Management Training System, and the Technical/ Management Advisor Dispatching Program, know-how related to their operation and management will be transferred to universities and private consultants to encourage autonomous management.

The Industrial Development Corporation will be reassessed in terms of function, size and other aspects.

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<sup>1</sup> For instance, die making and repairing, precision machining, and machine repair, which have not emerged as industries or have declined due to the low level of domestic demand, are considered as key industrial technologies. Also, the pioneer technology enterprise should be involved in imports of raw materials on behalf of SMEs that are usually placed in a weak bargaining position.

#### **2.2.4 Input Requirement**

Table SIII-1 shows the rough estimated input requirements by project.

The total annual requirement covering the projects/ programs to be conducted in the First Phase, is estimated to be US\$72,000, approximately. In addition, 18.5M/M equivalent of the costs for outsourcing advisors, instructors, 16.5M/M equivalent for the coordinators of the implementation body, and 19M/M equivalent for hiring the designers and advisors abroad, are required.

The required number of the staff of the Industrial Development Corporation will be two (a staff and a manager), excluding the staff supporting them.

The total annual requirement covering all the projects/ programs contained in the proposed action plan, is estimated to be US\$230,000, approximately. In addition, 65M/M equivalent of the costs for outsourcing advisors, instructors, 84.5M/M equivalent for the coordinators of the implementation body, and 33M/M equivalent for hiring the designers and advisors abroad, are required.

The required number of the staff of the Industrial Development Corporation will be 5 (4 staff and a manager), excluding the staff supporting them.

**Table SIII-1 Input Requirement Estimate by Project**

Project/ program		Assumptions	Execution body (Industrial Development Corporation)		Implementation body
			Man-month	Costs and expenses (in US dollars without contingency)	Man-month
1	"Creative Jordan" Design Workshop Project	<ul style="list-style-type: none"> <li>•Duration of the workshop: 18days net (or 1.5months including 2 weeks for prototype making at the mid of the workshop)</li> <li>•Participants: 9persons (in 3 groups; each group include 4 students to assist/co-work with the participants. Total 12 students)</li> <li>•Instructor: 3persons</li> <li>•Product: Wooden furniture</li> </ul>	<ul style="list-style-type: none"> <li>•Tender &amp; contract: 2M/M</li> <li>•Project summary: 0.5M/M</li> </ul>	<ul style="list-style-type: none"> <li>•Materials for training (6,000)</li> <li>•Venue cost (10,000)</li> <li>•Computer rental (9,000)</li> <li>•Prototype making (6,000)</li> <li>•Communication and transportation costs (1,000)</li> <li>•Expense to invite foreign designer (2M/M, 2designers. Total 4M/M)</li> </ul>	<ul style="list-style-type: none"> <li>•Instructor/Asst. instructor: 3persons Preparation, etc. 0.4M/M /person Implementation 1.0M/M /person (Total 4.2M/M)</li> <li>•Coordinator: 1.5persons Preparation, etc. 1.5M/M /person Implementation 1.0M/M /person (Total 2.25M/M)</li> </ul>
2	"Quality Jordan" Technical/Management Advisor Dispatching Project	<ul style="list-style-type: none"> <li>•Participants: 20companies</li> <li>•Duration of advise: 3weeks/company</li> </ul>	<ul style="list-style-type: none"> <li>•Tender &amp; contract: 2M/M</li> <li>•Project summary: 0.5M/M</li> </ul>	<ul style="list-style-type: none"> <li>•Communication and transportation costs (1,000)</li> <li>•Expense to invite foreign advisors (2.5 persons with 8companies/1person. 6M/M per person. Total 15M/M)</li> </ul>	<ul style="list-style-type: none"> <li>•Advisor 0.7M/M /company (Total 14M/M)</li> <li>•Coordinator 0.25M/M /company (Total 5M/M)</li> </ul>
3	Technical and Market Information Exchange Project	<ul style="list-style-type: none"> <li>•2groups of participants</li> </ul>	<ul style="list-style-type: none"> <li>•Tender &amp; contract: 2M/M</li> <li>•Project summary: 0.5M/M</li> </ul>	<ul style="list-style-type: none"> <li>•Venue costs (24,000)</li> <li>•Fee for the lecturers (3,000) (12days/group)</li> </ul>	<ul style="list-style-type: none"> <li>•Coordinator Preparation 1.5M/M /group Implementation, coordination after the forum 3M/M /group (Total 9M/M)</li> </ul>
4	Support Project for the Design Forum	<ul style="list-style-type: none"> <li>•2 forums</li> </ul>	<ul style="list-style-type: none"> <li>•Tender &amp; contract: 1.5M/M</li> <li>•Project summary: 0.5M/M</li> </ul>	<ul style="list-style-type: none"> <li>•Venue cost (4,000)</li> <li>•Fee for the lecturers (1,000) (2times)</li> </ul>	<ul style="list-style-type: none"> <li>•Coordinator Preparation 1M/M Implementation, coordination after the forum 0.5M/M (Total 3M/M)</li> </ul>
5	Support Project for the Establishment of the Design Council	<ul style="list-style-type: none"> <li>•Support of the secretariat works only (excluding the works related to the Design Forum)</li> </ul>	<ul style="list-style-type: none"> <li>•Tender &amp; contract: 1.0M/M</li> <li>•Project summary: 0.5M/M</li> </ul>	<ul style="list-style-type: none"> <li>•Communication and transportation costs (1,000)</li> </ul>	<ul style="list-style-type: none"> <li>•Coordinator Secretariat work 1.5M/M</li> </ul>
6	Support Project for the Design Development Organization	<ul style="list-style-type: none"> <li>•Number of goods to be developed: 5</li> </ul>	<ul style="list-style-type: none"> <li>•Tender &amp; contract: 1.5M/M</li> <li>•Project summary: 0.5M/M</li> </ul>	<ul style="list-style-type: none"> <li>•Subsidy for the difference between the ordinary interest rate and the concessive interest rate covering the initial working cost</li> <li>- Recruit the foreign designer with the costs for research (14,000)</li> <li>- Prototype making (10,000)</li> <li>(US\$7,000/year with 14% of difference in the annual interest rate for the loan amounting to US\$24,000)</li> <li>•Expenses to invite the foreign designer (6M/M)</li> </ul>	<ul style="list-style-type: none"> <li>•Coordinator Secretariat work 3M/M</li> </ul>
7	Jordan Brand Development Project	<ul style="list-style-type: none"> <li>•Number of goods to be developed: 5</li> <li>•Project duration: 18 months</li> </ul>	<ul style="list-style-type: none"> <li>•Tender &amp; contract: 2.5M/M</li> <li>•Project summary: 0.5M/M</li> </ul>	<ul style="list-style-type: none"> <li>•Costs to recruit the foreign designer with the costs for research(10,000)</li> <li>•Prototype making (10,000)</li> <li>•Advertisement costs (10,000)</li> </ul>	<ul style="list-style-type: none"> <li>•Coordinator Secretariat work 18M/M, 2.5persons (Total 45M/M)</li> </ul>
8	"Excellent Design" Award Program	<ul style="list-style-type: none"> <li>•1 time</li> </ul>	<ul style="list-style-type: none"> <li>•Tender &amp; contract: 1.5M/M</li> <li>•Project summary: 0.5M/M</li> </ul>	<ul style="list-style-type: none"> <li>•Advertisement costs including printing costs (4,000)</li> <li>•Communication and transportation costs (1,000)</li> <li>•Fee for judges (2,000)</li> <li>•Expense to invite foreign designer (0.5M/M) (10,000)</li> <li>•Exhibition costs including report preparation and commendation expenses (10,000)</li> </ul>	<ul style="list-style-type: none"> <li>•Coordinator Secretariat work 2M/M, 2.5persons (Total 5M/M)</li> </ul>
9	Enterprise Management Training System	<ul style="list-style-type: none"> <li>•Annual costs and expenses</li> <li>•Duration: 9 weeks/course</li> </ul>	<ul style="list-style-type: none"> <li>•Tender &amp; contract: 1.5M/M</li> <li>•Project summary: 0.5M/M</li> </ul>	<ul style="list-style-type: none"> <li>•Venue cost (9,000)</li> <li>•Text preparation (2,000)</li> <li>•Expenses to invite foreign lecturers (6M/M) (10,000)</li> </ul>	<ul style="list-style-type: none"> <li>•Coordinator Secretariat work 3M/M, 2.5persons (Total 7.5M/M)</li> <li>•Preparation of texts 13.5M/M</li> <li>•Instructor, including preparation works 3M/M</li> </ul>
10	Project to Encourage Establishment of the Pioneer Technology Enterprises to Introduce Advanced Technologies, or to Acquire the Key Technologies	<ul style="list-style-type: none"> <li>•1 Pioneer Enterprise</li> </ul>	<ul style="list-style-type: none"> <li>•Tender &amp; contract: 1.5M/M</li> <li>•Project summary: 0.5M/M</li> </ul>	<ul style="list-style-type: none"> <li>•Fee for advisors (10,000)</li> <li>•Expense to invite foreign well-informed experts (1.5M/M) (30,000)</li> </ul>	<ul style="list-style-type: none"> <li>•Coordinator Secretariat works for the Technology Evaluation Committee 3M/M</li> <li>•Research on the potential technology to introduce 6M/M, 5persons (Total 30M/M)</li> </ul>