

2 Recommendations

In this chapter, a master plan for design promotion is recommended, based on the results of analysis on the desirable direction of design promotion in Indonesia in the foregoing chapter. The master plan indicates the way to ensure the implementation of strategic thrusts shown in 1.3.

Then, action plans are proposed to materialize the objectives defined in the master plan. They are specified for policymaking departments, the Design Council, the Design Center, government organizations responsible for industrial development, and related private organizations and institutes. Proper implementation of the action plans leads to the accomplishment of the objectives set in the master plan. Note that activities proposed in the action plans take into account constraints facing the related organizations at present, i.e., they include alternative methods for execution when the original method may not be feasible under circumstances.

The action plans are proposed in three phases, immediate (1-3 years), short/mid-term (3-5 years) and mid/long-term (5-8 years), referred to as phase 1, 2 and 3, respectively.

2.1 Master Plan for Design Promotion

Change in concept of design

As discussed in the following section, the master plan envisages the ability to create a product that incorporates needs of the market and strengths of the manufacturer as design's important feature, with the intention that design is to serve as a major driving force for industrial development in Indonesia.

Design emerged when manual, customized production by an artisan was replaced with mechanized, mass production, in an attempt to counter against deterioration of quality and drive sustainable growth of mass production. In other words, design activities were initially motivated by an attempt to establish the ways to make industrial products of high quality in a standardized and rationalized manner, while incorporating elements of aesthetics and amenity. At present, design activities refer to the act of planning and designing to achieve the above objective (with the design process consisting of a whole range of activities).

The scope of design has been continuously expanding as effectiveness of design activities was proven in various respects. A particular emphasis is being placed on the change in role of design from materialistic to idealistic, whereby it becomes a means to propose an idea. In addition to the traditional effect of providing comfort by creating a color, shape and/or space, today's design is expected to help develop the ability to perform

business activities or public administration by understanding the design process and applying it to planning and design work.

Major objective of design promotion and strategic thrusts to materialize the objective

The ultimate objective of design promotion is to use design for betterment of culture, the living environment, industry, trade and the national economy. In Indonesia, revitalization of industry is an area receiving the highest priority as it impacts many other sectors (including culture and daily life), and the master plan for design promotion should set its target as this immediate and pressing goal.

Particularly important is to develop the ability to create a product that helps establish the country's identity, especially when created among small- and medium-size enterprises that can generate large employment opportunities. This will be critical in empowering the industrial sector.

This way, the following two goals can be accomplished: (1) sustainable export promotion by reinforcing international competitiveness (including non-price competitiveness) and product development capabilities; and (2) the vertical development of industrial structure by enabling the development of intra- and inter-industrial linkages.

In consideration of favorable conditions for design promotion in the country, i.e., (1) abundant design resources; (2) a number of opportunities for enjoying benefits from design promotion; and (3) availability of human resources (potential), as well as various constraints existing at present, the strategic thrusts for design promotion were formulated as follows (for details, see 1.2 "Opportunities and Constraints on Design Promotion" and 1.3 "Basic Strategy for Design Promotion").

- 1) To encourage industries/enterprises to introduce designs at their own initiative to leverage the ability of design for product development and market exploration, eliminating any restrictions on introduction of design
- 2) To build up the system for design promotion in a stepwise manner, concentrating resources and efforts on the most viable and effective method and approach while giving due consideration to the current restraints such as the shortages of funds, manpower and experience, etc.
- 3) To produce creative designers, together with development of the environment to support their creative activities.
- 4) To raise general design levels by learning from excellent designs and case studies on successful design use, and improve the ability to appreciate design and its quality.
- 5) To create a positive image of design resources in the country, disseminating

knowledge of the originality and quality of Indonesian designs, materials and designers to the international scene.

Process to further the strategic thrusts

The strategic thrusts will be accomplished by the following process (see Figure II-2.1-1). Here, the government is assumed to take the lead in building up the promotion system and creation of sample cases of design use at the initial stage of promotion. These activities are expected to encourage the private sector to be increasingly involved design activities. With the increased participation of the private sector in design promotion, the government function is to be scaled down to a supporting position, while the private sector assume an increasingly greater role in leading the promotion activities.

- 1) To encourage industries/enterprises to introduce design on their own initiative, eliminating any restrictions on introduction of design: Although industries and enterprises hold some expectation toward design implementation, they are not confident enough in introducing it on their own. Creating model cases within the country and advertising the results will build up confidence among a large number of enterprises that are interested.
- 2) To build up the system for design promotion in a stepwise manner: As little support can be expected from the private sector, efforts should be led by the government in close cooperation of the design community. Initially, resources will be mobilized to support the above activities. Then, to ensure promotion activities on a sustained basis, a formal promotion system will be set up around the Design Council, to be responsible for policymaking while the Design Center implements promotion policies as the design utilization base. Then as demand for design implementation grows in the private sector, efforts should be made to induce their active support and participation.
- 3) To produce creative designers, together with development of the environment to support their creative activities: Designers will be trained to develop the ability to take initiative in design creation through the training of design instructors (technical support staff) and research and study activities, essential elements in the process of promoting design implementation. Then, when industry has begun to realize the importance of design promotion, joint research projects between government and industry will be initiated, aimed developing original designs and functioning as an incubator for innovative designers.
- 4) To raise general design levels, and improve the ability to appreciate design and its quality: Opportunities for exposing the public to good Indonesian designs will be created through various design encouragement projects, including the hiring of

experienced designers from overseas to provide guidance and advice at workshops and other events.

- 5) To create a positive image, disseminating knowledge of the originality and quality of Indonesian designs, materials and designers to the international scene: The results of the above initiatives including design concept and work will be publicized through international exchanges and the mass media, including exhibitions.

Implementation steps

Design will become pervasive when it is successfully used by industry and government to produce positive impacts, which raise public awareness of design's value. At the same time, the widespread use stimulates designers to develop their design skills and creativity. In Indonesia, where industry does not fully recognize the efficacy of design and its potential value, efforts to demonstrate its benefits by way of examples in real application are important to give a sufficient push for industry to discover merits of design and be motivated to take action. At the same time, it is important to have a permanent organization which can carry out design promotion activities under a well-prepared plan and on a continuous basis.

In fact, proliferation of design and the promotion system have a complementary relationship to fuel each other. For instance, the widespread use of design by industry and government does not lead to the overall improvement of design levels, unless there are ample opportunities to advertise its effect or learn from more advanced experience in other countries. On the other hand, projects that raise public awareness or encourage design implementation cannot serve as a true driving force for design promotion unless design is actually adopted by industry and model cases with favorable results emerge.

The master plan proposes the ways to proceed with design promotion by keeping the actual progress of design use in pace with the operation of the promotion system.

Phase 1 is regarded as the phase to establish basis for design promotion. The focus will be placed on two fronts. First of all, efforts will be made to promote actual design projects as model cases and disseminate the results industry-wide. Secondly, to support the above efforts, design staff at industrial promotion organizations will be trained or hired. At the same time, preparations will be made to develop a permanent system to perform research and study activities as well as projects to encourage design use. In this conjunction, the Design Council will be revitalized as the place to discuss and decide on policies and programs required to implement the above activities.

Phase 2 will be the period to enhance and expand design promotion programs and projects. As short-term and medium-term activities, promotion of actual applications (pilot projects) will be further encouraged, and with the progress in design use, efforts will be made to induce active participation of industry in the design promotion process. In fact, these effects will be very critical for the further progress of design promotion, and desirable activities should include participation in the Design Council, financial support for the design utilization base, and promotion of joint design development projects by industry and government. Efforts will continue to show model cases in design implementation to an increased number of industries and enterprises through ongoing research and design activities and education of design support staff by foreign designers, which will also help train future leaders and innovative designers. Finally, a formal consultation program to back up design implementation activities by industries will be initiated by mobilizing necessary resources, and projects to advertise the results of design implementation efforts will be deployed.

Phase 3 is the phase to fully utilize the promotion system including organizations that have gained resources and experience. As long-term activities, projects will be initiated to disseminate the results of increased design use by private enterprises and government organizations, while setting up a mechanism to learn from successful cases in other countries. Most importantly, an emphasis should be placed on protection of design. Also, excellent designers and design works will be introduced internationally to help improve the general image of Indonesian design.

Organizational setup for design promotion

During the initial stage where in active participation of industry cannot be expected, government organizations responsible for industrial development and export promotion are expected to assume leadership in design promotion activities with the support of the design community including universities.

As industry gains general confidence in the merit of design implementation, efforts will be made to invite active participation and develop a permanent support and promotion system.

The government's promotion system will be built at the following two levels: (1) national level to plan, coordinate and operationalize design promotion policies; and (2) operational level to implement design promotion programs.

Two organizations will be responsible for policymaking, coordination and program development, a designated government department (organization) and the Design Council that will collect opinions and views from the private sector.

The policymaking organization at the central government will be responsible for formulation and modification of national design policies, drafting of laws and regulations, and budget preparation. It will also propose a basic plan for design promotion activities at local level, where local governments do not have sufficient planning capabilities. The policymaking organization will also serve as the secretariat of the Design Council. Among design promotion programs, it will supervise and control activities of the Design Center that will implement actual programs based on national design policies, and will coordinate policies of related organizations. Finally, it will implement important programs for other organizations which are unable to implement.

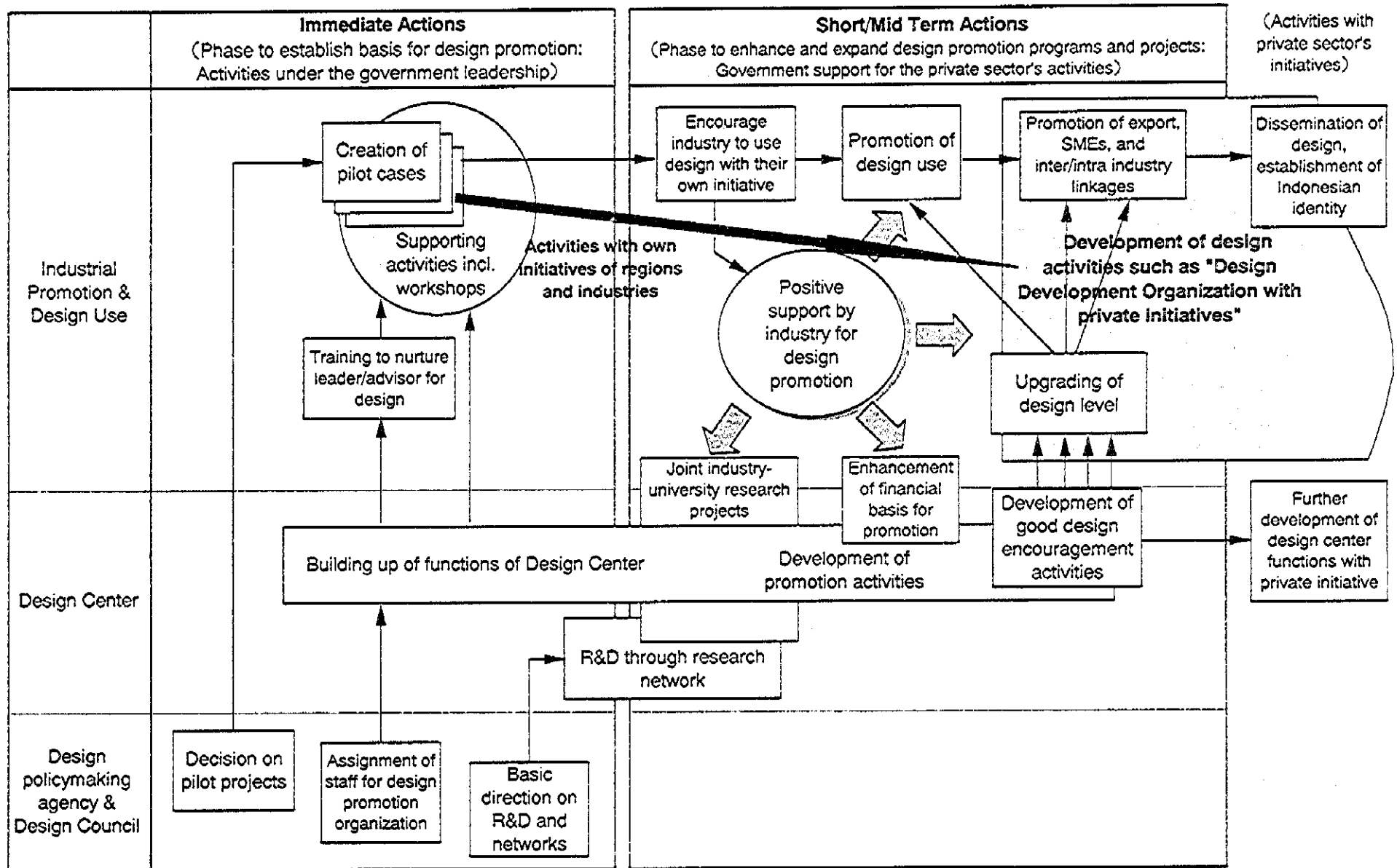
The Design Council will serve as the design policy collaboration body to reflect opinions of related parties in setting or modifying the basic direction of national design policy and encourage related organizations and stakeholders to actively participate in the process. It will confer regularly, at least one a year. Basically, it will discuss: (1) activity reports of government organizations related to design promotion policy; and (2) action plans, together with the reviewing of design policy and related systems and programs. The Design Council will be used as the basis of this body and will be restructured to become an extensive organization represented by industries and local governments. It will serve as an official forum for broad-based discussion of issues related to the interests of industries and regions. Participation should be drawn from all sectors. The secretariat (the policymaking body, actually work being done by the Design Center) will be armed with enough resources to enable it to focus on operationalization of policies into programs. Finally, subcommittees will be established by key field to ensure implementation of priority programs.

Organizations related to design promotion will include: (1) ad-hoc organizations established to implement design promotion activities under the direction of the design policymaking body or the policy reviewing body, e.g., Indonesia Design Center (IDC/PDN) and other design utilization bases; (2) government organizations (including local governments) responsible for industrial development, the fostering of SMEs, export promotion, regional development, and education, which logically entail functions related to design promotion; (3) design related organizations operated as the private or the third-sector organization (designers' associations, trade organizations representing industries that have the interest in design promotion, design promotion organizations operated by the private sector, and local design centers); (4) trade organizations representing industries implementing or using design; (5) private, non-profit organizations (including corporations and associations); and (6) educational institutions related to design.

In Indonesia, it is very difficult to obtain broad support from industry for design promotion activities, while most government organizations are limited in funds, manpower and experience. Similarly, other organizations including private and third-sector and educational institutions are not ready to conduct autonomous activities due to financial restraints.

It is therefore important to focus the limited funds and manpower available (through the assistance of the government and international organizations) on the Design Center and government organizations that are closely associated with design promotion policy. At the same time, the Design Center should take initiative in developing coordinated efforts with other organizations that conduct autonomous activities, which will be linked to the center's activities to maximize the overall results (proposed activities are shown in Action Plan).

Figure II-2.1-1 Conceptual Implementation Process of the Master Plan



2.2 Action Plan

The following presents the action plan for Phases 1 through 3. Phase 1 is assumed to be 1 to 3 years, while Phase 2 being 3 to 5 years, and Phase 3 being 3 to 8 years. The actual periods for these phases will depend on the capability of the major executing body to materialize the plan.

Nevertheless, it is necessary to take note that immediate actions are necessary to be completed within one year to two years followed by active introduction of design and design process by enterprises and industries, taking into account the factor that CEPT (Common Effective Preferential Tariff), which is an important element of AFTA, is to be implemented in the year 2003, and that the competitiveness of Indonesian industry must be improved to some extent by the time.

The third phase is the phase for design promotion with the private sector initiatives to flower. The system and infrastructure is targeted to reach the level of the developed countries by the end of this phase. Further, an identity of is to be established for Indonesian products and the image of Indonesia in terms of industrial products is expected to be improved similarly, by the end of this phase. In this sense, the phase is assumed to be completed within the period of PJP II, which positions the PJP II period as the taking-off stage of Indonesian economy towards the developed economy.

(For the overall action list, see Table II-2.2-1.)

2.2.1 Phase 1 (Immediate) actions

Design policymaking body

- (1) To select priority industries and regions for design promotion activities during Phase 1 (see "activities by organizations related to industrial development, regional development and export promotion" below); and coordination of related ministries and departments to gain consensus and assign projects and programs.
- (2) To decide on the support system required to implement promotion policies during Phase 1 (appointment of officers and assignment of design staff), covering ministries, the Design Center, and organizations related to industrial development, regional development and export promotion), and the development of the legal infrastructure, and budget request.

Design Council

- 1) To review priority industries and regions selected for design promotion activities during Phase 1.
- 2) To decide on a basic direction of research and study activities (☛ III-2.5).
- 3) To discuss the basic policy for development of research networks organized by public research organizations and universities (☛ III-2.5).
- 4) To held discussions related to the establishment of deign evaluation standards (☛ III-2.3).

Design Center

(☛ II-Appendix 2.4)

- (1) To secure required manpower, i.e., to meet the minimum requirements to sustain the center's activities, consisting of:
 - One or more full-time design employee
 - A few part-time employee (assigned by designers' associations and other organizations)

- (2) Implementation of a training program for promotion-related staff of government organizations

The training program will teach design awareness to officials in government organizations (including supervisory personnel) who will be involved in design promotion programs, including operation and management of design utilization bases, so that they will be able to perform their duties according to the general guiding principles. It will cover employees of departments responsible for priority industries and regions and will be expanded to other departments that will be involved in promotion activities in the future, as manpower and budgets permit. The program will also be applied to designers who are hired as design advisors. It will include follow-up training that is conducted every year, and training program will be enriched gradually through the process actual training.

The training program is divided into the three elements, introduction, advanced and follow-up. The introduction course will be offered for supervisors of design-related departments, and the introduction and advanced courses for design staff. They will be granted qualification for design staff assuming attendance for the follow-up course every year.

- Introduction course (2 days): History of design and its use, successful cases of design use in various sectors, the design implementation process, and a general outline of jobs of design staff

- Advanced course (5 days): planning, management and advertisement related to public administration and design, public facilities/service/welfare systems and design, marketing/product development and design, the role of the designer, general procedures for design guidance and advisor service, methodology for design enlightenment/encouragement and case studies, design-based regional development, design protection, and job description of design staff
- Follow-up course (2 days): Recent design applications and successful cases, activities of design promotion organizations, and the exchange of experience in design promotion activities

(3) Design workshop project

Practical training related to design (product development) will be conducted for priority industries and regions as the core of design promotion activities implemented by departments responsible for promotion of the industries and regions. At the outset, a workshop management committee will be organized in each industry or region by owners or managers of individual enterprises and will develop the curriculum and an overall execution plan including the solicitation of participants, operation and management procedures, and product development strategies. The establishment of the committee will be the prerequisite to the workshop in order to ensure the participatory type of management.

- Eligible participants: Owners, managers, and product planners of enterprises in the priority industries and regions¹
- Duration: 4-5 days, repeated in consultation with the committee
- Course outline: Understanding of the design process, initiative/innovative product planning and regional development, case studies on product planning

(4) Information gathering and dissemination (➡ III-2.4)

- Collection of house organs of design organizations in and outside of the country (e.g., through the exchange), news on overseas design competitions and design awards, and collection of design magazines (including back numbers)
- The establishment of a library and the lending of source materials
- The development of a database on domestic design information

¹ Participants, plus design students and designers (including freelancers) who wish to participate in the program. As learned from the workshop conducted during the present study, participation of designers is effective in activating the workshop and stimulating designers to improve their skills. Also, it serves as an opportunity to advertise the role of the designer to industry and region.

(5) National craft survey (↗ II-Appendix 2.3)

In consideration to the importance and development potential of the craft industry in the country as well as the value of design resources, the commercialization efforts should start from inventory taking of current resources. In the process, craft resources will be classified into those for preservation and those for commercialization. The survey results will form the basis of developing promotion programs according to the needs.

Activities by organizations related to industrial development, regional development and export promotion

Departments responsible for design promotion targeting the priority industries and regions include directorates of the Ministry of Industry and Trade, NAFED, departments of the Ministry of Cooperatives, Small and Medium Enterprises, and local governments. The design-based industrial or regional development process is implemented by selecting a particular industry or region with high potential and launching design promotion activities or in combination with other non-design programs.

Design-related programs will be conducted under the support of the Design Center at the initial stage. In future, each responsible department will conduct a particular program under its jurisdiction, with as-requested support from the center. Candidate programs that are considered to be effective are described below.

(1) Specific area development project (↗ II-Appendix 2.1)

This is a comprehensive project focused on local initiative-based regional development. Immediate goals will be the development of original products and advanced design capabilities. In the future, the fruits of these efforts will be applied to overall regional development efforts. The first step is the design workshop project (described above).

An area for the Phase 1 project will be selected by the Design Council from those recommended by the department in charge of regional development according to the degree of potential to achieve the above goal. One of key qualifications is the ability of the area to establish the workshop implementation committee organized by local businessmen. As the study did not cover the exploration of such opportunities, no candidate areas are proposed here. Among the areas investigated under the study, the following areas may be considered as candidates².

² In terms of project continuity, Cirebon is a primary candidate as the workshop was held there during the field survey.

- Cirebon (rattan furniture)
- Jepara (wood furniture)
- Bali/Ubud (craft products)

(2) Specific industry development project (see II-Appendix 2.2)

This is a comprehensive project focused on local initiative-based industrial development. Immediate goals will be the development of original products and advanced design capabilities, with the ultimate goal to bring the industry to an advanced level. The first step is the design workshop project (described above). In addition, workshops, financial support and R&D support will be carried out to address the issues facing a particular industry, including quality control, and the improvement of packaging (including the upgrading of engineering technology).

An industry for the Phase 1 project will be selected by the Design Council from those recommended by the department in charge of industrial development according to the degree of potential to achieve the above goal. One of key qualifications is the ability of the industry to establish the workshop implementation committee organized by enterprise owners and managers. Based on the result of the present study, the following industries are considered as primary candidates³:

- Electrical home appliances (particularly, such home appliances as rice-cookers, irons, water pumps for home use, vacuum cleaners, etc., instead of audio and visual equipment, for detail see III-7.3.3)
- Tools
- Coffee and allied products
- Tea and allied products

2.2.2 Phase 2 (short/medium-term) actions

Design policymaking department

- 1) To ensure the accomplishment of the goals in Phase 2, the policymaking body will review design policies and programs during Phase 1, evaluate effectiveness of the implementation system, and develop the legal infrastructure for policy implementation during Phase 2, together with budgeting. Its activities will include:
 - Establishment of design guidance organizations
 - Establishment of the design adviser system
 - Implementation of the research and consultation program using foreign designers

³ In terms of project continuity, the household appliance industry is a primary candidate as the workshop was held for the industry during the field survey.

- Expanded application of the SME financial support system to the hiring of the designer
 - Tax incentive for costs related to product development
 - Development of the legal environment to promote standardization of design licensing
 - The development of the legal system and the information management system to collect and disclose statistics related to intellectual property, related proceedings and decisions, and other information
 - Enforcement of legal control over design of imported products
- 2) To select priority industries and regions for design promotion activities during Phase 1 and coordination of related ministries and departments to gain a consensus and assign projects and programs.

Design Council

- 1) To expand the representation by including industries and regions and establish itself as the core organization to discuss design policy.
- 2) To discuss and make recommendations on the above issues upon inquiry of the policymaking body.
- 3) To establish a basic direction of design research and study during Phase 2.

Design Center

- 1) To encourage participation by industry.

Participation in the Design Center by industry will be encouraged by: (1) participation in the executive committee on the Design Council/Design Center; and (2) financial contribution.

- 2) Continuation of training program

Two programs started in Phase 1, "the training program for government staff related to design promotion" and "the design workshop project" will be continued by expanding their scope. During Phase 2, however, the Design Center will no longer hold these programs. Instead, each responsible organization will plan and operate its own program and the Design Center will support it by reviewing and modifying the curriculum and sending instructors. The Design Center will shift its focus to the following activities.

3) Activities to encourage good design by inviting foreign designers

Design activities that are currently carried out in Indonesia emphasize technical aspects of design, i.e., "how to make." The focus needs to be shifted to "what to make," which represents the concept of initiative/innovative design. To promote the development of the original product and develop advanced design capabilities, as contemplated in the program, the design industry must be exposed to good design that stimulates creativity. This is the first step before going to an advanced design level. Furthermore, the concept can be further expanded beyond the traditional role of design for industrial purposes, including contribution to society.

To grow out of the existing level, outside resources are very effective, i.e., invitation of prominent designers from overseas, who will serve as instructors at the design utilization bases and technical support centers, covering design practice and research.

Activities in this field are to include:

- Good design awards
- Design competitions
- Exhibitions of excellent designs
- Design competitions of students at design institutions as part of graduation projects

4) Enhancement of research and study functions

In addition to the support for the design research networks as the secretariat, the Design Center will have its own research department.

The research department will invite foreign designers who will guide research projects and educate design leaders.

The results of research projects (such as prototype development) will be made available to industry to encourage commercial application.

5) Mobile craft design school

Based on the result of the craft survey conducted during Phase I, a mobile or traveling craft design school will be held to upgrade design skills of the craft industry. In particular, focus will be placed on the following two distinctive objectives: (1) to seek an opportunity for commercialization as mass-produced, industrial craft; and (2) to preserve traditional craft that is made in a small lot and refine it for sophistication and inheritance by later generations.

- Subject: Crafts selected by the Design Council
- Period: Three months

- Contents: (1) What is a product and what is a tool; (2) the need to recognize usability and marketability; and (3) the understanding of the importance of new design development and its practice.
- Exhibition of results and test sales: Experimental sales at shops in Jakarta and other large cities

6) Permanent exhibition

Good designs and new, innovative designs will be displayed at locations visible to consumers, producers and foreign visitors. Current displays at the PDN and government facilities are recognized only by related parties of the design community. The permanent exhibition should be used as a showcase for advertising contemporary designs in the country.

Organizations related to Industrial development, regional development and export promotion

The specific area development project and the specific industry development project, which will be launched during Phase 1, will be expanded in its scope. At the same time, the following programs will be commenced.

(1) Design adviser project

Compared to the two projects which focus on a specific industry or area, the project will target individual enterprises. A craft guidance center will be established under an industrial promotion organization to assist SMEs in introducing the design process. The design adviser will be a designer registered with the guidance center. The service fee for the adviser will be charged, but subject to discount through subsidy or tax incentive.

(2) Protection, refinement and inheritance of traditional craft (➤ II-Appendix 2.3)

Based on the result of the survey of traditional craft to be conducted during Phase 1, traditional crafts qualified for protection measures will be designated, followed by activities to support protection efforts, including: (1) support for sales promotion; (2) technical assistance for refinement and sophistication; and (3) provision of subsidy and tax incentive. These activities will be carried out in combination with the above support activities, such as the traveling design school and permanent exhibition and sales.

(3) Regulatory control over design copying of exports (➤ III-2.8)

Strict regulation will be enforced to exports of copy products from Indonesia in order to improve the country's image in the export market and restrain murky trade with

foreign buyers. In particular, a certification system will be introduced to designate products that are widely copied and require them to obtain certification by a specified organization before export.

2.2.3 Phase 3 (medium/long-term) actions

During Phase 3, related organizations will be fully utilized to maximize ongoing efforts, and programs focusing on specific industries and areas will be expanded to all industries and areas. At the same time, the Design Center will be reorganized as an integrated, large-scale center with its own financial base.

Compared to activities during Phases 1 and 2, the following activities will be emphasized during Phase 3:

- To reinforce design protection activities, particularly advertisement and public education
- To encourage voluntary activities related to design protection by industries.
- To step up introduction of domestic designers and design works to other countries.
- To collect foreign design information through a special correspondent program.



Table II-2.2-1 Action List for Design Promotion (1/2)

Programs/ projects	Immediate (1-3 years)	Short-term (3-5 years)	Medium-/long-term (5-8 years)
(1) Creation of actual applications and dissemination of results			
<ul style="list-style-type: none"> A • Creation of actual applications through pilot projects of region- or industry-specific design promotion B • Expansion of pilot projects to other areas/industries 	<ul style="list-style-type: none"> B • Dissemination of the results of pilot projects A • Proliferation of outcome of pilot projects • Start of design enlightenment events 	<ul style="list-style-type: none"> C • Continuation of design enlightenment events 	
(2) Development of the design promotion system			
Revitalization and expansion of the Design Council			
<ul style="list-style-type: none"> B • Revitalization of the Design Council • Setting of design promotion policy direction by the Design Council 	<ul style="list-style-type: none"> A • Expansion of the design council (expanded participation by industry) • Establishment of the council's role and function as the core design policy-reviewing body 		
Functioning of the Design Center			
<ul style="list-style-type: none"> A • To secure minimum required staff (full-time) B • Establishment of the center's library and development of the design information database A • Establishment and implementation of design training courses 	<ul style="list-style-type: none"> A • Establishment of the financial base through industrial participation • Establishment of the activity base centered on encouragement and dissemination of good design C • Support for design training programs 	<ul style="list-style-type: none"> C • Full-scale deployment of design promotion activities 	
Establishment of the design promotion system within industrial promotion organizations (MOC-SMEs, MOIT, their district offices, and industrial technology research institutes)			
<ul style="list-style-type: none"> B • To support the hiring/training of design staff of industrial promotion organizations. • To provide training for design staff of design promotion-related organizations. 	<ul style="list-style-type: none"> B • Introduction of the certification system for design staff after completion of training courses 		
Development of the support system for design implementation by private enterprises			
▶ Promotion system			
<ul style="list-style-type: none"> B • Training of design consultant/adviser 	<ul style="list-style-type: none"> A • Establishment of design guidance organizations or the reinforcement of the existing organization • Education of researchers and instructors by invited foreign designers • Establishment of the design adviser system C • Publication of information on designers 	<ul style="list-style-type: none"> C • Activities by design guidance organizations B • Expansion of the information base on designers 	
▶ Incentive for private enterprises implementing the design process			
	<ul style="list-style-type: none"> B • Expanded application of the financial assistance program for SMEs to the hiring of designers B • Tax incentive for R&D expenditures • General incentives through display, publication and rewarding of good design 	<ul style="list-style-type: none"> C • Continuation of incentive programs 	
Establishment of the research and study system			
▶ Policy setting for research			
<ul style="list-style-type: none"> A • Discussion of research and study policy at the design council 	<ul style="list-style-type: none"> C • Selection of research topics (setting the basic direction) at the design council according to the changing needs of the times 		
▶ Establishment of the research and study system and dissemination of results			
<ul style="list-style-type: none"> B • Formation of research networks by public research organizations and universities 	<ul style="list-style-type: none"> B • Publication of research results at public research institutes and universities • Research and development under invited foreign designers A • Joint research and development of original design by universities and industries • Joint research and development of original design by universities and industries • Commercialization (prototype development) 	<ul style="list-style-type: none"> C • Publication and dissemination of results • Continuation of joint research and development by universities and industries 	
▶ Basic research for design development			
<ul style="list-style-type: none"> B • Collection and assortment of basic design information required for original development • Comprehensive survey of craft resources 			



Table II-2.2-1 Action List for Design Promotion (2/2)

Programs/ projects	Immediate (1-3 years)	Short-term (3-5 years)	Medium-/long-term (5-8 years)
Design protection			
▶ Infrastructure development	<ul style="list-style-type: none"> Development of the legal infrastructure and the enforcement system Advertisement and public education 	<ul style="list-style-type: none"> Reinforcement of the enforcement system Development and disclosure of the legal database including statistics related to IP, and legal proceedings and decisions Standardization of design licensing agreement 	<ul style="list-style-type: none"> Expansion of advertisement activities
▶ Regulatory control by law enforcement		<ul style="list-style-type: none"> Regulatory control on specific export items through design certification 	<ul style="list-style-type: none"> Continuation of regulatory control in specific areas
▶ Voluntary regulation		<ul style="list-style-type: none"> To encourage design protection by voluntary design registration by industry To encourage voluntary design management activities by producing centers and industries 	<ul style="list-style-type: none"> To expand registration and advertisement activities To expand voluntary management and enforcement by producing centers and industries
Collection and dissemination of design information, and international exchange			
	<ul style="list-style-type: none"> Use of ongoing opportunities for international exchange Development of the knowledge base on exchange activities and results by designers' associations Advertisement and public education by designers' associations 	<ul style="list-style-type: none"> Special foreign correspondence on design information To expand advertisement and public education by designers' associations 	<ul style="list-style-type: none"> Expansion of the special foreign correspondence program Continuation of advertisement and public education by designers' associations
Strengthening of financial and technical foundation of design business			
	<ul style="list-style-type: none"> Provision of designer information to potential customers Government contract by design cooperative and securing of financial access Strengthening of the SMEs financial assistance program and application to design business 	<ul style="list-style-type: none"> Expansion of the designer information system Promotion of design implementation by the design adviser system Establishment of the foundation for the design industry Strengthening of the SMEs financial assistance program and application to design business Promotion of standardization and quality control related to design Development and proliferation of standard contract practice Establishment of standard design fees 	<ul style="list-style-type: none"> Expansion of activities by the design industry
(3) Training of innovative designers			
Human resource development			
	<ul style="list-style-type: none"> Design consultant/adviser training courses 	<ul style="list-style-type: none"> Education of researchers and instructors by invited foreign designers 	
Basic research and data service for design development			
	<ul style="list-style-type: none"> Collection and assortment of basic design information for original development 	<ul style="list-style-type: none"> Joint research and development of original design by universities and industries 	<ul style="list-style-type: none"> Continuation of joint research and development by universities and industries
(4) Learning from advanced design applications			
	<ul style="list-style-type: none"> Introduction of foreign good design/applications through human exchange and networking 	<ul style="list-style-type: none"> Invitation of foreign designers for instruction Introduction of domestic good design/applications through certification and rewarding 	<ul style="list-style-type: none"> Continuation of introduction of good design/applications
▶ Upgrading of competitions, awards and exhibitions	<ul style="list-style-type: none"> Development of design evaluation standards (design council) 	<ul style="list-style-type: none"> Hiring of experienced (foreign) producers for event planning 	
(5) Proposition of Indonesian design and materials			
		<ul style="list-style-type: none"> Introduction of excellent designers/applications to overseas 	<ul style="list-style-type: none"> Expanded introduction of excellent designers/applications to overseas

(Note)

- A** Key activity
- B** Critical as the preparation process for future promotion activity
- C** Activity desirable to implement for the future, although it may not show its full effect



2.3 Other Recommendations Related to Design Promotion

In Indonesia, there is great need for revitalization of industry, from both short- and medium-term perspectives envisaged by the master plan, and its success or failure will have significant impact on the daily life of the people, culture and many other aspects. Based on this recognition of the situation, the master plan aligns its primary objective with the urgent need, particularly focusing on promotion of SMEs, exports and industrial linkage through development of product design that also constitutes the basis of establishing the country's identity.

At the same time, however, it is important to avoid that the product development process and other design promotion activities are skewed toward economic efficiency. The global trend has already set on its new course, under which the value standard strives to adjust itself to diversification of problems that are to be tackled by the international community.

In this conjunction, the following three perspectives need to be taken into account in design promotion efforts to be undertaken in Indonesia (see III-5).

First of all, the global environment and its preservation have become a major issue facing the world. Efforts should now go beyond mere prevention of environmental damage, but design must incorporate its clear commitment to environmental preservation in an affirmative way.

Secondly, the people-oriented perspective should also address the needs of minorities in a broad sense, while meeting traditional requirements for production efficiency and mass satisfaction.

Thirdly, the true Indonesian design should not blindly follow and be mired in the contemporary design of the West. It must express and incorporate the country's identity through repeated discussions and practices.

New design trends and techniques can be learned from advanced examples in various countries, and foreign designers can provide many ideas and hints, from many different perspectives. Nevertheless, to discover the country's identity and instill it into design is basically a task for Indonesian designers. The master plan proposes what elements of the Indonesian history, tradition and culture should be inherited and how they should be codified into the design concept.

(1) Environmental consideration: perspective of "sustainable design/ecological design"

Destruction of rain forest, global warming and other environmental problems caused by economic development characterized by mass consumption are serious concerns of the

world community. New lifestyles and thoughts from new perspectives are highly demanded to achieve the harmonious relationship between the environment and economic growth, the effective use of limited resources and energy sources through recycling, and coexistence with the nature. In the world of design, emphasis is being shifted to the product that does not become a waste, and has the feature of facilitating recycling and reuse.

(2) "Universal design" perspective: friendly to everyone

The mass production society that serves the interest of the supply side focuses its attention on meeting the needs of majority. Public expectations of the new product concept that can be used comfortably and safely by everyone are now rising. "Universal design" is becoming a new norm to create and propose a product, a space, a facility and equipment that can be accessible to the physically handicapped, elderly and everyone else.

At first thought, designs and products from these perspectives may be less demanded compared to those serving the traditional mass consumption society and can be thought as the needs to be fulfilled sometime in future. However, an increasing number of consumers in industrialized countries have realized the importance of addressing the needs now and have changed their attitude, as evidenced in the changing shopping behavior. Thus, it is becoming a pressing issue for Indonesian industry to deal with, in particular, they have to think about how the new perspectives should be reflected in product design when they start implement the design process.

(3) Consideration to Indonesian history, tradition and culture

Indonesia has a highly rich, diverse cultural and historical heritages that were developed through the country's long history and on the basis of its unique traits in terms of multi-culture, multi-religious, diverse nature, and colonial experience. Indonesian industry must find the ways to incorporate these assets in design, which constitutes a determinant factor for their ability to establish self-identity in their products. At the same time, some assets have been left withering or forgotten, including traditional production technologies and physical models, and no serious discussion has been made to find the way to hand them on to future generations. Thus, these assets need to be viewed from not only the prospect for commercialization, but also from the need for "protection and preservation," including the viewpoint of how it should be done.

Appendix 1: Study and Recommendation Process

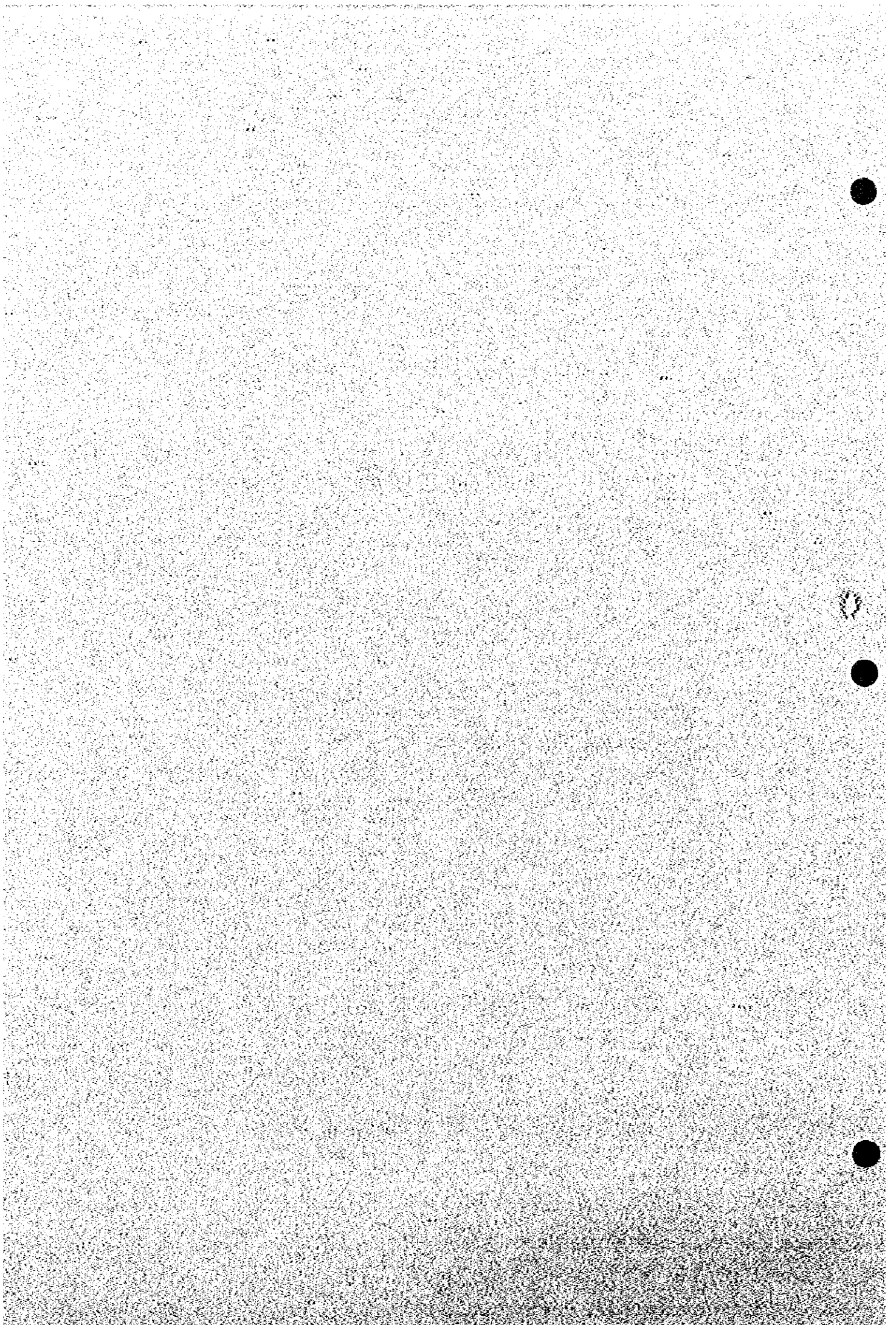
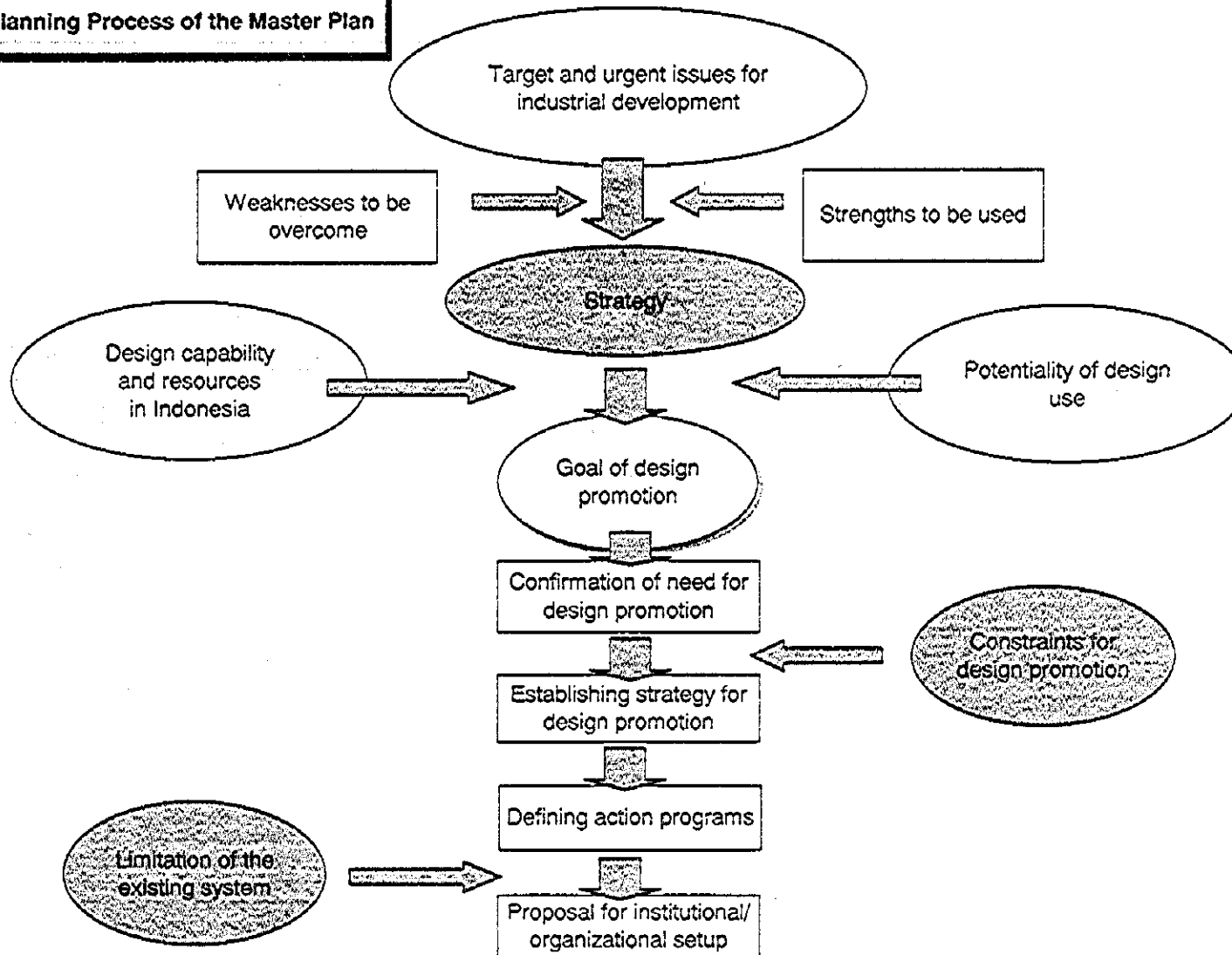


Figure II-A1-1 Planning Process of the Master Plan



I - IV - II

Figure II-A1-1 Planning Process of the Master Plan

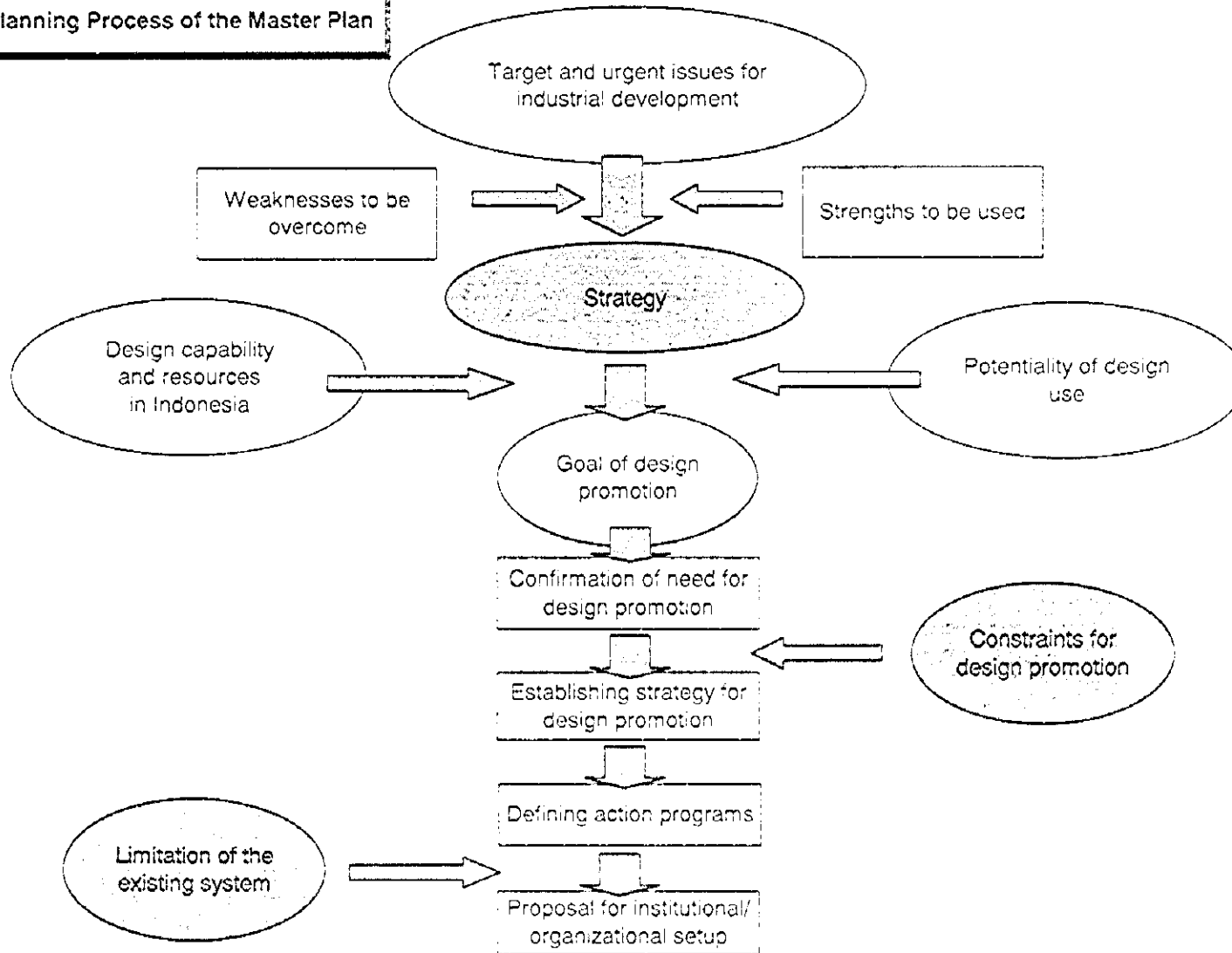
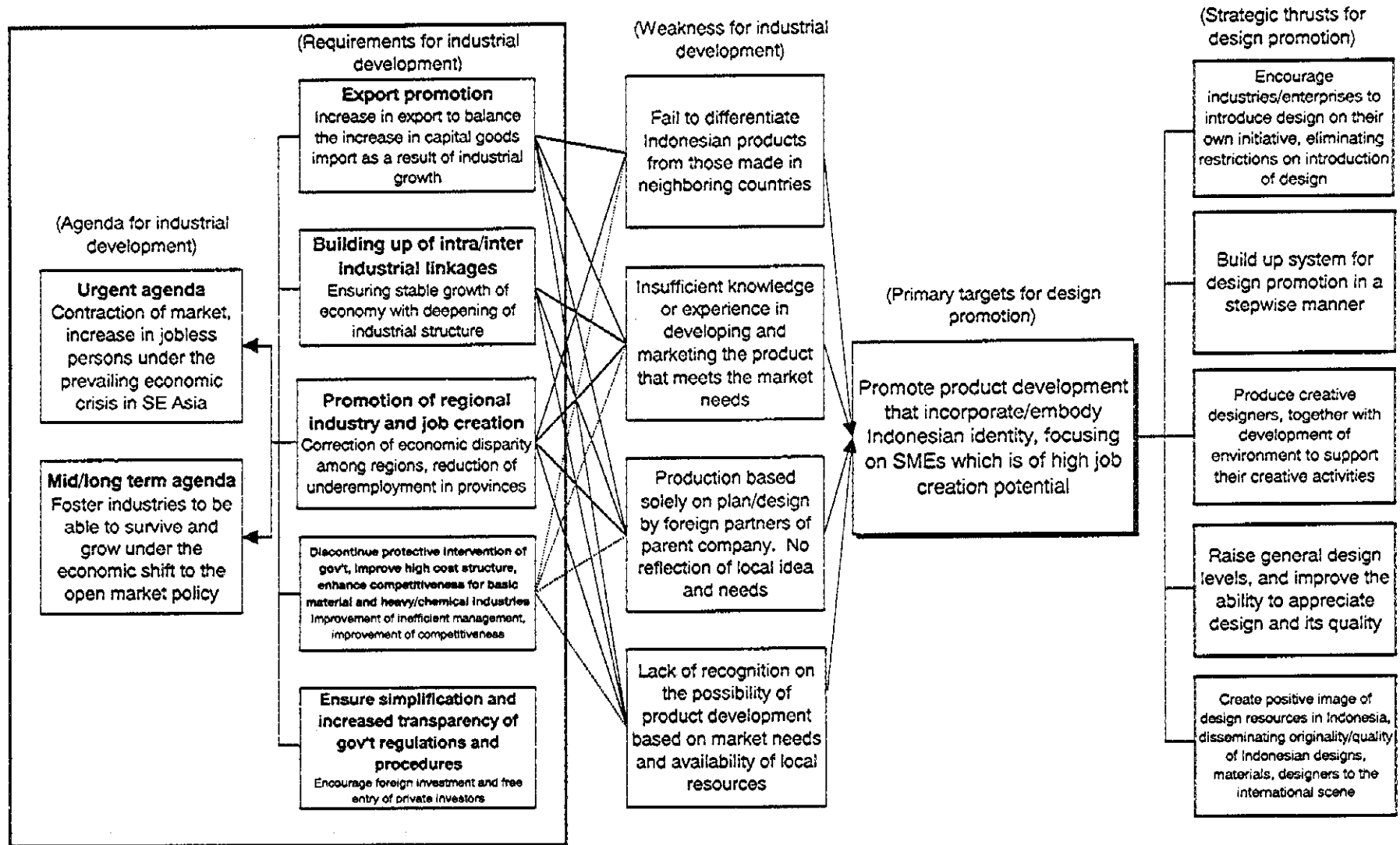
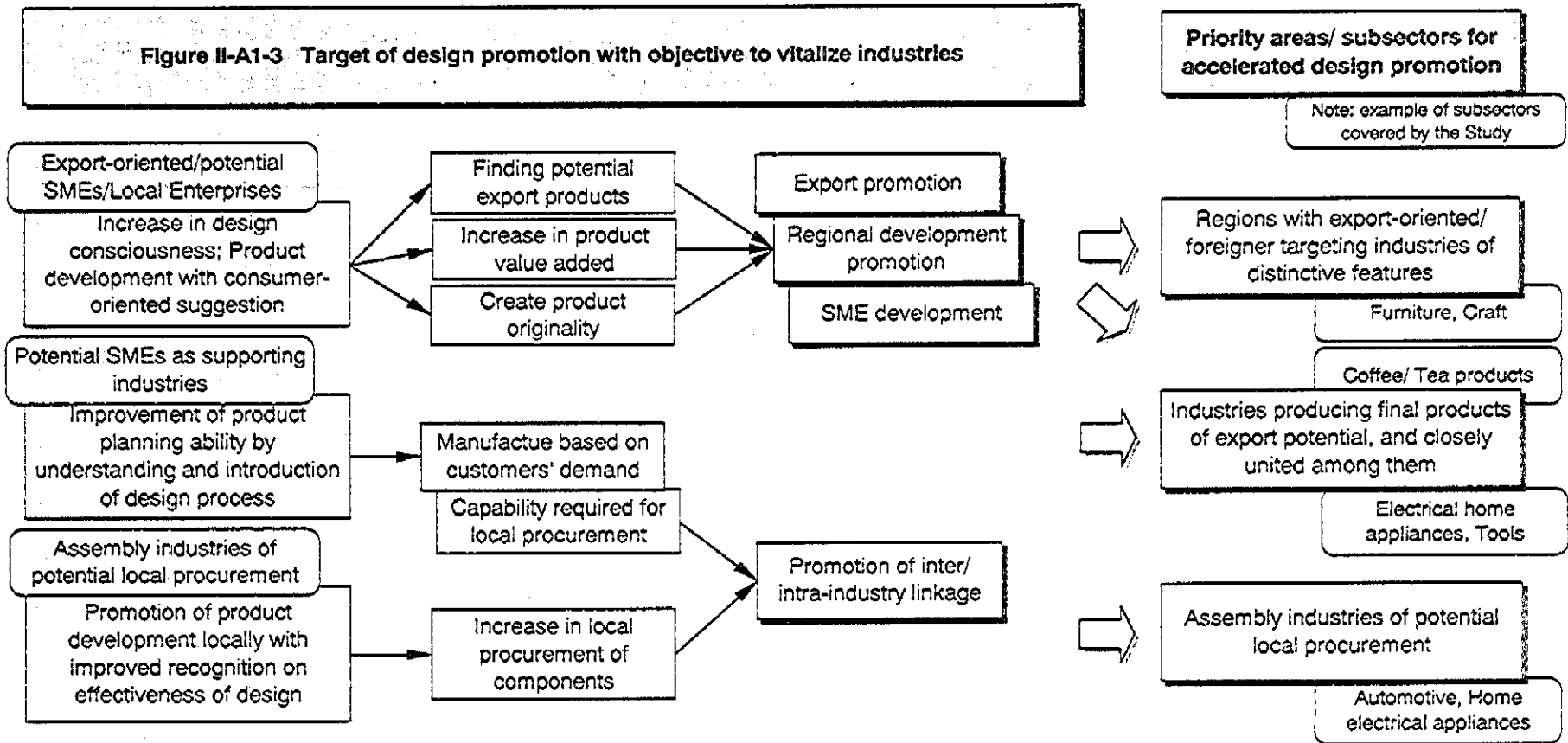


Figure II-A1-2 Agenda for Industrial Development, and Strategic Thrusts for Design Promotion



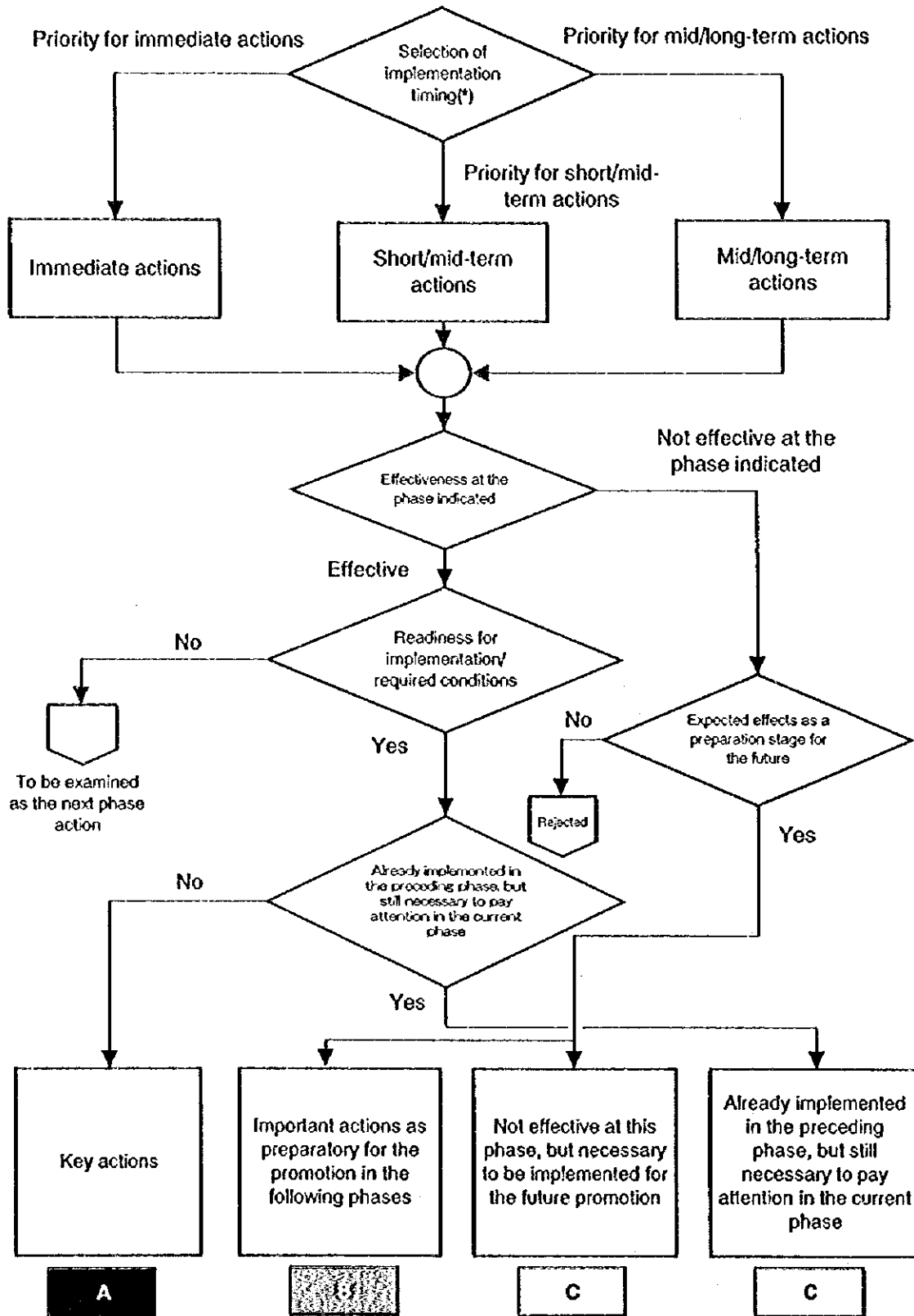
II-A1-2

Figure II-A1-3 Target of design promotion with objective to vitalize industries



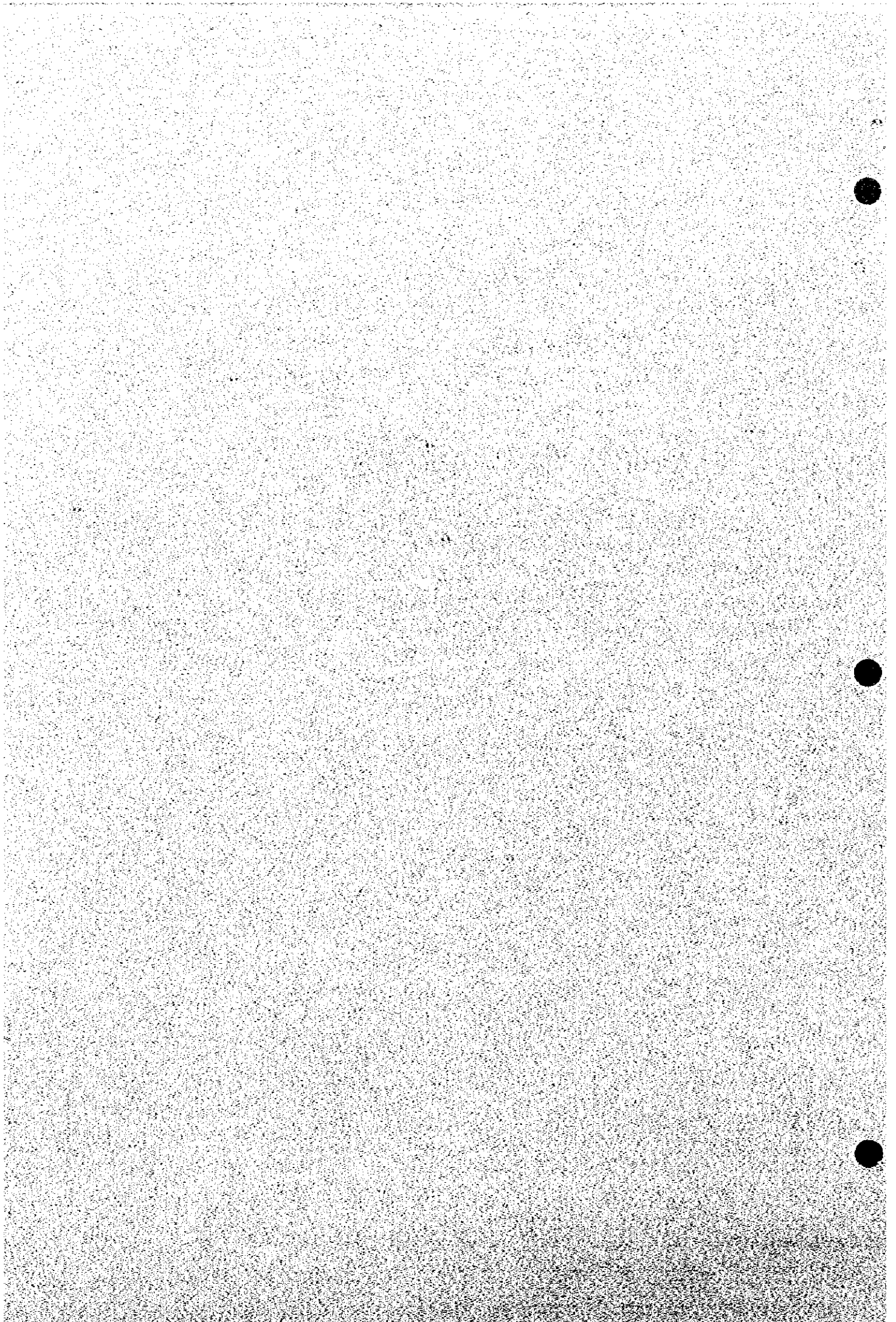
II-A1-3

Figure II-A1-4 Selection Process of Priority Actions for the Actions List



(*) Based on priority of strategic thrusts for design promotion by implementation phase.

Appendix 2: Detailed Description of Action Plan



Appendix 2: Detailed Description of Action Plan

Among the programs outlined in the action plan, those requiring extensive activities are described in more detail. Other activities are discussed in relevant sections of the main text, as referred in 2.2.

2.1 Design-based Specific Area Development Project

2.1.1 Project goals and expected results

Overall goal

Development of local industries in a target area

This can be translated to the following industrial development goals on a national level:

- 1) Decentralization of economic activities through development of local industries
- 2) Creation of employment in rural regions
- 3) Fostering of small- and medium-sized enterprises
- 4) Export promotion

Project goal

Development of product groups that focus on creation and maintenance of a local image, and export promotion

To implement the design process in a selected export industry (including the one having export potential) that is concentrated in a specific area, thereby to transform the current production and marketing practices heavily relying on buyers to those based on improved non-price competitiveness and higher value added by developing products and markets on the basis of potential ability and local characteristics.

Expected results

- 1) To create local identity and improve a general image in the market.
- 2) To develop an original product on the basis of market needs and local characteristics.
- 3) To introduce the design process to local industries (to develop the continuous product development capability).
- 4) To establish model cases that can encourage design implementation by other industries and areas.
- 5) To build up the infrastructure to support design-based regional development activities.

- 6) To establish the way to use outside designers in regional development planning as well as product development.

2.1.2 Project description

(1) Description

Activities

To promote product development and market exploration for exporting purposes, it is imperative to get acquainted with consumption trends in each segment of a target market, marketing channels, and competitive conditions. For this reason, export promotion policies in many countries focus on partnering of producers and buyers. Under this arrangement, however, buyers tend to have a strong negotiating power, preventing producers from achieving the optimum use of local resources available to them.

The project aims at export promotion by using designers working in target markets who study the market conditions and local characteristics and propose a new product and marketing strategy that are customized to each target market.

Product development and market exploration will be carried out by selected (or licensed) company groups who will contract with designers (or a group of designers or design firm) who are selected by the project implementation body. Actual methodology, approach and process will be left to each pair of the company group and the designer according to the requirements peculiar to each area and industry, provided that the selected designer will play a leadership role in the product development and market-in processes.

The project will start from solicitation of proposals from outside designers. The best proposal will be selected for product development, and the selected designer will make proposals for a product concept and market-in strategy and will be involved in development of marketing channels.

Key activities of the project are as follows:

- 1) Establishment of a lead organization in implementation of design and product development activities (tentatively named Design Development Organization): DDO will be established to recruit individual enterprises of the target industry in the target to participate in the design development and commercialization process and to implement design development activities (at an initial stage, it may be operated as a quasi-government organization under participation of related government authorities) (Figure II-A2.1-1)

- 2) Establishment of a support organization: A permanent organization to support design promotion activities in the target area (or industry) will be organized, tentatively named the Design Development Support Committee. It will be participated by representatives of local governments (prefecture and district), district offices of related ministries, industrial testing laboratories and technical guidance organizations, educational institutions, and local industries. The committee will support DDO's activities, have government authorities (including local government) to be directly responsible for its operation, and hire full-time staff.
- 3) Selection of the contract designer and product development concept and commercialization planning: DDO will solicit from designers (domestic and foreign) a proposal for produce development and market exploration. The best proposal will be selected and DDO will contract with the designer to proceed with the development process, including concept development, operationalization, market study, design work, and prototype development.
- 4) Commercialization, sales promotion and marketing: DDO will review and evaluate the outcomes from the development process and will solicit participation of local enterprises, followed by a feasibility study to make a final decision on project implementation. The contract designer will propose channels and sales promotion activities for the proposed product. Also, he will assist sales promotion activities upon the request of DDO. Participating enterprises will organize a business cooperative handling shipment, distribution and sales administration of the project. The cooperative will, when required, be responsible for procurement of raw materials and packaging materials, assembly and finishing of the product under the guidance of DDO, for design management and quality control purposes. DDO will carry out sales promotion activities in cooperation with the contract designer and will commission production and delivery of the order to the business cooperative. Also, it will work with the contract designer to supervise participating enterprises and the business cooperative in the areas of design management, quality control and delivery schedule management. Participating enterprises will manufacture the product according to the order from the cooperate.

Under the project, participating companies will be responsible for product development and market exploration by assuming commercial risks. The committee will provide support required to reduce any obstacles facing the participating enterprise and facilitate implementation of the design process, including support for communication with the contract designer, technical support for evaluation of the design concept, design work, and prototyping, and support related to export business including market access,

quality control and delivery schedule management, and financial assistance.

Input

Required inputs are estimated as follows:

Equipment and materials

Major required equipment and materials may be as follows:

- 1) Equipment and materials for design works
- 2) Design samples, and magazines and other media on market trends
- 3) Other relevant equipment and materials

The required equipment and materials indicated in the above (1) and (2) may vary depending on the target product, contract with the outside designers, and organizational set-up at the project site.

For the successful implementation of the Project, it is essential to keep close communication with the relevant parties outside, and the other equipment and materials indicated in the above are necessary to include the equipment for ensuring the communication such as telephone, facsimile, e-mail, as well as photo copy machine and its supplies.

Manpower

There will be three levels of manpower requirement for this project, as follows:

- 1) Manpower requirement for Design Development Organization
- 2) Manpower requirement for Regional Supporting Committee
- 3) Manpower requirement for the supporting members from overseas

Expenses

Excepting the expenses required for procurement of equipment, The major required expenses before commercial operation, include the following:

- 1) Expenses for inviting the supporting members overseas
- 2) Expenses for Supporting Committee
- 3) Costs and expenses for workshops
- 4) Expenses for co-works with solicited outside designers
- 5) Costs and expenses for market survey and test-marketing
- 6) Costs and expenses for prototype development
- 7) Expenses for sales promotion

However, the required amount (or value) is necessary to be estimated on the basis of assumed cases with more detailed definition, since it varies significantly depending on the project scale and kind of target products.

(2) Basic requirements

Assumption

The committee will be organized by the specific industry or participating enterprises. Participating enterprises will commit themselves to product development.

The primary goal is to develop and market a product, not mere training. The contract designer will be responsible for design work.

The results will be published within a specific period after completion, as a model case to be followed by other areas and industries.

Participating enterprises will have the rights to the design created under the project and will be able to use the design freely for commercial purposes.

As the government or other organization lacks experience in managing the product development and market exploration process using a contract designer, a qualified expert should be hired from overseas to obtain technical support for the process and make necessary preparation work including the development of an optimum system and methodology to utilize the contract designer, and the formulation of a detailed plan, while building a necessary knowledge base.

(3) Implementation system

The typical implementation process is shown in Figure II-A2.1-2.

The implementation body will be the MOC&SME or the MOIT.

An estimated implementation period is shown in Figure II-A2.1-3.

2.1.3 Expected effects and risks

(1) Economic effects

Direct benefits:

- Market expansion for export products, growth of export revenues, higher value added, and the increase in employment

Indirect benefits:

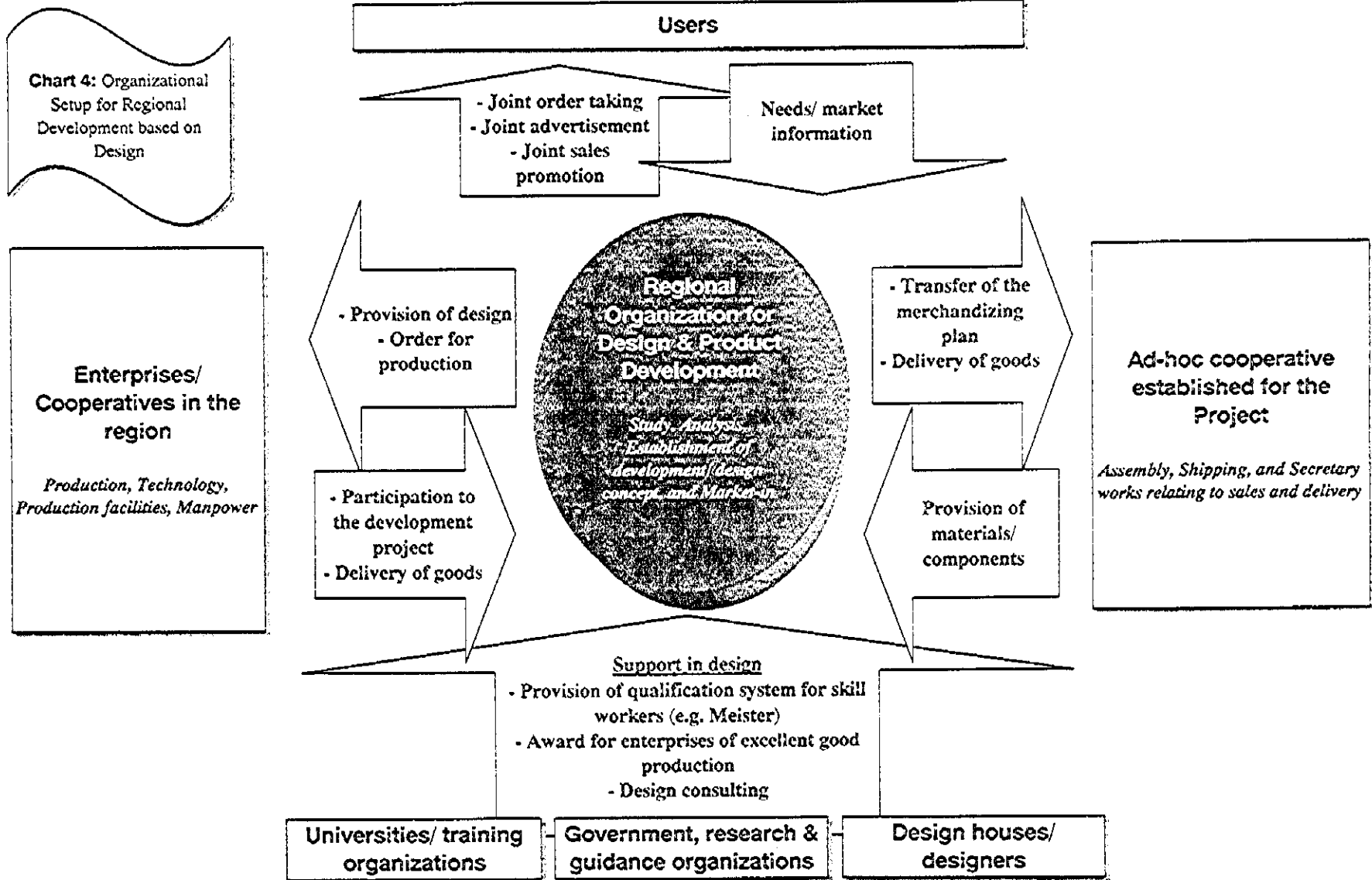
- Fostering of industries having the ability to develop new products on a continuous basis

(2) Financial risks

The proposal assumes that the contract designer will be paid from the income generated from the project. Nevertheless, the following costs and expenses may have to be born by the government or in the form of public assistance (including loans) for the interest of promoting the project if it is difficult to obtain consent of participating enterprises in the preparation stage. Note that these costs may not be covered by the project if product development is terminated before completion – a risk that must be assumed in the project.

- 1) Costs and expenses related to solicitation of proposals from designers
- 2) Those related to the field survey conducted by the contract designer
- 3) Those related to prototype manufacturing prior to the final decision on commercialization

Figure II-A2.1-1 Design Development Organization for Regional Design Development Project



II - A2 - 7

Figure II-A2.1-2 Flow of Regional Design Development Project

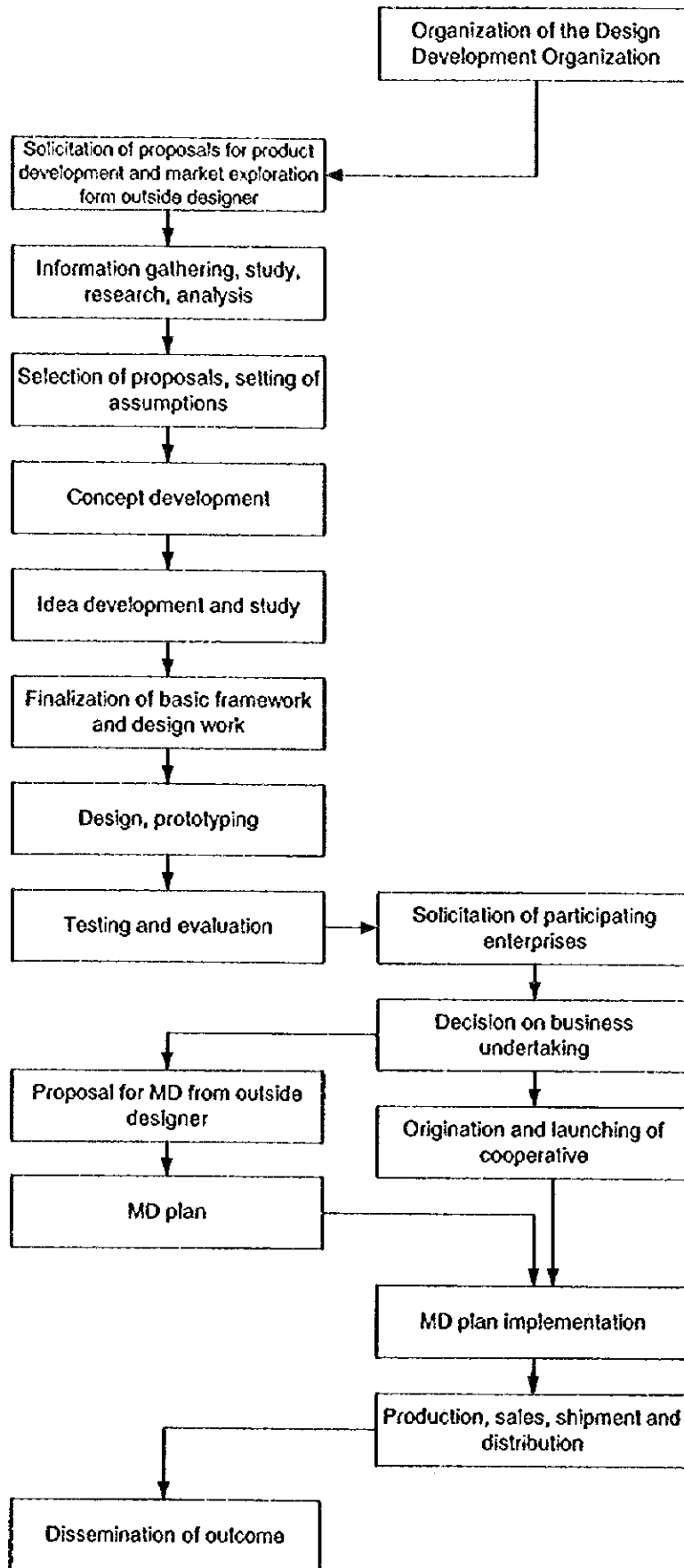


Figure II-A2.1-3 Estimated Term of Project

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Organization of design development support committee	▼																							
Organization of design development organization	▼																							
Solicitation of development proposal		■	■	■	■	■																		
Information gathering, study, research and analysis				■	■	■	■																	
Selection of proposal							▼																	
Design development							■	■																
Design, prototyping									■	■	■	■	■											
Testing and evaluation													▼											
Solicitation of participating enterprises and decision of business undertaking													■	■										
Implementation of MD plan, start of production and marketing																								

II-A2-9

2.2 Design-based Specific Industry Development Project

2.2.1 Project goals and expected results

Overall goal

To help a specific industry to develop the ability to create its original product and competitiveness with it.

This can be translated to the following industrial development goals on a national level:

- 1) Fostering of small- and medium-sized enterprises
- 2) Export promotion
- 3) Creation of employment opportunities

Project goal

Development of product groups for the selected industry to improve its image in the market, and export promotion

To implement the design process in a selected export industry (including the one having export potential), thereby to transform the current production and marketing practices heavily relying on buyers to those based on improved non-price competitiveness and higher value added by developing products and markets on the basis of potential ability and characteristics of the industry.

Expected results

- 1) To create the industry's identity and improve a general image in the market.
- 2) To develop an original product on the basis of market needs and characteristics unique to the industry.
- 3) To introduce the design process to enterprises in the industry (to develop the continuous product development capability).
- 4) To establish model cases that can encourage design implementation by other industries and areas.
- 5) To build up the infrastructure to support design-based industrial development activities.
- 6) To establish the way to use designers in regional development planning as well as product development.

2.2.2 Project description

(1) Description

Activities

The project will start from solicitation of proposals for product development and market exploration from outside designers. The best proposal will be selected and the selected designer will make proposals for a product concept and market-in strategy and will be involved in development of marketing channels.

Key activities of the project are as follows:

- 1) Establishment of a lead organization in implementation of national-level design and product development activities (tentatively named Design Development Organization): The organization will be established to recruit individual enterprises of the target industry in the target to participate in the design development and commercialization process and to implement design development activities (at an initial stage, it may be operated as a quasi-government organization under participation of related government authorities)
- 2) Establishment of a support organization: A permanent organization to support design promotion activities for the selected industry will be organized, tentatively named the Design Development Support Committee. It will be participated by representatives of local chambers of commerce and industry, district offices of related ministries, industrial testing laboratories and technical guidance organizations, and educational institutions, to support DDO's activities. The committee has government authorities (including local government) to be directly responsible for its operation, and hire full-time staff.
- 3) Selection of the contract designer and product development concept and commercialization planning: DDO will solicit from designers (domestic and foreign) a proposal for product development and market exploration. The best proposal will be selected and DDO will contract with the designer to proceed with the development process, including concept development, operationalization, market study, design work, and prototype development.
- 4) Commercialization, sales promotion and marketing: DDO will review and evaluate the outcomes from the development process and will solicit participation of local enterprises, followed by a feasibility study to make a final decision on project implementation. The contract designer will propose sales channels and promotion activities for the proposed product. Also, he will assist sales promotion activities upon the request of DDO. Participating enterprises will organize a business

cooperative handling shipment, distribution and sales administration of the project. The cooperative will, when required, be responsible for procurement of raw materials and packaging materials, assembly and finishing of the product under the guidance of DDO, for design management and quality control purposes. DDO will carry out sales promotion activities in cooperation with the contract designer and will commission production and delivery of the order to the business cooperative. Also, it will work with the contract designer to supervise participating enterprises and the business cooperative in the areas of design management, quality control and delivery schedule management. Participating enterprises will manufacture the product according to the order from the cooperate.

Participating companies will be responsible for product development and market exploration by assuming commercial risks. The committee will provide support required to reduce any obstacles facing the participating enterprise and facilitate implementation of the design process, including support for communication with the contract designer, technical support for evaluation of the design concept, design work, and prototyping, and support related to export business including market access, quality control and delivery schedule management, and financial assistance.

(2) Basic requirements

Assumption

The committee will be organized by the specific industry or participating enterprises. Participating enterprises will commit themselves to product development.

The primary goal is to develop and market a product, not mere training. The contract designer will be responsible for design work.

The results will be published within a specific period after completion, as a model case to be followed by other areas and industries.

Participating enterprises will have the rights to the design created under the project and will be able to use the design freely for commercial purposes.

As the government or other organization lacks experience in managing the product development and market exploration process using a contract designer, a qualified expert should be hired from overseas to obtain technical support for the process and make necessary preparation work including the development of an optimum system and methodology to utilize the contract designer, and the formulation of a detailed plan, while building a necessary knowledge base.

(3) Implementation system

The implementation process will be basically same as that of the design-based regional development project.

The implementation body will be the MOIT or the chamber of commerce and industry

2.2.3 Expected effects and risks

(Same as the design-based regional development project.)

2.3 Craft Resource Assessment Survey

2.3.1 Project goals and expected results

Overall goal

To promote regional development through the utilization and protection of existing craft resources.

As craft, a national asset reflecting diverse cultures of the country, is expected to become a major export item, the project will carry out inventory taking of craft resources in an attempt to allow promotion efforts according to characteristics of each craft and raise competitiveness for the craft suitable for export promotion, in particular:

- (1) For crafts suitable for protection (traditional craft), protection and inheritance of related technologies, techniques and products as a national asset
- (2) For crafts suitable for commercialization (modern craft and souvenir), development of higher value added products through the market-in strategy, eligible for national export promotion efforts

Project goal

To obtain a general picture of craft resources in the country and classify them to those requiring protection and those requiring commercial development.

- 1) To establish a clear-cut policy for fostering of the craft industry.
- 2) To establish a clear-cut policy for protection of important craft resources.

Expected results

- (1) To obtain a general picture of craft resources in the country.
 - 1) "Craft map" by region, material and category
- (2) Upgrading of the craft industry by promotion programs customized to characteristics of each craft
 - 1) Craft promotion plan by category
 - 2) Planning for development of the craft promotion system by category
- (3) Protection and inheritance of craft
 - 1) Development of the protection and inheritance scheme
 - 2) Collection, assortment and structuring of technologies and products
- (4) Development of a mechanism to create high value added craft products
 - 1) Planning for the mechanism to create high value added craft products
 - 2) Market-in product development
 - 3) Methodology for the use of design to develop high value added products

2.3.2 Project description

(1) Activities

Craft resources in Indonesia have great potential for industrial development. Healthy growth of the craft industry is desirable from the national economy because it can create large employment opportunities. Also, many crafts seem to be valuable as traditional culture assets and should be properly preserved and handed over to future generations.

The project will assess potential of craft as design resources. The extensive survey will be conducted to identify the current state of craft resources and use information as the basis of establishing the policy for future development and utilization. Also, recommendations will be made to help the government to formulate its craft policy

To this date, no comprehensive research and study on craft resources has been conducted. The craft industry does not fully utilize available resources and is largely considered as a collection of souvenir manufacturers, except for some enterprises who have successfully modernized themselves. Nevertheless, there are many crafts that seem to be good candidates for the design-based regional development project.

Meanwhile, many craft resources are left withering without proper efforts for preservation or inheritance. They can be used as the basis of developing a new craft industry if adequately modernized and refined.

The results of the current survey of craft resources will be translated into basic data set to classify crafts into two types, those to be preserved and those to be commercialized. Also, the project will show visions for the establishment of the country's policies for craft development, preservation and inheritance and provide model cases that should be followed.

Based on the survey results, three projects will be launched, "the traveling design school on craft" and "design based regional development focusing on fostering of the craft industry" for the mid-term, and "protection, modernization and inheritance of traditional crafts" as the long-term project.

Activities

1) Survey of availability and consumption patterns of craft resources

To investigate craft resources throughout the country and identify their details, applications and owners.

2) Assessment of craft resources

Craft resources will be assessed for their value as a cultural asset and potential for commercialization. Then, they will be classified into: 1) those to be developed to industrial craft with some degree of mass production capability; and 2) those to be preserved as traditional craft based on small-lot production and to be refined for inheritance to future generations.

3) Development of commercialization programs

Programs aiming at mass production and development of industrial craft will be developed, including market study including collection of needs, joint technological development, new concept development, image promotion strategy, and distribution planning. For this purpose, various methods used in the general design process, including industrial design, will be employed. Also, an educational program will be developed to train designers who have the ability in this field.

4) Development of preservation programs

Input

1) Equipment

- Video equipment for recording and presentation
- Craft samples (overseas) for the traveling workshop
- Equipment for craft workshop
 - PCs and CAD systems
 - Lathes and spinning machines

2) Key expenditures

- Traveling expenses for field survey
- Hiring of survey staff and miscellaneous expenses
- Costs related to the development of the database

(2) Basic requirements

In Indonesia, research and study on some craft resources has been carried out by various organizations led by universities. However, the results are not centralized and held by researchers and designers. Thus, they cannot be used as the basis of developing comprehensive plans for utilization, protection and inheritance of craft resources. On the other hand, extensive research projects have been carried out in industrialized countries, where universities and other organizations have expertise and methodology.

Therefore, the project will use foreign experts to assist in database development under broad participation of local participants and designers.

(3) Implementation system

Coordination of related authorities and organizations will be made by the MOIT, while the project will be implemented jointly by the MOC&SME, universities and the Craft Design Council.

The preliminary list of crafts to be surveyed is shown in Table II-A2.3-1, and the implementation schedule in Figure II-A2.3-1.

2.3.3 Expected results and risks

(1) Economic effects

If the survey is not conducted and crafts are left without modernization or preservation efforts, they will face increasing competition with products made in neighboring countries. Then, they will eventually be forgotten or barely survive as local products. No growth is expected for the craft industry.

The survey, if properly conducted, will allow policymakers to understand a general picture of craft resources in the entire country and formulate promotion policies and programs according to specific characteristics of each craft.

As a result, crafts that are suitable for commercialization can be modernized or otherwise refined by applying the design process and will be upgraded to export products with a higher merchandise value and international competitiveness. They will then contribute to growth of export revenues (including sales to foreign visitors).

The market for these crafts can be further expanded if their design and application are successfully evolved to meet the needs of the recycling society.

Without project

Craft products currently on market are partially exported. However, they are sold in foreign markets due to their low prices. In other words, their low labor and material costs form the basis of competitiveness, not their quality or value to consumers.

Craft products of this type can be manufactured in neighboring countries. If the craft industry continues to export products that do not have a differentiation factor based on the country's unique characteristics, it will have to compete on price, which will be a no-ending war difficult to win.

With project

The project will allow the manufacture of high-grade craft products that successfully incorporate local features peculiar to Indonesia and can be differentiated from similar products, resulting in increased exports and revenues.

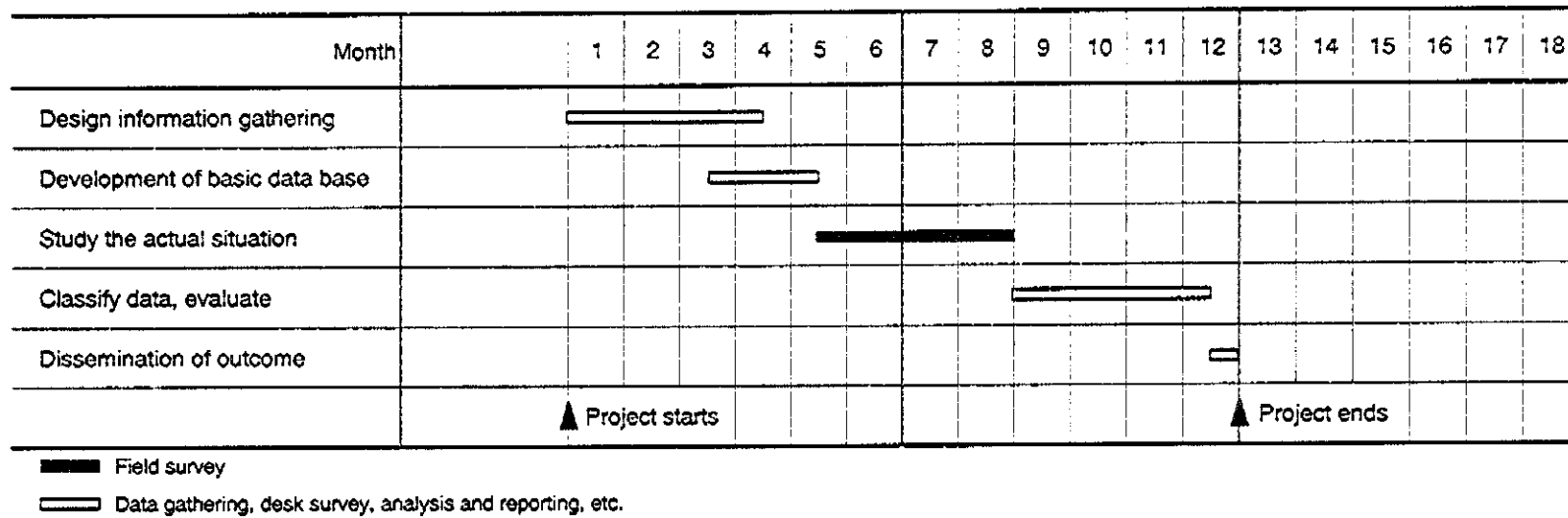
(2) Financial risks

Major financial risks related to the project will occur in the implementation of promotion programs that will be produced from the project, and there will be no direct risks facing the project.

Table II-A2.3-1 Vision for Application of Design to Craft

Category	Vision for use of design
Traditional craft	<ul style="list-style-type: none"> ● Sophistication as "traditional craft" <ul style="list-style-type: none"> • Improved of quality • Structuring of traditional craft products • Structuring of traditional production techniques • Structuring, documentation and implementation of inheritance and protection methods for technology • Training of basic shaping techniques
Modern craft	<ul style="list-style-type: none"> ● Evolution of craft to market-in products <ul style="list-style-type: none"> • Improvement of product planning ability (to reflect market needs, lifestyles, etc.) (To create products that meet the needs of the times, e.g., the recycling society) • Improvement of quality • Consideration of raw materials (including combination and synthesis) • Appropriate representation of local characteristics (as modern craft) • Training of basic shaping techniques • Learning of volume production technology (exports)
Souvenir	<ul style="list-style-type: none"> ● Sophistication as "souvenir" <ul style="list-style-type: none"> • Improvement of quality • Appropriate representation of local characteristics (as souvenir) • Training of basic shaping techniques • Learning of volume production technology (for domestic market and exports)
Other	<ul style="list-style-type: none"> ● Conversion to "modern craft" <ul style="list-style-type: none"> • Establishment of <i>raison-de-etre</i> value as craft (ethnicity, tradition, etc.)

Figure II-A2.3-1 Estimated Term of Project



2.4 Design Center Development Project

2.4.1 Project goals and expected results

Overall goal

To promote the use of design in industrial development, export promotion and the fostering of SMEs in the country, and revitalization of industry.

Project goal

To establish a formal design utilization base in the country.

In particular, to formulate and implement programs as the center's formal activities and train staff required for program implementation, including:

- 1) To secure and train Design Center staff.
- 2) To establish the methodology for the center's activities and hire staff.
- 3) To conduct activities.
- 4) To establish the methodology for training of design staff of government organizations and design promotion organizations for promotion activities.
- 5) To establish the methodology for workshops to promote design implementation.
- 6) To establish the methodology for design promotion activities.

Expected results

- 1) To establish the foundation of design promotion activities in the country:
 - To establish plans and procedures for design promotion programs and projects at the Design Center, including documents (course materials, reference materials, etc.).
 - To secure staff of the Design Center.
 - To train Design Center staff as well as staff engaged in design promotion activities at design promotion organizations.
 - To establish practice and procedures related to continuous operation and management of the Design Center.
- 2) Implementation of support for design implementation by industries and regions
 - To conduct workshops to ensure smooth design implementation by a specific industry or region, and establish the educational program and secure instructors.

2.4.2 Project description

(1) Description

Activities

PDN is an organization established as a sole national design utilization base. However, it lacks resources to fulfill the function.

The project is designed to help the center provide the function through practical experience in implementing promotion activities. Activities to be undertaken by the Design Center and requirements for establishing the necessary function are listed below.

Short-term (One to three years)

- 1) To secure Design Center staff.
- 2) To conduct training programs for staff of government organizations engaged in promotion activities.
- 3) To implement the design workshop project.
- 4) Information gathering and dissemination

Requirements to establish the function to carry out the above activities:

- 1) Training of design staff
 - To develop standard programs, curriculum and course materials for staff training.
 - To carry out staff training and train instructors.
- 2) Development of the design workshop and the guidance system
 - To develop standard programs, curriculum and course materials for the design workshop.
 - To carry out staff training and train instructors.
 - To provide guidance for operation and management of the regional or sectorial design development support committee.
 - To provide guidance for organization and management of national- and regional-level design development organizations and store their information as know-how.
 - To provide staff training for industrial testing laboratories and technical guidance organizations and train instructors.

Medium-term (Three to five years)

- 1) To encourage participation of industry.
- 2) To continue training programs
- 3) To conduct activities related to the encouragement of good design, centered on invitation of foreign designers.
- 4) To expand research and study capabilities.
- 5) To establish the exhibition space.

Requirements to establish the function to carry out the above activities:

- 1) To launch design encouragement projects (e.g., good design awards, design competitions, and exhibitions of excellent design work) and establish their methodology.
- 2) To establish the research and study section which makes activity plans, carry out research and study activities, and disseminate the results.
- 3) To accumulate know-how on operation and management of the Design Center.

Input

Equipment

- 1) Equipment and materials required for preparation of course materials used in design promotion programs and the design implementation process, as well as publication of relevant information
- 2) Equipment and materials used in projects and workshops to promote design implementation, including reference materials, computer hardware and software, consumable and supplies
- 3) CAD and other design aid equipment and materials

(2) Basic requirements

As the government or other organization lacks experience in managing the above programs and projects, a qualified expert should be hired from overseas to obtain technical support for the process and to build a necessary knowledge base.

Manpower

The required manpower will be the manpower for Design Center and the manpower to support the functional development of the Center. Figure II-A2.4-1 shows the manpower plan for the latter, assuming them to be facilitated from abroad.

(3) Implementation system

These activities will be carried out by the Design Center. However, as the Design Center lacks resources, full-scale support will be required from BAPPENAS, MOC&SME, MOIT and other government authorities, and design and other industries. In particular, the Design Council should be revitalized to establish a special committee related to operation of the Design Center, which will be responsible for guidance and consultation.

2.4.3 Expected results

Direct effect:

- To have the formal system to support design implementation.

Indirect effect:

- To achieve export growth through the increase in high-grade products and contribute to modernization of industry

Figure II-A2.4-1 Implementation and Staffing Plan

Year	1	2	3	4	5
Project manager	■■■■■				
Coordinator	■■■■■				
Advisor for design staff training	■	■	■		
Advisor for design workshops (1)	■■■		■■■		
Advisor for design workshops (2)	■■■		■■■		
Advisor for design workshops (3)		■■■		■	
Advisor for design workshops (4)		■■■		■	
Advisor for design encouragement projects			■■■■■		
Advisor for design center management and operation			■■■■■		

II-A2-25

Part III: Discussions

1 Current State of Design Activities and Opportunity for Industrial Revitalization through Design Promotion Activities

1.1 General

The study selected a specific industrial subsector for each category of design for in-depth analysis and evaluation of the current state of design activities and opportunity for the effective use of design, through the interview survey and case study. Rattan furniture was selected for interior design, electrical home appliances for industrial design, food packages for package design, and wood, bamboo, leather and ceramic products for craft design.

Major weaknesses commonly seen in each field of design, except for some leading, large enterprises, are: (1) design is not considered from the viewpoint of the design process; and (2) parties directly involved in design have few opportunities for taking the initiative as leaders in design development. These weaknesses are clearly reflected in many examples where design activities are skewed toward one specific aspect of the design process or they are primarily driven by external sources.

First of all, the failure to grasp the concept of the design process results in the prevailing attitude to consider design as being only based on color and shape, while neglecting the important notion that a final design is an outcome of an integrated process from market and consumer analysis, conceptualization, to design decision and product development and merchandizing. This serious misconception somewhat explains industry-wide reliance on copying and rearrangement of existing product designs. According to the result of questionnaire survey conducted for this Study (for detail, see III-8), more than 60% of respondents reply that they have used designers. However, their use of design is mostly limited to that of subcontracting type product development, in that 70% of respondents reply that their way of design development is "referring, copying or improving articles similar to their products", or "following instruction of customer or parent company abroad". It is also evident from the fact that more than 80% of respondents, who replied that they are using outside designers, have selected the designers "following instruction of customers", or "among the designers who are engaged in the design for the customers".

Consequently, most enterprises have failed to develop their own design capabilities or are simply not ready for design implementation, i.e., the ability to introduce and align the design process with other business processes. They are unable to utilize design as a powerful tool for product development, i.e., the strategic use of design. In particular, local furniture and craft industries mostly continue to be just manufacturers of low value added products, despite the availability of abundant resources, largely because they continue to rely on traditional designs and fail to evolve them to the modern ones that are commercially acceptable in a wider marketplace. These problems cannot be overcome without understanding the design process.

Secondly, in each field of design, most local enterprises and designers can not take the initiative in the design development process. For instance, design decisions seem to be predominantly made by foreign designers or architects in the field of interior design, whereas parent companies in foreign countries specify industrial and package designs and foreign buyers craft and furniture designs. With the lack of incentive for creating original design, local enterprises and designers are engaged in design activities that merely copy or alter designs that have been created by others. This virtually inhibits growth of competent designers and design areas, without anyone realizing it.

Therefore, design promotion activities in Indonesia must address these structural problems that are commonly seen in all the design fields.

There is a significant gap in the designer market (oversupply), as measured by the number of in-house designers hired and the number of designers produced. The result of the questionnaire survey indicates that 65.5% of all the respondents have hired outside designers. At face value, the figure suggests a significant progress of design utilization by companies. At the same time, however, the average number of designers is only 1.6 (or 2.6 in the case of large enterprises), and only 24.4% of the total (or 37.5% for large enterprises) hires designers who received advanced design education (university or higher). Thus, the average percentage of companies hiring designers with university or higher degree is 16.0% (or 31.6% for large enterprises). Thus, designer population hired by companies, in terms of the number per company and the number of designers with university education, is still fairly small. In contrast, both national and private universities produce a large number of graduates every year. As a result, there must be a significant gap between supply and demand in the designer market (particularly in terms of in-house designers).

Geographical distribution of the designer hiring situation, also according to the result of the questionnaire survey, indicates concentration of designers in larger urban areas, in that more than 80% of the responding enterprises located in major metropolitan areas, such as Jakarta, Yogyakarta, Surabaya and Denpasar, hire designers, while only a small percentage (30% or less) of companies in other regions, e.g., Jepara, Semarang and Sukabumi, do so. In particular, no company in furniture producing areas, such as Cirebon and Jepara, hires designers with university or higher education. Therefore, in order to promote effective utilization of resources in these areas, such as materials, techniques and originality, by applying design measures should be considered to encourage designers with higher education to work outside the large urban areas.

1.2 Interior Design

1.2.1 Design activity and design promotion

(1) General

In this study, the furniture design is focused as its subject following the agreed Scope of Work for this Study. The following 1.2.2 and 1.2.3, therefore, analyze and make recommendation on the furniture industry and furniture design¹ instead of interior design as a whole.

Interior design is often misunderstood as a form or method of decoration or ornament, or a way of emulating (imitating) lifestyles of Western Europe and North America. Interior design is the art of interrelating space, people and everyday life, and understanding and embodying local culture, climate, the needs of the times, and changing lifestyles in a visual form to comfort or appeal to people. While interior design covers diverse aspects of modern life, this section focuses on its relationship with the furniture industry, one of the major subjects of this study.

Design activities in the interior design area have been the most developed among the design areas in Indonesia, with the largest number of professional designers, who have gained the wide recognition of society as members of an established profession.

Interior design was originally the architect's domain, but also an area of actually of the artist or craftsman on special occasions. Then, rapid modernization of building interior, significant changes in lifestyle, the advancement of architectural technology and the increase in building scale have promoted the separation of interior design from architecture. Nowadays, in many cases, designers are involved from the early stage of planning as a team members specializing in interior works. Indonesian interior design has been developed adopting both artistic and technological approaches, often featuring applications of Indonesian culture and tradition. Many interior designers have the pride of professionals, extending their job areas according to globalization of the Indonesian economy, and increasing the joint undertakings with foreign designers.

¹ In Indonesia, design of furniture is generally regarded as a part of product design, with its emphasis placed on production and technical aspects. However, design of furniture in general, has been one of the major theme of interior design, historically. Further, the furniture design, nowadays, is handled in harmony with the environment where the furniture is placed, and thus, the role of furniture design in the interior design has increasingly become important.

Most major interior design activities are devoted to residences, offices, hotels, shopping centers, and amusement centers, etc. and demonstrate close relationships of designers with interior work contractors, the furniture industry, or construction projects undertaken by contractors or developers. Most interior designers have been engaged in the planning of total interiors, and the design works for individual interior goods such as furniture and lighting equipment alone are very rare.

However, there are still many interior designers who work under the leadership of architects or foreign interior designers. In this case, only a limited area is left for the discretion of interior designers. Further, most clients do not recognize that design work is independent from construction. Under such a situation, the prevailing fees of charge for design work still remains low, and discounting or inclusion of payment for design work in construction costs have often been practiced to ensure their orders.

Interior design education in Indonesia was started in 1958 as a course offered by Department of Fine Arts and Planning of Bandung Institute of Technology (ITB). In 1970, it was transferred to the Department of Fine Arts and Design. Most university graduates who specialized in interior design chose to start their own business or work for interior design offices, rather than in design departments of manufacturers. Independent designers rarely design for furniture manufacturers on a contract basis. Similarly, interior designers seldom design furniture for a hotel or a restaurant when furniture suitable for interior design is not available in the market.

Interior design offices may be classified into three categories; large, medium and small. The small design offices, which have one or two persons, are engaged in design works for small-scale shops and offices, while the medium-sized design offices, with less than 15 staff, are engaged in design projects for larger offices banks hotels, nightclubs, and restaurants. The large-size design offices are defined as those undertake not only design works but also other parts of large-scale projects, developing their works further to abroad, regardless of their employment size.

Design promotion activities in this category include HDII's activities, as discussed below, design-related seminars (centered on furniture) at ASMINDO (Indonesian Furniture Industry and Handicraft Association), and design competitions held at trade shows.

(2) HDII (Himpunan Desainer Interior Indonesia; Indonesian Society of Interior Designers)

1) Organization and management

HDII was established on January 22, 1983, as the sole association of interior designers in Indonesia. It became a formal member of IFI (International Federation of Interior Designers/Architects) in 1985. It has branch offices in Bandung, Yogyakarta, Ujung Pandang, Surakarta, and Denpasar, and holds general meetings once or twice a year. HDII has five full-time staff at Jakarta headquarters and a few staff in each branch.

HDII income comprises membership fees and also has financial assistance from members as well as companies for a particular activity or project. It does not receive any government subsidy or privileges such as tax exemption. Total operating costs at headquarters are Rp.24 million per year. The headquarters and each branch are financially independent and separately accountable.

2) Membership structure

The total number of HDII members is 401 as of the middle of 1998, as follows.

a) Professional Member: 126

Members practice the profession as full consulting designer with no relation to the industries or construction companies. The practice is guided and ruled by the same professional codes of conduct that apply to the consulting architect profession.

b) Associate Members: 155

Members practice the profession working in any design related activities such as, interior or furniture industries or contractors and developing companies such as real estate and property Developers. The rules and guidelines applied to the Professional Members do not apply to them.

c) Affiliate Members: 120

Students (mostly upper-class level) study design or design related professional education.

3) Activities

The HDII mission is to generate understanding of the interior design profession in society at large through design promotion, and to increase international sense in this design category through exchanges and development of knowledge and experience through education and practice with other countries. The main activities are communication among designers, providing information to link designers to companies, and design education for the public.

- a) Participating in international conferences
- b) Maintain a public relation program. Giving a free of charge design advice to the public whenever there is related exhibition.
- c) Encourage the related industries to become a corporate member of HDII
- d) Lobby for policies benefiting the practice of interior design
- e) Issuing newsletters
- f) HDII will become a host country for Asia Pacific Space Designers Association conference in year 2000.

These activities are currently limited in scope due to the shortage of funds caused by the country's economic downturn. As a result, special expenses such as the sending of overseas missions and the attendance at IFI's meeting must be financed by special fund raising activities. In the future, HDII intends to revitalize the activities by introducing various awards (Best Interior Design, Best Producer, etc.) and launch new projects that become revenue sources. Also, it plans to carry out or sponsor a public campaign to raise design consciousness to fulfill its duty of disseminating information to the public.

1.2.2 Design activities in the furniture industry

The furniture industry is roughly divided into three segments according to the raw material used, wood, rattan and other materials. The third segment is much smaller in production volume than wood and rattan.

ASMINDO, the association of furniture manufacturers in Indonesia, has 422 corporate members. Note that the figure does not include home industries employing 3-20 workers. It is estimated that there are a few thousand home industries, but no accurate data are available.

Most furniture manufacturers are export oriented, exporting almost 100% of their products, except for micro-sized enterprises which are engaged in subcontracting work, with the domestic market being insignificant. The domestic demand comes from hotels, offices, and restaurants, and the demand from home use is insignificant. The domestic demand has declined conspicuously since 1997, due to the prevailing economic recession. Even those companies which have sold their products mainly in the domestic market gained international competitiveness due to decline in the exchange rate of the Rupiah, and have shifted to foreign markets.

The export of furniture increased during the period of 1992 through 1996 at 17% p.a.. However, the export value declined in 1997, despite the increase in volume, because of a fall in the value of the Rupiah. The export prices have been set in US dollars, but since the costs of materials and labor, which account for a large portion of the total costs and are paid in Rupiah, decreased, the exporters offered a significant discount to the buyers, resulting in decline in the unit price per kilo of the product.

The exports of wooden furniture, both in terms of value and volume, have been more than that of rattan furniture. The export of wooden furniture has shown a steady growth, but export of rattan furniture is unstable in volume, and has shown declines in recent years.

Chairs are the major products for export, accounting for 40% of total production in the case of wooden furniture, while it is 50% for rattan furniture. The furniture industry produces various kinds of furniture, and quality has been improved year by year. Nevertheless, because of the fact that Indonesia is regarded as a producer of cheaper products, the demand for Indonesian furniture comes mainly from low-priced markets. For example, garden furniture, which is simple in fabrication and low-priced, has gained popularity in the European market.

Major importers of Indonesian furniture are the US, Japan, Australia, Netherlands, UK, and Singapore. In many cases, furniture is exported to US and Europe via Singapore.

As local manufacturers usually serve as subcontractors of partners (buyers), few of them have their own design department, in-house designer or original brand. Most buyers do not accept labels other than "made in Indonesia". On the other hand, still not many but an increasing number of companies have original brands and compete in the market by leveraging design expertise and offering new products. This reflects the companies' efforts to meet the consumer market's demand to provide value added products having original brands, rather than hand-made furniture made of natural materials as a miscellaneous product.

Nevertheless, these local manufacturers are still limited in number. In addition to those having their own designers, joint ventures with foreign companies belong to this category, and so are companies having sales alliances with foreign companies who have designers and make design-intensive products. In this case, the designer frequently visits the local company (serving as the contract manufacturer) to provide advice and make production decisions. Design-oriented companies, although small in number, are mainly medium-sized companies having high levels of production technology applied to small-lot production. Companies having original brands rely on partners who have established sales channels. Without such partners, they cannot sell design-intensive products and

tend to manufacture products frequently ordered by buyers to secure sales. As a result, original designs by Indonesian designers account for less than 50% of all the products of these companies in many cases.

Designers working for local companies have not obtained a design education at universities in many cases, and rather, essentially they are often employees assigned to production divisions who have design skills, or drafters are occasionally called designers². In the process of preparing dimensional drawings from photos and sketches based on the buyer's request³, and of making a sample, the designer is responsible for preparation of drawings and modification of the sample. For this reason, most designers belong to the R&D department⁴. On the other hand, some companies assign the work to product managers or assistant managers. In these companies, buyers make final decisions on design change, modification and production after making consultation with management, marketing department or production department to determine technical and economical feasibility.

Among companies, there is lack of concern about the unauthorized copying of design. Buyers often request manufacturers to copy other designs for low-cost production. As copying is common, many companies are reluctant to develop original designs as they know the designs will soon be copied, although they realize the value of design to their products. They also feel that the use of designs requested by buyers brings immediate profits, while original design development involves various risks. In fact, some of them think that original design is useless for their business, particularly manufacturers of volume products who rely on buyer-furnished "designs."

As pointed out above, buyers bring magazines or photos to local manufacturers to have them make copies. Although they demand new designs, they are not willing to pay any design fee. Clearly, these attitudes of buyers are a major obstacle to development of original designs by local industries.

Independent design offices and designers are rarely used by furniture manufacturers due to the poor recognition of design's value by management which does not accept the additional cost of design. Some companies use outside designers who provide comprehensive service including other related tasks, such as market, rather than providing design work only.

² Generally, drafters are different from designers in terms of role and responsibility.

³ Buyers often prepare detailed drawings, or samples are made directly from photos without the use of drawings.

⁴ The R&D department is responsible for the manufacture of a product sample before mass production.

1.2.3 Potentially for Industrial vitalization by design promotion⁵

The weakness of furniture industry in Indonesia may be summarized in the following points:

- 1) Difficulty in manufacturing uniform products⁶
- 2) Insufficient quality, strength, and finishing
- 3) Non-originality

Nevertheless, Indonesia has advantages in manufacturing furniture, particularly in the following:

- 1) People are dexterous in various manual works
- 2) Excellent manufacturing ability proven by many manufacturers in wooden and rattan furniture industry, through the business in the past
- 3) Rich availability of wood and plant resources as materials suitable for quality furniture
- 4) Ability to manufacture any kind of goods according to orders

Therefore, by making most of the advantages while reducing or offsetting the weakness, the furniture industry has the potentiality to establish a high reputation in global markets. The most essential requisite to achieve such a target is to establish a better image of Indonesia in the markets, while making efforts to overcome the above weaknesses. Particularly, it is important for Indonesia that Indonesian furniture be recognized in the world market as a leading furniture in view of ethnic interior. Actually, Indonesia is rich in craft design resources. It can be strategically mobilized also for interior field.

At present, the furniture industry in Indonesia is dominated by buyers who demand prices close to or even below production costs, and most manufacturers are unable to make profits. To change the situation, local manufacturers must take the leadership in determining price and other terms of trade. To this end, they must give up the old habit of copying other designs, and they must develop the ability to propose original products, while making efforts to improve product quality and shorten delivery times.

⁵ The following analysis and recommendation handle the furniture design, which is categorized as one of product designs in the case of Indonesia.

⁶ Especially for hand-made products such as wooden antique and rattan furniture.

Most local designers who work in various fields do not seem to make optimum use of raw materials that are abundantly available in the country, nor of the flexible production capacities of manufacturers. Improvement is called for in several areas. First of all, raw materials should be studied in more detail to better understand their characteristics and potential applications, so as to help the designer to select the best material for a particular use.

Secondly, designers should learn production techniques, particularly the traditional ones used by local industries, and should be involved in research and development of new production techniques and tools useful for achieving the above objective, particularly through communication with workers and consultation as required.

Overall, designers should assume the role of creating a product that is acceptable to the market, while producing an optimum combination of materials in terms of durability, workability, size and other requirements.

Another important factor is the need for promoting a distinctive public image of each producing center, in addition to the country's image. Indonesia is made up of diverse cultures that are unique to different localities, and are accompanied by traditional handicraft and raw materials. The local elements can be fully incorporated into product designs by a systematic approach, which starts from the understanding of consumer needs and characteristics of each producing center, which are then narrowed down to a clear design concept. Based on the concept, local brands and original products are developed to create an integrated image of the producing center, which will in turn raise the value of all products made in the center. At present, most producing centers rely on low material and labor costs. However, material costs show signs of inflation and the labor cost advantage in the international market cannot be warranted due to uncertainties about foreign exchange rates and the shortage of skilled workers. Most importantly, efforts of individual companies to improve the image of their products have their own limits and do not contribute much to the overall goal of transforming the market's overall image of Indonesian products. To supplement these efforts, the role of local production centers each having its own identity, and each striving to improve its own image, is becoming increasingly important.

Promotion of local production centers should be undertaken as a regional development project involving government and the local furniture industry. As efforts of individual enterprises are limited and each has different expectations and goals, the local government and various cooperatives and associations need to serve as coordinators and facilitators of the endeavor. Finally, they are expected to conduct activities and provide financial and other resources that are difficult for individual companies, such as development of human

resources, promotion of local brands (dissemination of information) and collection of market information.

