

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

MINISTRY OF COOPERATIVES, SMALL AND MEDIUM ENTERPRISES
THE REPUBLIC OF INDONESIA

**STUDY
ON
MASTER PLAN FOR DESIGN PROMOTION
IN
THE REPUBLIC OF INDONESIA**

(SUMMARY)

JICA LIBRARY



j 1153172 (0)

SEPTEMBER 1999

**UNICO INTERNATIONAL CORPORATION
SANWA RESEARCH INSTITUTE, SRIC CORPORATION**

MPI
JR
99-166

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

MINISTRY OF COOPERATIVES, SMALL AND MEDIUM ENTERPRISES
THE REPUBLIC OF INDONESIA

**STUDY
ON
MASTER PLAN FOR DESIGN PROMOTION
IN
THE REPUBLIC OF INDONESIA**

(SUMMARY)

SEPTEMBER 1999

**UNICO INTERNATIONAL CORPORATION
SANWA RESEARCH INSTITUTE, SRIC CORPORATION**



1153172 {0}

Abbrevlation (*)

ADGI	(Asosiasi Desainer Grafis Indonesia)
ADPI	Indonesian Industrial Designer Association (Asosiasi Desainer Produk Industri Indonesia)
AFTA	ASEAN Free Trade Area
AMT	Achievement Motivation Training
APF	Asia Package Federation
ASEAN	Association of South East Asian Nations
ASMINDO	Indonesian Furniture Industry and Handicraft Association
ASRI	(Akademi Seni Rupa Indonesia)
B4T	Institute for Research & Development of Material & Technical Product Industries: IRDMTP (Balai Basar Penelitian dan Pengembangan Industri Bahan dan Barang Teknik)
BAPIK	Agency for Development of Small-scale Industries (Badan Pengembangan Industri Kecil)
BAPPENAS	National Development Planning Agency (Badan Perencana Pembangunan Nasional)
BBK	Institute for Research & Development of Ceramic Industries: IRDCRI (Balai Basar Pengembangan Alat dan Mesin Petanian)
BIPIK	Small Scale Industry Guidance and Development Program
BKPM	Indonesia Investment Coordination Agency (Badan Koordinasi Penanaman Modal)
BPPIP	Agency for Research & Development of Industry and Trade (Badan Penelitian dan Pengembangan Industri dan Perdagangan)
BPPT	Agency for Assessment and Application of Technology (Badan Pengkajian dan Penerapan Teknologi)
CAD	Computer Aided Design
CAD/CAM	Computer Aided Design & Manufacturing
CAM	Computer Aided Manufacturing
CD-ROM	Compact Disk Read Only Memory
CEFE	Competency-based Economics through Formation of Enterprises
CEPT	Common Effective Preferential Tariffs
CG	Computer Graphics
CI	Corporate Identity
COID	Council of Industrial Design
DDO	Design Development Organization

(*) Descriptions in parentheses show the names in Bahasa Indonesia.

DEKRANAS	National Craft Council (Dewan Kerajinan Nasional)
EPTE	Export Oriented Production Entrepots
EPZ	Export Processing Zone
EU	European Union
GDP	Gross Domestic Product
GRDP	Gross Regional Domestic Product
HDII	Indonesia Society of Interior Designers (Himpunan Desainer Interior Indonesia)
ICOGRADA	International Council of Graphic Design Associations
ICSID	International Council of Societies of Industrial Design
IFI	International Federation of Interior Architects / Designers
IIT	Illinois Institute of Technology
IMF	International Monetary Fund
INKOPINKRA	Federation of Industry and Craft Cooperative in Indonesia
IPF	Indonesia Packaging Federation
IPGI	(Ikatan Perancang Grafis Indonesia)
ISI	Indonesia Institute of the Arts (Institut Seni Indonesia)
ISO	International Organization for Standardization
ITB	Bandung Institute of Technology
J/V	Joint Venture
JAGDA	Japan Graphic Designers' Association
JAIC	Japan Asia Investment Co., Ltd
JDC	Jakarta Design Center
JDF	Japan Design Foundation
JETRO	Japan External Trade Organization
JICA	Japan International Cooperation Agency
JIDA	Japan Industrial Designers' Association
KIK	Small Investment Credit
KMKP	Permanent Working Capital Credit
KUD	Village Unit Cooperative
KUK	Small Scale Business Credit (Kredit Usaha Kencil)
MOC&SE	Ministry of Cooperatives and Small Enterprises
MOC&SME	Ministry of Cooperatives, Small and Medium Enterprises

(*) Descriptions in parentheses show the names in Bahasa Indonesia.

MOI	Ministry of Industry
MOIT	Ministry of Industry and Trade
MOT	Ministry of Trade
NAFED	National Agency for Export Development
NIEs	Newly Industrialized Economies
OJT	On the Job Training
P.K.I. Jakarta	Jakarta Special Capital Region
PDN	Indonesia Design Center
PER	Center for Small and Medium Enterprises Information and Consultation (Pos Ekonomi Rakyat)
PIKM	Small scale Industry Development Project (Proyek Penembangan Industri Kecil Menengah)
PJP	Long Term (25 years) Development Plan
PPPI	Indonesia Association of Advertising Agencies
QCC	Quality Control Circle
REPELITA	5-Year Development Plan
S/W	Scope of Work
SMEs	Small and Medium Enterprises
SMIK	(Sekolah Menengah Kejuruan di Indonesia)
TMH	Design Development & Training Center (Taman Mini Indonesia Indah)
TPL	Field Research Staff (Tenaga Penyuluh Lapangan)
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
UNEP	United Nations Environment Program
UNESCO	United Nations Educational Scientific and Cultural Organization
UNIDO	United Nations Industrial Development Organization
UPDN	(Urusan Peningkatan Penggunaan Produksi Dalam Negeri)
UPT	Technical Service Units (Unit Pelayanan Teknis)
WIPO	World Intellectual Property Organization
WS	Workshop
WTO	World Trade Organization

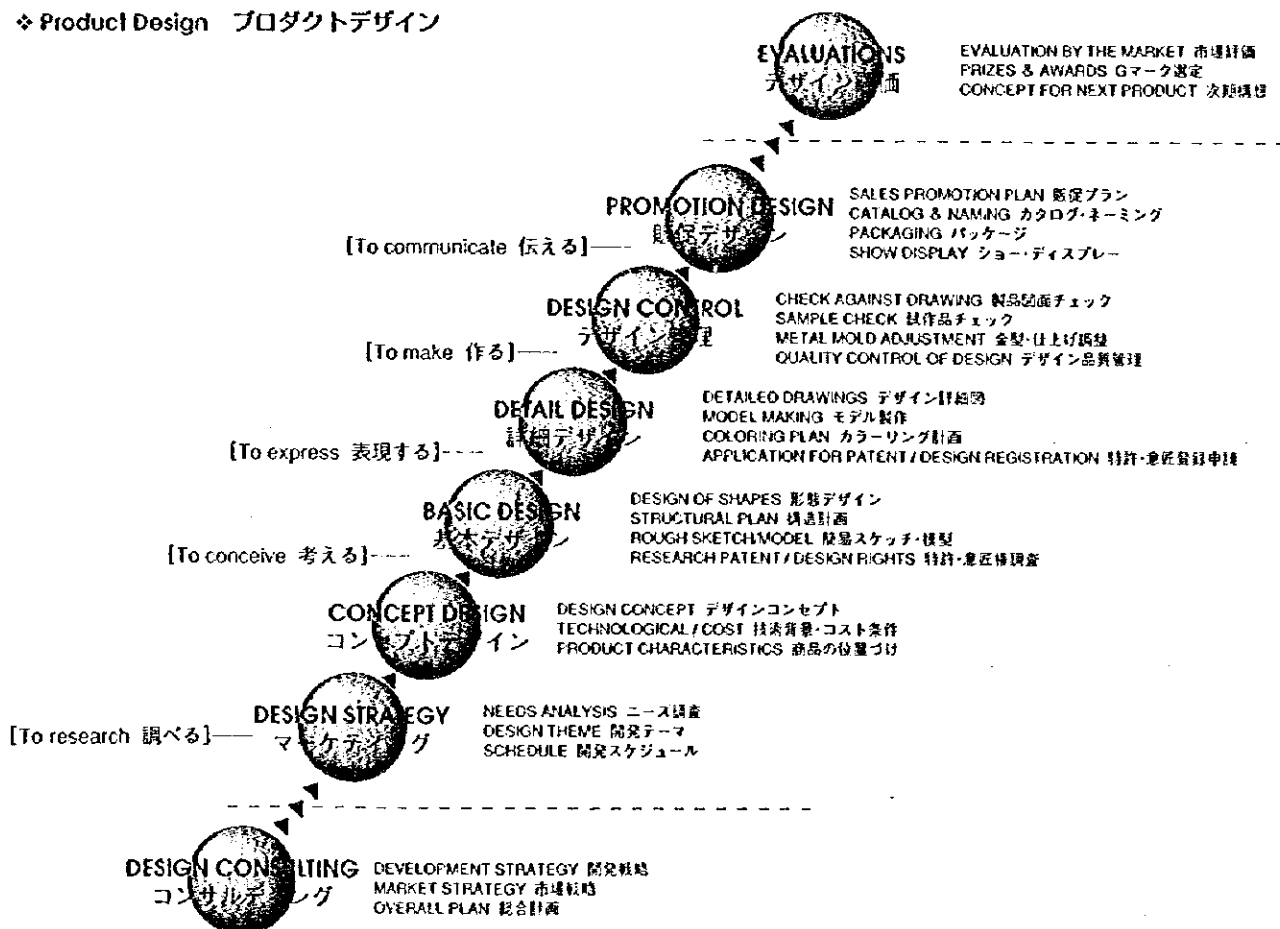
(*) Descriptions in parentheses show the names in Bahasa Indonesia.

Design Process (デザインプロセス)

Although the work content may differ depending on the field of design, the process of design work basically follows: "To research" phase (analysis, synthesis); "To conceive" phase (plan, ideas); "To express" phase (concept, sketch); "To make" phase (production, control); and "To communicate" phase (advertisement, sales). Conventionally the role of designs tended to specialize in the "To express" phase. Nowadays the role of designs are considered to involve the total flow: from the "To research" to the "To communicate" phases. Role played at the "To conceptualize" phase is increasing its importance.

デザイン業務の流れは、分野によって作業内容に違いはあるが、基本的に「調べる」(調査・分析・総合)、「考える」(戦略・企画・構想)、「表現する」(発想・スケッチ・模型)、「作る」(設計・生産・管理)、「伝える」(広告・販売・評価)、といった行為の過程をたどる。従来、デザインの専門性は「表現する」部分、として捉えられ勝ちであったが、デザイン業務は上流域の「調べる」から下流域の「伝える」まで、一貫して関わる方向に進みつつある。とりわけ、「考える」部分の重要性が増している。

◆ Product Design プロダクトデザイン

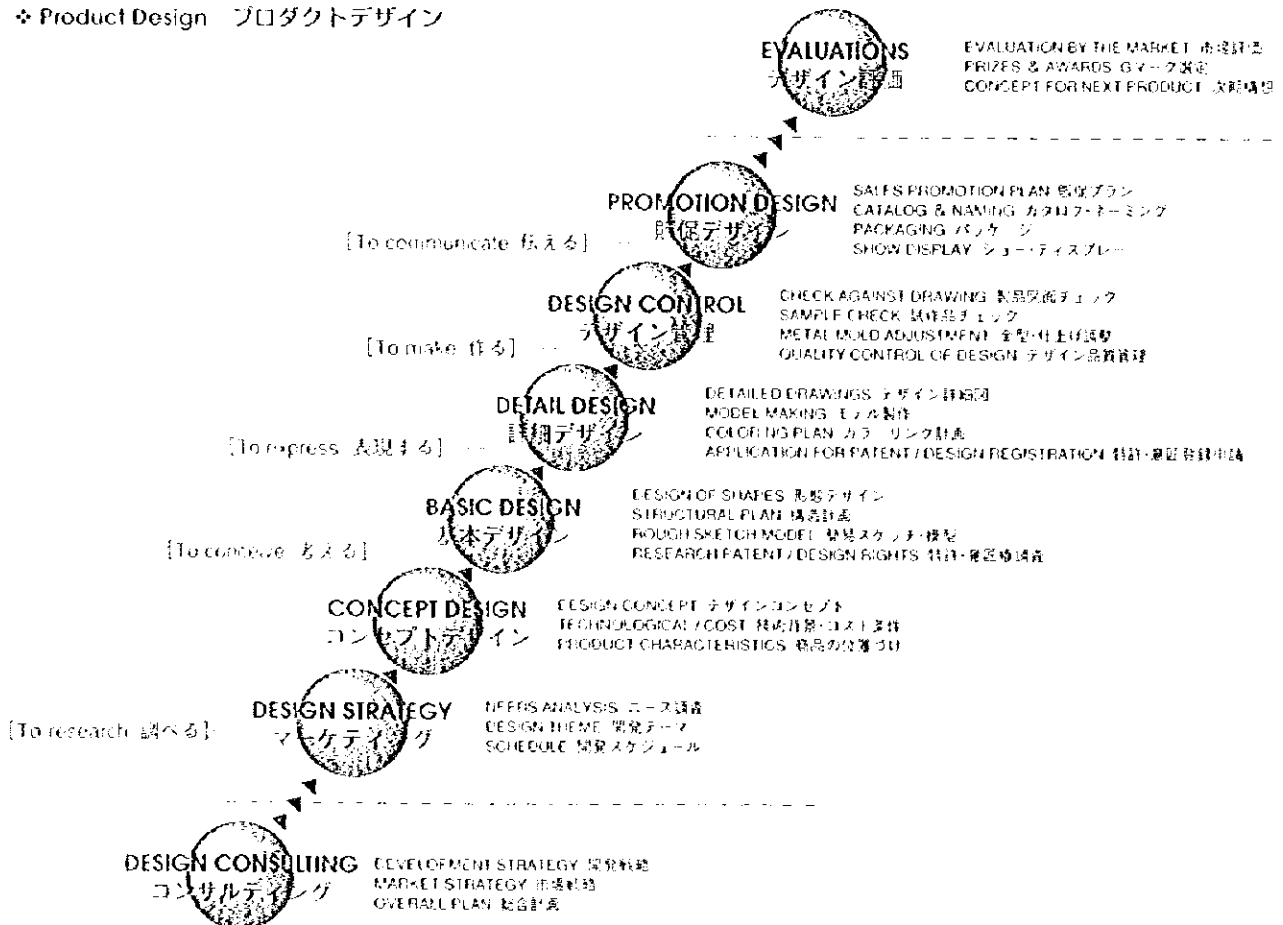


Design Process (デザインプロセス)

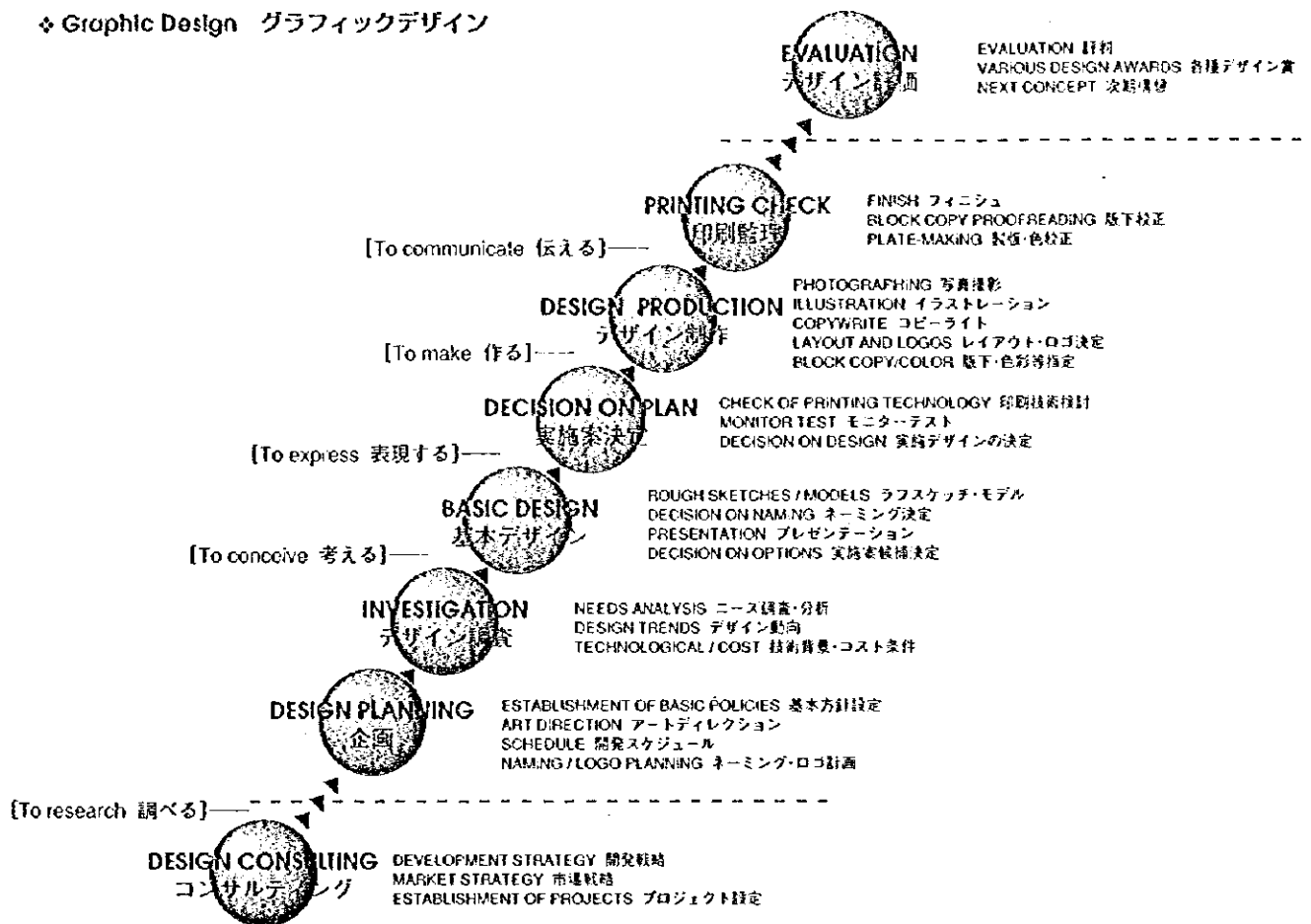
Although the work content may differ depending on the field of design, the process of design work basically follows: "To research" phase (analysis, synthesis); "To conceive" phase (plan, ideas); "To express" phase (concept, sketch); "To make" phase (production, control); and "To communicate" phase (advertisement, sales). Conventionally the role of designers tended to specialize in the "To express" phase. Nowadays the role of designers are considered to involve the total flow: from the "To research" to the "To communicate" phases. Role played at the "To conceptualize" phase is increasing its importance.

デザイン業務の流れは、分野によって作業内容の違いはあるが、基本的に「調べる」(調査・分析・統合)、「考える」(戦略・企画・構想)、「表現する」(発想・スケッチ・模型)、「作る」(設計・工業・制作)、「伝える」(商品・販賣・訴求)、といった行為の過程をたどる。従来、デザインの専門家は「表現する」部分、として捉えられ勝ちてあったが、デザイン業務は上流域の「調べる」から下流域の「伝える」まで、一貫して関わる方向に進みつつある。とりわけ、「考える」部分の重要性が増している。

❖ Product Design プロダクトデザイン



◆ Graphic Design グラフィックデザイン



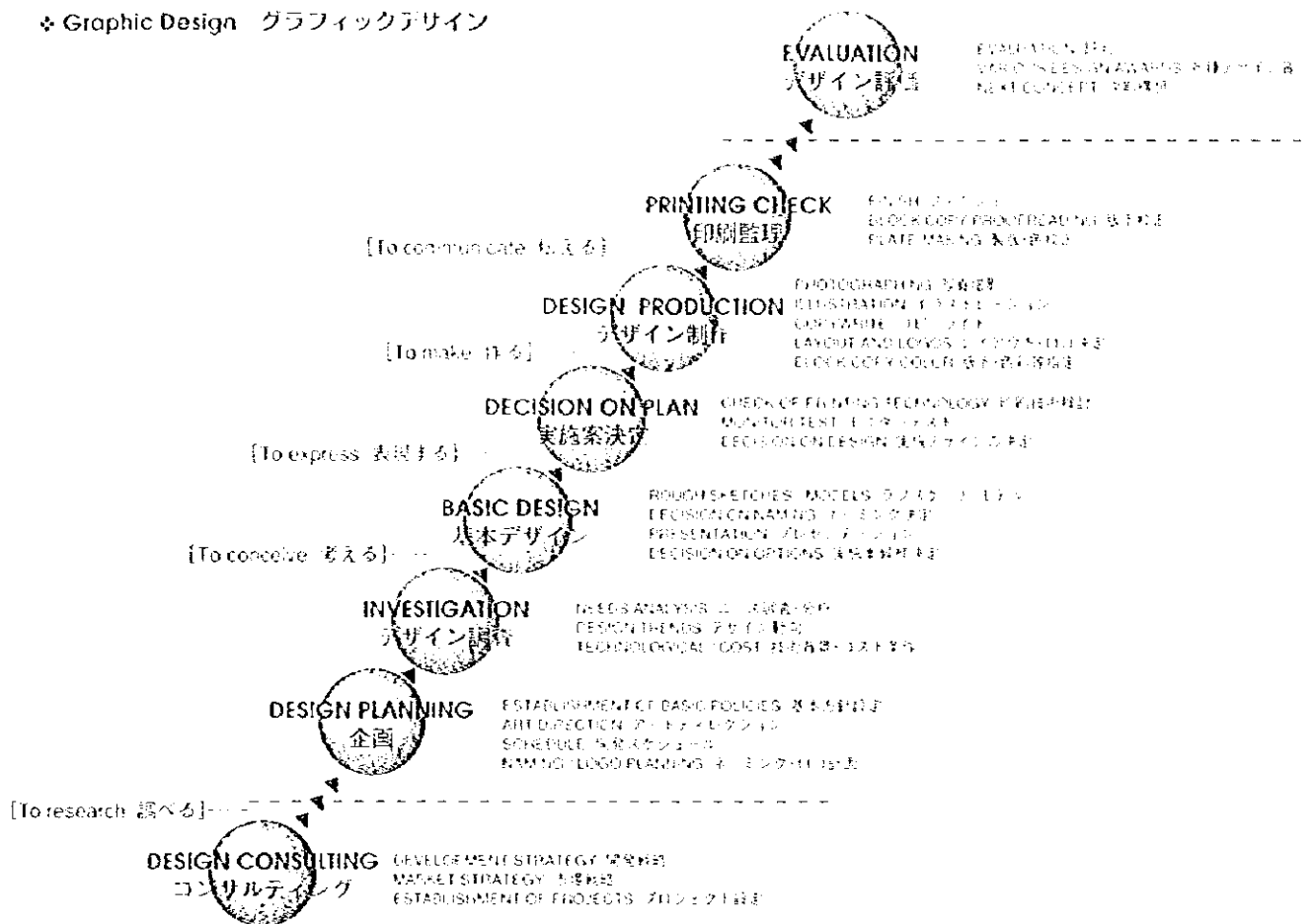
◆ Interior Design インテリアデザイン



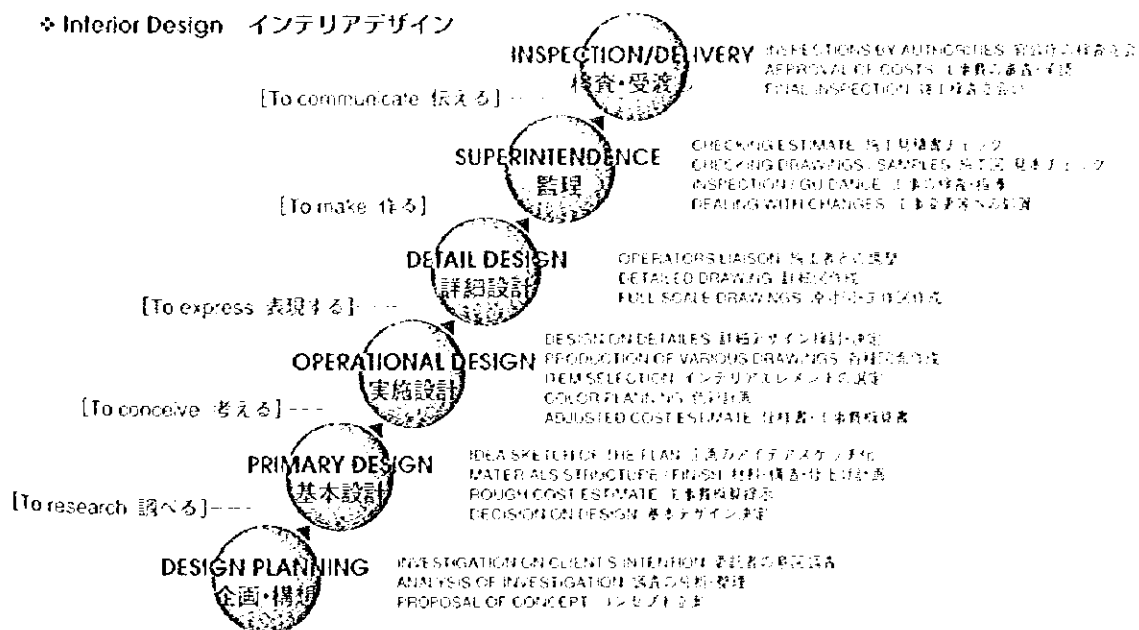
Credit: JAPAN DESIGN FOUNDATION

提供: (財)国際デザイン交流協会

❖ Graphic Design グラフィックデザイン



❖ Interior Design インテリアデザイン



Credit: JAPAN DESIGN FOUNDATION

提供: (財)国際デザイン交流協会



Table of Contents

Executive Summary

Summary

Part I: Introduction

1	Background, Objective, and Scope of the Study.....	I-1
1.1	Objective of the Study	I-1
1.2	Background of the Study	I-1
1.3	Scope of the Study	I-2
2	Outline of the Study and Organization of the Report.....	I-4
2.1	Structure of the Study	I-4
2.2	Field Survey.....	I-4
2.3	Organization of the Final Report	I-5

Part II: Outline of Design Activities

1	Historical Background and Current State of Design Promotion in Indonesia	II-1
1.1	Historical Background.....	II-1
1.2	Current State and Major Issues of Design Promotion Policies, Systems and Organizational Set-up of the Government Sector.....	II-2
1.3	Current State and Major Issues of Design Promotion Activities, and Systems of the Private Sector	II-5
1.4	Design Education.....	II-6
2	Current State of Design Activities	II-8
2.1	Interior Design.....	II-8
2.1.1	General.....	II-8
2.1.2	Design activities in the furniture industry.....	II-9
2.1.3	Potentiality for industrial vitalization by design promotion	II-10
2.2	Industrial Design.....	II-11
2.2.1	General.....	II-11
2.2.2	Design activities of electrical home appliance manufacturers.....	II-11
2.2.3	Potentiality for industrial vitalization by design promotion	II-13
2.3	Package Design.....	II-14

2.3.1	General.....	II-14
2.3.2	Design activities in the food packaging industry.....	II-15
2.3.3	Potentiality for industrial vitalization by design promotion	II-16
2.4	Craft Design.....	II-17
2.4.1	General.....	II-17
2.4.2	Potentiality for industrial vitalization by design promotion	II-18

Part III: Conclusion and Recommendations

1	Conclusion	III-1
1.1	Need for Design Promotion	III-1
1.2	Priority Industry for Design Promotion, and their Expected Effects.....	III-3
1.3	Roles of the Private and Public Sectors in Design Promotion.....	III-5
1.4	Recommended Direction of Design Promotion Policy	III-9
1.5	Organizations Responsible for Design Promotion and Demarcation of their Roles	III-16
1.6	Desirable Role of the Design Utilization Base	III-18
2	Recommendations.....	III-24
2.1	Master Plan for Design Promotion	III-24
2.1.1	Change in the concept of design.....	III-24
2.1.2	Major objective of design promotion and strategic theme to materialize the objective	III-24
2.1.3	Implementation of design promotion.....	III-25
2.1.4	Implementation steps	III-31
2.1.5	Organizational setup for design promotion.....	III-32
2.2	Action Plan	III-35
2.2.1	Phase 1 (Immediate) actions	III-35
2.2.2	Phase 2 (Short/mid-term) actions	III-38
2.2.3	Phase 3 (Mid/long-term) actions.....	III-41
2.3	Other Recommendations Related to Design Promotion.....	III-42

Executive Summary

1 Conclusion and Recommendations

1.1 Need for Design Promotion

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.

Such policy measures as export promotion, SME development, formulation of industrial linkages, regional industrial development and job creation are expected to play a vital role in solving the problems of industrial development in this country, both short-term and long-term. Introduction of the design process with function of design described above is believed to provide a highly effective tool for achievement of these policy measures, enhancing the capability of product development based on market needs and advantages of producing areas, contributing to establishment of Indonesian identity, and resulting in improvement of price and non-price competitiveness. Further, since enhancement of product development capability will be the key for the export industry to attain sustainable growth, the approach with design will be more effective than others that are applicable to the situation. In this recognition, it is very important and urgent for the country to create the environment that ensures the smooth design introduction process by providing proper measures to encourage and support such process.

1.2 Target of design promotion

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, which has been characterized by price competitiveness with cheap labor and abundant resources, strengthening non-price competitiveness besides price competitiveness, and improving value added of their products.

This way, the promotion of SMEs and export, and inter/intra-industry linkages can be accomplished, while regional industrial development be promoted.

Priority Industry for Design Promotion

- (1) Small- and medium-sized, local industries using locally available resources, which export their products or have export potential

They will be encouraged to develop the ability to identify the market needs and propose new products accordingly by giving them direct contact with the market or via an adequate intermediary, thereby to create or upgrade export opportunities.

Major opportunities identified are summarized as follows:

- To identify and promote product differentiation for local industries that are specialized in crafts, furniture and other areas, observed in various regions, establish local brands and promote exports of their products.
- To improve the reputation of Indonesian products in the market by inducing the industries relying on products with imitated designs to develop original products.
- To help those industries which have made their products without grasping the market needs, and which targeted to the markets only within reach, to learn merchandising and marketing techniques and develop products that serve broader markets under more favorable terms.
- To supply products having designs unique to Indonesia, which will enable Indonesia to attract new buyers who buy products giving attention to the design characteristics, instead of the current buyers who view Indonesia as low-cost production centers.

- (2) Small- and medium-size machinery, electrical equipment and plastics manufacturers serving the domestic market

The focus should be placed on understanding of the design process and development of the ability to plan and propose products that meet consumer needs and customer requirements, thereby to go beyond the present business practice relying on price competitiveness, and to enable them to become suppliers for large enterprises, conducive to the deepening of the industrial structure.

- (3) Large and medium-size enterprises that can serve as the core of intra- and inter-

industrial linkages

They will serve as contract manufacturers of parent companies, buyers or foreign partners, by making products according to designs provided from external sources. Design promotion will help unfetter them from their present subservient role and empower them with the true ability to develop original products. Particular emphasis should be placed on the encouragement of product development that addresses the market needs and uses local materials.

(4) Labor-intensive, export industries (also those serving the domestic market)

They will be encouraged to create products using design resources available in the country and disseminate unique design concept to the world market.

Strategic thrusts for design promotion

Strategic thrusts for design promotion to enhance industries indicated above are as follows:

- 1) To *encourage industries/enterprises to introduce design on 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 to the most viable and effective method and approach while understanding 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, and improve ability to appreciate design and its quality.*
- 5) To *create a favorable image of design resources in the country, disseminating originality and quality of Indonesian designs, materials and designers to the international scene.*

Measures for design promotion

Design promotion is defined as an act of creating and empowering a chain of flow consisting of processes that ensure that (1) a good design is created and proposed, (2) applied to objects; and (3) the applied objects are utilized, for the purpose of improving the cultural and living environment or developing industry, trade or the national economy as a whole.

Thus, design promotion represents activities participated in by all the above parties to

improve the design process to the desirable level as viewed by each party, including:

- 1) the improvement of design and presentation skills of designers and the development of the environment so as to encourage design creation and supply;
- 2) the raising of awareness of the usefulness of design as well as the method for design use by implementers (e.g., government and private enterprises; together with support for introduction of the design process; and
- 3) the raising of awareness of design value by users (private enterprises and consumers) and the improvement of the ability to identify a good design.

1.3 Organizational setup for design promotion

Roles of the Private and Public Sectors in Design Promotion

Given the recent trend in industrial policy to minimize government intervention by leaving the industrial development process to the market mechanism, design promotion activities, which are of highly private initiative nature, should preferably be led by the private sector, with the minimum involvement of government.

Nevertheless, it is recommended to let the Indonesian government serve as the core of design promotion initiatives at an early stage, because of the following:

- 1) participation of the private sector, except for designers' associations, cannot be expected as industry does not generally recognize importance of design promotion;
- 2) the designer community does not have resources to carry out design promotion activities on its own; and
- 3) local industries, particularly SMEs, are suffering from a lack of competitiveness, in both price and non-price terms, partly because of the economic crisis in the region, and the design process must be introduced urgently as an effective tool to improve the situation.

While the above design promotion is to be under government leadership, showing good examples of design use, and encouraging the active participation of private sector in the design promotion, the government's role should be scaled down step by step to eventually leave those which cannot be accomplished without government participation, while the private sector should increasingly take leadership in the promotion process.

Organizational setup for design promotion

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.

As for the organizations related to design promotion, it is very difficult to obtain broad support from industry for design promotion activities at the present stage, while most government organizations are limited in funds, manpower and experience. Other organizations including private and third-sector and educational institutions are also not ready to conduct autonomous activities due to financial restraint.

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.

Design Utilization Base (Design Center)

The design utilization base is an organization that plays a central role in carrying out design promotion activities.

Ownership and management structure

- 1) The current operating structure of the design utilization base must be utilized, capitalizing on the strengths of the joint organization by the private and public sectors, while the legal ground, financial base and manpower to support its activities should be secured.
- 2) The design center should be established as a ramification of existing IDC to avoid difficulty involved in the establishment of a new organization. However, the current activity level of IDC under MOC&SME does not meet requirements for the national-level design utilization base. While the design center may be placed under jurisdiction of MOC&SME, its scope of activity should be expanded to the national level by enlarging the Design Council or other means.
- 3) As for staffing, at least one full-time employee should be added.
- 4) The Design Center should be financially self-supportive in the long run, with contribution and operating revenues while minimum support from the government budget, as design promotion activities get some momentum and public awareness rises. This is critical to ensure sustainable operation of the Center. In the case of special contributions, the design center may receive contributions directly as its operating funds or a special fund may be established to pool the raised funds and disburse them to the center on request. For the Design Center, it is recommended to establish a separate fund that will finance design promotion activities in general, in addition to the center's activities.

Location of the design center by function

- Head office and coordinating functions
Building or finding a new facility is difficult due to various constraints, and it is desirable to use the existing design center.
- HRD function
This function may be accommodated in the present office.
- Exhibition function
This function requires a standing exhibition space, though it is not necessarily a permanent facility, to obtain an established recognition about existence of the space by customers, and for their convenience visiting it repeatedly. Thus, it should be located in an appropriate location by renting a new facility.
- R&D function
Candidate sites include the use of an industrial research and guidance organization in Bandung.

The private sector's role

While the public sector is expected to play a central role in design promotion until the private sector is ready to take the helm, an active element of the private sector, namely designers' associations, should plan and conduct their own activities under government support. In fact, the design community can and should propose its initiatives to the government and support government activities in many aspects.

- development and management of a database of designers
- setting the direction of design promotion activities and a strategy for its deployment
- establishment of generally acceptable conditions of design service and business practice

Industry must participate in the process wherever feasible and acceptable under the current constraints. In particular, industry can contribute in the following areas:

- 1) To express opinions and views in the design policy making process, in particular, active participation in the Design Council.
- 2) To provide hands-on experience for designers, especially in the field of industrial design.

In the future, participation needs to evolve to a high level of contribution by providing funds and human resources.

1.4 Implementation steps

Phase 1 is regarded as the phase to establish basis for design promotion.

- 1) to promote actual design projects as model cases and disseminate the results industry-wide.
- 2) to support the above efforts, design staff at industrial promotion organizations will be assigned and trained.
- 3) 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.

- 1) promotion of actual applications (pilot projects) will be further encouraged.
- 2) 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 (Design Center)
 - promotion of joint design development projects by industry and universities
- 3) promotion of research and design activities and invitation of foreign designers for the following;
- nurture researchers and extension officers
 - show prototype models to assist design implementation by industries and enterprises
 - help train future leaders and innovative designers
- 4) start consultation program to back up design implementation activities by industries
- 5) deploy projects of design encourage and design exchange to advertise the results of design implementation efforts

Phase 3 is the phase to fully utilize the promotion system including organizations that have gained resources and experience.

- 1) develop projects 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.
- 2) actions for protection of design
- 3) help improve the general image of Indonesian design introducing excellent designers and design works internationally

2 Action Plan

2.1 Phase 1 (immediate) actions

Design policymaking body

- (1) To select priority industries and regions for design promotion activities, and coordination of related ministries and departments to gain consensus and assign projects and programs.
- (2) To assign officers and design staff in charge of the support system required to implement promotion policies, 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.
- (3) To discuss the basic policy for development of research networks organized by public research organizations and universities.
- (4) To held discussions related to the establishment of design evaluation standards.

Design Center

- (1) To secure required manpower, i.e., to meet the minimum requirements to sustain the center's activities
- (2) Implementation of a training program for promotion-related staff of government organizations
- (3) Design workshop project
- (4) Information gathering and dissemination
- (5) National craft survey

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 MOIT, NAFED, MOC&SME, and regional governments.)

- (1) Specific area development project

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.

(2) Specific industry development project

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.

2.2.2 Phase 2 (short/mid-term) actions

Design policymaking department

- (1) Establishment of design guidance organizations
- (2) Establishment of the design adviser system
- (3) Implementation of the research and consultation program using foreign designers
- (4) Expanded application of the SME financial support system to the hiring of the designer
- (5) Tax incentive for costs related to product development
- (6) Development of the legal environment to promote standardization of design licensing
- (7) 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
- (8) Enforcement of legal control over design of imported products

Design Council

To expand the representation by including industries and regions and establish itself as the core organization to discuss design policy.

Design Center

- (1) To encourage participation by industry.
- (2) Continuation of training program
- (3) Activities to encourage good design by inviting foreign designers
- (4) Enhancement of research and study functions
- (5) Mobile craft design school
- (6) Permanent exhibition

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

A design guidance center will be established under an industrial promotion organization to assist SMEs in introducing the design process. The design advisers will be designers registered with the guidance center.

(2) Protection, refinement and inheritance of traditional craft

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.

(3) Regulatory control over design copying of exports

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 (Mid/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 center with private initiative and its own financial base.

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.

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 the 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.

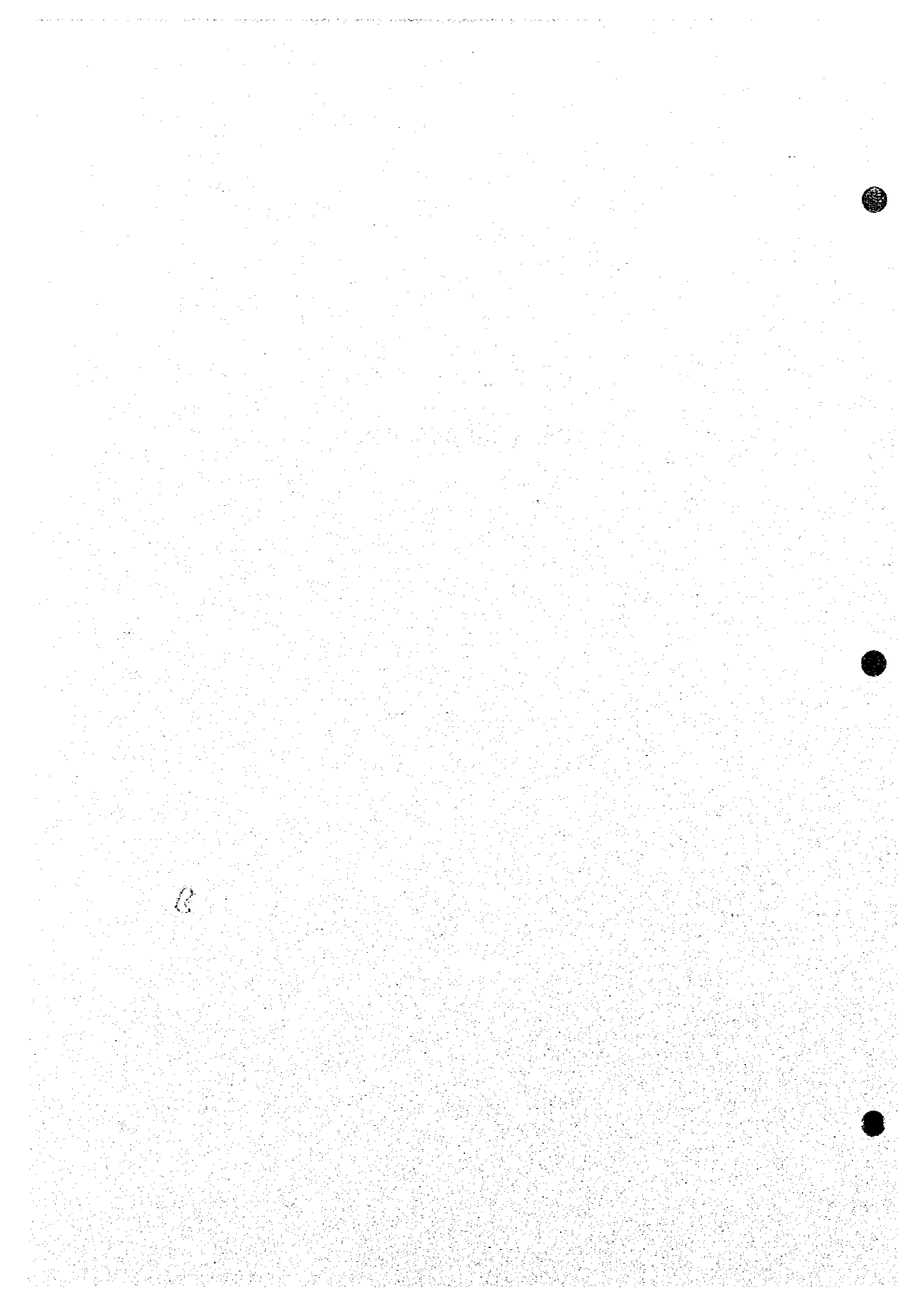
At the same time, however, it is important to avoid that the product development

process and other design promotion activities are skewed toward economic efficiency. The global trend demands the review of economic efficiency standard.

The following indicates some of probable major perspectives need to be taken into account in design activities in Indonesia.

- (1) Environmental consideration: perspective of "sustainable design/ecological design"
- (2) "Universal design" perspective: friendly to everyone
- (3) Consideration to the Indonesian history, tradition and culture

Part I: Introduction



1 Background, Objective, and Scope of the Study

1.1 Objective of the Study

The primary objective of the study is to identify and assess opportunities for the effective use of design in Indonesia, the current state of design use and its constraints, and the current level of progress of design promotion efforts, and then to develop a master plan for design promotion on the basis of the results of the current analysis as well as case studies in other countries. Design promotion as defined for this study primarily concerns development of the industrial sector, particularly the strengthening of export competitiveness of industrial goods, the fostering of SMEs, and the development of supporting industries.

1.2 Background of the Study

The study was driven by the following three factors: 1) the need to strengthen competitiveness of the industrial sector and ensure its sustainable growth through the establishment of originality; 2) demand by the design industry to raise awareness of importance of design and the designer's status in the government and industry in general; and 3) ongoing efforts to promote design in the country since the early 1990s.

Importance of design has been recognized by the Indonesian government, as evidenced by its request for the present study submitted to the Japanese government. The request assumes that design will play a critical role in helping industries to develop and maintain their own brands in the wake of internationalization of industrial activities and envisages that design will be recognized as constituting a strategic element of the product development process in non-oil industries.

Similarly, the survey conducted by the Institute of Technology Bandung to ascertain the extent and nature of need to establish a design center, revealed that 84% of SMEs expected the center to help improve product quality. Overall, there were indication of increasing expectation on the design promotion initiative in the country.

Meanwhile, various design promotion activities have emerged as Japan¹ provided technical assistance in design promotion since 1990, and the design center was established

¹ Technical cooperation extended by JICA under the program to dispatch experts, with full support by JDF (Japan Design Foundation).

under the leadership of the Ministry of Cooperatives and Small Enterprises² in 1995.

Nevertheless, the government felt the need to step up design promotion efforts, because there was an apparent lack of consistency in design promotion policy and strategy, as well as a relatively low level of design awareness among companies and consumers. In February 1997, the government formally requested the Japanese government to conduct a study.

In August 1997, JICA organized and sent its project formulation study team to the country. Following a preparatory study in December 1997 (discussion of the Scope of Work), the Scope of Work was signed by the two parties.

Based on the Scope of Work document, JICA sent a Study Team organized by experts from UNICO International Corporation and SRIC Corporation³. This report was compiled to contain all the results of the work of the Study Team.

1.3 Scope of the Study

(1) Scope of the study defined in the Scope of Work

The scope of the study defined in the Scope of Work signed on December 2, 1997, between the preparatory study team and the Indonesian government is as follows:

- 1 General Background Review of Economic and Social Conditions of Indonesia with Special Reference to Design Promotion**
- 2 Review of Design Promotion Activities in Indonesia**
 - 2-1 Identification of important actors in the public, private (indigenous and foreign) and educational sectors:**
 - 2-2 Survey of roles, functions, and activities of these actors in design promotion**
- 3 Study on Present Situation of Design in the Republic**
 - 3-1 Survey of present situation of design by the private sector**
 - 3-2 Survey of the working environment of designers in the Republic**
- 4 Case studies on the selected model sub-sectors**
 - 4-1 Evaluation of the design of the products;**
 - 4-2 Practical technical guidance or the improvement of the design of the products;**
 - 4-3 Organization of (a) workshop(s) on the effects of design improvement**
- 5 Formulation of a master plan for design promotion**
 - 5-1 Objectives of design promotion**

² Ministry of Cooperatives, Small and Medium Enterprises, at present.

³ Supported by Japan Design Foundation.

- 5-2 Basic strategy for design promotion
- 5-3 Specific tasks for the private sector
- 5-4 Supportive policy measures for design promotion from the public sector
- 5-5 Measures for the strengthening of the Indonesian Design Center and development of other core institutions for design promotion
- 5-6 Specific role of various related institutions for design promotion
- 5-7 Lessons learned from the case studies
- 5-8 Specific action programs (short, mid and long term) with a rough cost estimation
- 6 Conclusion and recommendations

(2) Fields of the study and study area

Major fields of the study

The study covers four categories of design, namely interior design, industrial design, package design and craft design (referred to as "categories/for in-depth coverage"). In each category for in-depth coverage, industrial sub-sectors that require particular attention (referred to as "subsectors to be covered in-depth") have been selected, as shown in the table below.

Geographical areas for the study

The study covers several geographical areas, mainly those in and around Jakarta or on Jawa. The following candidate sites were selected in advance; among them actual sites for field surveys were determined at the inception of study as underlined.

Categories of Design to be covered	Candidate sub-sectors to be covered	Candidate geographic areas to be covered	Model sub-sectors for case studies
Interior design	1 <u>Wooden & Rattan furniture</u> 2 Miscellaneous interior items	<u>Cirebon</u> and/or <u>Jepara</u>	○ ²⁾
Industrial design	1 <u>Home electric appliances</u> 2 Light machinery ¹⁾	<u>Jakarta</u> , Bandung	○ ³⁾
Craft design	1 Wood 2 Bamboo 3 Leather 4 Ceramic	Bali, <u>Plered</u> , Bandung, Yogyakarta	No plan for case study
Package design	1 <u>Package for food products</u> 2 Package for craft products 3 Package for miscellaneous items	<u>Jakarta</u>	○ ⁴⁾

Notes: 1) Tools, agricultural machines, food processing machines, etc.

2) Wooden furniture or Rattan furniture

3) One will be selected from the two sub-sectors

4) One will be selected from the three sub-sectors

2 Outline of the Study and Organization of the Report

2.1 Structure of the Study

Under the present study, technical and economic surveys covering the following areas were conducted to obtain data and information, based on which the master plan was developed:

- (1) Interview survey of organizations related to various design categories;
- (2) Transfer of know-how and techniques (Case Study) on the effective use of design and the design process;
- (3) Questionnaire survey of selected enterprises concerning the current use of design; and
- (4) Interview survey of selected enterprises concerning the current use of design.

The Case Study, particularly its workshops, was quite useful for ensuring that the master plan will be effective and practical, in that it enabled the Study Team to obtain a more detailed understanding of the situation and constraints of design and its promotion, than that which could be obtained from observation and interviews above, and that it was useful for verification of the effectiveness of the promotion measures proposed. Further, the workshops may be regarded as one step toward design promotion in Indonesia, given the fact that the participating enterprises could learn from them that the application of design processes to their product development could be beneficial for business.

The questionnaire survey covered 400 enterprises and was planned to obtain understanding on their design use. Under the prevailing economic conditions, however, many enterprises were forced to stop their operation, or close down their business. Thus, the available directories of enterprises was not as valid as expected, and thus, the survey was conducted through direct interviews by researchers to the sample enterprises.

2.2 Field Survey

Several field surveys were conducted as part of the study, the first field survey designed to agree on and finalize the overall study plan, and the second and third surveys to collect information and make field observations. The fourth field survey was carried out to discuss the study results and disseminate major findings, proposals and recommendations to related parties.

2.3 Organization of the Final Report

The final report will contain all outcomes of the present study, including those contained in the progress and interim reports that were made and presented in the course of the study.

The report consists of two volumes, "Summary" and "Main Report." Main Report is divided into three parts, "Introduction," "Conclusion and Recommendations," and "Discussions." "Introduction" describes a general outline of the study, and the current state of design use and promotion in the country. "Conclusion and Recommendations" identifies the need for design promotion in the country, analyzes current limitations, and proposes a desirable direction of design promotion as the basis of development of the master plan, followed by the master plan for design promotion and recommendations on design promotion. Finally, "Discussions" contains important data and information related to the analysis of the current state of design promotion, the development of design promotion programs and projects, and case studies relevant to the country's future promotion efforts. It also summarizes the analysis and discussion process for each of the key issues, followed by the summary of Case Studies and major findings, and the results of the questionnaire survey.

Part II: Outline of Design Activities

1 Historical Background and Current State of Design Promotion In Indonesia

1.1 Historical Background

While the government takes nominal leadership in design promotion activities, in actuality it is the design community and universities that support the activities. There is, however, a lack of active involvement of industry.

In Indonesia, a need to establish a national design center was first proposed as part of the nationwide design promotion effort by designers who participated in construction of the Indonesian pavilion of the Osaka International Exposition in 1970. However, it took some time to realize it.

In 1977, a major design seminar was held for the first time in the country. It was primarily planned by the Ministry of Trade and UNIDO, with the support of the Ministry of Industry¹, and by government organizations, design educational institutes and industries participated.

In 1985, UPDN conducted a survey on the establishment of a design center. With the cooperation of the Institute of Technology Bandung (ITB), it found that 84% of small- and medium-sized enterprises wished to have such facility that can contribute to the improvement of product quality.

Started in 1990, a variety of design promotion activities were conducted with the cooperation of the Japanese government, including official programs, seminars and conferences, workshops, exhibitions, and business shows.

In 1995, the Design Council was established as a place for discussion and coordination on national policy in the design field, and the Design Center was organized to implement policy decided by the council.

At present, Indonesia needs to have comprehensive and integrated promotion policy and develop the infrastructure to combine existing programs and activities to a synergetic level.

¹ In 1995, the Ministry of Trade was merged with the Ministry of Industry to become the Ministry of Industry and Trade.

1.2 Current State and Major Issues of Design Promotion Policies, Systems and Organizational Set-up of the Government Sector

At present, design promotion efforts by the government are led mainly by the Ministry of Cooperatives, Small and Medium Enterprises (MOC&SME) and the Ministry of Industry and Trade (MOIT). However, these two ministries are not directly involved in design promotion policy, but their divisions responsible for SME promotion policy as well as export promotion policy are interested in design promotion for the interest of implementing their policies, and they hold projects sporadically. Thus, there is no department or division that devises and materializes national design development policy.

The core organization to promote design at a national level consists of the Design Council and the Design Center (IDC).

In addition, related activities could be conducted at the local government level, although no effective activity has been reported so far.

Further, all the above government agencies are suffering from operation budget and capable staff constraints. This situation will not change in the near future, and therefore, the promotion measures must be planned so as to leverage on vital power of private sector.

There are quasi-government organizations involved in design promotion and utilization, most of which deal with the craft industry, such as National Craft Council, Design Development and Training Center, TMII, under the MOIT. All of them are responsible for promotion of the craft industry, but none have been very active recently due to the lack of funds, manpower and a well-defined action policy.

In Indonesia, universities have been playing an important role in design promotion. In fact, ITB has introduced the concept of design to the country and still holds the leadership position in design education. It is actively engaged in public education in addition to academic education and research. There are many schools offering design education, both public and private, from which over 2,000 graduates will be produced in the next few years.

Design education is provided at SMIK, which is a design-related technical institute under the Ministry of Education and Culture. It provides training on craft and furniture making skills for the support of local enterprises.

(1) Ministry of Industry and Trade (MOIT)

MOIT has been carrying out support programs for SMEs over the past two decades, including training programs for human resource development, support for sales

promotion at product exhibitions, and technical guidance by UPT and/or TPL. While these programs have not been highly successful probably because they were broad in scope and small in scale, they constitute the foundation of implementing design-oriented industrial development projects targeting a specific area or industry. BAPIK has also carried out various projects to foster the craft industry through the National Craft Council, such as design competitions. However, all of them were too small to produce significant results and were suspended for the past two years due to the lack of budgetary allocation. National Craft Council has a nationwide organization that can be used for future design promotion activities, although its activity and operation policy needs to be reviewed and modified as necessary.

Directorate General of Miscellaneous Industries and Directorate General of Metal, Machinery and Chemical Industries are positioned as policy implementation organizations related to their respective industries. Almost no design-related activity has conducted, while they have been holding exhibitions to support sales of products of their respective industries on a regular basis. There are many areas for improvement, however, including the place of exhibition that is now held only within the building of MOIT.

NAFED is primarily responsible for holding trade shows and sending export promotion missions. In particular, it has been managing a major trade show "Resource Indonesia" since 1985, which is descended from "Jakarta International Trade Fair" held by the then Ministry of Commerce since 1969. NAFED's trade shows including Resource Indonesia have participation by foreign buyers but have failed to produce significant results as measured by the number of deals closed.

Finally, BPPIP has 23 research institutes, 9 specialized in various industrial fields and 14 that serve specific regions. Some of them provide technical assistance for individual enterprises. In particular, Institute for Research and Development for Ceramic Industry (BBK) has designers who are responsible for research and technical assistance service related to product design. Nevertheless, the technical consultation system does not seem to function fully as intended, partly because a methodology of research and consultation is not established.

(2) Ministry of Cooperatives, Small and Medium Enterprises (MOC&SME)

MOC&SME has agreed with BAPPENAS, MOIT and other organizations to play a central role in design promotion activities in the entire country. In particular, it is responsible for:

- 1) Overall management of design promotion activities (responsibility of the counselor to the minister, in charge of business networking);

- 2) To serve as the secretariat of the Design Council; and
- 3) Establishment and management of the Design Center one of the ministry's projects.

There are several SME support programs, which can be used for design promotion purposes, as follows, but none specifically target design.

- 1) Training centers throughout the country, offering training courses for cooperatives and SMEs.
- 2) Business Consultative Clinic for SMEs
- 3) Loan and credit program for cooperatives and SMEs

(3) Design Council

There is no detailed record of the council's activity, and it has reportedly been conferred twice since its establishment, but apparently not fulfilling its role of discussing and coordinating design policy. Also, there is no formal mechanism to implement policy agreed within the council.

At present, the government is working to reorganize the council as an organization under a presidential decree to assume broader responsibilities.

(4) Indonesia Design Center (IDC/PDN)

The Design Center has the mission of providing policymakers with information useful to address design-related issues such as: 1) the shortage of design experts, 2) the lack of awareness of design's value and importance by industry, and particularly by SMEs; and 3) the lack of information and awareness of design and other intellectual property rights. It is also positioned as a major body to develop and promote public education programs and projects to enlighten industry (especially SMEs) and the general public about design and its value to society.

The programs are primarily planned to cover the following seven fields: 1) human resource development; 2) public relations; 3) consulting; 4) research and study; 5) quality control and intellectual property; 6) support for cooperation among design associations; and 7) information service.

While the design center has been established as a permanent organization, it is legally defined as a project managed by MOC&SME, not an ad-hoc organization under the ministry. Thus, its budget is allocated by BAPPENAS as part of the ministry's project budget. The center is managed by the executive committee headed by the councilor to the minister of MOC&SME and consisting of representatives of the design community. It has not full-time staff and its day-to-day management is handled by one official of the ministry and several volunteers coming from the design industry.

Despite its defined function, namely to cover broad areas, the Design Center has faced difficulty in developing and implementing its own activities and programs due to the shortages of staff and operating budget. Furthermore, it is not yet recognized well among industry and the general public.

1.3 Current State and Major Issues of Design Promotion Activities, and Systems of the Private Sector

Generally speaking, design promotion activities by the private sector are still in their infancy and not very active. Major reasons for this are: 1) the lack of recognition by industry and the general public of benefits that may be expected and received from design promotion; 2) a weak financial base of organizations involved in design promotion; and 3) the lack of experience in promotion activities that produce results.

Nevertheless, contribution or participation by industry can be expected once they recognize importance and benefits of design.

Design promotion activities by the private sector are carried out by designers' associations, industrial associations, individual enterprises and groups, and ad-hoc organizations (foundations) to promote the craft and other industries.

Designers' associations are the Interior Designers' Association (HDII), Industrial Designers' Association (ADPI) and Graphic Designers' Association (ADGI). They are basically professional organizations whose missions are to promote public recognition, protect the interest of their members and explore the market.

Among the three associations, Interior Designers' Association has the longest history and the largest membership. It has been involved in various activities on a relatively continuous basis, since 1994 when it held design seminars in cooperation with JDF as part of efforts to establish the design center. On the other hand, other two associations have relatively small memberships and do not have a strong financial base, so that they are not active in design promotion unless they find domestic or foreign partners.

Nevertheless, activities of PDN are primarily supported by active members of these designers' associations, which are thus considered to be most active participants of the ongoing design promotion efforts.

Further, Jakarta Design Center is a private company specialized in interior design, which was established under the sponsorship of the Interior Designers' Association and conducts public activities related to design promotion besides its commercial activity.

Few activities are conducted by industrial associations, except for some companies or groups that are ahead in incorporating design into their business activities. For instance, National Gobel has conducted a program to provide designers with practical experience in cooperation with the Industrial Designers' Association. Philips has been commissioning design work to a university in an attempt to help develop design skills of students. Similarly, several other companies offer internship programs for students. Notably, Lippo Group has established a private university including design department that has the best educational facilities and equipment in the country.

Promotional activities by commercial establishments (such as department stores and trading companies), as part of their social contribution, are also new to the country. However, large department stores sell craft products by discovering relatively unknown production centers giving them some advice on design. Also, the Craft Export Trade Center in Bali explores and assists craftworkers and products.

Finally there are various organizations that can promote the craft industry, which are supported by charitable persons. Their activities are largely limited due to the lack of resources.

There is no case of design promotion activity led by news media and art museums.

1.4 Design Education

In the country, colleges and universities that grant degrees as well as vocational or technical training schools are offering design education.

(1) Facilities and equipment

In Indonesia, there are large differences between public and private institutions and between urban and rural areas in educational facilities and equipment available for college design education. For instance, public universities in rural regions have poor educational infrastructure including physical facilities, equipment and reference materials. They also lack physical space for students to perform creative work and research projects. Many of them do not have adequate laboratories, workshops and/or libraries. Thus, they are far from providing a learning environment to foster creativity, aesthetic sense and the sense of comfort.

In contrast, many private universities in and near Jakarta have abundant financial resources and have facilities and equipment that are equivalent to or better than those in industrialized countries.

(2) Faculties

Compared to facilities and equipment, private schools are not necessarily superior to public schools in terms of the quality of the faculty. For instance, faculty members who hold master's or doctoral degrees as a percentage of the total are 40% at public schools versus 15% at private schools.

Many design instructors also work at design offices to make living, because they are not well paid by universities and other educational institutions. The situation clearly discourages universities and their faculty members to introduce new educational methods or develop long-term, challenging programs and prevents healthy advancement of the education system and its quality.

(3) Educational Curriculum

Also required is indigenous design methodology that is founded upon the local environment and conditions, because many design methods taught and practiced in the country were imported from Europe and the U.S. (particularly, Bauhaus from Germany). To achieve these goals, the curriculum that can bring out originality from Indonesian students must be developed.

(4) Employment Situation for Design Graduates

In Indonesia, many universities emphasizing design education offer internship programs with cooperation of design firms and other related companies. An increasing number of graduates find their jobs through the programs.

It should be noted, however, that a high percentage of design graduates open their own design offices and studios, alone or together with friends, and as there is still sizable demand for design in the country, many of them can start their own career. Nevertheless, designers may face less favorable market conditions as private universities that were founded 3-4 years ago will send out a large number of graduates next year - around 600 each.

2 Current State of Design Activities

2.1 Interior Design

2.1.1 General

In this study, the furniture design is focused as its subject, following the agreed Scope of Work for this Study. The following 2.1.2 and 2.1.3, therefore, analyze and make recommendation on the furniture industry and furniture design, instead of interior design as a whole².

Most 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.

Many interior designers 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 for design work still remains low, and discounting or inclusion of payments for design work in construction costs have often been practiced to ensure their orders. Most university graduates specialized in interior design chose to start their own business or work for interior design offices, rather than design departments of manufacturers.

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-size 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 large-scale projects, including not only design field but also construction field, regardless of their employment size.

² In Indonesia, design of furniture is generally regarded as a part of product design, with its emphasis tend to be placed on production and technical aspects.

2.1.2 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-size 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.

Indonesia is regarded as a producer of cheaper products the international buyers, and 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.

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, an increasing number of companies have original brands and try to compete in the market by leveraging design expertise and offering new products. This reflects 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.

Design-oriented companies, although small in number, are mainly medium-sized companies having high levels of production technology applied to small-lot production. Among companies, there is a lack of concern about the unauthorized copying of design. Buyers often request manufacturers to copy other designs for low-cost production. As design 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."

2.1.3 Potentlality for Industrial vitalizallon by design promotion

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 give up the old habit of copying other designs, and they must develop the ability to propose original products.

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.

Further, important factor for activation of the industry is the need for promoting a distinctive public image of each producing center. 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, the role of local production centers each having its own identity, and each striving to improve its own image is, becoming increasingly important.

2.2 Industrial Design

2.2.1 General

Design activities in the industrial design field are still limited in terms of the fields of application, and the achievements are still small.

The activities in this design category may be classified into (1) that of in-house designers of foreign affiliated companies, who have an educational background in industrial design, (2) that of employees in the marketing section or product planning section, who do not have an educational background in design, and (3) that of professional designers who make their design works as a professional individual or as an employee of design office. Some designers of the last category include those working concurrently in universities as lecturers.

ADPI (Indonesian Industrial Designers' Association) has around 70 members; of which 30% are in-house designers of foreign affiliated companies in the automotive and motorcycle industry. Other in-house designers include those of manufacturers of electrical home appliances and audio equipment, accounting for 10% of the members, while another 10% work at other manufacturers like plastic daily products and furniture manufacturers. Another 10% of members are engaged in design of furniture at the offices of architects and interior design offices, while 20% are freelance designers or employees of design offices, and 20% teach at educational institutions or universities.

The importance of industrial design has not yet been fully recognized by industry. Design promotion activities in this field are not active.

2.2.2 Design activities of electrical home appliance manufacturers

The manufacturers of electrical home appliances may be categorized into 3 types in view of their way of production. One is foreign affiliated companies, another is local enterprises of large or medium scale, and the third is local small and micro enterprises.

The Indonesian market of electrical home appliances consists of (1) that of high-grade and expensive goods of foreign brands, (2) that of mid-grade goods with foreign brands, (3) that of popular grades with cheaper prices of local brands, and (4) that of low-priced products targeting low-income urban and rural residents.

The value of the Rupiah has declined significantly since last year, resulting in severe negative impact on the electrical home appliance industry. Most small and micro enterprises, and 20 to 30% of medium scale enterprises, are closed or were forced to stop

operation. The companies still operating are mostly those companies which had exported more than 20 to 30% of their products. The export ratio of their total sales has increased to more than 50%, or almost 100% in many cases. Some manufacturers quit the production of home electrical appliances, and changed their businesses.

All the foreign affiliated companies are manufacturing their products for domestic and export markets using own brands. They may be classified into two groups in terms of their design activities. One is those which manufacture their products with design provided by their parent company without modification at all, while another is those which modify the design by themselves, though the modification is still minimum, to meet the local needs. Most of the foreign affiliated companies fall in the former category.

The number of companies in the latter category is thought to be not more than two. They have in-house designers. However, totally new development of product models is not seen yet. Nevertheless, they intend full scale deployment of designers, understanding the design process, providing comprehensive design training by their parent company, and involving designers in market research.

In the case of local large or medium size enterprises, companies which have in-house designers are still exceptional -- two or three at most. Further, all the in-house designers do not necessarily have an educational background in industrial design.

Most of these local enterprises select products to manufacture among the products shown in such magazines as Home Appliances, which is a well-known magazine published in the US, showing a variety of Asian products. Then they procure molds and dies and component parts from Taiwan or Hong Kong for injection and assembling in Indonesia. Some of the large or medium sized companies modify models partly by themselves. Design work done by other manufacturers is limited to changes of product color, and POP, etc. alone, and not on product design.

The market section usually takes the initiative in selecting products from the magazines and catalogs. In the companies which modify their models by themselves, the owner or manager takes the initiative in most cases, though they have their in-house designers. The designers belong to the R&D section or planning section in most cases, and few designers have been educated in industrial design.

Local manufacturers, both large and medium in size, target lower-end markets, keeping out of the high-end market where foreign brand products are dominant. They have to sell their products at low prices and must make strong and continuous efforts at cost reduction.

Awareness of the importance of design quality is further limited among the

manufacturers. There are many points yet to be improved, including those relating to finishing, such as the existence of a burr, shrinkage cavity, inappropriate mesh, etc. These are caused mainly by insufficient precision of mold, or an unmatched mold with injection machine. Inappropriate selection of material is another cause for such problem. There were some cases of shrinkage cavity and distortion of the product caused by use of polypropylene for an electric fan part.

2.2.3 Potentiality for industrial vitalization by design promotion

Design promotion in the field of industrial design should be carried out on the following two fronts.

First of all, SMEs should be a primary target for design promotion efforts. As many SME owners do not recognize the effects of design at present, they may not be highly responsive to introduction of the design process. At the initial stage, therefore, public campaigns to advertise the expected benefits should be carried out concurrently with assistance and guidance in the actual implementation process.

Another focal point is related to infrastructure development for the industry, i.e., efforts to raise design levels in the field of industrial design. This should cover all industries including foreign-affiliated manufacturers and large enterprises. By encouraging and promoting high quality design, industries and consumers will be encouraged to improve their ability to evaluate and appreciate design. This way, design consciousness can be raised for all Indonesian products and introduction of the design process is accelerated. At the same time, the efforts will urge foreign companies who rely on product development capabilities of parent companies to do their own work and procure local materials and parts.

The most serious impediment to raising the level of industrial design is the limited opportunity for industrial designers to gain experience. Judging from our experience in the industrial design workshop, the potential ability of university graduates and out-house designers to create concepts and make sketch seems promising. However, their designs are not industrial design. Their designs are mostly made in view of use of the goods, but not in view of production, as they lack technological knowledge of manufacturing process.

This situation is unfortunate not only for the industrial designers, but also for the industry. If the industry continues to rely on designs made abroad, neglecting to nurture local designers, they will face difficulty in the future when they try to find out capable local designers.

In the educational field of industrial design, the tendency is to develop design

harmonizing those developed on the basis of Indonesian culture and tradition, and that of technology oriented. Development of such a movement in the actual design work will be indispensable.

Under the prevailing situation of industrial development, it is almost impossible to fulfill the desire of designers to make design on industrial products. Thus, industrial designers should also seek for chances by themselves, trying design works on daily necessities and small tools, instead of insisting on design of hi-tech products, and show their excellent design work to the industry.

2.3 Package Design

2.3.1 General

The concept of Package Design is not yet well developed in Indonesia. It is still in an early developmental stage and has not gained established status as a distinctive design area. Rather, it is often viewed as part of graphic design or a medium (wrapping or container) for product marketing and distribution, that plays a minor role in the product development process. In most cases, manufacturers including top management in small- and medium-size companies see packages merely as the means to wrap up or cover products, or as an eye-catcher for the product at the time of display.

As much as 1,500 designers are estimated to be at work, mainly in major metropolitan areas (e.g., Jakarta, Bandung, Yogyakarta, Surabaya, Denpasar, Medan). In addition, 150 to 200 students graduate from higher education institutions in the design fields, with a gradual increase year after year. In 1998, an estimated 500 students enrolled in graphic design schools. Large portions of the graduates from these schools work as illustrators of media companies including magazine and newspaper publishers, and many go into public relations, advertising and visual media. Some chose to become artists, while no one has become a designer specialized in package design.

At present, package design is carried out by any of the following four parties: (1) design departments of manufacturers (in-house designers); (2) design or computer processing departments of printing companies or packaging materials suppliers, (3) design houses with strength in graphics; and (4) advertising agencies.

As a wide variety of departments and functions are involved in package design, the design development process has a complex structure. Nevertheless, manufacturers of

products for which packages are designed have the largest influence over the process by taking the initiative in determining design specifications and other requirements.

Large, and some medium-size, manufacturers which have their own design departments make package designs all by themselves and convey them to printing companies (converters) in the form of printing instructions. Converters are involved in the design development process only when specified designs cannot be printed due to peculiar characteristics of packaging materials or technical constraints, they then may propose design refinement to make the original designs suitable for printing. On the other hand, design houses and advertising agencies may participate in the design development process that takes place within manufacturers. This is divided into two types; a direct contract between the design house and the manufacturer, and a contract between the manufacturer and the advertising agency which subcontracts design work to the design house. In the former case, designs are often developed as a joint project between the design house and the manufacturer's design department, so that the design house often plays an important role. In the latter case, however, the advertising agency provides design service as part of sales promotion for the manufacturer and often uses the design house just to process graphics centered specifications. Thus, the manufacturer's design department is not directly involved in the design development process, while the advertising agency plays a relatively large role in selection of final designs.

Most small- and medium-size manufacturers do not have their own design departments. Design development is mostly handled by owners or related departments such as marketing and manufacturing. These companies generally lack the ability to develop detailed design specifications. Further, they cannot afford to outsource design work to design houses or advertising agencies. Instead, they use converters who, based on concepts (general images) given by customers, create package designs. Here, converters play a major role in the design developing process. While some of larger converters have its own design departments, a majority of them subcontract design services to design houses or freelance designers upon the customer's request.

2.3.2 Design activities in the food packaging industry

(1) Food manufacturers

Generally, package design in the food industry is handled in either of the following two ways; it is integrated in the in-house design management process or is outsourced without major involvement of internal resources. The former is mainly seen in larger, general food manufacturers and foreign companies which have their own design departments, while the outsourcing is usually exercised by relatively small manufacturers

which do not have internal design resources.

(2) Converters

In the design development process, clients (customers) generally take the lead. Therefore, when clients could hire designers, those in-house designers could develop their own designs to a near-completion stage and furnish them to converters. As a result, few converters need to have their own design departments, or even those who have ones only need to hire a few designers.

(3) Advertising agencies

As the agencies handle the entire sales promotion process, package design does not receive strong attention in this process. Package design is often made by a graphic design house on a contract basis, based on the agency's initiative (a fixed idea and/or image). Larger agencies sometimes use creative staff with graphics educations to develop the original idea. In the majority of cases, however, very rough designs are provided to converters for refinement. Overall, package design is not considered as a separate field of design in many cases.

2.3.3 Potentiality for industrial vitalization by design promotion

Package design is an effective and direct medium to convey product information to the market in a visual way. Unfortunately, however, smaller manufacturers do not have sufficient financial resources or know-how to incorporate package design into their product development and marketing strategy. Concerted efforts to improve package design can be a significant help for SMEs.

The primary target should be set on the food industry that is dominated by SMEs and consumes approximately 60% of package production in the country. The industry, while offering a wide variety of products, allows standardization of packaging materials and forms for a particular product group.

This is also an area where there is much room for improvement of package in functional and graphical aspects, so that the effects of introduction and improvement of design can stand out. In particular, package designs for products which are internationally competitive in quality, including coffee, tea, spice, snack foods such as fried fish paste and banana chips, and candy, can be improved significantly, particularly in terms of function, and be turned into truly competitive products. In the medium term, household consumer goods such as detergents and shampoos can be a primary target for

design promotion as their packages must be lighter and recyclable in response to environmental concerns and need for economy of production.

As for craft products, they are still sold as "souvenirs" in many cases or are manufactured according to the buyer's instruction, so that they are considered as unsophisticated products and have not reached the stage of being ready for introduction of package design, albeit high potential does exist for volume production by using abundant resources. It can only be given high priority when evolution from traditional craft to modern one becomes routine and well established the industry.

2.4 Craft Design

2.4.1 General

In Indonesia, diverse craft products are made in various areas, using a wide variety of materials including wood, bamboo, leather, ceramics, stone, textile (weaving and dyeing) metal, and glass. In the four segments under study (wood, bamboo, leather and ceramics), numerous types of craft products are made.

Craft products made in Indonesia can be classified into four categories: "traditional craft," "modern craft," "souvenir" and "others (contract manufacture)".

1) Traditional craft products

The traditional craft products are not widely used in the daily life of local people, or they have not been improved to meet requirements in modern life. Instead, they are sold to foreign tourists as Indonesian "souvenirs" or exported to industrialized countries in the case of high-grade wood products. Furthermore, most of them are not used for the intended purposes and are treated as interior decorations or ornaments.

2) Modern craft products

Modern craft products can be a primary candidate for export promotion utilizing craft design.

In the design and manufacturing process, professional designers having sufficient educational background are widely involved in various stages including product development, marketing and sales. In fact, this is the area where professional craft designers actively participate in the product development process.

3) Souvenirs

As Indonesia is endowed with diverse tourist attractions including historic sites and

resort areas, which attract a large number of tourists from overseas, a variety of craft products are designed and manufactured to constitute an integral part of the country's major industry.

These products include those that may also be classified as traditional (ethnic) craft products. This clearly reflects the fact that not only do most souvenir craft products incorporate traditional design elements but, as pointed out earlier, traditional craft products are no longer associated with the life of ordinary people and instead find their *raison d'être* by serving foreign tourists.

Most designs seen in this product category are based on themes or patterns used in traditional (ethnic) craft products. The designs are developed according to buyers' requests, or craft shops or craftsmen develop their own designs. Generally, professional designers are not involved in the development process.

4) Other products

In fact, this category embraces a wide variety of craft products and is considered to be a major source of craft production in the country. Diverse products classified in this category have one thing in common. Unlike craft products in the other three categories that share the country's traditional background, they have emerged from an economic background, e.g., presence of low-cost labor and abundant natural resources.

The category includes craft products made by craftsmen or shops under the contract (or subcontract) to buyers (both domestic and foreign) or larger craft manufacturers and according to design specifications issued by them, as well as craft products that imitate those made in industrialized countries. Some craft shops manufacture products of imitated designs and sell them at their own shops; leather cloth is an example.

2.4.2 Potentiality for industrial vitalization by design promotion

1) Traditional craft

Introduction of design process to production of traditional craft will be effective in that first of all, "reassessment of production techniques" including the improvement of drawing skills and correcting "deviation from standards" will enable craftsmen to apply more rational molding or shaping techniques, instead of the "accustomed ones" without knowing their quality, and to upgrade the traditional techniques to a more sophisticated level. Also, "introduction of modern production techniques" (production based on drawings and production of uniform products in a specific quantity) will allow stable production in terms of both quality and quantity.

2) Modern craft

While modern craft production in Indonesia uses the design process (designers) in many ways, a more effective and sophisticated use of design is expected to develop as follows:

1. Shift from product-out to market-in
2. Natural expression of local characteristics

3) Souvenirs

Souvenir craft shares similar problems with traditional craft (such as drawing skills), and at the same time, it is required to meet peculiar market needs (symbolic expression of locality). The design process is expected to help create more sophisticated products and will create an opportunity for evolution to modern craft in the longer term.

4) Other craft products

Introduction of the design process to production of other craft will help the industry to develop from the current job shop status, producing low-grade products, to an independent industry capable of developing high value added products by incorporating local and other characteristics, followed by evolution to modern craft and development of own brands. Development of original products by the leather craft industry in Yogyakarta is considered to be a clear sign of such transformation process.

Immediate goals, in addition to use of design elements incorporating Indonesian tradition, are: (1) craft products that can be used in everyday life; and (2) those marketable in the international markets (again, usable in ordinary life).

Part III: Conclusion and Recommendations

1 Conclusion

1.1 Need for Design Promotion

As discussed below, such policy measures as export promotion, SME development, formulation of industrial linkages, regional industrial development and job creation are expected to play a vital role in solving the problems of industrial development in this country, both short-term and long-term. Introduction of the design process is believed to provide a highly effective tool for achievement of these policy measures, enhancing the capability of product development based on market needs and advantages of producing areas, contributing to establishment of Indonesian identity, and resulting in improvement of price and non-price competitiveness. Further, since enhancement of product development capability will be the key for the export industry to attain sustainable growth, the approach with design will be more effective than others that are applicable to the situation. In this recognition, it is very important and urgent for the country to create the environment that ensures the smooth design introduction process by providing proper measures to encourage and support such process.

(See Figure III-1.)

Target and urgent issues for industrial development

- 1) The recent economic crisis in Southeast Asia has caused the Indonesian market to contract sharply and has increased unemployment in urban areas, resulting in outflow of labor from urban to rural areas where a large number of jobless persons take shelter. This has deteriorated standards of living significantly throughout the country and creation of employment opportunities is undoubtedly the highest priority for the country's economic policy.
- 2) In terms of the medium to long term point of view, the government policy is firmly pointed in the direction an open market economy, since it is very difficult, if not impossible, for the government to maintain the previous policies to protect domestic industries, which has in fact retarded their healthy growth. With such change in economic policy, it is essential at the same time for the government to foster various industries that can survive and grow under conditions of the economic shift. Further, because of removal of the embargo on export of raw or simply processed materials, the country's advantage for industries which use these materials, has been diminishing with emergence of new competitors importing these materials.

To devise the above agenda for industrial development, following are required:

- 1) In light of the fact that rapid growth of the industrial sector that relied on imported equipment and materials led to the uncontrolled surge of imports of capital goods, far outpacing exports, and exacerbated the economic crisis, exports should be promoted with the view of ensuring that industrial development contributes to a better balance of exports and imports.
 - a) Fostering of competent export-oriented industries that utilize domestic resources such as lumber, farming and fishery products
 - b) Revitalization of labor-intensive export industries, such as clothing and shoes, which were once major export items but have declined since then
- 2) To form intra- and inter-industrial linkages by promoting local procurement of raw materials and parts in order to help balance exports and imports and to achieve stable economic growth through deepening of the industrial structure.
- 3) Inefficient management of national enterprises and monopolies, mainly manufacturers of basic materials and heavy and chemical industries, created bad loans by diverting expanded money supply to speculative investment in real estate, resulting in the economic bubble and accelerated growth of imports of capital goods. Based on the lessons learned, comprehensive measures should be taken to discontinue competition restrictive government intervention, modify the high cost structure, and strengthen competitiveness, including privatization of state enterprises that serve the domestic market, such as metalworking, chemical and electrical/electronics products.
- 4) To encourage foreign investment and free entry of private investors, in industries that require efforts to strengthen competitiveness, government regulations and procedures should be simplified with increased transparency.
- 5) To create employment opportunities in rural areas by promoting local industries, thereby to correct economic disparities between regions and reduce unemployment and underemployment in rural areas.

Weaknesses to be overcome for Industrial development

Major weaknesses of the industrial sector in Indonesia (except for institutional constraints) that must be overcome to achieve the above goals may be summarized as follows:

- 1) Most industries fail to differentiate their products from those made in neighboring countries. As a result:
 - Labor-intensive industries are emerging in countries offering lower labor costs,

such as China and Vietnam, which attract increasing attention of buyers and customers.

- Industries processing agricultural, forestry and fishery products tend to have strong competitors in other countries where similar raw materials are available or Indonesian products can easily be imported.
 - Development of new products by Indonesian industries serving the domestic market is being carried out almost exclusively by foreign partners or parents in the case of large enterprises or foreign-affiliated ones, while smaller enterprises copy or modify products on market. As these products are not distinguishable from competing products that are widely available in neighboring countries, in terms of design and performance, they must compete in export markets on the basis of price alone.
- 2) As smaller enterprises do not directly deal with retailers and end users, they do not have knowledge or experience in developing and marketing products that meet the market needs. In particular:
- They manufacture products according to the buyer's instruction, which are usually purchased at low price to which they do not add much value except for labor.
 - They do not understand what they need to do in serving the market effectively, e.g., satisfying requirements such as quality and delivery schedule.
- 3) Large enterprises and foreign-affiliated ones manufacture products that are planned and/or designed by foreign partners or parent companies, where local ideas and needs are not reflected:
- Local procurement of raw materials and parts is made on the basis of production economics alone, in the absence of considerations to the effective use of local resources and suppliers for product development.
 - Local needs including those of the domestic and neighboring markets are rarely taken into account.
- 4) State enterprises and monopolies that have been operating in the less competitive marketplaces fail to explore opportunities for product development by focusing on local needs and availability of local resources.

Introduction of design will be highly effective to overcome the above weaknesses.

1.2 Priority Industry for Design Promotion, and their Expected Effects

(See Figure III-2.)

At the initial stage, design promotion activities will be carried out in industries and areas where their effects can easily be realized, as well as those related to industrial development. Then, the results of the pilot projects are made known to the public and form the basis of subsequent projects to follow.

It is recommended to select "priority" industries and areas for pilot projects according to the following criteria: (1) the areas where export-oriented industries or those serving foreign customers are established; (2) the industries producing final products that have export potential and having relatively strong ties among the enterprises to undertake projects jointly; and (3) the industries assembling final products with future prospects for local procurement of raw materials and parts.

In overall consideration of the above requirements, industries that should be given of priority in the design promotion process, and their expected effects are as follows:

1) Small- and medium-sized, local industries using locally available resources, which export their products or have export potential: They will be encouraged to develop the ability to identify the market needs and propose new products accordingly by giving them direct contact with the market or via an adequate intermediary, thereby to create or upgrade export opportunities.

Major opportunities identified are summarized as follows:

- a) To identify and promote product differentiation for local industries that are specialized in crafts, furniture and other areas, observed in various regions, establish local brands and promote exports of their products.
 - b) To improve the reputation of Indonesian products in the market by inducing the industries relying on products with imitated designs to develop original products.
 - c) To help those industries which have made their products without grasping the market needs, and which targeted to the markets only within reach, to learn merchandising and marketing techniques and develop products that serve broader markets under more favorable terms.
 - d) To supply products having designs unique to Indonesia, which will enable Indonesia to attract new buyers who buy products giving attention to the design characteristics, instead of the current buyers who view Indonesia as low-cost production centers.
- 2) Small- and medium-size machinery, electrical equipment and plastics manufacturers serving the domestic market: The focus should be placed on understanding of the design process and development of the ability to plan and propose products that meet consumer needs and customer requirements, thereby to go beyond the present business

practice relying on price competitiveness, and to enable them to become suppliers for large enterprises, conducive to the deepening of the industrial structure.

- 3) Large and medium-size enterprises that can serve as the core of intra- and inter-industrial linkages: They will serve as contract manufacturers of parent companies, buyers or foreign partners, by making products according to designs provided from external sources. Design promotion will help unfetter them from their present subservient role and empower them with the true ability to develop original products. Particular emphasis should be placed on the encouragement of product development that addresses the market needs and uses local materials.
- 4) Labor-intensive, export industries (also those serving the domestic market): They will be encouraged to create products using design resources available in the country and disseminate unique design concepts to the world market.

1.3 Roles of the Private and Public Sectors in Design Promotion

Basic premise

Design promotion activities in Indonesia need to be carried out under government leadership for the time being, due to the reasons that: (1) participation of the private sector cannot be expected much, as industry does not generally recognize the importance of design promotion; and (2) local industries, particularly SMEs, are suffering from serious damages, and the design process must be introduced urgently as an effective tool to improve the situation.

While design promotion is to be under government leadership, showing good examples of design use, and encouraging the active participation of private sector in the design promotion, the government's role should be scaled down step by step to eventually leave those which cannot be accomplished without government participation, while the private sector should increasingly take leadership in the promotion process.

Given the recent trend in industrial policy to minimize government intervention by leaving the industrial development process to the market mechanism, design promotion activities, which are of highly private-initiative nature, should preferably be led by the private sector, with the minimum involvement of government.

However, it is important to note that governments in many countries have been playing an active role in design promotion, producing appreciable results in proliferation and improvement of design. Also in the case of Indonesia, to maximize end results, it is recommended to let the government serve as the core of design promotion initiatives at an early stage.

Design is an interactive process involving autonomous activities of users, including government and industry, and providers, mainly designers. To encourage spontaneous adoption of the design process by industry, the government's activities in the design promotion process should be, in principle, limited to the following areas where the government can leverage its advantages:

- 1) Activities that are very difficult for the private sector to carry out and are essential in driving the design promotion process;
- 2) Activities required to pave the way for the private sector to carry out its own activities smoothly;
- 3) Coordinating activities that must be done from a neutral position to ensure fairness; and
- 4) Activities that are widely needed and would interfere with design activities unless provided on a regular, non-commercial basis.

However, it is important to note that governments in many countries have been playing an active role in design promotion, producing appreciable results in proliferation and improvement of design.

In the case of Indonesia, design promotion activities need to be carried out under government leadership for the time being, due to compelling reasons including: (1) participation of the private sector, except for designers' associations, cannot be expected as industry does not generally recognize importance of design promotion; (2) the designer community does not have resources to carry out design promotion activities on its own; and (3) local industries, particularly SMEs, are suffering from a lack of competitiveness, in both price and non-price terms, partly because of the economic crisis in the region, and the design process must be introduced urgently as an effective tool to improve the situation.

However, as general awareness of the importance of design promotion rises on the industry side and active participation is seen, the private sector should assume leadership in the promotion process and the government's role should be scaled down to meet the above requirements.

If the private sector is expected to assume any of the above roles to serve the public interest, a semi-government organization should be established with close cooperation of the government. This should be the best way to mobilize and unite strengths of the two sectors, and in fact, a partnership seems to be required in many cases.

At the same time, the development of visions for design promotion and necessary

coordination to materialize them should also be advanced under government leadership. It is important, however, to encourage the private sector to participate in the process by contributing its opinions. And eventually, the private sector should fully participate in the policymaking process by leading discussions in the Design Council.

The private sector's role

The private sector related to design consists of the design supplier led by designers' organizations and the design implementers and users, mainly private enterprises.

While the public sector is expected to play a central role in design promotion until the private sector is ready to take the helm, an active element of the private sector, namely designers' associations, should plan and conduct their own activities under government support. In fact, the design community can and should propose its initiatives to the government and support government activities in many aspects.

The most important activity that the design community should undertake is the development and management of a database of designers. The inventory taking of the major design resource can be conducted by designers' associations, while its effective utilization requires some degree of government support.

Similarly, designers are expected to take a position of leadership in setting the direction of design promotion activities and a strategy for its deployment. In fact, they are in the best position to propose central themes of various projects such as exhibitions, competitions and workshops from a medium- or long-term perspective by identifying latest design trends. Also, they must provide necessary support for the public sector that implements such projects to ensure that the selected theme is effectively reflected in each project and the project evolve to a continuous undertaking with a consistent objective. This is considered to be one of the missions of the designers' associations.

As for the issues related to the establishment of generally acceptable conditions of design service and business practice, while they must be eventually resolved by the government which makes its judgement from a neutral position, the design community is to take initiative in raising the issues and requesting government support. They need to act aggressively to establish a leadership position in the design promotion process.

Naturally, designers' associations are expected to assume a leadership role in these activities representing the supply side. However, they are currently not in a position to fulfill this role because: (1) their activity base is not well defined or established; (2) they have still to establish cooperative relations with one another; and (3) they do not have the organizational structure to support claim them to be representative of the design industry.

First of all, the designers' associations do not have detailed activity plans nor define

the scope of activities. As a result, their members do not feel a high level of involvement in nor gain tangible benefits from their associations, which are in turn operated with little regard to the needs and wants of their members. In fact, secretariats of the associations are busy in making arrangement for participation in international conferences and seminars proposed by foreign organizations and fail to plan any initiatives that serve the interest of their members. The absence of a well-defined activity plan (policy) makes it difficult to evaluate the results of their activities. To enable the designers' associations to take their initiatives, the Design Center can and should provide useful support by providing various "back-office" functions, including the provision of the necessary infrastructure (the means of communication and the place for meeting) and accounting and other administrative functions.

Secondly, the lack of a collaborative relationship among the associations is considered to be a major cause for their unclear status in the design industry. Again, the Design Center can act as the bridge to promote their close linkage.

Further, it is not realistic to expect designers' associations to represent the design industry, due to the nature of their membership and objectives. Rather, a business cooperative or a trade association representing the design industry may have to be established to serve the purpose as the industry expands.

Industry must participate in the process wherever feasible and acceptable under the current constraints. In particular, industry can contribute in the following areas:

- 1) To express opinions and views in the design policy making process, in particular, active participation in the Design Council.
- 2) To provide hands-on experience for designers, especially in the field of industrial design. To encourage individual enterprises to provide such opportunity, the government should provide tax and other incentives.

Then, participation needs to evolve to a high level of contribution by providing funds and human resources. Again, the government needs to provide tax incentive by allowing deduction of expenses related to such contribution.

At the same time, the "third-sector" approach in the form of a government-industry joint project is considered to be effective in various areas as it can combine resources of the private and public sectors. It should be promoted by providing incentives for participating companies.

1.4 Recommended Direction of Design Promotion Policy

Note that the degree of importance of the strategic thrust changes according to the achievement of design promotion, and priority among the projects and programs will change accordingly. Figure III-3 shows the shift in emphasis of the strategic thrusts over time, conceptually.

As the first stage, emphasis should be placed on creation of successful cases of design process implementation, which will be good examples to encourage various industries and enterprises to introduce the design process, while the design promotion system should be developed so as to support the implementation. It is important to note, however, that the development of the promotion system should be limited to a minimum level required in the short run because industry is not ready to provide sufficient support and government lacks necessary resources including funds, manpower and experience. Thus, a full-fledged development initiative must wait until industry's support is mobilized.

Promotion activities in the first stage are expected to boost design demand to a certain level and will enter the second stage where the focus will be shifted to the fostering of creative designers who can take the initiative in design proposals. One of the key activities is to provide a learning opportunity for local designers by inviting foreign designers with the view of imparting an impact on design activities as a whole.

As design promotion reaches a more advanced level and successful results emerge in the country as model cases, they can be used to advertise the country's unique design capability and to transmit a new image to the world, as the third stage of promotion activities.

Major players in activities related to design promotion measures will also change depending on the stage of industrial development and progress of design use. As discussed above, in the case of Indonesia, the government sector is required to play a major role at the initial stage of design promotion. However, with increased participation of private sector in design promotion, the private sector is expected to take leadership in the future.

The following sections describe how actual projects and programs will be prioritized at each of the three stages and for each objective.

- (1) To raise awareness of design implementers regarding effectiveness of design and application method

Enlightenment of design Implementers

Current state:

Industry is still in the infancy stage of introducing design and the design process. Only a handful of enterprises have started to use design as a product development tool. Although many enterprises recognize importance of design's role in creating competitive products, they are reluctant to develop their own design resources because product development is left in the hands of their parent companies or buyers. Also, those developing their own products are content with imitating designs available on market, for they fear that unique designs would be reflected in higher prices and thus would not be appealing to the domestic market that is highly price-sensitive (particularly target segments of local enterprises).

Implementation strategy for promotion projects and programs:

The enlightenment campaign targeting design implementers must encourage many enterprises that are effectively prevented from introducing the design process under the unfavorable conditions. Clearly, by merely showing good designs does not give them much incentive. Instead, it is important to send a clear message to them that the development of their own products by using the design process will bring more profits than the continued reliance on parent companies or buyers.

Once a sufficient number of enterprises acquire an interest in design and its implementation, they should receive further encouragement by providing them with opportunities to create actual designs, including prototype products, and showing good designs at workshops and other settings. In this conjunction, it is important to devise a more structured plan for the enlightenment campaign and develop an infrastructure to implement and support various projects and programs.

- (2) To raise awareness of design users regarding design's value and improve their ability to evaluate design

Enlightenment of design users

Current state:

Design users, primarily general consumers, opt to make purchase decisions based on price due to financial limitation, while they have general interest in well-designed products, living space, environment and systems.

Implementation strategy for promotion projects and programs:

Penetration of good design into the market is driven by the ability of consumers to identify it, which must then lead to purchase decisions on the basis of design quality.

At present, however, it is very difficult to transform the potential ability of consumers

to understand design quality to an actual desire to purchase well-designed products by an enlightenment campaign alone. In other words, the effective campaign must have more breadth and depth than that contemplated within the scope of the study. The enlightenment campaign for consumers is therefore given low priority in terms of urgency and effectiveness.

Nevertheless, it is important to develop an aesthetic sense among consumers, which should be sharpened to become one of the factors in purchase decision. For this purpose, it is desirable to start general design education during elementary education (say, the latter half of primary school years), for which the design community should provide support.

(3) Promotion of design implementation

Promotion and support

Current state:

Private enterprises intending to introduce the design process, particularly small- and medium-sized enterprises will presumably face difficulty in the following respects when they actually attempt to do so:

- 1) Technical difficulty in incorporating design and the design process into products;
- 2) Difficulty in finding competent designers and communicating with them effectively, including contract administration; and
- 3) Difficulty in funding the implementation cost (e.g., hiring of designers, market study, product development, and prototype) and absorbing it within the production cost.

At present, there are no programs and projects that help design implementers to overcome any of the above difficulties.

Implementation strategy for promotion projects and programs:

Projects and programs to support design implementation efforts are therefore devised to mitigate the above difficulties through three stages.

At the first stage, pilot projects are initiated at selected enterprises that are ready to introduce the design process by providing broad support, thereby to use them as show-cases to advertise the effectiveness of design implementation. Also, the scope of the project can be extended to prospective enterprises or products for which it is difficult to conceptualize the design implementation process. Support should include basic study and research as well as technical assistance covering the provision of raw materials and the manufacture of a prototype.

At the second stage where more and more enterprises desire to introduce the design

process, the support system should be expanded in scope and capacity. Most importantly, the support staff needs to be increased to meet demand. In fact, research and study activities provide a good opportunity to educate support staff. For this reason, research and study will be intensified in the second stage, while an official system to provide technical assistance is initiated, such as the establishment of an organization specialized in technical guidance in design and the designer adviser system. In the process, care should be taken to educate support staff with adequate design skills by inviting foreign designers as instructors.

Then, in the third stage where a sizable number of enterprises will participate in design implementation, emphasis should be placed on projects and programs that facilitate the initiatives of enterprises, including: (1) provision of information on designers to enterprises; (2) incentives for design implementers such as exhibitions, publicity and awards; and (3) financial support and a tax incentive to pave the way for design implementation. In addition, proper protection of design and designers' rights are critical in ensuring steady growth of design implementation, requiring special measures (as discussed separately).

(4) To improve design skills and levels of design work

Encouragement of good design

Current state:

Several design competitions have been held to improve design skills and raise the levels of design work in the country as a whole. However, they failed to produce notable results so far. There are several reasons for this. First of all, the competitions have not been widely announced so as to attract a large number of proposals. Secondly, there is little incentive to participate in the competition because demand for design (in particular, domestic demand for industrial product design) is very small. Thirdly, the result of each competition does not represent high levels of design work, and thus does not attract the attention of industry.

Implementation strategy for promotion projects and programs:

The success of the activities to encourage good design depends on growth of design activities until they reach a sufficient level. Thus, the first stage of design promotion programs in this field should focus on activities to promote design implementation, such as study and research.

On the other hand, activities to encourage good design play a more important role when the pace of design implementation among enterprises begins to pick up. Thus, they should be given priority in the second stage or later. More importantly, activities to

encourage good design should not be limited to a domestic level; they should not be content with selecting from local designs. Instead, efforts should be made to learn from excellent designs made in other countries. This should include the planning of design events. Know-how in event planning should be learned by hiring foreign planners and producers as required, otherwise the quality of design events would remain at the current level. Thus, the second stage of promotion programs should include the use of foreign designers and event planners for the purpose of educating and stimulating the local design community.

Use of design information and exchange with foreign industries and organizations

Current state:

As pointed out earlier, learning from good design and successful cases of design use is very important to improve design skills and raise the levels of design work. In reality, however, it is difficult for most designers in Indonesia to obtain such learning opportunities (except for highly reputed designers having a lot of design projects with foreign partners). Also, it is generally difficult to obtain design-related information.

Implementation strategy for promotion projects and programs:

While information gathering efforts such as studying abroad or the sending of a special mission cannot be easily carried out, there are various methods to collect design-related information relatively easily and less costly. For instance, periodical publications of foreign design associations and trade magazines carrying the notices of design competitions are good information sources, not to mention numerous web sites on the Internet. Information can be collected and made available at the design center. The establishment of a centralized information source should constitute the first stage of activities in this field.

On the other hand, it should be noted that strong support of industry is a prerequisite to promotion of design exchange activities with foreign counterparts. Also, the design community in the country cannot benefit from such activities until design promotion efforts have reached at a sufficiently high level and all the design-related parties have gained a certain amount of experience. For this reason, the exchange with foreign counterparts should be limited to special events and other opportunities initiated by others.

Design research and study and dissemination of results

Current state:

Research and study related to design is a highly valuable in the design promotion process as they provide useful information for enterprises who intend to use the design

process, for guiding designers in new directions of design and emerging design fields, and for developing design expertise of the support staff through the process of gathering, analyzing and disseminating information. While some universities conduct various research products in the design field and joint design development projects with individual enterprises, most research efforts are less concerned with commercialization of their results, while there are few cases of joint efforts.

Implementation strategy for promotion projects and programs:

Design research and study is one of the activities that should be started at the first stage of design promotion activities. Specific subjects of research and study need to be determined by taking into account the actual state of design use by industry and society as well as other key trends. In particular, all the related parties should agree on what key trends they are to focus on, and research activities should be carried out accordingly in order to wisely utilize scarce resources and obtain highly focused, useable results. The first activity should therefore be the establishment of a formal fixed place to discuss and agree on an agreeable research policy and direction and announce the results. This can be accomplished by revitalizing the Design Council and building research networks consisting of research institutes, universities and other related parties. Also included are the development of basic design information required to help create original designs and studies on craft resources that should form the basis of selecting a specific industry for focused development in the future.

In the second stage, where the research and study infrastructure is assumed to be in working order, research activities should be launched with care to ensure that they are abreast of latest world trends and are conducive to commercialization. This can be done by acquiring help from foreign experts who may work as resident advisers to supervise projects. At the same time, joint research projects by university and industry should be encouraged as industry is expected to recognize importance of design research at this stage.

In the second and third stages, the focal point of research and study should be shifted to a direction meeting future needs. The possible subjects include design in the post-industry society, as seen earlier as a subject of attention in industrialized countries.

Education and manpower development

Current state:

Major goals for design education and human resource development in the country are twofold: (1) education of innovative designers who can take the initiative in proposing original designs; and (2) education and training of design promotion personnel. Design

promotion personnel includes those who provide guidance for design implementers, government officers who plan and carry out design promotion activities, and persons who provide guidance and consultation for the former. At present, design education is primarily carried out by education institutions, with very little being provided by other organizations.

Implementation strategy for promotion projects and programs:

The primary goal for the first stage of design education activities is to offer education and training opportunities at workshops that are held in various areas for dissemination of design information and to provide an opportunity to train experts who can support pilot projects that are contemplated here. Also, research and study activities must be encouraged for education for designer to improve the ability to create original design.

(5) To develop the environment to encourage creation and delivery of design

Environment fostering the design Industry

Current state:

To develop the environment to encourage creation and delivery of design by designers, the following activities are required: (1) promotion of public recognition of the designer and the design industry; (2) standardization of design contracts and business practices; (3) expansion of design opportunities; and (4) support to establish the foundation of design business. At present, several programs related to (4) are underway, targeting SMEs, but do not seem to meet their needs.

Implementation strategy for promotion projects and programs:

While the primary goal should be the expansion of design opportunities, it cannot be achieved in the first stage by simply implementing a special program or two. Rather, efforts to induce design implementation by industry will serve the purpose by creating actual demand for design. For instance, the design adviser program, as proposed above, provides selected enterprises with hands-on experience in using the designer and his service. Once they understand the value of the designer and the way to deal with him, design opportunities are spawned in more industries and enterprises. Thus, the first stage of activity should focus on support for public recognition of the "design profession and professional" by designers' associations, and organization of designers into a business cooperative to win contracts from government and related organizations.

In the second stage where design demand is expected to grow, support should be shifted to standardization of design contracts and business practices and the establishment of the foundation of design business.

Design protection

Current state:

Activities to protect design and designers' rights include: (1) the development of the legal infrastructure including laws and regulations, and their enforcement system; (2) actual enforcement by government; and (3) voluntary regulation by industry.

While the legal infrastructure is the underpinning of design protection efforts, it is not enough to assure a full effect. Legal enforceability must be combined with voluntary regulation by industry. Indonesia is currently in the process of building the basic portions of the legal infrastructure.

Implementation strategy for promotion projects and programs:

To enforce design protection effectively, voluntary regulatory efforts by industry must be activated in close coordination with legal enforcement by government. Effective voluntary regulation can only be driven by a trade association that is active in serving the interest of the industry and members it represents¹. With the active participation and trust of its members, the trade association can enforce an voluntary design protection agreement that is binding on the members. Thus, voluntary regulation becomes effective only when design implementation becomes pervasive in various industries that begin to realize the need for design protection. As a result, actual programs to encourage voluntary design protection efforts should be planned in the second or later stage.

Finally, government enforcement of design protection can only serve the purpose of design promotion after a sufficient number of original designs are created and incorporated into products available in the country. Thus, related programs should preferably be devised in the second stage or later.

1.5 Organizations Responsible for Design Promotion and Demarcation of their Roles

Basic premise

Design promotion activities in Indonesia need to be carried out under government leadership for the time being, due to the reasons that: (1) participation of the private sector cannot be expected much, as industry does not generally recognize the importance of design promotion; and (2) local industries, particularly SMEs, are suffering from

¹ Most industrial associations are of nature of a salon among the members.

serious damage , and (3) the design process must be introduced urgently as an effective tool to improve the situation.

With design promotion under government leadership, showing good examples of design use, and encouraging active participation of the private sector in the design promotion, the government's role should be scaled down step by step to eventually make up only functions which cannot be accomplished without government participation, while the private sector should increasingly take leadership in the promotion process.

Organizations responsible for design promotion are roughly classified into two hierarchical levels according to function: (1) the policymaking level responsible for formulating, aligning and operationalizing national-level, design promotion policies; and (2) the implementation level to carry out individual design promotion projects and programs. Generally, design promotion projects and programs are carried out by government, the public sector and/or the private sector according to their predetermined roles. If the public sector or the private sector plans its own project that cannot be carried out on its own due to the lack of resources or support, as happened in many cases, it will find a sponsor (grant organization) or establish the third-sector organization jointly with the public or private sector, as the case may be.

It should be noted that some of promotion activities carried out by government organizations should be in the hands of the private sector, but they are temporarily taken care of by government due to the inability of the private sector to handle them for various reasons. Such activities should be transferred to the private sector's control when it becomes ready to carry them out.

Formulation, alignment and operationalization of design policy

In most cases formulation, alignment and operationalization of design policy are taken responsibility by the government agencies or organizations which may be positioned in-between the following cases at both ends: namely, (1) a certain department of the central government almost exclusively takes the responsibility; or 2) an independent, ad-hoc organization in private sector involving the government. When the private sector plays a more important role, the council-type organization assumes leadership, while government has no representative or participates as the secretariat that only contributes in the process of operationalizing proposals and recommendations made by the council. On the other hand, when government assumes a dominant role, no council is established or a council controlled by government staff is used.

To encourage autonomous activities of the private sector, it is desirable to select the

council-type organization with broad participation of industries, whereby they are involved in the policymaking process. In Indonesia, however, industry is not ready for taking full participation, and the government is expected to lead the process. At the same time, the existing Design Council should be fully utilized to collect and reflect opinions of the private sector. Then, as industry begins to recognize the importance of design promotion, the council should be expanded in terms of its organization, to encourage full participation in the policymaking process.

Implementation organizations and resources

If the above organizations are capable of carrying out promotion activities according to their own objectives, plans and resources, only a central coordination function may be required to integrate individual activities into a concerted effort. In reality, however, the situation is not that simple. It is difficult to obtain sufficient support from industry to assist promotion activities, while most government organizations face resource constraints in terms of funds, manpower and experience. Furthermore, private organizations, third-sector organizations and educational institutions will not likely be able to conduct autonomous activities due to financial limitations.

Under these circumstances, efforts should be made to concentrate the limited funds and manpower available on the Design Center, which is to serve as a design utilization base, as well as on government organizations closely associated with design promotion policy. Activities of the design center should then be aligned with those of the related organizations so as to maximize the efficiency and effectiveness of various design promotion projects. The result-oriented approach is expected to raise the motivation of industry to use design for business purpose and draw the support of industry, which will secure the basis of expanding promotion activities in the future.

1.6 Desirable Role of the Design Utilization Base

The design utilization base is an organization that plays a central role in carrying out design promotion activities. The existing Design Center (fully, the Indonesia Design Center, IDC/PDN) was established with this objective in the case of Indonesia. The center is managed and operated with the government being the major source of operating funds, while the government and design community provide staff. The government is required to continue to be the major source of operating funds for the time being, because of the fact that (1) participation of the private sector cannot be expected much, as industry does not generally recognize importance of design promotion; and (2) local industries, particularly SMEs, are suffering from serious damage, and (3) the design process must be

introduced urgently as an effective tool to improve the situation. However, the budget constraint is a also serious matter for the government, and it could become the major impediment factor for design promotion. Thus, as to be discussed below, it is hoped that the private sector will become the major player as soon as possible.

The design utilization base may take the form of a national organization, a regional organization or an organization focusing on a particular industry and could be referred to as the design center.

On the other hand, the design promotion organization (or association) also takes part in design promotion activities that cover a specific area (country, region, etc.) and/or a specific field (industry), but it differs from the design utilization base in that it is concerned with only a part of design promotion efforts required for the area or industry, often where it has special interest, rather than coordinated activities in line with a specific policy.

In the following, IDC is assumed as the national-level design utilization base in Indonesia.

IDC's role and activities

The design center is responsible for carrying out projects and programs planned by the design policy formulation department, which cannot be implemented by other organizations, and for assisting other organizations in project implementation.

In the process, the design center serves as a bridge among major players in the design promotion process, namely the central and local governments acting as design policy makers and implementers, designers who create and propose actual designs, industries (and government organizations) introducing and using the design process, and consumers as design users.

In the short run, the Design Center should focus on activities those directly or indirectly related to the construction of the foundation for design promotion. More precisely, it promotes assignment of design staff to relevant organizations and provide training for them, thereby to support the organizations in making the first step in design promotion activities. Also, it is responsible for preparing design development programs to assist the promoting organizations and provide support for implementation as required.

In the medium term, the Design Center will shift its focus to activities furthering the encouragement of good design as well as the effective use of design. Particular attention should be paid to increased participation by industry by motivating them properly.

Ownership and management structure

The ownership and management structure of the Design Center, when positioned as the national-level design utilization base, may take any of the following forms: (1) a government organization or a department or other functional unit; (2) a non-profit organization jointly established by the private and public sectors; or (3) a profit-seeking organization (e.g., joint stock company). In selecting the most suitable ownership and management structure, various factors need to be taken into account, including: (1) priority in goal setting for design promotion²; and (2) possibility of contribution by the private sector to the establishment and management of the design center.

The design utilization bases in neighboring countries are generally established and operated as government organizations financed by government budgets. This approach is feasible in a country where government has sufficient financial resources to provide firm support for implementation of its industrial policy at large. However, as the private sector becomes increasingly involved in design promotion activities, the government organization is unable to meet the diverse needs of various parties involved in the process because of its rigidity inherent in the bureaucratic system. As a result, the design utilization base is isolated from the mainstream of design promotion activities that are now driven by the private sector. In fact, the neighboring countries where the design utilization base is successfully operated by government will face reality in due course and will have to incorporate private initiatives in most part of design promotion activities, except for those intended to support SMEs. Support for SMEs is intrinsically of public nature. Yet, flexibility is required to address the needs of individual enterprises that change over time, and the locus of the design utilization base must be shifted from the national level to the local level.

Although participation of the private sector in foundation and management of the design utilization base is desirable to permit flexibility in design promotion activity, the approach is not taken in the neighboring countries because of the same situation facing Indonesia; industry is not aware of importance of design promotion and accordingly it is difficult to draw active participation. This is a typical problem commonly seen in the initial stage of design promotion efforts, and government has no choice but giving an initial push by establishing and operating the design utilization base. As pointed out earlier, however, this approach does not work well if government lacks a healthy financial base to allocate the operating budget on a continuous basis.

² Basically, two options are available: (1) To focus on the SMEs and other specific sectors that do not have adequate access to information, technology and/or market; and (2) to focus on development of the industrial infrastructure. This implies that the design utilization base must have different functions with industrial development.

In the case of Indonesia, the current operating structure of the design utilization base must be utilized, capitalizing on the strengths of the joint organization by the private and public sectors, while the legal ground, financial base and manpower to support its activities should be secured.

First of all, the Design Center needs to have a steering committee that gives advice on the center's day-to-day activities and provides necessary support (or the committee may be founded as a special committee of the design council). The committee members should include representatives of organizations that can give technical support, such as designers' associations, just like the existing committees of the Design Center.

The Design Center should be established as a ramification of existing IDC to avoid difficulty involved in the establishment of a new organization. However, the current activity level of PDN under MOC&SME does not meet requirements for the national-level design utilization base. While the design center may be placed under jurisdiction of MOC&SME, its scope of activity should be expanded to the national level by enlarging the Design Council or other means.

As for staffing, at least one full-time employee should be added. This is the minimum requirement in consideration of the current difficulty in increasing government staff. The new person can be a specialist in operation and coordination of the center's activities, while voluntary staff from the design industry will provide technical support. In future, however, the center should have its own full-time staff who has design background.

The Design Center should be financially self-supportive in the long run, with minimum support from the government budget. This is critical to ensure sustainable operation of the center. Major financial sources of the Design Center are:

- government budget
- contributions by the government and the private sector (including income from investment of the basic fund), and
- operating revenues.

Clearly, it is very difficult to raise enough funds from contributions by the private sector alone, while operating revenues can be limited as service rates must be set at relatively low levels for policy consideration. Again, government support will play a central role at the initial stage and the financial plan must be made accordingly. Then, as design promotion activities gain momentum and public awareness rises, increases in contribution and operating revenues can be expected. Note that deficits must be financed by government support or other sources.

Private funds can be collected in the form of: (1) membership fee; and (2) special contributions. In the latter case, the design center may receive contributions directly as its operating funds or a special fund may be established to pool the raised funds and disburse them to the center on request. For the Design Center, it is recommended to establish a separate fund that will finance design promotion activities in general, in addition to the center's activities, for the following reasons:

- 1) The fund can easily be managed and is the best instrument to collect contributions of varying sizes.
- 2) By disbursing money through the fund, the Design Council can manage the Design Center's activities on the basis of a prearranged plan.

Location of the design center by function

The design center's functions can be classified into the following four types on the basis of their locational requirements.

1) Head office and coordinating functions

These functions include project development and international exchange and require communication with outside organizations. As a result, they need to be located in a large city where government and business facilities are located and an adequate mean of communication is available. Building or finding a new facility is difficult due to various constraints, and it is desirable to use the existing design center.

2) HRD function

The function is concerned with development and management of training courses and should also be located in a large city in order to maintain close communication with various organizations and secure good access for persons who receive training. However, the communication facility may be separately located from the training facility. This function may be accommodated in the present office.

3) Exhibition function

This function requires a standing exhibition space, though it is not necessarily a permanent facility, to obtain an established recognition about existence of the space by customers, and for their convenience visiting it repeatedly. This space must be easily accessible by customers and other related parties. In particular, it must be located in an area where business facilities are concentrated, with good access to transportation. In addition, the physical facility needs to be designed to allow quick entry and exist of a large number of people. For this reason, the exhibition function should be located in

an appropriate location by renting a new facility.

4) R&D function

This function needs to be in a location attractive to R&D personnel and should be accessible from and to related research facilities. Candidate sites include the use of an industrial research and guidance organization in Bandung (such as B4T).