4.3 Current State of Priority Promotion Measures

4.3.1 Investment Promotion

4.3.1.1 Institutional setup for investment promotion

At the time of the Sub-sector Development Study, BOI had control over investment promotion activities and the EPZA was responsible for investment in the export processing zones. In 1995, the Special Economic Zone Act was enacted to establish the PEZA under the DTI, an organization mandated to promote the development of and investment in the ECOZONEs. Since then, responsibility for investment promotion activities has been divided between the PEZA and the BOI (responsible for general investment).

In addition, special ECOZONEs developed in the former U.S. military bases (e.g., the former Clark Air Force Base) are under the jurisdiction of the Bases Conversion Development Authority (BCDA), and other ECOZONES developed by other government agencies are promoted by the respective agencies.

The BOI is currently responsible for general promotion of investment in the Philippines, while the PEZA and other organizations promote the respective ECOZONEs, with some conflicting or competing cases being observed. As they are actively promoting their own projects, potential investors are sometimes confused and are unable to obtain general investment information on the Philippines as a whole. To avoid such negative effect, it is time to coordinate investment promotion activities by different agencies under the leadership of the BOI.

4.3.1.2 Investment incentives

There are marked differences in investment incentives between investment in the ECOZONE and general investment promoted by the BOI, with favorable treatment of the former. (See Chapter 3 for the details of incentives for ECOZONE investment.)

In particular, investment incentives granted by the BOI are limited to exemption or reduction of corporate income tax. BOI-approved investors are not entitled to duty-free imports of equipment and materials for export production that are enjoyed by tenants in the ECOZONEs.

Some companies prefer to locate in an area other than the ECOZONE for various reasons, e.g., the need for large land, the type of operation not suitable for the ECOZONE, or the presence of business strategy targeting both domestic and export markets. They have to accept less favorable incentives granted by the BOI and may have a second thought about investment in the Philippines. Local companies looking for export opportunities face the same dilemma. As the amendment of the legal system is under consideration, it is desirable to establish and implement consistent incentive policy as early as possible.

In addition, a large number of foreign companies are concerned about the frequent changes in investment-related policy and want a stable and predictable policy direction.

4.3.1.3 Investment-related information

While general information is available at satisfactory levels of breadth and depth, there is no formal mechanism to provide information required by potential investors to make preliminary evaluation on their investment projects (e.g., industry information on priority sub-sectors, and detailed data required for pre-feasibility study, including labor and utilities costs in a specific state or region, and local taxes). For this purpose, it is urgent to establish a database that be used by various organizations engaged in investment promotion on a shared basis. For instance, the BOI of Thailand maintains such database including FAQs at its Tokyo office to assure quick responses to inquiries.

4.3.2 Financial Systems

4.3.2.1 loan schemes for SMEs

There are a large number of loan schemes designed for SMEs, but not all of them are fully utilized. Also, some loan schemes use a very small percentage of funds available for loan, due to the following reasons: 1) information on the loan schemes, including their presence and availability, is not known by related associations; 2) financial institutions are reluctant to extend loans to SMEs, particularly after the financial crisis; and 3) potential borrowers have less investment opportunities to reduce demand for productive use.

Many schemes provide short-term loans. A small number of them exceed five years in loan term. The National Credit Council maintain a general guideline that requires a loan rate not to fall below market interest rates and include marketing and

collection costs. Actual interest rates range between 11% and 18% and borrowers are required to pledge fixed assets as collateral in many cases.

4.3.2.2 SME loan trends

Table 4-6 shows recent changes in the balance of outstanding loans at the DBP. DBP loans to SMEs grew steadily between 1995 and 1998. Direct loans increased slightly in 1999, while agency loans (wholesale lending) declined due to the financial crisis. The same trend is seen for data based on the number of projects.

Table 4-6 DBP Lending Trends

Unit: Billion Pesos

	1995	1996	1997	1998	1999
Retail Lending	2.1	3.0	5.4	6.2	6.5
Wholesale Lending	n/a	n/a	n/a	12.6	10.03

Source: DBP

4.3.2.3 Issues related to SME loans

(1) Problems pointed out in the previous study:

1) The inability to provide sufficient collateral; and
2) Burdensome loan processing.

To make up for the collateral problem, various loan guarantee organizations such as the SBGFC and the GFSME are in operation and are not widely used by firms in the six sub-sectors, who responded to the questionnaire survey. Also, stricter standards are applied to examination of loan applications at financial institutions worldwide after the financial crisis.

The responses to the questionnaire survey indicate that no other schemes are widely used other than the DBP's. Most companies tend to select commercial banks that have relatively simple lending procedures, instead of government financial institutions.

(2) New issues

1) LC-backed loans

During the previous study, the issue related to LC-backed loans was not raised. After the financial crisis, financial institutions began to reject LC-backed loans (although the situation has improved to some degree recently). Also, exporters prefer payment by transfer (including advance payment) to the LC service that is relatively costly and not secured. Nevertheless, some industries (e.g., stuffed toys) cannot

demand advance payment due to the weak position against customers and are forced to accept unfavorable payment terms (e.g., 60 days after shipment).

2) Plethora of loan schemes and lack of information

Among a large number of loan schemes in operation, some are not known by potential borrowers. This is attributable to the lack of efforts by financial institutions and trade associations to convey such information to individual companies.

In addition, several government agencies operate similar loan schemes, which are not used as planned due to the lack of experience in loan service.

4.3.3 Technical Support System

At present, there are various technical support organizations under government control, which provide technical support in the fields related to the target sub-sectors (metal processing (dies and moulds), furniture, computer software, stuffed toys, fashion accessories, and oleo-chemicals).

(1) MIRDC

The MIRDC conducts training programs for metal processing and die and mould making under the assistance of international aid organizations including the JICA, the GTZ and the UNDP. There are courses related to design, injection molding and machining (electric spark machining and grinding). The training program for die and mould making has latest machinery and equipment to allow high levels of education. In addition, the MIRDC conducts R&D and consultation, basic courses on ISO-9001 certification, equipment testing and calibration services. The major concern of the MIRDC is the difficulties in obtaining the budgets for facilities improvement, equipment purchase and upgrading, and instructors' training.

(2) TESDA

The TESDA has obtained latest CNC, electric spark and wire cutting machines under JICA's assistance. It primarily conducts education and training for government staff (both federal and local) related to die and mould making techniques. As it seldom receives trainees from private enterprises, it does not contribute to technology transfer to the private sector.

The TESDA also offers training courses related to computer skills, mainly basic operation of hardware equipment and the use of general application programs including word-processing and spreadsheet. It does not teach advanced programming skills or network operations.

(3) PSDI

The PSDC operates under the NCC, an organization responsible for promotion of the government's IT policy (IT-21). It uses computer equipment and software supplied under the JICA's grant-in-aid project to provide computer education and training for government employees. The program is widely accepted by government agencies because of its emphasis on practical skills related to operation of packaged software. On the other hand, it fails to attract trainees from the private sector because few courses related to advanced skills (programming, on-line operation and network administration) are offered.

(4) TLRC

The TLRC operates a variety of training programs to teach basic production techniques in a wide range of fields, including general commerce, food processing, agriculture, fisheries, chemical, textile and garment, and handicraft. Recently, it has established the TLDC (Technology and Livelihood Development Center) at 28 locations throughout the country in cooperation with local governments and other public organizations. The TLRC uses the TLDCs as its arms to promote technology transfer to small enterprises and artisans.

(5) CITC

The Cottage Industry Technology Center operates under the DTI to serve as a technical training center for SMEs and MEs. It offers basic training courses in a variety of fields including wood and bamboo furniture, metal processing and jewelry making.

(6) PTTC

The PTTC is a training center for foreign trade under the DTI. It was established under the financial assistance of the Japanese government and has received technical assistance of the JICA to start operation. It offers training courses for foreign trade procedures and overseas marketing techniques and sponsors seminars and workshops on major markets. Recently, it has added courses on quality control and ISO 9000.

The contents of Philippine Furniture Training Center and Costume Jewelry Center will be discussed later in 4.6.

4.3.4 Export Marketing Support System

The mid-term development plan (1999 - 2004) raised several issues related to Philippine exports, namely a limited number of export items, low value added or limited export markets. It then recommended the Philippine government to take the following measures:

(1) Develop competitive and high value-added new products;
(2) Provide timely market data and information; and
(3) Strengthen market presence as well as diversify market

To further the above policy objectives, the DTI was mandated to implement the following policies:

(1) Formulate policies and negotiating positions in regional and global cooperation agreement;
(2) Strengthen market and technology intelligence network;
(3) Promote/encourage the use of IT;
(4) Intensify market promotion of Philippine-made products; and
(5) Enhance interregional trade

Meanwhile, the DOST is responsible for development of products and production processes in selected fields.

DTI agencies and units related to the target six sub-sectors are the CITEM that sponsors trade shows and provides assistance for participation in foreign trade shows, the PDDCP that is responsible for product and design development, and the PTTC that provides training for foreign trade practice.

In the future, government assistance is expected to go beyond broad-based marketing support to product- or industry-specific support on account of export potential. At the same time, programs to foster new industries and promote their products should be considered from the standpoint of fostering major export items of the country in the 21st century. And implementation of these programs and measures requires

collaborative efforts among different departments and agencies of the DTI, the DOST and other ministries.

As liberalization of foreign trade progresses further, domestic industries that have been protected or isolated from global competition will be damaged severely. At the same time, there are industries that will be able to turn a competitive threat into a golden opportunity for growth and explore the export markets, especially the ASEAN countries. The government's task is to identify industries having such growth potential at an early stage and establish a system to provide effective support for them.

4.3.5 Industrial Standardization System

(1) Government leadership in industrial standardization

Industrial standardization in the Philippines is led by the Bureau of Product Standards (BPS) under the DTI, which serves as the coleof public administration and service related to Philippine Product Standards (PPS). The BPS is primarily responsible for: the development of new PPS and harmonization with international standards; participation in international discussion on industrial standards; certification under the PPS, enforcement of product standards; operation and management of produce certification laboratories under the BPS; accreditation of produce certification laboratories other than the BPS, ISO certification; other public services and initiatives pursuant to laws and regulations related to industrial standards; public education and campaigns to raise quality awareness of the general public in cooperation with NGOs and trade associations; and promotion of quality management to industries.

(2) Government policy for industrial standardization

Since 1995, the Philippine government has been announcing industrial policies focusing on international competitiveness of industry, based on which the Long-term Industrial Standardization Plan (1997 - 2003) was formulated. The plan sets for a general framework and guideline for the continuous improvement of product quality standards, along which the BPS updates the PIS for harmonization with international standards. It plans to make 50% of 1,900 national standards conform to international standards by 2005 and the current completion rate is 40%.

Meanwhile, the Philippines proceeds with harmonization of industrial standards for the following four areas with those of other APEC countries. The rate of progress is as follows:

Area	Completion rate
Electrical/electronics	75%
Rubber	100%
Medical equipment	100%
Food	Under preparation, jointly with the DOA

(3) Revision of certification standards

Traditionally, product certification has been made on the basis of compliance with applicable industrial standards. In 1997, another criteria, quality management practiced in the production process, was added to reflect the fact that the ISO 9000 certification increases its importance in product exports. As of 1997, 95% of manufacturers which have previously obtained the PPS certification meet the criteria.

(4) Availability of product testing laboratories

Product certification laborites under the BPS perform electrical, chemical and mechanical tests. To upgrade electrical testing capabilities, the JICA provided project-based technical assistance (Phase I) for four years since August 1993, followed by Phase II that was commenced in March 1999. During Phase I, technology transfer was carried out for inspection and testing of three types of electrical parts and components (lighting apparatuses, cables and wires, and wiring accessories). Phase II will cover testing of electrical and electronic products for home use. The project has helped the BPS laboratories to upgrade electrical testing capabilities significantly.

The BPS, in addition to the enhancement of its own testing capabilities, accredits private testing laboratories at an accelerated rate. Accreditation proceeds according to the standards under ISO 25 and 30 laboratories have been accredited to this date.

(5) ISO 9000 certification

Between 1992 and 1995, 95 companies obtained the ISO 9000 certification. At present, the number has surged to around 600. In the Philippines, 7 firms and organizations handle application for the ISO 9000 certification, and 2 are formally accredited by the BPS.

(6) Public support programs to promote quality control/improvement and standardization

The BPS is currently implementing the following programs and projects to promote quality control/improvement and standardization in the industrial sector.

1) Technical assistance programs for SMEs:
   - Technical assistance and guidance on introduction of the quality management system (QMS) and the environmental management system (EMS)
   - Technical assistance and guidance on the ISO 9000 certification
   - Technical assistance and guidance on the ISO 14000 certification
2) Implementation of 20 pilot projects for quality standardization of industries designated in the Philippine Export Development Plan (1998 - 2001) as prospective export industries ("Export Winner") with an aim to establish the basis of the supply chain (priority is given to electrical and food industries for the time being)
3) Development of the TQM model for selected industries

   In the past five years, a project was carried out to introduce Japan's TQM (total quality management) method to 19 wire harness manufacturers in an attempt to establish a general model for the industry. As an outcome, TQM Handbook was compiled and published. The second phase of the project is currently underway for food can manufacturers.
4) Other quality control promotion initiatives

   In cooperation with organizations promoting quality and productivity improvement including the PQPM and the PQCS, trade associations such as PHILEXPORT, and government training institutes such as the PTTC, the BPS sponsors various seminars and workshops.

(7) International agreement

The following activities are underway in relation to bi-lateral and multi-lateral agreements:

1) To conclude a pre-export inspection agreement on products of designated industries with an ASEAN or an APEC member country;
2) To conclude a multi-lateral agreement on the above subject;
3) To establish a system to exchange information on technical standards related to electrical products among APEC member countries; and
4) To hold meetings with WTO and IEC member countries.

4.3.6 Promotion of SMEs

(1) Government's role in SME promotion

Public administration related to promotion of SMEs falls under the jurisdiction of the Bureau of Small and Business Development (BSBD) of the DTI. The Philippine government shifted policy priority to promotion of SMEs in early 1990 and enacted the Magna Carta for Small Enterprises (RA 6977) in January 1991[1].

Under the act, the Small and Medium Enterprise Development Council (SMEDC) was established as an organization attached to the DTI. The SMEDC is a high level policymaking organization and is authorized to determine SME promotion policies and master plans for promotion activities and programs.

In fact, the BSBD is not only one government office to implement SME promotion projects and other departments and agencies carry out similar projects under their own initiative. As a result, there is no public organization that totally controls and coordinates diverse SME promotion activities. For instance, the DTI's district offices provide technical assistance for local SMEs, and the Technology and Livelihood Resource Center (TLRC), established as an Office of the President, operates Technology and Livelihood Development Centers (TLRCs) at 28 locations throughout the country in cooperation with respective state governments and other government agencies. The Food Agency and the Food Development Center under the DOA are also providing technical assistance for SMEs in the food processing industry. These activities are conducted without prior discussion with the BSBD.

To maximize the effect of these SME promotion efforts, a comprehensive SME promotion plan should be established under the leadership of the SMEDC/BSBD by defining SME promotion activities in detail and responsibilities of agencies and organizations that implement actual projects, with coordination of their activities as required.

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[1] The act was partially amended in May 1997.

(2) A general outline of the Magna Crta for Small Enterprises

The general outline of the act is described as follows.

1) Objective

The act aims to promote, support and accelerate the development of SMEs in all productive sectors, particularly those in rural areas or classified as rural industries.

2) Priority policies

a. To establish an adequate support system for SMEs, build the business environment and a business mechanism conducive to the reinforcement of the foundation of SMEs, and promote transfer of appropriate technology;
b. To enhance training programs for the development of entrepreneurship and the upgrading of workers' skills;
c. To secure financial resources for SMEs;
d. To warrant fair opportunity for participation in the government procurement process with stimulation measures;
e. To compliment and supplement financing programs for SMEs and to do away with stringent and burdensome collateral requirements that small entrepreneurs invariable find extremely difficult to comply
f. To setup institutional safeguards for the protection and stability of the credit delivery system
g. To raise the government efficiency and effectiveness in providing assistance to SMEs
h. To promote the linkage between large and small enterprises and the establishment of common service facilities (CSFs);
i. To promote industry organizations and cooperatives that advocate SME promotion and encourage participation by SMEs; and
j. To establish an assessment mechanism and a feedback system to monitor impediments, together with their effect on the business environment, for economic contribution and growth by development of SMEs, which is critical for their sustainable growth.

1) Definition of the SME

Small- and medium-sized enterprises are defined as firms or business entities (individual, cooperative, partnership and corporation) that are engaged in manufacturing, agriculture or service industries and are classified into the following three types according to their total assets (excluding land) as follows:

Micro	P 1,500,000 or less
Small	P 1,500,001 – 15,000,000
Medium	P 15,000,001 – P 60,000,000

2) Eligibility for government support
3) Provisions related to Small and Medium-sized Enterprises Development Council (SMEDC)
   a. Organization
      Chairman: Director General of DTI
      Commissioners:
      - Administrator of the NEDA
      - Administrators of other agencies
      - Chairman of the Monetary Board
      - President of the SBGFC (Small Business Guarantee
      - and Finance Corp.)
      - Chairman of the SMEs promotion body[2]
      - A few representatives of the private sector
4) Appointment of the secretariat of the SMEDC: The BSMBD
5) Provisions related to the establishment of the SBGFC
6) Mandatory provisions related to the allocation of SME loans by financial institutions

[2] The act mandates the SMEDC to be established under the presidential decree, although it has not occurred to this date.

(4) SME development strategy

In June 1998, the SMEDC announced its SME development strategy, which general framework is summarized as follows.

Table 4-7 SME Development Strategy

Priority strategies	Action programs
1. Selection of priority strategy	- To select five sub-sectors and provide intensive and customized support.
2. Promotion of collaboration among individual firms	- To establish and promote a subcontracting scheme. - To select sub-sectors and implement a pilot project to develop a link-based economic development model. - To reinforce and revitalize SME-related trade associations.
3. Enhancement of technology and R&D capabilities	- To designate government agencies and other organizations suitable for SME support. - To provide technical guidance for compliance with quality management systems and standards. - To expedite the establishment of the Center for Technology Exchange and Training for SMEs.
4. Human resource development for SMEs	- To enhance training programs on entrepreneurship, management and skills by related organizations (DECS, CHED, DOLE and TESDA). - To upgrade basic education in primary and secondary schools. - To explore the needs for human resource development. - To provide skill training for SMEs within the ECOZONEs.
5. Upgrading of the SME loan schemes	- To extend SME loans through cooperatives and associations and develop new loan schemes (e.g., lending to venture capital) - To monitor the progress of mandatory SME loans by commercial banks.

(Source: SMEDC)

(5) Implementation of actual SME promotion projects

While the legal framework and the basic strategy for SME promotion have been established, actual projects are not widely implemented due to the lack of an adequate institutional setup to support them. Thus, efforts should be made to introduce a formal mechanism to provide overall control of separately manage projects, while establishing implementation organizations and plans for specific areas and industries.

4.4 Effectiveness Evaluation Items for the Industrial Sub-sector Development Study and Evaluation Methodology

4.4.1 Evaluation Items

(1) Basic evaluation items

Basic effectiveness (results) measurement and evaluation items used in this study are summarized as follows:

1. To measure and evaluate the results against the development goals (project purpose) of the industrial sub-sector development plan implemented on the basis of the Study on Industrial Sub-sector Development. The following three items are evaluated:
   - Impact
   - Relevance
   - Sustainability

Note that effectiveness is not evaluated in this study as promotion measures are limited to the proposition of the development strategy and policy, without specific quantitative targets.

2. To evaluate and measure the results on the basis of the recommendations (measures and action programs) in the development study, in the following two stages:
   - First stage evaluation: To evaluate the current progress and effectiveness of the priority measures and action programs recommended.
   - Second stage evaluation: To evaluation the correlation between the priority measures and action programs recommended and the results of the project purpose. Based on the evaluation results of the above progress and effectiveness, to evaluate the correlation between them and the results relevant to the project purpose evaluated earlier, focusing on the degree of contribution to the following two items:
     - Impact
     - Sustainability

As relevance is concerned with the development policy per se and the recommended priority measures and programs are the means to promote the policy, it is not directly

associated with relevance of the priority measures and programs, which has been evaluated in the effectiveness evaluation process.

(2) Specific evaluation items

For each of the above general evaluation items, specific items for evaluation and reasons for selection are discussed below.

1) To measure and evaluate the results against the development goals (project purpose) of the industrial sub-sector development plan

- The following points are evaluated in consideration of the objective of the industrial sub-sector development plan.

a. The fostering of internationally competitive industries and export promotion of their products

b. Promotion of the selected sub-sectors focusing on the following strategic goals:

i. To promote industrial development based on the country's comparative advantages, particularly the development of export industries and the encouragement of sustainable growth, and to prompt industries to become adaptive and responsive to the changing needs in export markets and improve international competitiveness;

ii. To build the inter-industrial linkage, especially the enhanced linkage between large corporations and smaller suppliers, and to guide SMEs in the modernization process and assist them in gaining export capabilities; and

iii. To create a sustainable and self-sustained cycle of growth through the inducement of foreign investment.

1) Evaluation criteria on measurement of results vs. the development goals (project purpose) in the target sub-sectors

a. *Impact:* Direct and indirect impacts (both positive and negative) brought by the basic strategy and policy proposed in this study. Positive impacts include the achievement of the above goals: (1) the fostering of internationally competitive industries and export promotion of their products; and (2) promotion of the selected sub-sectors (i)promotion of industrial development based on the country's comparative advantages, particularly the development of export industries and the encouragement of sustainable growth, and to prompt industries to become adaptive and responsive to the changing needs in export markets and improve international competitiveness; ii)the establishment of the inter-industrial

linkage, especially the enhanced linkage between large corporations and smaller suppliers, and modernization and international competitiveness building of SMEs; and iii)creation of a sustainable and self-sustained cycle of growth through the inducement of foreign investment). On the other hand, negative impacts include adverse effects

b. *Relevance:* (1) Relevance of the direction of industrial development indicated in the sub-sector development targets and the development goals, (2) relevance in the context of the country's development policy and the changing external economic environment.

c. *Sustainability:* The potential ability of industry (especially the target sub-sectors) to achieve sustainable growth, particularly the ability to maintain self-sustained growth

4.4.2 Evaluation Methods and Criteria

An evaluation method and criteria are established for each item, as described below.

4.4.2.1 Evaluation of industry status by sub-sector (compared to the results of the previous study)

Rating

(1) Industry size expansion and growth (each sub-sector is rated according to the following five-grade system)

+5	Significantly expanded in both qualitative and quantitative terms, and sustainable growth can be expected.
+4	Fairly expanded in both qualitative and quantitative terms, but various issues need to be resolved for sustainable growth.
+3	Remained flat in volume but improved substantially in terms of quality.
+2	Despite large restraints due to market and other external economic factors, production volume remained flat or declined slightly due to efforts of mid-sized companies.
+1	The industry scaled down significantly due to large restraints related to market and other external economic factors, while some mid-sized companies strive to survive and other companies still maintain interest in business.
0	1. Large restraints due to market and other external economic factors caused many companies to suspend operation or convert to other business, resulting in much smaller industry size. 2. The industry remained level or scaled down slightly despite market expansion or positive external economic factors.

(2) Export size (similar to above)

(3) Competitiveness (Each element of competitiveness is rated according to the following five-grade system and industries are classified into five ranks.)

+5	Improved significantly
+3	Fairly improved
+1	Slightly improved
0	No change
-1	Declined (deteriorated) slightly
-3	Declined (deteriorated) significantly

(4) Competitive advantage of production factors (Each factor of production is scored according to the following five-grade system and industries are classified into five ranks.)

+5	Strong advantage
+3	Fair advantage
+1	Slight advantage
0	No change
-1	Slight disadvantage
-3	Strong disadvantage

4.4.2.2 Evaluation criteria and rating of results against development goals (policy objective)

(1) Impact

Positive impacts on each subsector and the target subsectors as a whole

1. Industry size expansion and growth
2. Export promotion
3. Increased productivity and competitiveness
4. Enhanced linkage
5. Other pervasive effects (modernization of SMEs, development of export industries, development of related industries, emergence of local industrial centers)

Negative impacts

1. Depletion of resources
2. Environmental pollution and degradation
3. Deprivation of growth opportunity and resources from other industries

4. Deterioration of working conditions
5. Other adverse effects on local community

Rating

- Each sub-sector is rated for both positive and negative impacts according to the five-grade system and scores are added up to obtain the net impact.

Evaluation criteria

Positive impact

+5	Very large
+4	Fairly large
+3	Average
+2	Fairly small
+1	Very small

Negative impact

-5	Very serious
-4	Fairly serious
-3	Slightly serious
-2	Acceptable
-1	No or few problem

(2) Relevance

Rating

Each item is rated according to the five-grade system and scores are added up to obtain the total rating.

Evaluation criteria

	Relevance of the direction of industrial development indicated in the sub-sector development targets and goals (1)		Relevance in the context of the country's development policy and the external economic environment (2)	
	Consistency with higher policy	Degree of importance viewed from higher policy	Consistency with higher policy	Degree of importance viewed from higher policy
+5	Perfectly consistent	Very important	Perfectly consistent	Very important
+4	Mostly consistent	Fairly important	Mostly consistent	Fairly important
+3	Fairly consistent	Average	Fairly consistent	Average
+2	Somewhat inconsistent	Not very important	Somewhat inconsistent	Not very important
+1	Largely inconsistent	Rarely important	Largely inconsistent	Rarely important

(3) Sustainability

Evaluation items

Factors representing sustainable growth potential of industry (particularly the target sub-sectors) and the ability to achieved self-sustained growth in the future

1. Competitiveness of individual firms (in export markets)
2. Competitive advantage of production factors
3. The level of inter-industrial linkage and industrial foundation
4. Related infrastructure
5. Government and other support systems (items proposed as measures of common interest to all the sub-sectors)

Rating

Each item is rated according to the five-grade system and scores are added up to obtain the total rating.

Evaluation criteria

+5	Very satisfied
+4	Fairly satisfied
+3	Somewhat uncertain
+2	Fairly uncertain
+1	Extremely uncertain

4.4.2.3 Evaluation method for priority measures/action programs

The implementation status of priority measures/action programs recommended for each sub-sector is evaluated.

(1) Classification of implementation status

(a) Recommended priority measures/action programs are implemented to this date.

(b) Recommended priority measures/action programs were implemented for a limited period.

(c) Recommended priority measures/action programs are implemented to this date with some modification.

(d) Recommended priority measures/action programs were implemented for a limited period of time, with some modification.

(e) Not implemented at all.

Reasons for (b) – (c)

(1) Implemented for expected results but discontinued for any of the following reasons:

1) Operational constraints (① budget constraint; ② human resource constraint; ③ organizational constraint; or ④ other factors);
2) Terminated as the initial purpose was achieved;
3) Terminated as no positive result was expected due to environmental changes; or
4) Terminated as the expected results were not obtained (① policy or program was not suitable for local conditions; ② policy or program faced obstacles at the implementation stage; or ③ policy or program faced strong opposition from potential beneficiaries).

(2) Implemented with some modification (substantial results were expected) for any of the following reasons:

1) Modification was required to make it suitable for local conditions; or
2) Modification was required due to the inability to establish an implementation system under the original plan (reason: ① budget constraint; ② human resource constraint; ③ organizational constraint; or ④ other factors).

(3) Implemented with some modification for any of the above reasons and discontinued

(A) Reason for implementation with modification:
(2)-1) or (2)-2)

(B) Reason for termination:

1) Operational constraints (① budget constraint; ② human resource constraint; ③ organizational constraint; or ④ other factors);
2) Terminated as the initial purpose was achieved;
3) Terminated as no positive result was expected due to environmental changes; or
4) Terminated as the expected results were not obtained (① policy or program was not suitable for local conditions; ② policy or program faced obstacles at the implementation stage; or ③ policy or program faced strong opposition from potential beneficiaries).

(4) Not implemented for any of the following reasons:

1) No positive result can be expected; or

2) Although some results were expected, implementation was hindered due to operational constraints (① budget constraint; ② human resource constraint; ③ organizational constraint; or ④ other factors).

Evaluation of correlation between recommended priority measures/action programs and project results

Evaluation is made on the basis of the degree of contribution in the following two areas:

1. Impact
2. Sustainability

Rating

Each priority measure/action program is rated for the degree of contribution to each of the above criteria according to the five-grade system.

+5	Strongly contributed
+4	Significantly contributed
+3	Moderately contributed
+2	Weak contribution
+1	Little contribution

(Zero for no contribution)

4.5 Evaluation Results and Explanations

The evaluation results are summarized in the following tables.(AA1-1 to AA6-5) Detailed explanation is given in 4.5.1 and onwards.

AA1-1 Evaluation of Industry Status by Sub-sector (compared to the results of the previous study)

	Recent status	Major factors		
		Internal factors	External (economic) factors	Policy support
1. Industry size	+3	1 Domestic demand grew fivefold because of increased demand from local firms and foreign firms in the PEZA. 2 Exports expanded slightly, but limited to low value added products to become a bottleneck to future growth. 3 Mid-sized companies stepped up self-sustained efforts.	1 Commercial relationship with foreign firms expanded in precision dies and moulds. 2 Demand shifted from automotive and household appliance applications to electronic parts, particularly plastic moulding.	1 Policy to foster the supplier base. 2 Strengthening of TESDA and MIRDC as part of efforts to train engineers.
2. Export size	+3	1 Large companies contributed but relied on imported materials. 2 Exports are limited to low value added products.	1 Orders mainly come from Taiwan, China and Hong Kong.	1 Raw materials used for export production can be imported duty free, but no other incentives.
3. Competitiveness 1) Productivity /cost competitiveness	+1	1 Introduction of new equipment and the enhanced training system for engineers contributed.	1 Increased demand from foreign firms operating locally. 2 Cost competitiveness is still low due to high material costs.	1 No tax incentive for imported materials.
2) Product grade	+3	Began to shift from dies for automotive and household appliance parts to precision dies for plastics moulding.	Local firms made improvement efforts in response to demand from foreign firms.	
3) Product quality	+3	Introduction of modern equipment and establishment of the internal quality control system.	Increased quality requirements from customers.	Promotion of ISO 9000 certification and sponsoring of seminars and workshops.
4) Delivery time	+1	1 Delivered on time in the case of simple product or long delivery time. 2 Order not accepted if complicated prototype production or short delivery time.	Customers do not use local suppliers for strict requirements or tight delivery schedule.	
5) Marketing	+1	Targeting foreign firms in the domestic market and no change for export markets.		
Total	+2			
4. Competitive advantage of production factors				
1) Raw materials	-1	Highly dependent on imports.	Little prospect for local procurement.	No tax incentive for imported materials.
2) Production equipment and technology	+1	Some firms introduce advanced technology and equipment.	Highly dependent on imported equipment.	No tax incentive for imported equipment.
3) Production management / quality control system	+3	Actively adopting production management and quality control techniques.	Increased demand from customers.	Campaign on quality awareness through government-sponsored seminars and workshops.
4) Marketing system	+1	Expanded marketing activities for the domestic market and continued efforts for the export markets.		
Total	+1			

AA1-2 Impact

Positive Impact					
	1. Industry growth	2. Export promotion	3. Productivity and competition	4. Enhance linkage	5. Other indirect effects
Rating	+3	+2	+2	+2	+1
Negative Impact					
	1. Depletion of resources	2. Environmental disruption	3. Invasion of other industry	4. Deterioration of working conditions	5. Other adverse effect
Rating	-1	-2	-1	-1	-1
Total	+2				

AA1-3 Relevance

	Relevance (1)		Relevance (2)	
	Consistency with higher policy	Degree of importance viewed from higher policy	Consistency with higher policy	Degree of importance viewed from higher policy
Rating	+5	+5	+5	+5
Total	+5			

AA1-4 Sustainability

	1. Competitiveness of individual company (export market)	2. Competitive advantage of production factors	3. Level of linkage and industrial factor	4. Related infrastructure	5. Government and other support system
Rating	+2	+2	+2	+3	+2
Total	+2				

AA1-5 Evaluation of Priority Measures / Action Program

	Status	Reason	Degree of contribution	
			Impact	Sustainability
Priority measures:				
1. Learning of basic manufacturing technology	(c)	(2)-2)	+2	+1
2. To promote alliance with foreign firms as the means of technology transfer	(c)	(4)-2)	+1	+1
3. To build technology infrastructure	(c)	(2)-4)	+3	+1
1) Enhancement of the related service and technical support systems				
2) Local production of die and mould materials				
3) Establishment and upgrading of R&D, testing and technical support organizations				
4) Standardization of dies, moulds and their parts				
5) Training and retaining of engineers and technicians				
Total evaluation			+2	+1
Major project:				
1. Fostering of core enterprises	(c)	(2)-1)	+3	+3
2. Provision of publicly accessible facilities and equipment and CSFs	(c)	(2)-1)	+3	+3
3. Financial assistance	(c)	(2)-1)	0	0

AA2-1 Evaluation of Industry Status by Sub-sector (compared to the results of the previous study)

	Recent status	Major factors		
		Internal factors	External (economic) factors	Policy support
1. Industry size	+4	1 Production increase due to market expansion. 2 Main product line was shifted from rattan to wood furniture. 3 Also from traditional antique design to modern one combining wood engraving and different materials.	1 Expansion of both domestic and export (global) markets. 2 Shortage of local materials including rattan. 3 Increased competition with China and Indonesia for rattan products, and with Indonesia for antique furniture. 4 Damage to manufacturers in Pampanga due to eruption of Mt. Pinatubo.	The government designates furniture as a strategic export item and has been providing extensive support. Also, it provided massive financial assistance for manufacturers who were damaged by the volcanic eruption.
2. Export size	+4	Wood furniture increased share in value of exports and total furniture exports.		
3. Competitiveness				
1) Productivity / cost competitiveness	0	Introduction of basic production equipment improved productivity, but does not absorb the rise in labor and material costs.	While the depreciation of the peso increased price competitiveness, but it caused imported material costs to result in price increase.	Operation of production equipment is taught at the furniture training center in Pampanga. Also, seminars and workshops have been held.
2) Product grade	+3	Introduction of advanced technology raised product grade and enabled product diversification.	The shortage of rattan, Narra, and wood (oak and tangile) contributed some to product diversification.	Design education by PEDCP in rural areas and design competition at trade shows stimulated designers, contributing to the improvement of a general image of Philippine designs.
3) Product quality	+1	Quality awareness improved and new equipment and quality control activities were introduced to enable exports of finished products instead of parts.		
4) Delivery time	+1	Delivery schedule becomes tight due to demand growth and market needs.	In particular, small lot production with short delivery time becomes common in European and Japanese markets.	
5) Marketing	+3	From contract manufacturing to original product offering.	Expansion of domestic market.	International furniture show in Philippines. Participating overseas trade show.
Total	+3			
4. Competitive advantage of production factors				
1) Raw materials	-1	Imported		Duty-free imports
2) Production equipment and technology	+1	Basic equipment was introduced, but no competive edge was established (except for Cebu where fully mechanized shops are in operation). Handmade products cannot compete with those made in neighboring countries due to relatively high labor costs. Concentration of furniture manufacturers in Pampanga.	Modernization and volume production by competitors in neighboring countries.	Furniture training center in Pampanga.
3) Production management / quality control system	0	Production management is limited to process-based and few firms practice systemane process control, while some lead standardization of processes and parts.		
4) Marketing system	+1	Participation in trade shows, the opening of web site, the hiring of showroom agents in major cities. Original designs attracted attention of buyers at trade shows.	Buyers have increasing interest in Asian furniture.	Support for participation in trade shows, both domestic and overseas.
Total	+1	Limited competitive edges in design & other factors, not long-term competitiveness.		

AA2-2 Impact

Positive Impact					
	1. Industry growth	2. Export promotion	3. Productivity and competition	4. Enhance linkage	5. Other indirect effects
Rating	+4	+3	+3	+2	+2
Negative Impact					
	1. Depletion of resources	2. Environmental disruption	3. Invasion of other industry	4. Deterioration of working conditions	5. Other adverse effect
Rating	-3	-2	-	-	-
Total	+2				

AA2-3 Relevance

	Relevance (1)		Relevance (2)	
	Consistency with higher policy	Degree of importance viewed from higher policy	Consistency with higher policy	Degree of importance viewed from higher policy
Rating	+5	+5	+5	+5
Total	+5			

AA2-4 Sustainability

	1. Competitiveness of individual company (export market)	2. Competitive advantage of production factors	3. Level of linkage and industrial factor	4. Related infrastructure	5. Government and other support system
Rating	+4	+3	+3	+3	+3
Total	+3				

AA2-5 Evaluation of Priority Measures / Action Program

	Status	Reason	Degree of contribution	
			Impact	Sustainability
Priority measures:				
1. Promotion of an optimum approach to export markets	(c)	(2)-2) ①,②	+3	+3
2. Strengthening of corporate capabilities of responding to the export market needs	(c)	(2)-2) ①,②	+1	+2
3. Encouragement of alliance with foreign partners with advanced design, production and / or marketing capabilities	(c)	(4)-2) ③		
Total evaluation			+2	+3
Major project:				
1. Deployment of a formal support system for equipment modernization and rationalization of business management	(c)	(2)-2) ①,②	+4	+4
2. Provision of a mechanism to support the improvement of design development capabilities	(c)	(2)-2) ①,②	+3	+2
3. Development of a formal training system for technicians and skilled workers in rural areas	(a)		+3	+4
4. Promotion of standardization of raw materials, sub-materials, parts and products	(c)	(4)-2) ④		

AA3-1 Evaluation of Industry Status by Sub-sector (compared to the results of the previous study)

	Recent status	Major factors		
		Internal factors	External (economic) factors	Policy support
1. Industry size	+4	1 Both application development and data entry service companies successfully made self-sustained efforts. 2 Both domestic and export markets expanded, particularly the latter. With export growth, competition intensified to require improved competitiveness.	1 Benefited from global growth of the IT industry. Local companies leveraged experience and track record in the export markets. 2 Intensive competition with India and Sri Lank is anticipated to serve as a potential limit factor.	1 The government led export promotion activities. 2 Continued incentives for exporters. 3 Promotion and implementation of policy based on IT-21, and expanded effects of G-WISH policy on private firms. 4 Functional enhancement of NCC and promotion of IT-21.
2. Export size	+4	1 Independent companies made significant contribution. 2 Increase in foreign companies operating in the country boosted subcontracts to local companies, thus contributing to export growth.	Same as 1 above.	Same as 1 above. But incentives are limited to those in 2.
3. Competitiveness				
1) Productivity /cost competitiveness	+3	1 Change in the development environment, including equipment and software, caused productivity improvement. 2 Internal and outside training programs for software engineers were expanded and upgraded. 3 As for data entry service, some firms are unable to meet customer demand in image processing and other emerging areas.	1 Increased demand for on-line development prompted local firms to raise productivity further. 2 Advancement of equipment, software and tools increased productivity, and engineers were quickly trained to meet demand.	
2) Service grade	+1	Original package software products were developed.	Not seen during the previous study. These products are based on custom software that was developed on a contract basis.	
3) Service quality	+1	Improved quality of development tools was accompanied by higher skills.	Customers strongly demanded quality improvement.	
4) Delivery time	0	1 Orders are accepted if delivery schedule is reasonable. 2 Strict production management is practiced.	Customers strongly demand timely delivery for Internet applications.	
5) Marketing	+1	Vigorous marketing in both domestic and export markets	1 Some firms explore markets through the establishment of oversea office and /or the distributorship agreement. 2 Other firms participate in world-class trade shows for advertisement.	
Total	+1			
4. Competitive advantage of production factors				
1) Human resources	+1	Enhancement of internal and outside training programs led to the improvement of skills.	Development requirements by the customer become diverse to prompt software houses to allocate adequate skills.	
2) Development environment	+1	Standard equipment, software and tools for development work are procured.	Development requirements by the customer become diverse to prompt software houses to have the adequate development environment.	
3) Development service /quality control system	+1	1 Extensive maintenance service for developed products. 2 Well-developed quality control system.	High demand for maintenance by the customer urged software houses to provide an adequate service system.	
4) Marketing system	+1	Increased marketing activities in both domestic and export markets.		
Total	+1			

AA3-2 Impact

Positive Impact					
	1. Industry growth	2. Export promotion	3. Productivity and competition	4. Enhance linkage	5. Other indirect effects
Rating	+4	+4	+3	+3	+2
Negative Impact					
	1. Depletion of resources	2. Environmental disruption	3. Invasion of other industry	4. Deterioration of working conditions	5. Other adverse effect
Rating	-1	-1	-1	-1	-1
Total	+2				

AA3-3 Relevance

	Relevance (1)		Relevance (2)	
	Consistency with higher policy	Degree of importance viewed from higher policy	Consistency with higher policy	Degree of importance viewed from higher policy
Rating	+5	+5	+5	+5
Total	+5			

AA3-4 Sustainability

	1. Competitiveness of individual company (export market)	2. Competitive advantage of production factors	3. Level of linkage and industrial factor	4. Related infrastructure	5. Government and other support system
Rating	+3	+3	+3	+2	+2
Total	+3				

AA3-5 Evaluation of Priority Measures / Action Program

	Status	Reason	Degree of contribution	
			Impact	Sustainability
Priority measures:				
1. Promotion of computerization	(a)		+3	+3
2. Upgrading of development skills	(c)	(2)-2) ③,④	+2	+2
3. Enhancement of marketing activities	(d)	(2)-2) ③,④	+1	+2
4. Infrastructure development	(c)	(2)-2) ③,④	+1	+1
5. Human resource development	(c)	(2)-2) ③,④	+2	+2
Total evaluation			+2	+2
Major project:				
1. Creation of advanced software development opportunity	(e)	(4)-4)	0	+3
2. Training opportunity at overseas software houses	(a)		+4	+4
3. Provision of hardware, software and tools at educational institutions	(a)		+4	+4
4. Industry-initiated international exchange	(c)	(2)-2) ③,④	+3	+3

AA4-1 Evaluation of Industry Status by Sub-sector (compared to the results of the previous study)

	Recent status	Major factors		
		Internal factors	External (economic) factors	Policy support
1. Industry size	+1	Foreign forms moved to China. Some of local firms suspended operation or shifted to novelty products. Manufacturers still operating increase exports in niche markets.	Intensified competition with China. Philippine industry has disadvantages in labor, material and equipment costs.	No industry-specific support measures were taken. Government support targets SMEs or export industries. The industry fails to have a political clout due to the inability to mobilize the industry-wide move.
2. Export size	+1	Same as above		
3. Competitiveness				
1) Productivity /cost competitiveness	-1	Rise in labor and material costs. Although productivity was improved at some firms, the industry was unable to take effective measures.	Devaluation of the peso (rise in material cost and decline in labor cost). Expanded production in China.	
2) Product grade	-1	Shifted to novelty products, while the industry's product development capabilities stagnated.		
3) Product quality	0	Unable to ensure uniformity of product quality due to manual work using a limited variety of materials and the use of subcontractors.		
4) Delivery time	0		Market demands shorter delivery time and product cycle.	
5) Marketing	0	Specialized in small-lot orders that Chinese manufacturers do not accept.		CITEM's Manila FAME. Participants are on the decline.
Total	-2	Lost competitiveness in export markets.		
4. Competitive advantage of production factors				
1) Raw materials	-1	Mostly imported. Usually supplied by customers due to small quantity for direct export.	Local plush production terminated.	Tariff rates are still high partly due to the opposition from the garment industry.
2) Production equipment and technology	-1	Due to the shortage of funds, it is difficult to purchase sewing machines.	Equipment modernization and volume production by competitors in China.	
3) Production management /quality control system	0	Large portions of work done by subcontractors make adequate quality control difficult.		
4) Marketing system	0	Dependent on the owner.	Small-lot and variety production.	
Total	-2	Very unfavorable		

AA4-2 Impact

Positive Impact					
	1. Industry growth	2. Export promotion	3. Productivity and competition	4. Enhance linkage	5. Other indirect effects
Rating	+4	+3	+3	+2	+2
Negative Impact					
	1. Depletion of resources	2. Environmental disruption	3. Invasion of other industry	4. Deterioration of working conditions	5. Other adverse effect
Rating	-3	-2	-	-	-
Total	+2				

AA4-3 Relevance

	Relevance (1)		Relevance (2)	
	Consistency with higher policy	Degree of importance viewed from higher policy	Consistency with higher policy	Degree of importance viewed from higher policy
Rating	+5	+5	+5	+5
Total	+5			

AA4-4 Sustainability

	1. Competitiveness of individual company (export market)	2. Competitive advantage of production factors	3. Level of linkage and industrial factor	4. Related infrastructure	5. Government and other support system
Rating	+4	+3	+3	+3	+3
Total	+3				

AA4-5 Evaluation of Priority Measures / Action Program

	Status	Reason	Degree of contribution	
			Impact	Sustainability
Priority measures:				
1. Strengthening order receiving activities	(c)	(4)-2) ②,③		
2. Joint industrial activities to improve the business environment	(c)	(4)-2) ②,③		
Total evaluation				
Major project:				
1. Nurturing designers and pattern makers	(c)	(4)-2) ①,②		
2. Promotion of quality control	(c)	(4)-2) ①,④		
3. Seminars on improvement of export trade practice	(c)	(2)-2 ④	+2	+1

AAS-1 Evaluation of Industry Status by Sub-sector (compared to the results of the previous study)

	Recent status	Major factors		
		Internal factors	External (economic) factors	Policy support
1. Industry size	+2	Orders declined substantially after 1995, and manufacturers in Manila suspended production or converted to other products. Exporters in Cebu also changed product lines or scaled down operation. In 2000, the number of establishments remains unchanged. Nevertheless, many subcontractors changed jobs and sold equipment. At present, some of them are back to business with the increased orders.	Products strongly affected by consumer tastes and fashion trends. The industry was hitnhard when consumers moved away from accessories. China becomes a threat as manufacturers are emerging.	The government designated costume jewelry as a strategic export item and has been providing technical assistance and marketing support. Imports are tax exempted under the Jewelry Industry Development Act (R.A. 8502) and E.O.465.
2. Export size	+2	In 1994 (January – October), exports recovered to one half the peak level (24.5MUSD) and are expected to record healthy growth in 2000.	In 1999, orders from Japan increased appreciably and those from the U.S. are on the rise, although far below the peak level.	
3. Competitiveness				
1) Productivity /cost competitiveness	0	Rise in labor and material costs. Presence of many subcontractors makes it difficult to raise productivity.	Devaluation of the peso.	
2) Product grade	+2	1 Introduction of advanced technology (particularly, metal processing) 2 Product diversification (design improvement and use of imported parts)		1 Technical assistance by consultants 2 CJC's common service facilities
3) Product quality	+2	1 Partial technical upgrading 2 Purchase of high quality products		1 Technical assistance by consultants 2 Exemption of import tariff
4) Delivery time	0	Flexible production system to meet market requirement	1 Small-lot and variety 2 Shorter product life accompanying shorter delivery time	
5) Marketing	+3	1 Frequent sending of trade missions. 2 Orders at trade show account for 70% of total.		1 CITEM's Manila-FAME and other exhibitions. 2 Support for outside organizations.
Total	+2			
4. Competitive advantage of production factors				
1) Raw materials	+3	1 Development of new materials 2 Use of imported materials		1 Exemption of import tariff 2 Resource mission
2) Production equipment and technology	+1	Upgrading of production technology		CJC's common service facilities and training
3) Production management /quality control system	0			
4) Marketing system	+1	1 Participation in trade shows and missions. 2 Exploration of new buyers for new products.		1 The provision of the industry's booth and use of display consultants. 2 Cebu-FAME's web site, CD-ROM and billboards.
Total	+1			

AA5-2 Impact

Positive Impact					
	1. Industry growth	2. Export promotion	3. Productivity and competition	4. Enhance linkage	5. Other indirect effects
Rating	+4	+3	+3	+2	+2
Negative Impact					
	1. Depletion of resources	2. Environmental disruption	3. Invasion of other industry	4. Deterioration of working conditions	5. Other adverse effect
Rating	-3	-2	-	-	-
Total	+2				

AA5-3 Relevance

	Relevance (1)		Relevance (2)	
	Consistency with higher policy	Degree of importance viewed from higher policy	Consistency with higher policy	Degree of importance viewed from higher policy
Rating	+5	+5	+5	+5
Total	+5			

AA5-4 Sustainability

	1. Competitiveness of individual company (export market)	2. Competitive advantage of production factors	3. Level of linkage and industrial factor	4. Related infrastructure	5. Government and other support system
Rating	+4	+3	+3	+3	+3
Total	+3				

AA5-5 Evaluation of Priority Measures / Action Program

	Status	Reason	Degree of contribution	
			Impact	Sustainability
Priority measures:				
1. Joint sales promotion and assistance	(c)	(3)-1) ②,④	+2	+4
2. Encourage investment by foreign costume jewelry manufactures and related parts producers	(a) / (c)	(3)-1) ②,④	+3	+2
Total evaluation			+3	+3
Major project:				
1. Building of design and material development capabilities	(c)	(4)-1)	+3	+4
2. Setting up common production facilities (metalworking) and technical guidance	(a)		+3	+4
3. Modernization of the supplier base including the contract system and working environment, and provision of shared production facilities	(c)	(4)-2) ④	+1	+2

AA6-1 Evaluation of Industry Status by Sub-sector (compared to the results of the previous study)

	Recent status	Major factors		
		Internal factors	External (economic) factors	Policy support
1. Industry size	+4	Efforts by leading firms 1 Production increase in response to domestic market expansion. 2 Production of high value added products, particularly downstream products. 3 Product diversification has accompanied the increase in high value added manufacturers and the strengthening of the industrial structure. Nevertheless, competition intensifies in the export markets and a further improvement of competitiveness is called for.	1 Major factors for industry growth: Expansion of domestic industries using oleo-chemical products as input - expansion of the domestic oleo-chemical market. 2 Limiting factors: Intensified competition with other exporters (Malaysia and Indonesia) and price competition with low-cost petrochemical products.	1 Policy to encourage the use of local coconut products (E.O.256) stimulated expansion of local industries using oleo-chemicals as input. 2 No public support has been made to stabilize palm oil prices (The palm oil industry has a strong political clout to make public intervention for the oleo-chemical industry very difficulty.). 3 The lowering of tariff rates on imported sub-materials.
2. Export size	+3		Same as 2 above	No special support
3. Competitiveness 1) Productivity /cost competitiveness	+1	Efficient improved due to equipment upgrading.	Rise in material cost due to palm oil price hikes.	No public support is expected for stable supply and pricing of palm oil.
2) Product grade	+3	Partial upgrading of technology		
3) Product quality	+3	Partial upgrading of technology and improvement of quality control		Seminars by government organizations
4) Delivery time	+1	Improvement of production management		Seminars by government organizations
5) Marketing	+3	Invigoration of marketing activities		
Total	+2			
4. Competitive advantage of production factors 1) Raw materials	-1		1 Unstable supply of palm oil and price hikes. 2 Losing competitiveness against producers in Malaysia and Indonesia, who use low-cost and abundant palm kernel oil. 3 Import sub-materials have no longer cost impact as tariff rates have been lowered.	1 No public policy has been implemented for stabilization of palm oil supply and prices. 2 Tariff rates on sub-materials have been lowered.
2) Production equipment and technology	+3	Technology buildup and partial introduction of advanced technology		
3) Production management /quality control system	+3	Company-wide efforts for production management/quality control		Implementation of technical support such as seminars and workshops
4) Marketing system	+1	1 Establishment of the domestic supplier base 2 Existing export networks		
Total	+1			

AA6-2 Impact

Positive Impact					
	1. Industry growth	2. Export promotion	3. Productivity and competition	4. Enhance linkage	5. Other indirect effects
Rating	+4	+3	+3	+2	+2
Negative Impact					
	1. Depletion of resources	2. Environmental disruption	3. Invasion of other industry	4. Deterioration of working conditions	5. Other adverse effect
Rating	-3	-2	-	-	-
Total	+2				

AA6-3 Relevance

	Relevance (1)		Relevance (2)	
	Consistency with higher policy	Degree of importance viewed from higher policy	Consistency with higher policy	Degree of importance viewed from higher policy
Rating	+5	+5	+5	+5
Total	+5			

AA6-4 Sustainability

	1. Competitiveness of individual company (export market)	2. Competitive advantage of production factors	3. Level of linkage and industrial factor	4. Related infrastructure	5. Government and other support system
Rating	+4	+3	+3	+3	+3
Total	+3				

AA6-5 Evaluation of Priority Measures / Action Program

	Status	Reason	Degree of contribution	
			Impact	Sustainability
Priority measures:				
1. Measures to achieve stable supply and price stabilization of palm oil	(c)	(4)-2) ①,④	0	0
2. Stimulus for expansion of the domestic market (fostering of import substitutive industries using oleo-chemicals as raw materials)	(a)		+3	+3
3. Support to encourage innovation and capital investment (provision of training and loan for production management and quality control)	(d)	(2)-2) ①,④ (3)-2)	+2	+2
4. Tax incentives to related chemical products and intermediate products	(b)	(1)-2)	+2	+2
5. Support for industry-wide R&D activities by the government	(c)	(2)-1)	+1	+1
Total evaluation			+2	+2
Major project:				
Establishment of coconut R&D center	(c)	(2)-1)	+1	+1

4.5.1 Metal processing (Die and mould) Industry

4.5.1.1 Priority measures and programs recommended in the previous study

The die and mould industry and its growth are totally dependent upon the development of the parts industry that is the primary consumer of dies and molds. In the Philippines, the development of the die and mould industry has been hampered by a slow pace of development of processing and assembly industries and the lack of related technologies and R&D activities to spur technological advancement of die and mould manufacturing. To address these problems, the following measures were proposed in the previous study to stimulate growth of processing and assembly industries while upgrading die and mould technology as well as related production techniques:

(1) To introduce modern die and mould manufacturing technology;
(2) To promote alliance with foreign firms as the means of technology transfer; and
(3) To build technology infrastructure.

Priority measures and programs to be taken by the government

(1) To introduce modern die and mould manufacturing technologies:
   1) Learning of basic manufacturing technology; and
   2) Modernization of production equipment.

(2) To promote alliance with foreign firms as the means of technology transfer

(3) To build technology infrastructure:
   1) Enhancement of the related service and technical support systems;
   2) Local production of die and mold materials;
   3) Establishment and upgrading of R&D, testing and technical support organizations;
   4) Standardization of dies, molds and their parts; and
   5) Training and retaining of engineers and technicians.

4.5.1.2 Evaluation of the results against the development goals (sub-sector promotion policies)

(1) Impact

Domestic die and mould demand grew fivefold as driven by increased demand from local firms as well as foreign manufacturers operating in the ECOZONEs. However, share of local die and mould manufacturers remained at around 10% of the total. Thus,

while the industry expanded in gross size compared to the previous study and it failed to fully benefit from demand growth. A major driver for demand was precision dies and molds used by foreign manufacturers, mainly those for consumer electrical and electronic equipment, including those for plastics molding and processing – demand not expected at the time of the previous study. Local suppliers improved their production techniques after the previous study, but they have still to meet requirements demanded by foreign firms. They boosted exports lightly, most of which are dies and molds with simple designs for rubber and plastics processing. If the current condition remains unchanged, the industry will soon face a bottleneck to future growth.

Productivity has improved slightly but does not have much impact on competitiveness. The inter-industrial linkage has somewhat improved between foreign firms in the ECOZONEs and local die and mould manufacturers, but it is still very limited in scale and scope. Thus, the recommended measures have brought a relatively small impact on the furtherance of the development goals. However, this industry is expected to grow in the future.

Generally speaking, the die and mould industry can serve as a driver for development of related industries by helping their customers – plastics processing and Metal processing – to improve their levels of quality. In the Philippines, the industry has not reach critical mass to have such impact. Thus, its indirect impact is considered to be very small.

On the other hand, the industry has small environmental impacts and does not produce significant negative impacts on the local community they operate.

In overall consideration of these evaluation results, the recommended promotion measures for the die and mould industry are considered to have brought some positive impact.

(2) Relevance

The recommended measures primarily aimed to promote exports of dies and molds. In addition, the development of the industry is expected to contribute greatly to the development of the electrical and electronic parts industry that has been fostered by the government as a strategic export industry. Thus, the die and mould industry is expected to increase its weight as both direct and indirect exporters. From this perspective, the industry's promotion measures focusing on the upgrading of production

technology agree with the development goals and play a very important role. With their positive effects being expected in the future, they are considered to have a high level of relevance.

(3) Sustainability

The industry has made some improvements since the time of the previous study, but its competitiveness is still weak in most areas, especially technology. As it totally depends its sources of materials (metals) and spare parts on imports, it is unable to have a significant cost advantage. The supplier base to support the industry, including materials, expendable supplies, and spare parts for CNC and other advanced machines, is still very weak as the inter-industrial linkage is not well developed. Infrastructure remains to be a risk factor, although power supply has been improved significantly. These unfavorable factors leave a substantial doubt about sustainability of the industry. To maintain sustainable growth in the future, therefore, it is imperative to mobilize industry-wide efforts and government support for increased competitiveness, particularly technology.

4.5.1.3 Measurement of the results of priority measures and programs and explanations

(1) Priority measures

1) Learning of basic die and mould manufacturing technologies

The interview survey revealed that internal training programs of manufacturers improved significantly from the previous study. Notably, mid-sized firms have a variety of training courses related to die making technology and operation of advanced equipment such as CNC machines and machining centers. They appear to have made these investments in response to recommendations made during the previous survey. Thus, the priority measures in this area made some contribution in terms of impact and sustainability.

2) Alliance with foreign firms as the means of technology transfer

In reality, it is difficult to enter into such alliance without having a previous commercial relationship with a foreign partner, except for joint venture, and no alliance has bee made so far. Thus, the measures in this area did not produce any effect on impact and sustainability and is considered to be unrealistic and unproductive.

3) Buildup of technology infrastructure

The enhancement of the related service and technical support base, the establishment and upgrading of R&D, testing and technical support organizations, and the training and retaining programs engineers and technicians are partially underway at various organizations including the MIRDC and the TESDA. One of them is the project to transfer die and mould technologies to the MIRDC, which is currently implemented under the technical assistance of the JICA and is expected to produce results over time. Thus, the measures in this area are considered to make moderate contribution in terms of impact and sustainability.

In consideration of the above elements and their achievements, the priority measures recommended in the previous study are rated as weak contribution in terms of impact and little contribution in sustainability.

(2) Priority programs

1) Fostering of core enterprises

Compared to the time of the previous study, a large number of core enterprises have emerged. Based on the proposed program, Philippine Die and Mould Association was established and has been spearheading the industry's growth under the assistance of the BOI and the DOST. Thus, this program is considered to make moderate contribution in terms of impact and sustainability, albeit indirectly.

2) Provision of publicly accessible facilities and equipment and common service facilities and equipment

Various organizations including the MIRDC and the TESDA provide these functions, while the establishment of R&D and technical support organizations is underway, together with the appointment and training of instructors and support staff. Both MIRDC and TESDA have most advanced production equipment. In particular, the MIRDC provides extensive training for the manufacture of dies and molds for plastics processing, and the TESDA covers the making Metal processing dies and molds. Judging from the current status and the progress being made, this program has made moderation contribution in both impact and sustainability.

3) Financial assistance

A SME loan scheme was established but has rarely been used due to high interest rates and complicated application procedures. Thus, this program did not produce

tangible results measured by impact and sustainability and needs to be reviewed for possible modification.

4.5.1.4 Overall evaluation

The proposed strategy was consistent with the then development goals. It was accepted by related government organizations and the industry as the adequate promotion strategy and has been adopted to the subsequent policies. Its relevance can be applied to the current government policy. Also, specific measures and programs were, in principle, highly valued by the industry and related government organizations. However, some measures and programs have not been implemented to full extent, and as a result, their contribution has been weak in terms of impact on the development of the industry and sustainability (the ability to grow spontaneously).

On the other hand, an unforeseen change occurred in a favorable direction. Foreign manufacturers started to operate in the ECOZONEs at an accelerated pace, not expected during the previous study, and a new market emerged to create a major opportunity for the industry. These foreign manufacturers are mainly parts suppliers and are specialized in certain fields including electrical and electronic parts. Rapid growth of these manufacturers provides a potential market for die and mould suppliers, and at the same time, it urges some adjustments in efforts to foster the industry, including modification of the current measures and programs.

4.5.1.5 Further recommendations

The die and mould industry forms the coleof engineering and supporting industries (supplier base) and serves a wide range of sub-sectors ranging from automotive to household appliances and electronic equipment. Demand varies greatly from time to time and end-user industries are changing rapidly in structure. For instance, die and mould demand was dominated by products for Metal processing applications (household appliances) at the time of the previous study. Now, demand from electrical and electronic parts industries is on the rise. This reflects increasing demand from foreign firms operating in the ECOZONEs and the trend is expected to intensify in the future. In particular, dies and molds for precision plastic parts, die casting and stamping will represent large portions of demand. In fact, some of local suppliers (mid-sized) have started to supply their products to the ECOZONE industries. They are expected to serve as the bellwether of the industry and its future direction. The changing business environment due to the emergence of new customers points to the need for adjustment of

the recommendations and policies made in the previous study, together with projects and programs, to enable the industry to adapt itself to the potential market for the PEZA industries. It is therefore recommended to address the future challenges presented in 4.2.1.4 as early as possible.

4.5.2 Wooden Furniture

At the time of the previous study, the wooden furniture industry did not reach the sufficient level of competitiveness in export markets in terms of equipment, technology and design. The following policy measures were proposed to provide the industry with export capability:

(1) Strengthening export marketing activity;
(2) Improving the performance of the industry and firm; and
(3) Development of economic and technological infrastructure.

Priority measures and programs to be taken by the government

(1) Promotion of proper approach to export markets
(2) Improvement of business performance capable of satisfying export market needs
(3) Encouragement of alliance with foreign partners with and/or marketing capabilities
(4) Programs for infrastructure development:
    1) Deployment of a support system for equipment modernization and rationalization of business management;
    2) Provision of a mechanism to support the improvement of design development capabilities;
    3) Development of a formal training system for technicians and skilled workers in rural areas; and
    4) Promotion of standardization of raw materials, sub-materials, parts and products.

4.5.2.1 Evaluation of the results against the development goals

(1) Impact

The wooden furniture industry grew significantly after the previous study in terms of both the value of exports and share of total furniture exports. Product quality improved with introduction of advanced technology and the industry is now exporting finished products instead of frame and parts that dominated previous exports. Government support has been contributing to enhanced export marketing activities and the structural improvement of the industry and individual enterprises. The

improvement of quality and design has definitely pushed wooden furniture and the whole furniture industry upward to higher-end markets including hotels, offices and high income residences, gaining share to erode the dominant position of imported products.

However, the industry has introduced basic equipment only recently and has still to establish an competitive edge in production technology and equipment (except for Cebu where some fully mechanized shops are in operation). On the other hand, almost handmade, custom-designed products do not have competitiveness against competitors in neighboring countries due to a high labor cost.

A negative factor is depletion of wood resources available locally. Instead, however, a planted species (G-melina) has begun to gain popularity for commercial use and sustainable growth can be ensured if the new forest resource is properly managed by timely afforestation and deforestation. No significant negative impact is therefore expected. In overall consideration of the positive and negative effects, the recommended measures are considered to produce substantially positive results.

(2) Relevance

The recommended measures are considered to be effective in developing manufacturers with export capabilities through their structural improvement. On the other hand, no significant progress was made in the area of foreign investment promotion.

Nevertheless, wooden furniture constitutes a successful case and is considered to be a key export industry as the industry create a large number of jobs. In fact, furniture is designated as a strategic export industry by the government. The furniture industry creates a large number of employment in related industries, including forestry, transportation and distribution and sales. Many SMEs in the foreign industry are located in rural areas, contributing both to the development of SMEs and vitalization of local economies.

Thus, the recommended measures are consistent with higher policies. They appear to play and will play a very important role and thus are considered to be highly relevant.

(3) Sustainability

The furniture industry has a certain degree of competitiveness and receives a relatively high level of market reputation for its design. The trade association is actively involved in marketing, e.g., participation in international trade shows. On the other hand, it has cost and availability problems related to key production factors (human resources, raw materials and funds). To maintain its competitive advantage, the industry must maximize other advantages, e.g., the efficient use of wood materials, marketing and design.

While furniture manufacturers concentrate in Pampanga and Cebu, they do not have a strong horizontal linkage, thus fail to create economies of scale or other competitive advantages. A training center can only serve limited areas and additional centers need to be established to support the entire industry.

In consideration of these factors, the industry has some uncertainties about sustainability in many respects.

4.5.2.2 Effects of priority measures and action programs

(1) Priority measures

1) Promotion of proper approach to export markets

Participation in foreign trade shows is organized under the leadership of the CITEM. The industry has been actively exhibiting their products at trade shows held in Europe and has been receiving technical advice from expatriate consultants, although intermittently. Information gathering and research on overseas market information and competitors are carried out by the CITEM and the BETP, and design information is collected and analyzed by the PDDCP. However, the scope and content of such activities has been sometimes limited due to budget constraints. These activities will produce positive results if they are carried out on a continuous basis, jointly by the government and the trade association. Thus, these measures are considered to have made moderate contribution in terms of impact and sustainability.

2) Improvement of business performance capable of satisfying export market needs

The present focus is placed on the upgrading of production technology, while production management, quality control and cost control are future issues. These issues have been addressed by the Furniture Industry Board, which has begun to train human resources to lead improvement measures. The effect of the initiate is still too

early to assess and is limited to selected areas, requiring steady expansion in scope and geographical coverage. These measures appear to made relatively strong contribution to sustainability, compared to little contribution in terms of impact.

3) Encouragement of alliance with foreign partners with and/or marketing capabilities

No formal overseas training has been conducted. Promotion of an alliance with a foreign partner is handled in the context of BOI's investment promotion activities, and no organizational effort has been made as part of the recommended measures.

(2) Action Programs

1) Deployment of a support system for equipment modernization and rationalization of business management

Although no special scheme for the wooden furniture industry has been devised, similar efforts were made to support furniture manufacturers in Pampanga who were damaged by eruption of Mt. Pinatubo. An industrial estate for furniture companies was developed and loans were made through the TLRC to purchase new equipment. 9 factories moved to the industrial estate. The program contributed strongly to the local industry's recovery and closer cooperation among individual makers is expected. Thus, this program is considered to have significantly contributed in terms of impact and sustainability.

2) Provision of a mechanism to support the improvement of design development capabilities;

The PDDCP has been taking various initiatives to encourage design development activities, including the gathering of design information by the PDDCP and the design competition jointly held with the CFIP. Also, the CITEM leads general promotion of Philippine design. Today, the Philippine design is recognized and accepted relatively well. Thus, the program has made moderate contribution in terms of impact. Yet, the present approach has various constraints to promote international recognition of the Philippine design. For this reason, the program is considered to have made weak contribution in terms of sustainability.

3) Development of a formal training system for technicians and skilled workers in rural areas; and

A training center was opened in Pampanga and has recently started a training course for technicians as well as that for instructors. The new course has been conducted only for a few years and is expected to produce better results in the future. Thus, the program is considered to make significant contribution in the future.

4) Promotion of standardization of raw materials, sub-materials, parts and products.

While some firms have started standardization of parts, its need will not be felt industry-wide for the time being as many products are made in the production process where manual work holds a dominant position.

4.5.2.3 Overall evaluation of the recommended measures and programs

The proposed promotion strategy was consistent with the then development goals and accepted by related government organizations and the industry as the adequate promotion strategy and has been adopted to the subsequent policies.

The Philippine government has been implementing a variety of measures and action programs targeting the furniture industry by allocating a large amount of budget, which contributed greatly to modernization of the industry. The industry has also been actively involved in these initiatives to advocate policy implementation. Such active involvement has enabled the industry to capitalize on growth of the domestic furniture market, despite the fact that it did not maintain a high level of price competitiveness.

These favorable results indicate that the previous study is considered to have fulfilled its role as a long-term master plan for industrial promotion.

4.5.2.4 Further recommendations

Priority should be given to a further increase in competitiveness by searching quality control and production management methods suitable for the industry.

The wooden furniture industry concentrates in specific areas. Thus, its growth can be accelerated by focusing on improvement of logistics, including transportation (products and materials), supply of sub-materials and other services (including customs clearance procedures and investment incentives).

Another factor for promoting the further growth of the industry is the ability to make unit furniture that is not widely made in the country. This requires production techniques for making of finger joints, veneer and panels. In this connection, the small furniture manufactures can be fostered by setting up a system to procure production equipment and to start joint production activities.

It is important to note that the industry must make concerted efforts to ensure that all manufacturers improve production techniques and skills in order to maintain and further market recognition on the Philippine furniture design.

4.5.3 Computer Software

At the time of the previous study, the Philippines was still in the early stages of computerization. In fact, the computer software industry emerged in response to foreign demand that nurtured application development capabilities and the nascent industry was recognized as a potential export industry. At that time, highly computerized countries such as the U.S. and Japan faced a serious shortage of qualified workers and commissioned a large amount of development jobs to foreign contractors. To capitalize on the situation, the previous study proposed a set of measures to promote the industry by focusing on exploration of export markets, in recognition of the needs for such promotion, particularly: 1) the need for creation of opportunity for export market access; and the need for advanced software development opportunity in the domestic market. The promotional measures were proposed by focusing on the following targets.

(1) Creation of opportunity for export market access
   a. Increased access to foreign software developers
   b. Overcoming of the language barrier to win contracts in the Japanese market
(2) Creation of advanced software development opportunity in the domestic market
(3) Provision of necessary infrastructure
(4) Training of software engineers

Priority measures to be taken by the government

(1) Promotion of computerization (both development and data entry)
(2) Improvement of application development skills
(3) Enhancement of marketing activities (both development and data entry)
(4) Infrastructure development
(5) Human resource development

4.5.3.1 Evaluation of the results against the development goals (sub-sector promotion policies)

(1) Impact

Since the previous study, the computer software industry grew significantly in size. In particular, exports expanded exponentially. Among various types of developers, large independent firms contributed greatly to export growth. In addition, an increasing number of foreign companies started to operate in the country and a large amount of jobs were subcontracted to local firms. This was partly driven by the government's policy to promote the IT industry under IT-21 and a trickle-down effect of the G-WISH policy to the private sector. More importantly, however, a global phenomenon of the booming IT industry created immense opportunities that benefited the Philippine industry. At the same time, however, local software firms face competitive pressure from foreign rivals and are expected to reinforce competitiveness.

The industry increased productivity as a result of the improved development environment including hardware and software, which prompted software houses to enhance skill training systems, both internal and outside. Thus, rapid expansion of the computer software industry in the country has been driven by a combination of many factors. Although it is very difficult to measure an accurate impact of the recommended measures, they are considered to have created a certain level of impact. At the same time, as the industry still remains in its traditional business domains, it has still to product an indirect effect on industry as a whole, such as the multiplier effect on the IT industry and the development of industry-specific solutions. On the other hand, the industry is not expected to produce a negative effect.

(2) Relevance

The industry promotion measures focusing on the upgrading of development skills and the strengthening of international competitiveness are consistent with the higher policies as well as the government's long-term vision and plan aiming at dynamic

growth of the IT industry. Thus, these measures will play an increasingly important role in the future and are considered to be relevant in furthering the development goals.

(3) Sustainability

Human resources in the industry appear to be highly competitive. However, as the industry is expected to face fierce competition with software houses in India, China and Sri Lanka that enjoy a labor cost advantage, it will lose competitiveness against these countries so far as it remains in its traditional service areas of application development and data entry. While the industry's development environment has improved tremendously, it only benefits from the global wave of standardization in the IT arena and cannot claim its competitive edge here. To maintain sustainable growth, therefore, it must diversify its business domains in the context of the broader IT industry growth that will take place in the near future.

4.5.3.2 Measurement of the results of priority measures and programs, and explanations

(1) Priority measures

1) Promotion of computerization

Computerization in the country has been progressing to a significant extent, in both the government and private sectors. This was driven by increased availability of computers at affordable prices as a result of the downsizing trend, drastic price declines and pervasiveness of packaged software products. These trends will continue for a while. As the measures to promote computerization benefited largely from these external factors, their contribution to the development goals are considered to be moderate in terms of bot impact and sustainability.

2) Upgrading of development skills

The development environment underwent radical changes during the past decade. The hardware platform shifted from large machines to PCs and the software platform was dominated by Windows. De facto standards were established. Local software houses in the Philippines responded with agility to these changes and gained development skills. Again, this is largely attributable to external factors, and the recommended measures in this area have made weak contribution in terms of impact and sustainability.

3) Enhancement of marketing activities

As the domestic market was much smaller than the export market, the industry's marketing efforts were directed outwards. In particular, large independent software houses emphasized international marketing. However, they did it largely on their own, and the recommended measures are considered to have made little contribution in terms of impact and weak contribution in sustainability.

4) Infrastructure development

The recommended measures laid stress on installation of communication lines. Liberalization of communication business progresses to some extent in the country, as driven by the global wave of privatization and deregulation. However, despite the significant enhancement of PC's communication capacity and the rapid acceptance of the Internet, a slow pace of investment by the government and a common carrier (telephone company) has prohibited the recommended measures from making meaningful contribution in terms of impact and sustainability.

5) Human resource development

This element received a high score on account of the enhanced function of the NCC to become a lead organization of IT-21 and continued training of computer engineers at the PSDI and the TESDA within the NCC. Also, the recommended measures appear to have contributed to the establishment of internal and outside training programs by many firms on a continuous basis.

(2) Priority programs

1) Creation of advanced software development opportunity

Although no opportunity was created within the government or in the private sector, various attempts were made to encourage such move. Thus, this program is considered to have produced some indirect effect, which is translated to weak contribution in terms of impact and sustainability.

2) Training opportunity at overseas software houses

Local software houses frequently send their workers to foreign customers and partners for on-the-job training and similar opportunities, and the program is considered to have contributed greatly. As these training programs will continue in the future, the program has significantly contributed to sustainability.

3) Provision of hardware, software and tools at educational institutions

Some government organizations such as the NCC/PSDI and the TESDA have procured new hardware, software and tools and conduct training for government workers. Also, computer science/engineering departments of universities and colleges are increasingly equipped with hardware and software, while private computer schools are on the rise. This trend is expected to continue in the future. Thus, the program has significantly contributed in terms of impact and sustainability.

4) Industry-initiated international exchange

Various software houses have been actively involved in the establishment of overseas subsidiaries and the alliance with business partners. They have also been promoting the international exchange by participating in world-class exhibitions and business shows. As this trend is expected to continue in the future, the program is considered to have made weak contribution in terms of impact and sustainability.

4.5.3.3 Overall evaluation

The proposed promotion strategy was consistent with the then development goals. It was accepted by related government organizations and the industry as the adequate promotion strategy and has been adopted to the subsequent policies. Its relevance matches the current policy and industrial environment. Also, specific measures and programs were, in principle, highly valued by the industry. and related government organizations. However, some measures and programs have not been implemented to full extent, and as a result, their contribution has been weak in terms of impact on the development of the industry and sustainability (the ability to achieve growth on a continuous basis).

4.5.3.4 Further recommendations

Software development experienced dramatic changes including the downsizing of hardware, drastic price declines and the increase in processing speed. Also, development tools have enhanced capabilities and multimedia applications are increasingly developed, handling image, voice and/or data. Thus, software development forms a key sector of the IT industry.

At present, the Philippines is the second largest IT exporter in Asia, next to India. However, the bulk of contracts performed by the Philippine industry are programming and data entry, which are labor intensive in nature. Recently, various countries have

entered the information processing business with labor cost advantages, including India, Sri Lanka, Ireland, China and Vietnam, eroding international competitiveness of the Philippines. As a result, the computer software industry in the country, which grew in total reliance on exports, may face difficulties in surviving fierce competition and will soon have to explore new markets, which include the domestic IT industry.

Today, the IT industry becomes a global phenomenon and is being promoted vigorously by many countries as a national project to determine their fate, which establish relevant policies and programs. The Philippines is promoting its own IT policy in line with IT-21. It has become apparent that the IT industry should be promoted under the government's strong leadership, followed by the private sector's active participation in the computerization process that turns into a market. The move is expected to serve as an opportunity to turn the export-oriented computer software industry to the domestic market. In this connection, it is recommended to work with the issues described in 4.2.3 as future challenges for the industry.

4.5.4 Stuffed Toys

At the time of the previous study, the stuffed toy industry was unable to maintain price competitiveness in low-end markets. The previous study assessed that the key to the industry's survival would lie in non-price competitiveness and set forth the following objectives that would enable the industry to position itself in medium- and high-grade toy markets.

(1) Marketing activities for medium- and high-grade markets
(2) Structural improvement of individual manufacturers in the areas of design, production technology and business management

Priority measures to be taken by the government

(1) Strengthening order receiving activities
(2) Joint industrial activities to improve the business environment

Action programs

(1) Nurturing designers and pattern makers
(2) Promotion of quality control
(3) Seminars on improvement of export trade practice

4.5.4.1 Evaluation of the results against the development goals

(1) Impact

Cost competitiveness has declined relative to China, and notable improvement was not seen in product grade, quality and marketing. In particular, the ability to create a counter sample for marketing and present an original design appears to be a major weakness at present. The problems related to raw materials, equipment, technology, production management/quality control systems have remained mostly unchanged. The industry is striving to survive intensified competition by taking small lot orders. This is because marketing activities for the medium- and high-grade markets have failed or structural improvement of individual firms did not made much progress, or Chinese competitors caught up with Philippine manufacturers in terms of technology levels early than expected and took over the bulk of the market.

Judging from the current conditions, the recommended measures and programs did not produce meaningful effects. At the same time, the industry was caught up in a downturn cycle where foreign manufacturers moved to China for low-cost labor force – a major shift in global industrial structure that prevented the measures and programs to take their effect.

(2) Relevance

While objectives of the measures and programs are consistent with the development goals (the fostering of individual enterprises with export capabilities and export promotion), the industry accounts for only small portions of total exports and adds relatively small value, not serving as a major foreign currency earner. While the toy industry is designated by the government as a strategic export industry, stuffed toys are on the decline and are losing importance.

Overall, the industry seems to lose relevance viewed from the higher policies.

(3) Sustainability

While some manufacturers maintain competitiveness, the industry as a whole is in the middle of the desperate struggle to survive competition. However, there is little hope for improvement. Problems exist in production factors (human resources, raw materials and funds) to result in high costs and unstable supply. The industry's foundation has weakened due to discontinued supply of local plush.

Thus, there are uncertainties about sustainability.

4.5.4.2 Effect of priority measures and action programs

(1) Priority measures

Few priority measures were taken for the industry, partly because the industry itself failed to take collective action. At the same time, no effective measures were taken to address a fundamental problem that foreign manufacturers moved their production bases to China.

(2) Action programs

Training of pattern markers will be conducted by the APEC in 2000. Quality control is left to efforts of individual firms. Trade seminars are limited to the PTTC's general ones and fail to address the issues facing the industry. General knowledge on international trade appears to be well known among many firms.

4.5.4.3 Overall evaluation of the recommended projects

The proposed promotion strategy was consistent with the then development goals and accepted by related government organizations and the industry as the adequate strategy. However, specific measures have rarely been implemented. In the first place, stuffed toys are products that are difficult to differentiate in terms of design, quality and raw materials, while labor costs weigh heavily in competitiveness. In other words, this is the market where participants cannot win competition with strength in non-price areas. The major change occurred before the government was able to take effective measures and the industry lost competition and momentum.

While the industry took a right direction, i.e., entering the medium- and high-grade markets, labor cost disadvantages widened over the decade and problems related to raw materials were not improved. Furthermore, emerging competitors caught up quickly and most manufacturers failed to gain non-price competitiveness required to enter the high-grade market.

Judging from the current conditions, the recommended measures and programs served a very limited achievement as a master plan for a sub-sector.

4.5.4.4 Future challenges

(1) To provide broad market information useful in promoting business conversion, such as successful stories of new product development.

(2) The government will support exporters at large, while leaving the development of non-price competitiveness to efforts of individual enterprises.

4.5.5 Fashion Accessories (Costume Jewelry)

At the time of the previous study, the industry primarily served the U.S. low-end markets. As it did not have advanced metalworking skills, major product lines used natural materials. The previous study recommended the following measures and programs.

(1) Support for international marketing efforts to explore new markets

(2) Development of original designs and materials for future business expansion

(3) Transfer of material processing technology

(4) Attraction of related metal parts and costume jewelry manufacturers

Priority measures to be taken by the government

(1) Joint sales promotion and assistance

(2) Encourage investment by foreign costume jewelry manufactures and related parts producers

Action programs and projects

(1) Building of design and material development capabilities

(2) Setting up common production facilities (metalworking) and technical guidance

(3) Modernization of the supplier base including the contract system and working environment, and provision of shared production facilities

4.5.5.1 Evaluation of the results against the development goals (policy objectives)

(1) Impact

While the industry lost cost competitiveness due to the rise in labor cost, competition increased in the areas of product quality and marketing. Also, availability of diverse materials, particularly the use of metal parts, increased choices of designs, which improved competitiveness in the export markets. The government supported the industry's efforts by providing marketing support, tax exemption and the establishment

of the CJC. Nevertheless, these efforts did not prevent export downturns and a large number of manufacturers operating in Manila changed their businesses or suspended operation. Also, subcontractors in Cebu were affected.

On the other hand, there was little impact on the strengthening of the inter-industrial linkage and environmental preservation.

Overall, the impact of the implemented measures and programs was not significant compared to that of the market changes. Nevertheless, they were useful in building the foundation for the industry to capitalize on the favorable market trend by improving competitiveness in various areas. Thus, they are considered to make a certain level of contribution in terms of impact.

(2) Relevance

Objectives of the measures and programs are generally consistent with the development goals (the fostering of individual enterprises with export capabilities and export promotion). Although the industry accounts for a relatively small portion of total exports, it brings a higher value added and contributes much to local economies.

Costume jewelry is designated by the government as a strategic export industry and a general direction of the measures and programs is aligned with government policy. In particular, the industry makes substantial contribution to employment. Thus, the measures and programs are considered to be of great relevance to the development goals.

(3) Sustainability

While additional efforts are required in some areas including design development, the industry has successfully been making efforts in the improvement of marketing and production technology. Problems related to availability of materials are being overcome by the use of diverse materials. Financial constraints are mainly concerned with the shortage of short-term funds and will soon be corrected once the aftermath of the economic crisis subsides.

The costume jewelry industry in Cebu has its major strength in the ability to maintain a flexible production system made up of exporters and subcontractors according to the customer orders of varying lot sizes. The CJC serves as related infrastructure and is expected to contribute to the industry. However, the industry has still to establish competitiveness in technology and brand strategy and thus is vulnerable

to the market changes as it experienced recently. Thus, there are some uncertainties about sustainability.

4.5.5.2 Effect of priority measures and action programs

(1) Priority measures

1) Joint sales promotion and assistance

The market changed dramatically and the classification made in the previous study is no longer applicable. Meanwhile, industry-wide sales promotion efforts are taken by using CD-ROM and Web site publications of information to improve accessibility. Also, the government promotes the upgrading to a higher-end market as formal policy. As these initiatives have started only recently, their impact is too early to assess. Nevertheless, they are expected to produce positive results over time. For this reason, these priority measures are considered to have made significant contribution in terms of sustainability.

2) Encourage investment by foreign costume jewelry manufactures and related parts producers

The industry is listed in the BOI's priority investment program as a catalytic industry. Seven foreign firms made investment in this category between 1993 and 1999. Although no parts makers operate due to small demand, a Korean supplier has started to operate sales offices in Cebu and better metal parts are now available. Thus, these measures are considered to have made some contribution in terms of impact. As the industry appears to have reached the stage where they have to acquire advanced technology through their own efforts, instead of technology transfer from foreign partners, contribution in sustainability is considered to be weak.

(2) Action programs

The industry encourages manufacturers to avoid imitation of original designs by incorporating it into the code of ethics, although no specific campaign is made. Export business practice and knowledge have been learned through day-to-day experience.

1) Building of design and material development capabilities

The industry receives technical advice from a design consultant on a continuous basis under the assistance of the DTI and the PTTC. Originally, consultation was intended to enhance the PDDCP's capability but it is used to obtain advice from the consultant who is familiar with the export markets. The association will continue this

activity in an attempt to raise design awareness of management. The effect can be synergetic with the improved production technology. Thus, the program will make higher contribution in the future.

2) Setting up common production facilities (metalworking) and technical guidance

In cooperation with the DTI and the DOST, the CJC has been completed and various equipment has been installed for shared use. These common service facilities have been widely used. Thus, the program has brought a large impact on the industry. In the future, some manufacturers will introduce their own equipment complementary to the shared equipment, and the use of metalworking technology will create a synergetic effect with design development efforts. Therefore, the program is considered to make a high level of contribution to sustainability of the industry.

3) Modernization of the supplier base including the contract system and working environment, and provision of shared production facilities

No organizational efforts have been made to modernize the entire supplier base. It should be noted that modernization may lead to the loss of flexible production capability to meet varying amounts of orders. The FAME is currently implementing and planning human resource development and loan schemes, and some exporters attempt to provide workshops for subcontractors to ensure effective quality control. Overall, however, the program's contribution is small.

4.5.5.3 Overall evaluation of the recommended measures and projects

The proposed promotion policies were consistent with the then development goals and accepted by related government organizations and the industry as the adequate promotion strategy and has been adopted to the subsequent promotion policies and programs. They are still used as a general guideline. However, some measures have made a lower level of contribution to the industry than originally anticipated. Also, the industry is largely affected by the market trend. As a result, the proposed measures and projects have made a high level of contribution in terms of impact on and sustainability of the industry's growth, while contribution to industry expansion and export promotion was fairly limited.

In overall consideration of the above factors, the previous study served well by providing a long-term master plan for industrial promotion.

4.5.5.4 Further recommendations

To compete in a higher-end market, the industry must introduce technology (equipment and know-how) required to make better metal parts. The first step of the efforts is to find financial sources and qualified engineers who can lead technology transfer.

To improve design capabilities, basic and long-term training is required. Education on the design-oriented approach and marketing techniques is required for both owners and designers.

Furthermore, subcontractor education, particularly basic production management and cost control techniques, is called for. The improved efficiency, cost effectiveness and quality of subcontractors lead directly to increased competitiveness of end user products in the export markets.

Exploration of export markets requires participation in trade shows and the sending of sales missions on a continuous basis. Immediately activities should focus on market exploration according to the higher product grade and the improvement of a general impact of costume jewelry in Cebu through organizational efforts.

4.5.6 Oleochemicals

The strategic focus and priority measures proposed in the previous study are summarized as follows.

Promotion Strategy

The oleochemical industry is a process industry consisting of large local firms and joint ventures with leading chemical companies in industrialized countries. Thus, the market entry can only be made by leading chemical makers having the technology base. Thus, the promotion strategy for the industry aimed at the development and preservation of the business environment that allowed individual companies to maximize their capabilities, i.e., to provide support for them to compete with foreign competitors by addressing, among other things, the following issues:

(1) Stable supply of palm oil at stable price;
(2) Market exploration for oleochemical products and the securing of economies of scale in the production process;
(3) Elimination of barriers for procurement of related chemical products and intermediate products; and
(4) R&D activities.

Priority measures to be taken by the government

(1) Measures to achieve stable supply and price stabilization of palm oil:
   1) Support for related industries, e.g., continuous development of the palm replanting scheme, breed improvement and dissemination of a new species;
   2) Government guidance for rationalization of the palm oil distribution system; and
   3) Support for improvement of palm quality and prevention of deterioration in the distribution process.

(2) Stimulus for expansion of the domestic market (fostering of import substitutive industries using oleochemicals as raw materials)
(3) Support to encourage innovation and capital investment (provision of training and loan for production management and quality control)
(4) Tax incentives to related chemical products and intermediate products (e.g., the lowering of tariff rates on imported chemical products, and exemption or reduction of VAT on intermediate products required for export production)
(5) Support for industry-wide R&D activities by the government

4.5.6.1 Evaluation of the results against the development goals

(1) Impact

Oleochemical manufacturers have been working on business expansion in line with the promotion strategy proposed in the previous study. While some firms left the country due to the intensified competition, large manufacturers have been boosting production in response to the growing domestic market, while starting production of high value added products including derivatives and downstream products. Thus, the industry has grown steadily over the past decade. Also, diversification of product lines has led to sophistication of the industrial structure and the strengthening of the industrial foundation.

Meanwhile, competition in the export markets has been intensifying and the industry's exports remains level in recent years. The previous study predicted such market changes and emphasized the strengthening of competitiveness and the corporate foundation to enable each firm to survive and prosper in the severe market environment. While local palm oil lost much of its competitive advantage, each firm has increased productivity considerably and successfully controls production costs by absorbing the rise in material costs by improved efficiency. As oleochemicals are produced in an integrated process line from the charging of raw materials to the final product stage, the industry is basically self-sufficient and does not have any strong linkage with other industries. Besides, the market has not reached critical mass to stimulate domestic production of detergents and cosmetics using oleochemicals, and vice versa. Finally, the industry cannot be a major driver for growth of related industries and does not have a significant indirect impact on related industries.

On the other hand, a slow pace of palm tree planting to restore resources presents a risk of causing supply shortages. Also, the industries discharge a large amount of effluent that is not fully treated before environmental discharge, which may cause water pollution in the long run. Although manufacturers are concerned about environmental pollution, their current treatment systems are not at the highest level. In consideration of the above two negative factors, the promotion measures recommended in the previous study are considered to have brought some positive impact.

(2) Relevance

The industry is an important export industry using local resources and provides important feedstock materials for production of necessities such as detergent, thereby to stimulate growth of such downstream industries. More importantly, oleochemicals are biochemical products that are used to make environmentally-friendly products, as opposed to synthetic products made from petrochemical products. From these perspectives, promotion of the oleochemical industry is consistent with the higher policy and will maintain its relevance in the future.

(3) Sustainability

As pointed out in the previous study, sustainable growth of the oleochemical industry hinges on the ability to ensure stable supply of palm oil at stable price by planting palm trees with a higher yield in a planned manner. However, nor the industry nor the government has taken specific measures in that direction. While the

need for such measures is recognized by government organizations which are responsible for replantation and other activities, it takes sometime to develop a high yield species suitable for local conditions and it is difficult to disseminate new specifies to coconut farms that are reluctant to adopt them because they are required to change their traditional cultivation and growing methods.

After long years of study and research by the Philippine Coconut Authority (PCA), a suitable species have recently been developed. This year, the PCA and the DOI took leadership in initiating a support program for coconut farms to promote planting of the new species. Although it will take some more time until new palm trees begin to produce oil, it is the first step toward the development of the foundation to maintain sustainability of the industry for many years to come.

4.5.6.2 Effect of priority measures and action programs

(1) Implementation status and evaluation

1) Measures for stable supply and price stabilization of palm oil

At the time of the previous study, the following measures were proposed for stable supply and price stabilization of palm oil:

a. Support for related industries, e.g., continuous development of the palm replanting scheme, breed improvement and dissemination of the new species
b. Government guidance for rationalization of the palm oil distribution system
c. Support for improvement of palm quality and prevention of deterioration in the distribution process

As for the support for related industries, e.g., continuous development of the palm replanting scheme, breed improvement and dissemination of the new species, the government has long been working with development of new specifies under the leadership of the DOA and the PCA. However, it took long years to develop higher yield specie and it also took long time to agree on a formal system to disseminate the new species to coconut farms due to historical, social and political factors that often hinder modernization of the traditional farming sector, together with budget constraints. Recently, however, the new species has been commercialized and the PCA and the DOA have started a support program for coconut farms to promote planting of the new species.

The government has also been encouraging the palm oil industry to rationalize its physical distribution system, but the industry has been reluctant because of the lack of economy, for palm oil consumed for oleochemical production accounts for around 20% of total output. Support for improvement of palm oil quality faces similar reaction.

Thus, the above three measures have not been implemented to this data, except for a, which has started only recently. This measure has the most important bearing on the future of the industry and is expected to produce positive results. On the other hand, other two measures have little chance of being materialized unless the government proposes solutions that bring large benefits to the palm oil industry and the distribution community. Clearly, there have been the lack of efforts to devise workable measures to address these important issues.

2) Stimulus for expansion of the domestic market (fostering of import substitutive industries using Oleochemicals as raw materials)

This measure has been implemented on a continuous basis under the leadership of the BOI. While fostering the industries to produce detergents or household chemicals using oleochemicals to replace imports, the government issued an order (No.259) to give priority to the use local palm-related products and urged the detergent industry to use oleochemicals, instead of alkyl benzene, for production. As a result, domestic demand for oleochemicals expanded sharply. Thus, this measure is considered to have made significant contribution in terms of impact on the industry's growth as well as sustainability.

3) Support to encourage innovation and capital investment (provision of training and loan for production management and quality control)

While various organizations hold seminars on the basics of production management and quality control, no training course is offered to focus on oleochemicals. The Oleochemical Manufacturers' Association held a seminar under the government's support. Because the association has small membership and each firm has its own educational program, no plan for subsequent seminars has been proposed. Instead, each manufacturer sends its employees to JOT and other seminars as required.

As for capital investment, most manufacturers have substantial financial bases and credit standings to obtain commercial loans, and they do not feel the need for

institutional lending. Thus this support measure did not produce much effect and is therefore considered to have made weak contribution.

4) Tax incentives to related chemical products and intermediate products

Oleochemicals are primarily made from palm oil, and various chemical products and intermediate products are consumed as sub-materials. These sub-materials are not produced locally and are entirely imported. At the time of the previous study, high tariff rates were imported on these imported sub-materials to constitute additional cost impacts. Then, import tariff has been lowered to near zero. While the proposed measure did not produce a direct effect, but it certainly helped to accelerate the process.

5) Support for industry-wide R&D activities

At the time of the previous study, a policy measure was proposed to support industry-side efforts to develop oleochemical products, derivatives and downstream products, which were not produced locally, and to upgrade the production process. At the same time, the project to establish the Coconut R&D Center as a vehicle for concerted R&D efforts participated by government research institutes and related industries.

R&D activities related to oleochemicals involve a wide range of application research and thus require large amounts of funds and substantial human resources. The research center was intended to conduct research projects that were difficult for a single company to work with. The industry expressed strong interest in the proposal and held extensive discussion with related government organizations. Unfortunately, however, the proposal was not adopted partly because of budget constraints and partly because the idea was opposed to the ongoing administrative reforms including the consolidation of government research organizations. Instead, it was decided to conduct coconut-related R&D activities at the PCA by allocating additional budgets and resources. Although R&D is underway, significant results have not been produced.

4.5.6.3 Overall evaluation of proposed measures and projects

Overall, the above measures and projects are evaluated as follows:

(1) The proposed promotion strategy was consistent with the then development goals and accepted by related government organizations and the industry as the adequate strategy and has been adopted to the subsequent promotion policies and programs.

Its relevance matches the current policy and industrial environment and serves as a guideline for future development.

(2) Also, specific measures and programs were, in principle, highly valued by the industry. and related government organizations. However, some measures and programs have not been implemented to full extent, and as a result, their contribution has been weak in terms of impact on the development of the industry and sustainability (the ability to achieve growth on a continuous basis).

(3) In particular, the greatest concern for the further development of the oleochemical industry are the delay in commercialization of a high-yield species (hybrid species) that plays a critical role in achieving stable supply and price stabilization of palm oil. It took long time to develop a species suitable for local conditions, while it was difficult to agree on a formal system to disseminate the new species to coconut farms due to political and other factors that often hinder modernization of the traditional farming sector. The government is now ready to deploy the replanting scheme and will soon make an actual move to implement it.

(4) In overall consideration of the above factors, the previous study fulfilled its role in providing a long-term master plan for industrial promotion. On the other hand, some measures and programs have not produced much effect due to the lack of prior study to check their viability or budget constraints. They should be reviewed in detail and used as lessons learned to be reflected in the future process.

4.5.6.4 Further recommendations

In the future, the oleochemical industry continues to be an important industrial sub-sector for the Philippines and their sustainable growth must be secured. Future measures and programs for the industry and its growth should focus on the following points:

1. To promote the government's leadership in promotion of plantation of the hybrid palm species;

2. To devise and implement a pricing mechanism for palm oil that allows the oleochemical industry to obtain it at stable prices without being affected by international market prices and foreign exchange rates;

3. To develop infrastructure for the industry to economically receive palm oil and ship oleochemical products through a collective tank yard, including the government's financial assistance and other incentives: and

4. To encourage production of downstream products including tax incentives for installation of product development and production facilities and equipment.

4.6 Conclusion

4.6.1 Evaluation

This follow-up study is conducted to review the effectiveness of the Study on the Industrial Sub-sector Development Program, particularly the industrial promotion plans for the six target subsectors proposed in the development program. As these industries vary greatly in size and nature of operation, market conditions and the business environment they operate, it is very difficult, if not impossible, to determine the overall effect of the priority programs and projects proposed in the study by merely combining the results of evaluation on the sub-sectors. At the same time, such "synthesis" approach does not depict their real picture. Instead, this study attempted to identify the issues commonly observed in evaluation of each sub-sector.

(1) Overall evaluation of the previous study

The study proposed promotion strategies for each of the target sub-sectors and priority measures, programs and projects required to implement these strategies. These strategies, measures, programs and projects were reviewed and modified, as required, in the different stages of the study where extensive discussions were held with BOI officials in charge of the respective sub-sectors and trade associations representing the sub-sectors. Having passed nearly a decade since the end of the study, only a small number of people who were directly involved in the study still remain at the BOI and the related trade associations. Nevertheless, the results of the study continues to be used as an effective guiding tool for subsequent planning and implementation activities. In particular, the promotion strategies are widely recognized by the respective industries as the useful guidelines for planning and executing their promotional efforts. Similarly, the proposed priority programs and projects have been vigorously discussed by the BOI and other government organizations and trade associations to find the effective ways to implement them, including actions required by the industries and government support.

While it took some time to implement these programs and projects as they were presented in the form of a schematic guideline without being tested through feasibility study, the follow-up study confirmed that the Philippine counterpart and related parties viewed the proposal package including the master plan as a highly useful guideline for planning and implementing actual action programs.

Nevertheless, some of the proposed programs and projects failed to take into account a variety of constraints including the lack of financial and other resources to move them to the implementation stage. Also, it was pointed out that some proposals tried to address the issues at macro and micro levels as well as structural problems of an industrial sub-sector simultaneously, making it difficult for the counterpart to determine their priority level at the implementation stage. In this conjunction, some felt that alternative solutions needed to be proposed to address each issue, including the second-best and third-best solutions (minimum-required).

(2) Unsolved issues related to evaluation of the effect of the master plan

This follow-up study evaluated the effects of the proposed measures, programs and projects by applying the PCM (Project Cycle Management) methodology. More precisely, they were evaluated using three qualitative indicators, i.e., impact, relevance and sustainability, which were selected from the PDM (Project Design Matrix) indicators (level of achievement, efficiency, impact, relevance and sustainability). The other two indicators, the level of achievement and efficiency, were not selected because, as discussed in 4.4, the primary purpose of the previous study was to formulate the promotion strategies and guidelines and set general development goals, rather than specific and quantitative ones, and because the proposed programs and projects basically set a schematic outline, rather than detailed plans that allow evaluation of cost effectiveness.

While the same criteria and methodology were applied to examination of each sub-sector and the results were rated on the pre-defined scales, actual evaluation was essentially limited to qualitative analysis by the study team. In particular, the effect of the proposed programs and projects on the development of a particular sub-sector was evaluated in consideration of opinions of related government organizations including the BOI and industries, and the results of interview surveys of individual enterprises (including their responses to the questionnaire survey), which were interpreted by the study team and were integrated with the results of evaluation by the study team. Thus the evaluation process inevitably involved subjective judgment of the study team.

Needless to say, growth of any industry should essentially be driven by self-sustained efforts of individual enterprises that form the industry, although they are susceptible to external dynamics in the process, including market conditions and the business environment. Government's role is to set forth a general guideline, in its industrial policy, for actions to be taken by the industry and individual enterprises, while devising and implementing public support and other measures to assist, stimulate and encourage corporate activities. From this perspective, the most important element of evaluation on the programs and projects proposed in the master plan is to see whether they provide an adequate guideline for a particular industry by taking into account the in-depth analysis of the industry's future and its potential. The guideline should clearly define the roles and functions of related parties (e.g., enterprise s, trade associations, other private and government organizations) and set forth specific plans and actions to be taken.

In particular, as the Philippines, like many other countries, promotes industrial policy under the doctrines of economic liberalization and internationalization, its economy is primarily driven by free business activities while minimizing public control. As a result, government support tends to have a relatively small effect on industrial development and it rather plays an important role in spurring the industry-led development process, rather than intervening or controlling it.

Given these issues encountered in the course of this study, it is strongly felt by the study team to reappraise applicability of the PDM method to the assessment of the effect of the program to develop a master plan that sets forth an industrial promotion strategy and a guideline, for the method is an established means to evaluate the effect of a tangible project. And perhaps it is time to determine whether an alternative method is more suitable for the purpose contemplated in this study.

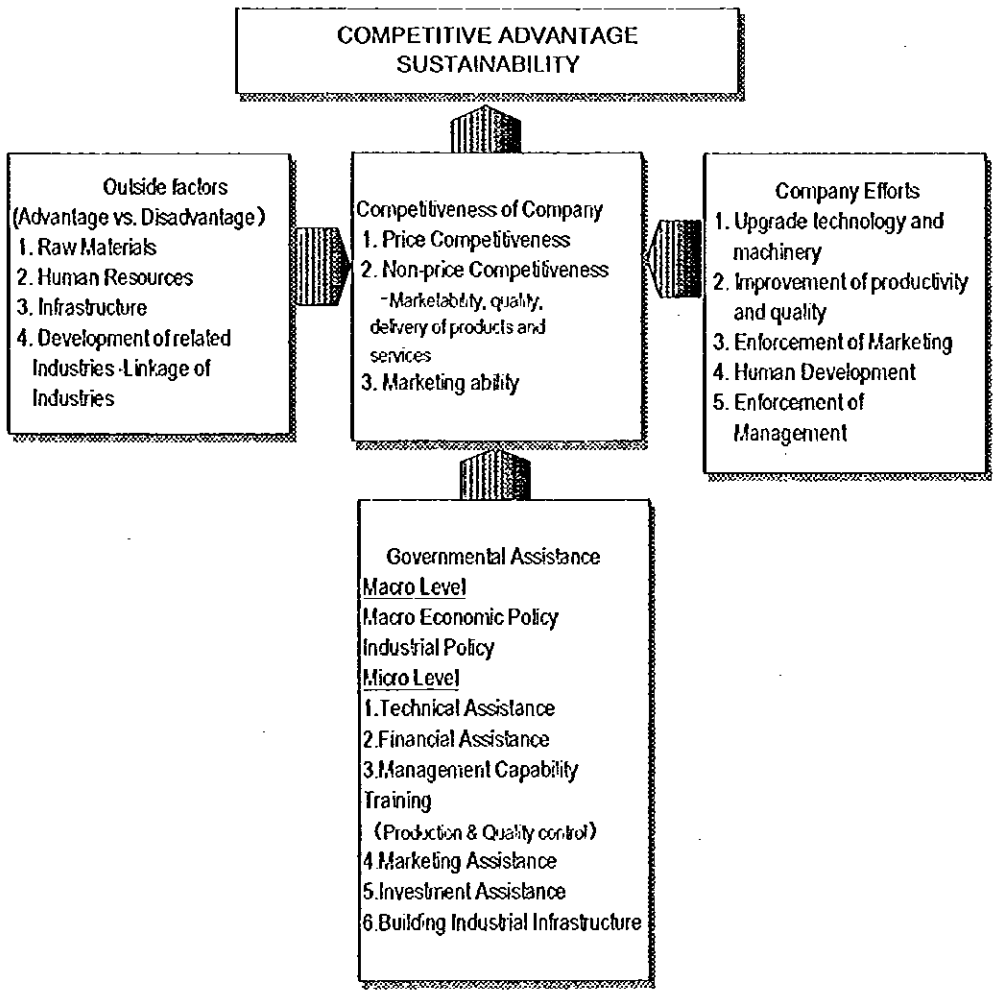
(3) Factors weighed in evaluation of industrial development

Prior to the above evaluation, the current state of each sub-sector was analyzed in comparison to that at the time of the previous study in order to assess the progress of industrial development and analyze external and policy-related factors that had positive or negative impacts on each industry. In particular, the following factors were weighed in evaluating the development status.

1) The industry's competitiveness, particularly in the export markets (non-price factors including cost, quality, delivery time, as well as marketing power)
2) The industry's competitive advantages and factors impeding the use of such advantages (including raw materials/resources, technology, human resources, other production factors, industrial base, inter-industrial linkage, infrastructure)
3) The industry's sustainability
4) Cost competitiveness that is a primary element of sustainability

The results of evaluation on each sub-sector are summarized in a table attached to this report. Mutual Relation among factors for the competitive advantage and sustainabilit of the industry is illustreated below:

Figure 4-2 Competitive Advantage and Sustainability of the Industry



4.6.2 Recommendations

This follow-up study examined the six sub-sectors that varied greatly in size and nature of operation, ranging from a labor-intensive industry to a capital-intensive, process industry. The study presented future challenges and recommendations for each sub-sector, which are made of the following four common elements:

(1) Cluster approach;
(2) Enhancement of an effective inter-industrial linkage;
(3) Integrated efforts to develop the IT industry; and
(4) Other recommendations to address the major issue facing each sub-sector.

(1) Cluster approach

The concept of industrial clustering has been adopted by the Philippine government, which has announced that it will use it for future industrial promotion (Note 1). The cluster approach appears to be particularly effective in promoting the furniture and fashion accessories industries. There are various characteristics common to these industries: 1) the ability to procure raw materials locally; 2) dominance of SMEs; 3) geographical concentration in a specific area; and 4) the huge supplier (huge supplier) base. Policies and programs to develop these industries need to focus on the following areas:

1) Establishment of common service facilities and the encouragement of collaborative efforts;
2) Fostering and networking of the supplier base; and
3) Marketing strategy (e.g., design promotion and brand strategy).

Recommendations in 4.2.2 and 4.5.2 have been devised on the basis of the cluster approach.

(2) Enhancement of an effective inter-industrial linkage

Growth of the supplier base for any industry can only be achieved through the increased linkage with their customers. Thus, promotion of an industry must include a means of nurturing such linkage. This is particularly the case for the die and mould industry, for which the following polices and programs should be emphasized to achieve the goal:

1) Intermediary between suppliers and customers;
2) Technology transfer (including equipment purchase) and guidance at the same pace as the actual progress made by suppliers; and
3) Incentives for potential customers to develop the closer relationships with suppliers.

The importance of the increased supplier-customer linkage cannot be overemphasized. The point is well illustrated in 4.2.1 and 4.5.1, where recommendations are made to identify the current state and future potential of the engineering industries that should be highly interactive with the tool and die industry and to expedite the development and promotion of policies and programs for promotion of the industry from new perspectives. Then, the recommendations emphasize the need for specific policies and programs that the closer linkage within the engineering industry.

(3) Integrated efforts to develop the IT industry

Previously, the computer software industry was singled out as an emerging industry with high potential. With the global wave of propelling the IT industry at an accelerated pace, however, it is time for the Philippines to mobilize its resources dynamically to the fostering of the entire IT industry. As the industry is made of diverse technology and business elements that are supported by a wide range of industries, including telecommunications, information services, software developers, and a variety of end-user industries to use computer-base solutions, e.g., management, financial and commercial transaction, it is strongly recommended to developed a comprehensive promotion strategy and guideline accompanied by concerted efforts by the public and private sectors.

As the IT industry embraces firms of greatly varying sizes, from large corporations to SMEs and startups, the government should address, in its comprehensive policy, the need for development and implementation of policies and programs focused on SMEs and venture capitals. To this end, recommendations in 4.2.3 and 4.5.3 emphasize the importance of a formal study to develop a master plan for strategic promotion of the IT industry.

(4) Other recommendations to address the major issue facing each sub-sector

The staffed toy industry is similar to the apparel industry in many aspects and tends to be attracted by low labor costs. The industrial exodus looking for countries offering labor cost advantages has caused the staffed toy industry in the Philippines to enter an declining stage. Based on recognition of such grave reality, recommendations in 4.2.4 and 4.5.4 emphasize the importance of policies and programs to encourage the industry's diversification and business conversion.

Finally, the oreochemical industry differs significantly from the other sub-sectors that it is capital intensive and uses one of the country's primary agricultural resources, coconut. In the upstream, however, the industry is supported by traditional agriculture and its continuous growth depends on stable supply and price stabilization of coconut oil. Recommendations in 4.2.6 and 4.5.2 urge government leadership in achieving these goals because it is only an effective means of encouraging traditional farms to develop the mutually beneficial relationships with their end user industries.

4.6.3 Examples of Project Implemented

As discussed earlier, the Industrial Sub-sector Development Study provides the guidelines for subsequent industrial promotion by the Philippine government, particularly the BOI, and related industries. Based on the study and its recommendations, some projects were implemented under the assistance of the Japanese government, while others were carried out as joint efforts of the Philippine government and industry. This section briefly describes two examples of such projects, the PFTC in Pampanga and the Costume Jewelry Center in Cebu, each of which can serve as the core of each cluster and will serve as a model case for SME production under the cluster approach.

(1) Philippine Furniture Training Center (PFTC)

The training center is located within the Furniture City, Mabalacat, Pampanga, near the Clark Special Economic Zone. At the time of the previous study, Pampanga had the major concentration of small wood furniture manufacturers, which were severely damaged by the eruption of Mt. Pinatubo and volcanic ash pollution in 1991. The government responded quickly for disaster recovery and appointed the Mount Pinatubo Commission (MPC) to lead recovery projects. As part of these initiatives, the TLRC developed an industrial estate for furniture manufacturers, the Furniture City, and

provided low-interest loans. In 1996, the MPC, the DTI and the CFIP signed an agreement on construction and management of the PFTC. The facility was completed in 1998. The primary purpose of the training center is to raise furniture production techniques and skills (particularly wood furniture) through practical training for workers. Originally, the Skive Technical Institute (STI) of Denmark conducted training for the PFTC staff and developed a curriculum, which has been customized to meet the needs for furniture manufacturers in the country. Today, the center offers three general courses and five special courses. Also, equipment owned by the center is made available to furniture manufacturers as the CSF. The center also accommodates the CFIP's Pampanga office and serves as an important nuclei of the local furniture industry.

Future tasks

1) To further modernization of furniture industries in rural regions, the increased provision of the CSF should be promoted to support individual manufacturers, in addition to the basic training equipment available at the PFTC.
2) Collaborative relationships between manufacturers should be promoted through the establishment and promotion of a joint order taking and production system. Also, the partnership with companies serving the foreign markets will be established to promote market-sensitive product designs.

(2) Cebu Costume Jewelry Center

The Costume Jewelry Center is located in the DOST Compound in Cebu city where costume jewelry manufacturers concentrate and was opened in 1997 under the DTI's assistance. It is currently operated by the FAME, association representing the costume jewelry industry. The primary objective of the center is to raise the levels of technology, marketing and management capability, while disseminating R&D and market trend information.

The center provides the following services:

1) Market intermediary (matchmaking);
2) Product display;
3) The sponsoring of seminars and organization of missions participating in trade shows; and
4) Design and technical guidance and the CSF (equipment and documentation).

The facility is used by not only costume jewelry manufacturers but the furniture industry in Cebu and other handicraft manufacturers. At present, it is largely used as the CSF, rather than training. To introduce advanced technology and raise product quality of the industry as a whole, it is imperative to obtain new equipment and provide appropriate technical assistance to ensure the effective use thereof.

APPENDIX

Appendix

1. The List of Organization Visited and References

1.1. The List of Organization Visited

Board of Investment (BOI)

Philippine Economic Zone Authority (PEZA)

Department of Trade and Industry (DTI)

Center for International Trade Expositions and Missions (CITEM)

Bureau of Export Trade Promotion (BETP)

Bureau of Product Standards (BPS)

Bureau of Small and Medium Business Development (BSMBD)

Cottage - Industry Technology Center (CITC)

Philippine Trade Training Center (PTTC)

Product Development and Design Center of the Philippines (PDDCP)

Development Bank of Philippines (DBP)

Department of Science and Technology (DOST)

Metal Industry Research and Development Center (MIRDC)

National Computer Center (NCC)

Technology and Livelihood Resource Center (TLRC)

Costume Jewelry Center (CJC)

Philippine Software Development Institute (PSDI)

Philippine Funiture Training Center (PFTC)

Technical Education and Skills Development Authority (TESDA)

Chamber of Furniture Industries of the Philippines (CFIP)

Cebu Furniture Industries Foundation (CFIF)

Metalworking Industries Association of the Philippines (MIAP)

Philippine Software Association (PSA)

Fashion Accessories Manufacturers and Exporters, Inc (FAME)

Philippine Oleochemical Manufacturers Association (POMA)

Philippine Toy and Novelty Manufactures Association, Inc. (PHILTOY)

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31) Foreign Trade Statistics of the Philippines 1992

32) Foreign Trade Statistics of the Philippines 1993

33) Foreign Trade Statistics of the Philippines 1994

34) Foreign Trade Statistics of the Philippines 1995

35) (Prints) Amount of Project Cost Approved Under Various Investment Incentives Laws by Sector (BOI, 2000)

36) (Prints) Equity Investments Approved Under Various Investments Incentives law (BOI, 2000)

2. Firms Interview and Questionaire Survey

Table 1-1 Summary of Firms Survey

	No. of questionnaire send	Interview	Filled up Quest. w/o interview	w/o response
Die and Mould	30	8	9	13
Wooden Furniture	32	18	4	10
Computer Software	32	8	4	20
Stuffed Toy	25	5	5	15
Fashion Accessories	20	14	6	0
Oleichemicals	10	3	3	4
Sub-total	149	56	31	62
Cavite Locator	60	18	5	37
Total	209	74	36	99
Note:Number of w/o response includes companies for follow-up				
*Some companies interviewed did not return accomplished questionnaires				

3. The Data recorded in the Electronic Database

3.1. Evaluation Database for Development Priority Measures and programs

3.1.1. Evaluation Database for Measures and Programs Recommended in CEPZ Study

Table AAC-1 Impact of the Measures and Programs recommended in CEPZ Study

Table AAC-2 Relevance of the Measures and Programs recommended in CEPZ Study

Table AAC-3 Sustainability of the Measures and Programs recommended in CEPZ Study

Table AAC-4 Effect of the Measures and Programs recommended in CEPZ Study

3.1.2. Evaluation Database for Measures and Programs Recommended in Industrial Sub-sector Study

3.1.2.1. Evaluation Database for Measures and Programs Recommended in Metal Processing (Die and Mould) Industry Development Study

Table. AA1-1 Evaluation of Industry Status by Sub-sector (compared to the results of the previous study) / Metal Processing (Die and Mould) Industry

Table. AA1-2 Impact of Measures and Programs Recommended in Metal Processing (Die and Mould) Industry

Table. AA1-3 Relevance of Measures and Programs Recommended in Metal Processing (Die and Mould) Industry

Table. AA1-4 Sustainability of Measures and Programs Recommended in Metal Processing (Die and Mould) Industry

Table. AA1-5 Effect of Measures and Programs Recommended in Metal Processing (Die and Mould) Industry

3.1.2.2. Evaluation Database for Measures and Programs Recommended in Furniture (Wooden furniture) Industry Development Study

Table. AA2-1 Evaluation of Industry Status by Sub-sector (compared to the results of the previous study) / Furniture (Wooden furniture) Industry

Table. AA2-2 Impact of Measures and Programs Recommended in Furniture (Wooden furniture) Industry

Table. ACQ-2b3 b. What were factors that attracted and encouraged your company to establish its manufacturing unit in the Philippines, particularly in ECOZONE?
(Selecting subfactors comprising of "Tax incentives provided")

Table. ACQ-2b4 b. What were factors that attracted and encouraged your company to establish its manufacturing unit in the Philippines, particularly in ECOZONE?
(Selecting subfactors comprising of "Accessibility to markets")

Table. ACQ-2b5 b. What were factors that attracted and encouraged your company to establish its manufacturing unit in the Philippines, particularly in ECOZONE?
(Selecting subfactors comprising of "Well-developed infrastructure")

Table. ACQ-2b6 b. What were factors that attracted and encouraged your company to establish its manufacturing unit in the Philippines, particularly in ECOZONE?
(Selecting subfactors comprising of "Easiness of management")

Table. ACQ-2b7 b. What were factors that attracted and encouraged your company to establish its manufacturing unit in the Philippines, particularly in ECOZONE?
(Selecting subfactors comprising of "Facilities, privileges and services provided at ECOZONE")

Table. ACQ-2c c Any comment/observation on business interest of and factors for setting up te manufacturing unit in the Philippines, particularly ECOZONE.

Table. ACQ-3 III. BOI/PEZA's investment promotion activities

Table. ACQ-4a IV. Current situation of your manufacturing unit in ECOZONE

a. How did your manufacturing unit in ECOZONE contribute to the following concerns of your company compared to your operation five years ago or the time when your commercial operation started in ECOZONE?

Table. ACQ-4b b. How is the current operation of your manufacturing unit in ECOZONE comparing to that five years ago or the time when your commercial operation started in ECOZONE?

Table. ACQ-4c c. How did the business climate and conditions in ECOZONE improve or adversely affect your manufacturing operation compared to that five years ago or when your commercial operation started in ECOZONE?

Table. ACQ-4d d. What are the main factors that have positively or adversely affected changes in the operation of your ECOZONE manufacturing unit during the last five years or the time when your commercial operation started in ECOZONE?

Table. ACQ-4e. e Any comment/observation on current situation

Table. ACQ-5a V. Management efforts paid by your ECOZONE manufacturing unit

a In which areas has your company devoted its effort to improve the opeation and management of your manufacturing unit in ECOZONE?

Table. ACQ-5b b Any comment/observation on Management Efforts

Table. ACQ-6a VI. Facilities and services provided at ECOZONE

a. Please rate the extent of your use facilities and services provided at ECOZONE

Table. ACQ-6b b. How do you assess the services/assistance provided at ECOZONE?

Table. ACQ-6c c. Any requirement on any specific services/assistance to be provided at ECOZONE or necessary to be improved

Table. ACQ-6d d. Any comment/observation on Facilities and services provided at ECOZONE

3.2.2 QUESTIONAIRE TO FIRMS — Metal Processing (Die and Mould) Industry

Table. AQM-1 I. General Information

Table. AQM-2a II. Current situation of operation and business performance

a. How would your rate the current operation of your company as compared to five years ago, in terms of the following?

Table. AQM-2b b. How did the business climate and conditions for your company change in the past five years ago?

Table. AQM-2c c. What are the main factors that have positively or adversely affected changes in the operation and business of your company during the last five years?

Table. AQM-2d d. How did the product and production competitiveness change in the past (comparing to that) five years ago?

Table. AQM-2e e. What constraints in the operation are your currently facing?

Table. AQM-2f f. Any comment/observation on current situation

Table. AQM-3p III. Management efforts paid or to be paid by your company

(Did in past) In what areas has your company devoted its effort to improve the operation and management of your company?

Table. AQM-3f (Will in future) In what areas will your company devote its effort to improve the operation and management of your company?

Table. AQM-3c Any comment/observation on Management efforts

Table. AQM-4a IV. Means taken for the technology upgrading and human resource development

a. What means have your company taken for the technology upgrading and human resource development?

Table. AQM-4b b. How did you utilize the following program and projects?

Table. AQM-4c c. How did you come to know about the above-mentioned program and/or projects?

Table. AQM-4d d. How do you assess the services/assistance provided by the public authorities?

Table. AQM-4e e. Any requirement on any specific services/assistance to be provided by the public authorities or necessary to be improved

Table. AQM-4f f. Any comment/observation on Technology upgrading and Human resource development

Table. AQM-5a V. Financing

a. What are your main finance sources?

Table. AQM-5b b. Which of the following financial scheme are you aware of?

Table. AQM-5c c. Have you used the above-mentioned financial scheme?

Table. AQM-5d d. Any comment/observation on Financing

3.2.3 Questionaire to Firms — Furniture (Wooden Furniture) Industry

Table. AQF-1 I. General Information

Table. AQF-2a II. Current situation of operation and business performance

a. How would your rate the current operation of your company as compared to five years ago, in terms of the following?

Table. AQF-2b b. How did the business climate and conditions for your company change in the past five years ago?

Table. AQF-2c c. What are the main factors that have positively or adversely affected changes in the operation and business of your company during the last five years?

Table. AQF-2d d. How did the product and production competitiveness change in the past (comparing to that) five years ago?

Table. AQF-2e e. What constraints in the operation are your currently facing?

Table. AQF-2f f. Any comment/observation on current situation

Table. AQF-3p III Management efforts paid or to be paid by your company

(Did in past) In what areas has your company devoted its effort to improve the operation and management of your company?

Table. AQF-3f (Will in future) In what areas will your company devote its effort to improve the operation and management of your company?

Table. AQF-3c Any comment/observation on Management efforts

Table. AQF-4a IV. Means taken for the technology upgrading and human resource develoopment

a. What means have your company taken for the technology upgrading and human resource development?

Table. AQF-4b b. How did you utilize the following program and projects?

Table. AQF-4cc. How did you come to know about the above-mentioned program and/or projects?

Table. AQF-4d d. How do you assess the services/assistance provided by the public authorities?

Table. AQF-4ee. Any requirement on any specific services/assistance to be provided by the public authorities or necessary to be improved

Table.	AQF-4ff.		Any comment/observation on Technology upgrading and Human resource development
Table.	AQF-5a	V.	Financing
		a.	What are your main finance sources?
Table.	AQF-5b	b.	Which of the following financial scheme are you aware of?
Table.	AQF-5c	c.	Have you used the above-mentioned financial scheme?
Table.	AQF-5d	d.	Any comment/observation on Financing

3.2.4 Questionaire to Firms — Computer Software Industry

Table.	AQC-1	I	General Information
Table.	AQC-Ca	II.	Current situation of operation and business performance
		a.	How would your rate the current operation of your company as compared to five years ago, in terms of the following?
Table.	AQC-2b	b.	How did the business climate and conditions for your company change in the past five years ago?
Table.	AQC-2c	c.	What are the main factors that have positively or adversely affected changes in the operation and business of your company during the last five years?
Table.	AQC-2d	d.	How did the product and production competitiveness change in the past (comparing to that) five years ago?
Table.	AQC-2e	e.	What constraints in the operation are your currently facing?
Table.	AQC-2f	f.	Any comment/observation on current situation
Table.	AQC-3p	III.	Management efforts paid or to be paid by your company
			(Did in past) In what areas has your company devoted its effort to improve the operation and management of your company?
Table.	AQC-3f		(Will in future) In what areas will your company devote its effort to improve the operation and management of your company?
Table.	AQC-3c		Any comment/observation on Management efforts
Table.	AQC-4a	IV.	Means taken for the technology upgrading and human resource development
		a.	What means have your company taken for the technology upgrading and human resource development?

Table. AQC-4b b. How did you utilize the following program and projects?

Table. AQC-4c c. How did you come to know about the above-mentioned program and/or projects?

Table. AQC-4d d. How do you assess the services/assistance provided by the public authorities?

Table. AQC-4e e. Any requirement on any specific services/assistance to be provided by the public authorities or necessary to be improved

Table. AQC-4f f. Any comment/observation on Technology upgrading and Human resource development

Table. AQC-5a V. Financing

a. What are your main finance sources?

Table. AQC-5b b. Which of the following financial scheme are you aware of?

Table. AQC-5c c. Have you used the above-mentioned financial scheme?

Table. AQC-5d d. Any comment/observation on Financing

3.2.5 Questionaire to Firms — Toy (Stuffed toy) Industry

Table. AQT-1 I. General Information

Table. AQT-2a II. Current situation of operation and business performance

a. How would your rate the current operation of your company as compared to five years ago, in terms of the following?

Table. AQT-2b b. How did the business climate and conditions for your company change in the past five years ago?

Table. AQT-2c c. What are the main factors that have positively or adversely affected changes in the operation and business of your company during the last five years?

Table. AQT-2d d. How did the product and production competitiveness change in the past (comparing to that) five years ago?

Table. AQT-2e e. What constraints in the operation are your currently facing?

Table. AQT-2f f. Any comment/observation on current situation

Table. AQT-3p III. Management efforts paid or to be paid by your company

(Did in past) In what areas has your company devoted its effort to improve the operation and management of your company?

Table. AQT-3f (Will in future) In what areas will your company devote its effort to improve the operation and management of your company?

Table. AQT-3c Any comment/observation on Management efforts

Table. AQT-4a IV. Means taken for the technology upgrading and human resource development

a. What means have your company taken for the technology upgrading and human resource development?

Table. AQT-4b b. How did you utilize the following program and projects?

Table. AQT-4c c. How did you come to know about the above-mentioned program and/or projects?

Table. AQT-4d d. How do you assess the services/assistance provided by the public authorities?

Table. AQT-4e e. Any requirement on any specific services/assistance to be provided by the public authorities or necessary to be improved

Table. AQT-4ff. Any comment/observation on Technology upgrading and Human resource development

Table. AQT-5a V. Financing

a. What are your main finance sources?

Table. AQT-5b b. Which of the following financial scheme are you aware of?

Table. AQT-5c c. Have you used the above-mentioned financial scheme?

Table. AQT-5d d. Any comment/observation on Financing

3.2.6 Questionaire to Firms — Fashion Accessory (Costume Jewelry) Industry

Table. AQJ-1 I. General Information

Table. AQJ-2a II. Current situation of operation and business performance

a. How would your rate the current operation of your company as compared to five years ago, in terms of the following?

Table. AQJ-2b b. How did the business climate and conditions for your company change in the past five years ago?

Table. AQJ-2c c. What are the main factors that have positively or adversely affected changes in the operation and business of your company during the last five years?

Table. AQJ-2d d. How did the product and production competitiveness change in the past (comparing to that) five years ago?

Table. AQJ-2e e. What constraints in the operation are your currently facing?

Table. AQJ-2f f. Any comment/observation on current situation

Table. AQJ-3p III. Management efforts paid or to be paid by your company

(Did in past) In what areas has your company devoted its effort to improve the operation and management of your company?

Table. AQJ-3f (Will in future) In what areas will your company devote its effort to improve the operation and management of your company?

Table. AQJ-3c Any comment/observation on Management efforts

Table. AQJ-4a IV. Means taken for the technology upgrading and human resource development

a. What means have your company taken for the technology upgrading and human resource development?

Table. AQJ-4b b. How did you utilize the following program and projects?

Table. AQJ-4c c. How did you come to know about the above-mentioned program and/or projects?

Table. AQJ-4d d. How do you assess the services/assistance provided by the public authorities?

Table. AQJ-4e e. Any requirement on any specific services/assistance to be provided by the public authorities or necessary to be improved

Table. AQJ-4f f. Any comment/observation on Technology upgrading and Human resource development

Table. AQJ-5a V. Financing

a. What are your main finance sources?

Table. AQJ-5b b. Which of the following financial scheme are you aware of?

Table. AQJ-5c c. Have you used the above-mentioned financial scheme?

Table. AQJ-5d d. Any comment/observation on Financing

3.2.7 Questionaire to Firms -- Oleo Chemicals Industry

Table. AQO-1 I. General Information

Table. AQO-2a II. Current situation of operation and business performance

a. How would your rate the current operation of your company as compared to five years ago, in terms of the following?

Table. AQO-2b b. How did the business climate and conditions for your company change in the past five years ago?

Table. AQO-2c c. What are the main factors that have positively or adversely affected changes in the operation and business of your company during the last five years?

Table. AQO-2d d. How did the product and production competitiveness change in the past (comparing to that) five years ago?

Table. AQO-2e e. What constraints in the operation are your currently facing?

Table. AQO-2f f. Any comment/observation on current situation

Table. AQO-3p III. Management efforts paid or to be paid by your company

(Did in past) In what areas has your company devoted its effort to improve the operation and management of your company?

Table. AQO-3f (Will in future) In what areas will your company devote its effort to improve the operation and management of your company?

Table. AQO-3c Any comment/observation on Management efforts

Table. AQO-4a IV. Means taken for the technology upgrading and human resource development

a. What means have your company taken for the technology upgrading and human resource development?

Table. AQO-4b b. How did you utilize the following program and projects?

Table. AQO-4c c. How did you come to know about the above-mentioned program and/or projects?

Table. AQO-4d d. How do you assess the services/assistance provided by the public authorities?

Table. AQO-4e e. Any requirement on any specific services/assistance to be provided by the public authorities or necessary to be improved

Table. AQO-4f f. Any comment/observation on Technology upgrading and Human resource development

Table. AQO-5a V. Financing

a. What are your main finance sources?

Table. AQO-5b b. Which of the following financial scheme are you aware of?

Table. AQO-5c c. Have you used the above-mentioned financial scheme?

Table. AQO-5d d. Any comment/observation on Financing

3.3. Philippine Social and Economic Statistic Database

Table. AS1-1 Population by Region and Province; Census Years 1980, 1990, 1995

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Table. AS2-3 Consumer Price Index for All Income Households by Item in the Philippines (1988=100) 1988 to 1995

Table. AS2-4 Consumer Price Index for All Income Households by Item in the Philippines (1988=100) 1990 to 1999

Table. AS3-1 GNP and GDP by Expenditure Shares 1985 to 1998 at current prices

Table. AS3-2 GNP and GDP by Expenditure Shares 1985 to 1998 at constant 1985 prices

Table. AS3-3 Gross Domestic Capital Formation in Durable Equipment by Major Type 1985 to 1998

Table. AS3-4 GNP and GDP by Industrial Origin 1985 to 1998 at current prices

Table. AS3-5 GNP and GDP by Industrial Origin 1985 to 1998 at 1985 constant prices

Table. AS3-6 Per Capita: GDP and GNP and Personal Consumption Expenditure 1985 to 1998

Table. AS3-7 Gross Value Added in Manufacturing by Industry Group 1985 to 1998 at current prices

Table. AS3-8 Gross Value Added in Manufacturing by Industry Group 1985 to 1998 at 1985 constant prices

Table. AS3-9 Gross Regional Domestic Product 1985 to 1998 at current prices

Table. AS3-10 Gross Regional Domestic Product 1985 to 1998 at 1985 constant prices

Table. AS3-11 Matrix of Domestic Technical Coefficients: Inter-Industry Accounts 1990

Table. AS3-12 Matrix of Inverse Coefficients, (I-A) : Inter-Industry Accounts 1990