

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

MINISTRY OF ECONOMY
THE UNITED MEXICAN STATES

FINAL REPORT
FOR
Follow-up Study on
Training and Certification System of
Consultants for Small and Medium Enterprises
in
The United Mexican States

(Summary)

February 2003

UNICO International Corporation

Table of Contents

Chapter 1	Outline of the Project.....	S1-1
1.1	Background of the Project.....	S1-1
1.2	Objective of the Study.....	S1-2
1.3	Scope of the Study.....	S1-2
1.4	Study Area.....	S1-2
1.5	Work Schedule and Submission Reports.....	S1-2
1.6	Counterparts.....	S1-5
1.7	Members of the Follow-up Study Team.....	S1-5
1.8	Explanatory Notes for Wording in this Report.....	S1-6
Chapter 2	Proposals Made in the Previous Study and the Progress.....	S2-1
2.1	SME Consultants Certification System.....	S2-2
2.1.1	Introduction of the new SME consultant system.....	S2-2
2.1.2	Emphasis on the written examination in the certification process.....	S2-2
2.1.3	Introduction of junior and senior consultants section in the new system, with future absorption of the certified general consultants as the junior level.....	S2-3
2.1.4	Division of “manufacturing” and “commerce/service” sections in the new system.....	S2-3
2.1.5	Introduction of the renewal requirement.....	S2-4
2.1.6	Ethical education of newly certified SME consultants.....	S2-4
2.1.7	Introduction of the technical consultant section.....	S2-5
2.1.8	Special provisions for the certified consultants under the general consultant certification system (transitional measures).....	S2-5
2.2	Certification Method for SME Consultants.....	S2-6
2.2.1	Organization to implement SME consultant system.....	S2-6
2.2.2	The nationwide written test and an alternative proposal.....	S2-7
2.3	Training courses.....	S2-7
2.3.1	Long-term training course for college students in regular study courses.....	S2-7
2.3.2	Short-term training courses for Adult Education (intensive type).....	S2-8
2.3.3	Supplementary courses for workers.....	S2-9
2.4	Completion of Preparatory Works in 2002.....	S2-9

Chapter 3	Summary and Analysis of the Results of the Pilot Training Course.....	S3-1
3.1	Outline of the Pilot Training courses.....	S3-1
3.1.1	Objectives of the pilot training courses and expected output.....	S3-1
3.1.2	Participants.....	S3-1
3.1.3	The curriculum for the pilot training course	S3-1
3.2	Training of Instructors and Preparation of Course Materials	S3-2
3.2.1	Opening of workshops for lecturers and selection of pilot training course lectures	S3-2
3.2.2	Training and selection of practical training instructors.....	S3-3
3.2.3	Preparation of training materials.....	S3-3
3.3	Practical Training and Written Examination	S3-4
3.3.1	Execution of practical training for corporate diagnosis	S3-4
3.3.2	Method and results of the written examination.....	S3-5
3.4	Post-Evaluation of the Pilot Training course.....	S3-6
3.4.1	Types of questionnaire surveys conducted.....	S3-6
3.4.2	Participant evaluation of lectures and instructors	S3-6
3.4.3	Participant evaluation of the curriculum	S3-7
3.5	Evaluation of Participants by Instructors.....	S3-10
3.5.1	Evaluation by classroom lecturers	S3-10
3.5.2	Evaluation of practical training.....	S3-11
3.5.3	Evaluation of Corporate Diagnosis and Guidance by Model Companies.....	S3-12
Chapter 4	Conclusions and Recommendations on Major Issues Related to Introduction of the New System	S4-1
4.1	Certification procedure under the new certification system	S4-1
4.2	Overall Organizational Structure for Certification and Evaluation under the New System	S4-2
4.3	Implementation Procedure for the Written Examination.....	S4-3
4.4	Implementation Organization for the Written Examination	S4-3
4.5	Positioning and Operation of Lecture Courses in the New Scheme.....	S4-4
4.6	Positioning and Implementation Organization of Practical Training Courses for Corporate Diagnosis	S4-5
4.7	Treatment of Consultants who Meet the General Consultant Certification System	S4-6

Chapter 5	Action Plan for the New Certification System.....	S5-1
5.1	The Implementation Scheme and Organization for the New System.....	S5-1
5.1.1	Implementation scheme for the new training and certification system.....	S5-1
5.2	Basic Design of the Lecture Training Course.....	S5-4
5.2.1	Organization which provide classroom lecture.....	S5-4
5.2.2	Basic Course Module and Textbooks	S5-4
5.2.3	Base unit of lecture training course timetable (four weeks).....	S5-4
5.2.4	Development of the long-term or weekend classroom lecture.....	S5-5
5.3	Basic Design of the Practical Training Course.....	S5-6
5.3.1	Organization which provide private practical training.....	S5-6
5.3.2	Corporate diagnosis procedure (manual)	S5-6
5.3.3	Instructor training.....	S5-7
5.3.4	Practical training course timetable	S5-7
5.4	Method of Written Examination.....	S5-8
5.4.1	Implementation organization	S5-8
5.4.2	Types of test problems and selection for the actual test.....	S5-8
5.4.3	Number of problems and test hours for the Examination	S5-8
5.4.4	Passing grade and pass rate.....	S5-9
5.5	Action Plan for Introduction of the New Scheme	S5-9
5.5.1	Major milestones.....	S5-10
5.5.2	Target figures of output in 2003.....	S5-13
5.5.3	Activity guideline under the action plan	S5-14

Abbreviation

APEC	Foro de Cooperación Económica Asia Pacífico
BANCOMEXT	Banco Nacional de Comercio Exterior, S.N.C.
BDC	Banco de Datos de Consultores (CIPi)
CANACINTRA	Cámara Nacional de la Industria de Transformación
CANACO	Cámara Nacional de Comercio
CAT	Programa de Crédito al Servicio de Consultoría (NAFIN)
CETRO	Centro para el Desarrollo de la Competitividad Empresarial
CETRO-CRECE	Centro Regional para la Competitividad Empresarial
CIDESI	Centro de Ingeniería y Desarrollo Industrial
CIMO	Programa de Calidad Integral y Modernización
CINVESTAV	Centro de Investigación y Estudios Avanzados del Instituto Politécnico Nacional
CIPi	Comisión Intersecretarial de Política Industrial
CNAD	Centro Nacional de Actualización Docente
CNEC	Cámara Nacional de Empresas de Consultoría
COMIN	Comisión Mixta para la Modernización de la Micro y Pequeña Industrial
COMPITE	Comité Nacional de Productividad e Innovación Tecnológica
CONACYT	Consejo Nacional de Ciencia y Tecnología
CONALEP	Colegio Nacional de Educación Profesional Técnica
CONCAMIN	Confederación de Cámaras Industriales de los Estados Unidos Mexicanos
CONOCER	Consejo de Normalización y Certificación de Competencia Laboral
COPARMEX	Confederación Patronal de la República Mexicana
CRECE	Centro Regional para la Competitividad Empresarial
DGIT	Dirección General de Institutos Tecnológicos
FANPYME	Fondo de Apoyo para la Micro, Pequeña y Mediana Empresa
FIDETEC	Fondo de Investigación y Desarrollo para la Modernización Tecnológica (CONACYT)
INEGI	Instituto Nacional de Estadística, Geografía e Informática
INFOTEC	Fondo de Información y Documentación para la Industria
IPN	Instituto Politécnico Nacional
ITAM	Instituto Tecnológico Autónomo de México

ITESM	Instituto Tecnológico de Estudios Superiores de Monterrey
JETRO	Organización de Comercio Exterior del Japón
JICA	Agencia de Cooperación Internacional del Japón
NAFIN	Nacional Financiera, S.N.C.
PAT	Programa de Asistencia Técnica (BANCOMEXT)
PCT	Programa de Centros Tecnológicos (CONACYT)
PND	Plan Nacional de Desarrollo
PMT	Programa de Modernización Tecnológica (CONACYT)
PRODEM	Programa de Desarrollo Empresarial (NAFIN)
QAN	Quality Adviser Network, S.C.
RCCT	Registro de Consultores Tecnológicos (CONACYT)
SE	Secretaría de Economía
SECODAM	Secretaría de Contraloría y Desarrollo Administrativo
SEP	Secretaría de Educación Pública
SRE	Secretaría de Relaciones Exteriores
SHCP	Secretaría de Hacienda y Crédito Público
STPS	Secretaría del Trabajo y Previsión Social
UAM	Universidad Autónoma de México
ULSA	Universidad La Salle
UNAM	Universidad Nacional Autónoma de México
UTT	Universidad de Transferencia de Tecnología
UVM	Universidad del Valle de México

Currency exchange rate (estimate)

1 peso	=	12 yens	=	0.10 U.S.dollars
100 yens	=	8.3 pesos	=	0.83 U.S.dollars
1 U.S.dollar	=	10.0 pesos	=	120 yens

Chapter 1 Outline of the Project

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1.1 Background of the Project

Upon the request of Mexican Government, Japan International Cooperation Agency (JICA) dispatched a study team from January 2001 to December 2001 for “The study on Training and Certification System of Consultants for Small and Medium Enterprises in the United Mexican States” (the previous study). The previous study proposed the introduction of the certification system for SME consultants in Mexico and basic design for SME consultants training courses that should accompany the certification system. In addition, during the previous study, a training course for senior consultants of CETRO-CRECE Network was conducted as a pilot project and its results were reflected in the proposals.

Based on the proposals made in the final report on the previous study, which was submitted in January 2002, the Mexican Ministry of Economy (SE) decided to introduce the new SME consultant system and enhance training courses corresponding to the new system. Then, Ministry of Economy entrusted the development of a Technical Norm of Competent Labor for SME consultants (the new norm) to the Council of Normalization and Certification for Competent Labors (CONOCER), which was under jointly supervised by Ministry of Labor and Social Security (STPS) and the Ministry of Public Education (SEP). CONOCER convened the Committee for Normalization of the Consultant Sector (the Normalization Committee) and six working groups (WGs) were organized under the Normalization Committee. At present the Normalization Committee and the WGs completed revision of the norm for general consultants and almost finished the development of the norm for SME consultants. In addition, the Normalization Committee commenced the development of a norm for industry-wise technical consultants, which had been proposed by the study team in the previous study.

The Ministry of Economy started to develop various items relating to the new SME consultant certification system and the training courses in early 2002. As the Ministry recognized the need for further technical cooperation of Japan on the basis of its long experience in this field, the Ministry requested JICA to conduct a follow-up study for implementation of proposals made in the previous study. In response, JICA sent a study team.

1.2 Objective of the Study

In organizing the study team, JICA defined the primary objective of the follow-up study as follows: “to support efforts of the Mexican counterpart or SE to establish the new SME consultant training and certification system, which aims provide appropriate and effective diagnosis and guidance for SMEs in the country, as proposed in the previous study, and to help design and build the new system and institution that enable the new system effective, on the basis of Japan’s experience in the field.”

1.3 Scope of the Study

The study team defined the supporting activities in the follow-up study as follows:

- 1) Comments on the new norm for the SME consultant system
- 2) Development of basic design and curriculum for a pilot training course
- 3) Development of test problems for a trial written examination and textbooks for lecture training courses
- 4) Workshops for Mexican lectures in classroom lectures
- 5) Training of Mexican instructors in practical training courses for corporate diagnosis
- 6) Execution of the pilot training course
- 7) Recommendation of an action plan for 2003 to implement the new system

1.4 Study Area

Mexico City and its vicinities

1.5 Work Schedule and Submission Reports

The work schedule for the study team is summarized in Fig.1-1. The study team conducted four field surveys till the submission of the final report. Outline of the field surveys are as follows:

(1) Field Surveys

- 1) First field survey (July 15, 2002 – August 13, 2002; 31 days)
 - Confirmation of the progress in introduction of the new certification system
 - Advice on the framework of the new norm
 - Formulation of a working group for executing the pilot training course

- 2) Second field survey (September 9, 2002-October 8, 2002; 31 days)
 - Workshops for Mexican classroom lecturers for the pilot training course
 - Training of Mexican instructors for practical training in the pilot training course

- 3) Third field survey (November 4, 2002-December 18; 45 days)
 - Execution of the pilot training course (November 11, 2002 to December 7, 2002)
 - Trial execution of the written examination (December 9, 2002)
 - Closing ceremony of the pilot training course (December 13, 2002)

- 4) Fourth field survey (January 13, 2003 to January 22, 2003)
 - Presentation of a draft final report to and discussion with the counterpart
 - Opening of a presentation seminar of the draft final report

(2) Submission of reports

The study team submitted the following reports during the period of the follow-up study. Meetings between the study team and the working group were held four times for each report of 1) to 4).

- 1) July 2002 : Inception Report
- 2) September 2002 : Progress Report (I)
- 3) December 2002 : Progress Report (II)
- 4) January 2003 : Draft Final Report
- 5) February 2003 : Final Report

Fig. 1-1 Overall Work Schedule

Year	2002							2003	
	Month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Preparatory work in Japan		□							
First field survey		▨							
First analytical work in Japan			□						
Second field survey				▨					
Second analytical work in Japan					□				
Third field survey						▨			
Third analytical work in Japan							□		
Fourth field survey								▨	
Fourth analytical work in Japan									□
		▲							▲
		Inception report		▲			▲	▲	Final Report
				Progress report (I)			Progress report (II)	Draft final report	
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">▨ Field survey in Mexico</div> <div style="text-align: center;">□ Work in Japan</div> </div>									

First field survey: July 15 (arrived in Mexico) – August 13 (left Mexico) (30 days in Mexico)

Second field survey: September 9 – October 8 (30 days)

Third field survey: November 4 – December 17 (44 days)

Fourth field survey: January 13 - 21, 2003 (9 days)

1.6 Counterparts

The Mexican Ministry of Economy is the official counterpart of the follow-up study. CONOCER, however, develops any norms concerning competent labor and administrates those certification systems. Therefore the new SME consultant system shall be developed and administrated by CONOCER. CONOCER was established in 1995 under agreement between Ministry of Labor and Social Security (STPS) and Ministry of Public Education (SEP). CONOCER is the sole organization responsible for development and administration of modernization of technology education and normalization and certification systems under the training project (PMETyC). CONOCER developed a total of 603 norms for Competent Labor as of December 2002 and has 32 certification agencies and 1,140 evaluation centers. As of November 2002, 144,251 certificates were issued to the 603 norms. Under these circumstances, the Ministry of Economy entrusted CONOCER to develop the new norm for certification of SME consultants.

Upon the request, CONOCER convened the Normalization Committee for the purpose of first revising the existing general consultant norm, second developing the new norm for SME consultant system, and third studying introduction of the industry-wise technical consultants system. For this end, it established the following six working groups:

- Group 1 : Updating of the norm for the general consultants
- Group 2 : Study of JICA team's proposals on the new system for SME consultants
- Group 3 : Analysis of APEC's certification system for small business counselors
- Group 4 : Study of the term of certification validity and an evaluation guideline
- Group 5 : Study of training courses for consultants
- Group 6 : Development of an ethical code

CONOCER is not responsible for training courses, which are directly handled by the Ministry of Economy, which organized a working group for development of training courses by selecting members from the above six working group and temporarily naming it as the "joint working group" in this report.

1.7 Members of the Follow-up Study Team

The study team members, their responsibilities, and participation in the field surveys are summarized in Table 1-1.

Table 1-1 List of Study Team Members and Responsibilities

Name		Responsibility	1st Field Survey	2nd Field Survey	3rd Field Survey	4th Field Survey
S. Inakazu	UNICO	Team Leader	○	○	○	○
A. Hata	UNICO	SME consultants training/ certification program	○	○	○	—
T. Moriguchi	UNICO	Preparation of test problems (manufacturing)	○	—	—	—
T. Nagai	UNICO	Preparation of test problems (commerce/service)	○	○	○	—
Y. Izuho	Izuho Consulting	Planning and guidance for training courses (manufacturing)	—	○	○	—
Y. Yamazaki	Yamazaki Management Research Institute	Planning and guidance for training courses (commerce/service)	○	—	○	○
M. Umeyama	Individual	Translator	○	—	○	○
M. Takei	Individual	Translator	—	○	—	—
I. Kado	UNICO	Coordinator	—	○	○	—

(Note) ○: participated; —: not participated

1.8 Explanatory Notes for Wording in this Report

Norm:

Technical Norm of Competent Labor (Norma Técnica de Competence Laboral) is abbreviated as “norm(s)” in this report. The norms are documents that the Normalization Committee elaborated with a consensus of relating industrial sectors, CONOCER approved and then SEP and STPS acknowledged. The norms indicate the direction and the frame of evaluation of competence of labor and they are commonly and continuously used in the country. “Competence” concerns a harmonized representation of knowledge, ability and skill, which are required to execute the subject labor and work. The norms are officially published as a gazette of the Federal Government as General Regulation Concerning Normalization and Certification System.

Training cause:

“Training course” used in this report means one that should be developed corresponding to the new SME norm for SME consultants, which is now under preparation. The training course is divided into the two elements:

- 1) Lecture training course : Classroom type lectures
- 2) Practical training course : Training for corporate diagnosis in enterprises to obtain skills through field experience

New norm:

This defines the norm for SME consultants that is now under preparation, by contrast with the norm for general consultants that is currently working.

New (certification) system:

A total system corresponding to the new norm is abbreviated as “the new (certification) system”, which includes the norm itself, evaluation tools, and procedures and organizations of evaluation and certification.

Chapter 2 Proposals Made in the Previous Study and the Progress

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The Mexican Ministry of Economy requested JICA the follow-up study as it decided to introduce the new SME consultants training and certification system on the basis of the proposals made in the previous study conducted in 2001. This chapter summarizes the proposals made by the study team in the previous study and progress or subsequent actions taken by the Mexican counterpart. They are listed item by item in Table 2-1 and are discussed in the following sections.

Table 2-1 Proposals under the Previous Study and Actions Taken by the Mexican Counterpart (SME Consultants Training and Certification System)

	Proposals made by the study team	Actions taken by the Mexican counterpart
1.	Introduction of the SME consultants system	The new norm and the evaluation process are under preparation, scheduled to be published in March or April 2003.
2.	Emphasis on the written examination in the certification process	It has been agreed to include the written examination in the preliminary selection criteria. It may be specified in the guideline for the new norm.
3.	Introduction of the dual structure (junior/senior) instead of the general consultant system	To be unified; the general consultant system (equivalent to junior consultant in the study team's proposal) will be continuously used.
4.	Certification by two industrial sections ("manufacturing" and "commerce/service")	The two industrial sections will be unified, in the SME consultant system.
5.	Introduction of the renewal requirement for certified consultants	Already decided to prepare an ethical code and detailed rules are under development.
6.	Presentation of an ethical code for consultants	Already decided and penalty codes are being discussed.
7.	Introduction of the technical consultant section	Decided in principle and actual work has started.
8.	Certification of general consultant without evaluation process as SME consultants (transitional measures)	The proposal was not adopted and mandatory certification was postponed by one year.
9.	Preparation for introduction of the SME consultation system in 12 months	The follow-up study is considered as support for preparation for introduction of the SME consultation system. It has been mostly completed within a shorter period of time or six months.

2.1 SME Consultants Certification System

2.1.1 Introduction of the new SME consultant system

(Proposal)

On the basis of the understanding of the roles of the present certification system for general consultants, the study team proposed the introduction of a new SME consultants certification system. The study team believes that the present system for general consultant covers all fields including architecture, ISO, farming and forestry and intends to certify as many applicants as possible. As a result, current consultants which are certified by the general consultant system are not necessarily trusted by SMEs, because of varying levels of professional knowledge and skills. The proposal is designed to address the problem.

(Progress)

CONOCER convened the Committee for Normalization of the Consultation Sector which consisted of six working groups. The primary tasks of the Normalization Committee together with the working groups are summarized as follows:

- 1) Review and revision of the certification norm for general consultants (to be reviewed every two years);
- 2) Elaboration of a certification norm for SME consultants; and
- 3) Introduction of a certification norm for technical consultants.

Among them, the task in 1) has already been completed, and the one in 2) is in the stage of final check of the new norm documentation by CONOCER, related personnel and organizations. The SME consultants norm will be published in March 2002. The task in 3) is under consideration as introduction has been basically agreed.

2.1.2 Emphasis on the written examination in the certification process

(Proposal)

The study team proposed in the final report on the previous study that certification emphasize the written examination in order to certify SME consultants on a highly selective basis, thereby to minimize undue damage to SMEs due to poor consultation. In the follow-up study, the study team more concretely proposed a two-step evaluation method that the written test should come first for evaluation of “knowledge” being followed by evaluation process for “ability and skills”; only successful applicants of the written test were to be eligible to enter the second step of the evaluation process.

(Progress)

Originally, CONOCER did not agree with the proposal because it does not conform to the CONOCER's regulation. However, CONOCER later understood the proposal that is, SME Consultants should have wide and professional knowledge as a prerequisite of certified SME consultants. At present, CONOCER may study methods to introduce the proposed two-step evaluation process without any conflict with the regulation.

2.1.3 Introduction of junior and senior consultants section in the new system, with future absorption of the certified general consultants as the junior level

(Proposal)

The study team proposed to establish junior and senior sections in the new SME consultants certification system, followed by the abolishment of the existing general consultant system. More precisely, persons who are certified as general consultants in the SMEs-related field will be certified as junior SME consultants without evaluation. The proposal is designed by considering that the already certified general consultants should be also qualified when the new certification system is mandated.

(Progress)

The Normalization Committee developed the new SME consultant certification norm without establishing the junior and senior sections. The abolishment of the present general consultant system may be considered when certified SME consultants reach a sufficient number. Meanwhile, consultants who are engaged in the government's SMEs promotion programs will be mandated to obtain qualification under the new SME consultant system, and it will become an important issue as to how the already certified general consultants will be treated. The basic stance of the Ministry of Economy is that only the new certification system will be acceptable, while the general consultant certification system belongs to one of CONOCER's professional skill certification systems.

2.1.4 Division of "manufacturing" and "commerce/service" sections in the new system

(Proposal)

The study team proposed that SME consultants be certified for two different fields.; it is important to ensure high quality of consulting service by encouraging consultants to

pursue profound knowledge and experience in a specific field, such as “manufacturing” for engineering experts and “commerce/service” for business experts. This segregation is expected to meet the actual corporate needs.

(Progress)

The Normalization Committee defined the following five fields in the function map for SME consultants. (Valid as of December 2002)

- 1) Human resource management and management strategy;
- 2) Marketing and sales;
- 3) Operation;
- 4) Legal; and
- 5) Financial.

In fact, the Committee once considered to establish two sections in the new norm - 2) marketing and sales is specialized for the “commerce/services” section, 3) operation is specialized for the “manufacturing” section, and others 1), 4), 5) are for common. In the end, however, it was decided to incorporate all the five fields, while somewhat lowering the requirement levels of the two subjects 2) and 3). Thus, separation of “manufacturing” and “commerce/service” was not introduced.

2.1.5 Introduction of the renewal requirement

(Proposal)

The study team proposed to introduce the renewal requirement (every 3-5 years) for the general consultants system as well as the new SME consultants system.

(Action taken by the Mexican counterpart)

The issue is discussed by Working Group 4, which has already decided on the introduction of the renewal requirement. WG4 is now discussing detailed rules including the reexamination.

2.1.6 Ethical education of newly certified SME consultants

(Proposal)

The study team proposed preparation of the ethical code for consultants and education during the SMSE consultant training courses.

(Progress)

The chairman of the Normalization Committee speaks about the policy regarding the ethical code, as follows:

“The draft ethical code was prepared by the working group in the past few months. We intend to simplify it further to facilitate practical application. CONOCER will incorporate the knowledge of the ethical code and the obligation to take an oath into the certification norm. A major issue unsolved is the lack of legal ground for penalty or sanction against a violator of the code, unless he violates the criminal code, and CONOCER is not authorized to impose such penalty. It is proposed to exclude the violator from the list of certified persons, as prepared by the Ministry of Economy, but it is again difficult to determine such disposition on the basis of the ethical code.”

2.1.7 Introduction of the technical consultant section

(Proposal)

The study team stated, in its final report on the previous study, that the consultant system in the country would be completed when the technical consultant system by each professional field is added to the new SME consultant certification system. It also introduced the consulting engineer certification system (Professional Engineer) in Japan. The technical consultant system was suggested as a supplemental opinion as it was outside the scope of the previous study.

(Progress)

As discussed earlier, the Normalization Committee agreed to introduce the technical consultant norm for each professional field in the future.

2.1.8 Special provisions for the certified consultants under the general consultant certification system (transitional measures)

(Proposal)

On the occasion of the introduction of the general consultant system (operated since August 2000 on an experimental basis), the study team proposed the introduction of transitional measures to aim at protection of existing consultants; and securing of a sufficient number of certified general consultants within a short period of time. It proposed to qualify around 400 experienced consultants as general consultants without any evaluation. The proposal is designed to make up for an anticipated shortage of certified

consultants, which will likely occur in January 2002 when certification of the general consultant becomes mandatory.

(Progress)

The proposed transitional measures were not adopted because it was considered unfair to approve certification without evaluation under the official norm. As the number of certifications did not reach the required level, however, it was decided to postpone the mandatory certification by one year.

2.2 Certification Method for SME Consultants

2.2.1 Organization to implement SME consultant system

(Proposal)

The introduction of the new certification system entails partial modification of the certification method. Under the previous study, the study team proposed the schemes that are summarized as follows:

- (1) To maintain the existing three-tier structure consisting of an accreditation agency, certification agencies and evaluation centers;
- (2) To place the Test Problem Sub-committee under direct or indirect control of CONOCER; and
- (3) To conduct both the written and practical tests by outside, independent organizations, as entrusted by the evaluation center.

(Progress)

As for the scheme in (1), the present system will be maintained as same as before.

As for the scheme in (2), discussion is underway to separate preparation of test problems from the evaluation centers. It is also being discussed to unify responsibilities for preparation and management of test problems.

The scheme in (3) has still to be decided, and discussion is underway to entrust administration of the written test to the evaluation centers. The practical test in a training course is undecided because it is closely related to the establishment of a certification requirement to mandate completion of the practical training courses.

2.2.2 The nationwide written test and an alternative proposal

(Proposal)

The study team proposed, in its final report on the previous study, the nationwide written test (annually, two days each). During the first field survey for the follow-up study, however, the study team found that it would be very difficult to conduct the nationwide test because Mexico did not have any experience in a nationwide written test. Instead, therefore, the study team proposed the following alternative:

- 1) An independent organization will prepare around 1,000 test problems, which will kept secret.
- 2) Upon the request of the evaluation center, 200 problems will be randomly selected and used for the written test (via the Internet).
- 3) Each year, 300 new problems will be created and fill the stock of 1,000 problems.
- 4) The evaluation center will conduct the written test every 3 – 6 months annually at maximum.

(Progress)

The Mexican counterpart is ready to accept the proposal. There is an alternative proposal to create 2,000 problems and assign a different set of problems to each student. It will likely be decided to prepare evaluation tools including test problems under CONOCER's supervision, thereby separating the process from the evaluation center (discussion is underway in a formal meeting among related organizations), because the evaluation tools previously prepared by the evaluation centers is not considered to meet the objective of the CONOCER standard.

2.3 Training courses

2.3.1 Long-term training course for college students in regular study courses

(Proposal)

Assuming that the CONSULTE program, which is implemented as the one-year pilot program, will be implemented as a permanent program, the study team proposed certification of persons who have completed the one-year course without examination. It also proposed that the one-year course would be modified to accept general citizens, in addition to the current eligibility that is limited to university students.

(Progress)

According to the Ministry of Economy, it was decided to review the pilot program because of the following reasons.

- 1) There is the shortage of instructors at colleges and universities, who can teach practical knowledge and skills required for SME consultants.
- 2) The objective or other conceptual elements of the CONSULTE program are not clearly defined and students taking the pilot program have varying motives and intentions.
- 3) Partial payment of the tuition by the Ministry of Economy has attracted students who are not interested in the program. This is similar to the problem in 2). Some students lacked a motive or intent to become SME consultants.

At present, CETRO-CRECE conducts post-program evaluation and additional problems seem to be identified, including the need for preparation of good textbooks. It is important to upgrade the textbooks that have been prepared by this pilot training course for the use for CONSULTE program and the future training courses. Thus, the CONSULTE program will not end but should be redesigned under a clear concept, while selecting universities in consideration of program effectiveness.

2.3.2 Short-term training courses for Adult Education (intensive type)

(Proposal)

The study team proposed a short-term training courses for adult education (1.5 months) showing a preliminary curriculum. The course is essentially characterized as “preparation for the written examination” under the assumption that the substantial weight will be placed on the written test. The course will cover all subjects to be tested and field training for corporate diagnosis. The study team also proposed a shorter course lasting one month as a pilot training course.

(Progress)

The pilot training courses (one month) was conducted in the follow-up study, between November 11 through December 10, 2002. For preparation, the following activities were carried out during the second field survey:

- 1) Preparation of textbooks for classrooms lectures;
- 2) Preparation of written test problems (for trial examination);
- 3) Development of a corporate diagnosis manual;
- 4) Training for practical training instructors in corporate diagnosis (September 23 – 28)

5) Workshops for classroom lecturers

Note that the Mexican counterpart stated the following policy for the establishment of the implementation system after the pilot training courses:

“The Normalization Committee suggests that the completion of the training courses should be made prerequisite to the SME consultants. A final decision will be left to the Ministry of Economy and CONOCER. The Ministry of Economy will consult with state governments, universities and the private sector to decide on the formal deployment method on the basis of the results of the pilot training course in November 2002 and will start nationwide implementation.

2.3.3 Supplementary courses for workers

(Proposal)

The study team proposed, during the previous study, the supplementary courses for adult education who cannot take either the long-term training courses or the short-term intensive course. This is the program consisting of modular courses (8 hours per subject) to focus on the subjects which each student is not good at. It may be combined with trial examination to identify a weak subject, practical training for corporate diagnosis, and/or simplified trial examination to measure the results of study.

(Progress)

No specific decision has been made on the supplemental course proposal yet.

2.4 Completion of Preparatory Works in 2002

(Proposal)

The study team presented 12-month timetable of preparation activities assuming that the new system would be obligated at the beginning of 2003.

(Progress)

The Ministry of Economy requested JICA to support the preparation work as a follow-up of the previous study because Japan had long experiences in this field. The Normalization Committee commenced development of the new norm with six working groups from January 2002. The development of the new norm, however, was delayed because the Committee gave priority to revision of the existing norm for the general

consultants. The study team begun to support the preparatory works since July 2002 by shortening the 12-month timetable to 6-month duration.

Chapter 3 Summary and Analysis of the Results of the Pilot Training
Course

Chapter 3 Summary and Analysis of the Results of the Pilot Training Course

3.1 Outline of the Pilot Training courses

3.1.1 Objectives of the pilot training courses and expected output

The pilot training course is expected to provide useful lessons for the establishment of the new SME consultants system and its smooth operation. Its objectives and expected results are summarized as follows.

- (1) To obtain lessons required for the finalization of the new SME consultant certification system;
- (2) To collect data and information relating to the required levels of written examination;
- (3) To obtain lessons necessary for finalization of the frame of the training courses;
- (4) To obtain lessons necessary for education of classroom lecturers and practical training instructors;
- (5) To improve consultation capability of the participants; and
- (6) To modernize management of the model companies that receive corporate diagnosis and guidance during the pilot course.

3.1.2 Participants

In total, 47 persons participated in the pilot training course. They were selected by the Ministry of Economy from approximately 80 applicants. They constituted a single class for lecture and were divided into six groups for practical training for corporate diagnosis.

3.1.3 The curriculum for the pilot training course

The pilot training course consisted of three-week lecture classes, one-week practical training for corporate diagnosis, one-day written examination, totaling four weeks and one day excluding a half-day for the closing ceremony. The details of the curriculum are summarized in Table 3-1.

Table 3-1 Curriculum for the Pilot Training courses

Lecture: 8:00 a.m. – 2:00 p.m. (including a 30-minute break)
 Practical training: 8:00 a.m. – 6:00 p.m. (9 hours except for lunch break)

Date			Main Subject		
				Japanese instructor	
1st week	11/11(Mon)	1	Lecture	SMSE policies and programs	
	11/12(Tue)	2		Finance/accounting (I)	One case study
	11/13(Wed)	3		Finance/accounting (II)	
	11/14(Thu)	4		Information system	One case study
	11/15(Fri)	5		Consulting skills (I)	One case study
	11/16(Sat)	6		Consulting skills (II)	
2nd week	11/18(Mon)	7		Operation (I)	Two case studies
	11/19(Tue)	8		Operation (II)	
	11/20(Wed)	Holiday		National holiday	
	11/21(Thu)	9		Innovation (product development and business startup)	One case study
	11/22(Fri)	10		Legal aspects (I)	Japanese situation
11/23(Sat)	11	Legal aspects (II)			
3rd week	11/25(Mon)	12		Marketing and sales (I)	One case study
	11/26(Tue)	13		Marketing and sales (II)	
	11/27(Wed)	14		Strategic management (I)	One case study
	11/28(Thu)	15		Strategic management (II)	
	11/29(Fri)	16		Human resources (I)	Japanese situation
	11/30(Sat)	17	Human resources (II)		
4th week	12/2(Mon)	18	Practical training for corporate diagnosis	Corporate diagnosis (I)	Hata, Yamazaki, Izuho
	12/3(Tue)	19		Corporate diagnosis (II)	Hata, Yamazaki, Izuho
	12/4(Wed)	20		Corporate diagnosis (III)	Hata, Yamazaki, Izuho
	12/5(Thu)	21		Corporate diagnosis (IV)	Hata, Yamazaki, Izuho
	12/6(Fri)	22		Corporate diagnosis (V)	Hata, Yamazaki, Izuho
	12/7(Sat)	23		Corporate diagnosis (VI)	Hata, Yamazaki, Izuho
5th week	12/9(Mon)	24		Trial written examination	
	12/13(Fri)	25		Closing ceremony	

3.2 Training of Instructors and Preparation of Course Materials

3.2.1 Opening of workshops for lecturers and selection of pilot training course lectures

The workshops were held for candidate classroom lecturers during the follow-up study, as summarized below. The primary purpose was to recruit instructors and improve the textbooks jointly prepared by the study team and the joint working group as well as standardize the teaching method. For each class, a questionnaire survey was conducted to see if participants intend to become instructors for the pilot training course.

Table 3-2 Workshops for Lecture Instructors

date	Morning session	Afternoon session
October 1	Orientation 1. Consulting skills (14/9)	2. SMSE policies and programs (11/6) 3. Information system (11/5)
October 2	4. Finance/accounting (12/8)	5. Business administration (19/5)
October 3	6. HR management (18/8)	7. Operation (13/4)
October 4	8. Innovation (18/6) 9. Marketing (18/7)	10. Legal aspects (6/3)

(Note) Figures in () denote (No. of participants/No. of applicants).

3.2.2 Training and selection of practical training instructors

During the second field survey of the follow-up study spending six days from December 23, 2002 to December 28, 2003, experts in the study team conducted the workshops for practical training instructors in corporate diagnosis. They were designed to train Mexican instructors who would become instructors for the pilot training course as well as the cadre of instructors for the formal training courses in future. Two manufacturing companies received two teams of participants for actual field survey and consultation.

The number of participants in each group is as follows: An expert of the study team was assigned to each team as a trainer.

Team A	10	(9)
Team B	<u>10</u>	<u>(6)</u>
	20	(15)

The figures in () denote the number of participants excluding those who were absent for two or more days. In total, 15 participants completed the workshops. The study team selected 7 participants who showed excellent performance and reported them to the Ministry of Economy. And 6 out of 7 participants were selected as practical training instructors for the pilot training course.

3.2.3 Preparation of training materials

(1) Selection of course subjects and preparation of textbooks for lecture courses

The study team and the joint working group discussed and selected the following 10 subjects, together with organizations responsible for preparation of textbooks. This framework is expected to be used for the formal training courses.

1. SME policies and promotion programs –SE
2. Finance/accounting – DGT
3. Information system – DGIT
4. Consulting skills – CETRO
5. Operation – CIDESI
6. Innovation – JICA study team
7. Legal aspects – Consulting firm, SICPE under CANACINTRA
8. Marketing and sales – JICA study team

9. Strategic management – CETRO

10. Human resource – DGIT

(2) Practical training manual for corporate diagnosis

It requires considerable time and effort for relatively young consultants to conduct corporate diagnosis and give advice to corporate owners and managers who often have longer experience. Also it is very difficult to transfer expertise in corporate diagnosis to potential consultants in a systematic way. To address these needs, standard methodology on corporate diagnosis should be established. For this purpose, the study team prepared the corporate diagnosis manual with 156 pages of Spanish version as the student textbook. The manual offers a systematic analytical methods and techniques and enables inexperienced consultants to learn an effective and efficient method for corporate diagnosis and guidance. It is partially based on the manual used for CETRO-CRECE's practical training for senior consultants named pilot project, which was conducted during the previous study, with substantial updating and modification.

(3) Instructor's manual for corporate diagnosis

In training Mexican instructors for corporate diagnosis, they did not have experience in teaching though they had experience in consulting services so that the study team newly prepared the instructor's manual. The practical training method covered in the instructor's manual is partially based on the method used for the pilot project, with some updating and modifications.

3.3 Practical Training and Written Examination

3.3.1 Execution of practical training for corporate diagnosis

The practical training for corporate diagnosis was carried out over six days in the fourth week of the pilot training course. Table 3-3 shows a schedule of the practical training for corporate diagnosis. Participants of 47 persons were divided into six groups so as to keep the number of persons below 10 persons per group: Each group diagnosed a corporation. Thus, six corporations provided participants with place of the practical training.

Table 3-3 Schedule of Practical Training Course for Corporate Diagnosis

Date	Morning	Afternoon	Materials
Dec. 2 (Mon)	(CANACINTRA Classroom) ① Orientation for corporate diagnosis ② How to use the manual	(CANACINTRA Classroom) ③ Pre-diagnosis and planning by group	Diagnosis Manual Step I
Dec. 3 (Tue)	(At enterprise) ① Hearing from management ② Field investigation	(At enterprise) ③ Analysis of data and information	Diagnosis Manual Step II
Dec. 4 (Wed)	(CANACINTRA Classroom) ① Preparation of a general radar chart for five sections	(CANACINTRA Classroom) ① Planning of the next-day diagnosis on selected crucial sections. ② Preparation of reports by section.	Diagnosis Manual Step II
Dec. 5 (Thu)	(At enterprise) ① Reporting of the result of the general diagnosis and agreement on the selected crucial sections. ② Detailed investigation on the selected sections	(At enterprise) ③ Continuation of the work ② ④ Detailed scoring for the selected sections	Diagnosis Manual Step III
Dec. 6 (Fri)	(CANACINTRA Classroom) ① Preparation of detailed radar charts of the selected sections ② Analytical works for identification of crucial areas to improve ③ Drawing up of strategies and measures to improve	(CANACINTRA Classroom) ④ Preparation of diagnosis reports ⑤ Exercise for presentation of the reports	Diagnosis Manual Step IV
Dec. 7 (Sat)	(CANACINTRA Classroom) ① Presentation of the reports to enterprises ② Comments from instructors ③ Q/A and comments from enterprises	(CANACINTRA Classroom) ④ Internal meeting for reviewing the practical training course	Diagnose reports

3.3.2 Method and results of the written examination

On December 9, the trial written test was conducted according to the curriculum. The test had two objectives: to measure the level of understanding of lectures given to participants; and to collect information useful for introduction of the written test to the SME consultants certification program in future. The test used 200 problems in type of choice a correct answer out of four candidate answers and consisted of four hours with a 15 minutes break.

A. The average percentage of correct answers (44 participants)

$$114.0 / 200 = 57.5\%$$

B. Percentile distribution

65% or higher * * * 8 persons (Highest score: 69%, 1 person)

65 - 60% * * * * * 9

59 - 55% 9

54 - 50% 6

Less than 50% 9 (Lowest score: 44%, 1 person)

C. Pass rate

If the passing score is set at 60% or higher, 17 persons pass the test, with the pass rate of 41.5%. If three persons who have marked less than 40% for any of one subject are excluded from the pass list, 14 persons pass and the pass rate is 34.1%.

3.4 Post-Evaluation of the Pilot Training course

3.4.1 Types of questionnaire surveys conducted

To evaluate the pilot training course from various angles, the following seven questionnaire surveys were conducted for participants.

Questionnaire I	Evaluation of lecture classes by participants	Questionnaire II	Overall evaluation of the curriculum by participants
Questionnaire III	Evaluation of lecture classes by lecturers		
Questionnaire IV	Evaluation of lecture classes by the study team		
Questionnaire V	Evaluation of practical training by instructors		
Questionnaire VI	Evaluation of practical training by the study team		
Questionnaire VII	Evaluation of practical training by corporate managers		

The results are summarized in the following sections:

3.4.2 Participant evaluation of lectures and instructors

Participants evaluated the lectures of the pilot training course including materials and lecturers as shown in Table 3-4 by the average score on each evaluation item. The overall average score was 4.3 on a 5 point scale. Dispersion from the average is relatively small for each evaluation item but "Allocation of lecture hours" marked the lowest point.

Table 3-4 Evaluation of Lectures by Participants

Evaluation item	Score
•Ease of understanding	4.4
•Lecturers' attitude	4.5
•Lectures' professional knowledge/experience	4.5
•Adequacy of textbooks (compared to lecture hours)	4.0
•Adequacy of textbooks (the lecture's content)	4.1
•Allocation of lecture hours	3.8
•Preparation of course materials	4.3
•Ease of understanding	4.4
•Content and level	4.3
•Relevance of case study	4.3
•Facility and equipment	4.0
Overall average	4.3

3.4.3 Participant evaluation of the curriculum

“participant evaluation of the curriculum” aimed to obtain reactions to the entire pilot course. 36 participants responded to this questionnaire.

(Q1) Is the entire pilot training courses satisfactory? Average score – 3.8 (out of 5)

(Q2) Is the lecture easy to understand? Average score – 3.7

(Q3) Is the lecture class managed adequately? Average score - 3.4

(Q4) Do the ten subjects cover all areas required by SME consultants? 36 responses:
Yes – 28 (78%); no – 8 (22%)

It is learnt from (Q1) to (Q4) that the 10 subjects of lectures mostly satisfied participants by covering knowledge necessary for SME consultants. However, management of the lectures and ease to understand lectures did not necessarily satisfy them. Development of skills of lectures should be a theme for the future.

(Q5) Which subject required more time or less time?

Table 3-5 indicates that some lecture hours allocated to Legal aspects, Consulting skills and Human resources should be reallocated to Operation, Finance/accounting and Marketing and sales.

**Table 3-5 Courses Requiring More Time or Less Time
(36 responses, multiple responses allowed)**

Course name	No. of responses	
	shortage	surplus
5. Operation	21	1
2. Finance/accounting	18	3
8. Marketing and sales	14	1
1. SME policies and promotion programs	8	0
9. Strategic management	7	1
10. Human resources	4	4
3. Information system	3	2
4. Consulting skills	3	4
7. Legal aspects	3	9
6. Innovation	2	1

(Q6) Textbooks for classroom lecturers

Easy to understand – 26 responses (72%); difficult to understand – 6 (17%); do not know – 4 (11%)

(Q7) Is the practical training courses for corporate diagnosis useful for your future work as the SME consultant? Average score – 4.58 (out of 5)

(Q8) When the SME consultants certification standard is established in Mexico, are you willing to obtain certification?

Yes – 33 responses (92%); under consideration – 3 (8%); no – 0

Participants said by answers to (Q6) to (Q8): The textbooks were comparatively easy to understand, the practical training was much useful and participants strongly intended to acquire the certification of SME consultants.

(Q9) The formal training courses will start in 2003 and charge a training fee. How much is the adequate fee for the course if it is more or less the same as this pilot training courses?

Responses varied between 40,000 peso and 1,000 peso. The average fee is 10,841 peso. The responses seem to represent the acceptable range of the training fee for them. It should be noted, however, that the study team's experience indicates that this type of question often elicits a lower fee than the market price.

(Q10) Lecture hours (three weeks and six hours per day)

Responses to the question “how many hours are adequate as duration of lecture per day” ranged between 3 and 10 hours, with the average of 7.28 hours.

Also, another question was asked if the three-week lecture course is too long, too short or adequate. 3 persons (8.3%) responded “too long,” 24 (66.7%) “too short” and 9 (25%) “adequate.”

The last question was asked about an adequate duration of the daytime training courses for the general public, and responses are summarized as shown in Table 3-6.

Table 3-6 Adequate Duration of the Daytime Training courses (36 responses)

Adequate duration	No. of responses
3 months	9
2 months	7
1 month	6
No answer	6
6 months	2
4 months	2
1.5 months	2
0.5 months	1

(Q11) Test method and level of difficulty

- Participants were asked to estimate their percentage of correct answers, and the average score was 3.3, or 67% (compare to the actual average percentage of 57.5%). About the level of difficulty, 14 participants (38.9%) responded “adequate,” whereas 3 (8.3%) “very easy” and 12 (33.3%) “very difficult.” “Adequate” and “very easy” responses accounted for nearly one half, 47.2%. A total of 21 responses (58.3%) considered that the content of lecture was adequate compared to the test.
- As for the number of test problems and the time required, 22 respondents (61.1%) considered them adequate on the basis of the training courses.
- Participants were asked about the level of the test, i.e., whether it was adequate for the nationwide test to certify SME consultants when 60% are assumed to be the minimum pass rate. The responses are summarized in Table 3-7. Answers to consider “adequate,” “requiring some modification” and “very easy” numbered 33 (91.6%). Thus, the dominant share of participants accepted the test level.

Table 3-7 Comparison of the Level of the Trial Exam and the Actual Certification Exam

If the level of the present test is adopted as the level of the actual certification test; Response	No. of respondents
1. Adequate	8
2. Requiring some modification	23
3. Very easy	2
4. Very difficult	3
5. Do not know	0

- Finally, preference for the type of test problem (multiple choice, short answer, and essay) was asked (the all trial test problems were the multiple choice type, a choice from four answers). Responses are summarized in Table 3-8.

Table 3-8 Preference for the Type of Test Problem (36 responses)

Type of test problem	No. of respondents
No preference	6
Multiple choice	21
Short answer should be included	9
Essay should be included	0

3.5 Evaluation of Participants by Instructors

3.5.1 Evaluation by classroom lecturers

Table 3-9 summarizes evaluation of each lecture course by classroom lectures, as indicated in the average score. The overall average score was 3.7 out of 5 points.

Table 3-9 Evaluation by Classroom Lecturers (five point scale)

Item	Score
• Reaction/attitude of participants	4.3
• Case study by Japanese expert – relevancy	4.3
• Adequacy of textbook	
Compared to the duration of lecture	3.2
Compared to the content of lecture	4.0
• Time allocation	3.4
• Facility and equipment	3.0
Overall average score	3.7

Table 3-10 Evaluation of Classroom Lectures by the Study Team

Item	Score
1. Lecturers	
Attitude	4.4
Professional knowledge/experience	4.0
2. Adequacy of textbook	
Compared to the duration of lecture	3.6
Compared to the content of lecture	3.7
3. Time allocation within each lecture	3.3
4. Use of aids (PowerPoint, visual equipment)	
Preparation	4.3
Course materials – ease of understanding	3.7
Content and its level	3.5
5. Reaction of participants	3.9
6. Facility and equipment	3.0
Overall average	3.7

The overall average score for the study team was 3.7, which is the same score of satisfaction shown by classroom lecturers.

3.5.2 Evaluation of practical training

The results of evaluation by six Mexican instructors in charge of practical training for corporate diagnosis and by the study team members (attended as advisers) are summarized as follows.

Table 3-11 Evaluation of Practical Training by Six Mexican Instructors

Item	Score
1. Manual	
Ease of understanding	3.8
Usefulness for corporate diagnosis by participants	4.5
Ease of use for instructors	4.2
2. Scheduling and time allocation	3.3
3. Cooperation and reaction of the model company	4.7
4. Facility and equipment	3.5
5. How many companies do you prefer to visit in a course?	2 respondents – 1 3 respondents – 2 1 respondent – No answer
Overall average score for questions 1, 2, 3 and 4	4.0

Table 3-12 Evaluation of Practical Training by Three Study Team Members (Advisers)

Item	Score
1. Manual	
Do participants understand it well?	4.0
Do participants use the manual for actual diagnosis?	4.5
Does the instructor use the manual? (not in his own way)	4.3
2. Instructor's teaching skills	
Does he organize and lead participants properly?	3.7
Scheduling and time allocation	3.8
Adequate use of PowerPoint and other presentation tools	5.0
3. Cooperation and reaction of the model company	
How does it react to corporate diagnosis and guidance?	5.0
How does it react to presentation and reporting?	5.0
4. Facility and equipment	4.7
Overall average score	4.5

3.5.3 Evaluation of Corporate Diagnosis and Guidance by Model Companies

As corporate diagnosis and guidance was completed for each model company during the weekend, presentation and reporting was made for its management. After the presentation meeting, management were asked to evaluate the content of corporate diagnosis and guidance. The results are summarized as follows.

Table 3-13 Level of Satisfaction of Management (responded by 23 managers of 6 model companies; five-point scale)

Item	Score
1. Usefulness of the corporate diagnosis report	4.7
2. Presence of a readily feasible recommendations	4.8
3. Satisfaction with the presentation meeting	4.7
4. Willingness to receive similar service (under government subsidy)	Yes – 22 managers Do not know – 1
5. Willingness to accept the practical training team in the future	Once every two years – 2 Once per year – 9 Twice per year – 5 Three times per year – 6 Not any more – 0 No response – 1
Overall average score for questions 1, 2 and 3	4.7

Chapter 4 Conclusions and Recommendations on Major Issues
 Related to Introduction of the New System

Chapter 4 Conclusions and Recommendations on Major Issues Related to Introduction of the New System

To finalize the implementation system and identify major issues relating thereto, the study team and all related parties on the Mexican side met and discussed on November 11, 2002. At the meeting, the study team presented proposals, followed by questions and answers. In addition, comments and opinions on important issues were obtained from participants to the meeting in the form of a questionnaire survey. In total, 20 questionnaires were collected.

This chapter discusses major issues relating to the new system by taking into account opinions in the questionnaires of the participants. Then, final conclusions and recommendations of the study team, which are not necessarily agreed by the Mexican side, are presented in the following order:

- (1) Certification procedure under the new certification system
- (2) The overall organizational structure for certification and evaluation under the new system
- (3) Implementation procedure for the written examination
- (4) Implementation organization for the written examination
- (5) Positioning and operation of lecture training courses in the new system
- (6) Positioning and implementation organization of practical training courses for corporate diagnosis
- (7) Treatment of consultants who are already certified under Norm for General Consultants

4.1 Certification procedure under the new certification system

(Conclusions and recommendations)

1. The applicant takes the written test that evaluates his “knowledge” as primary evaluation-knowledge. If he passes the test, he can advance to the subsequent evaluation stage by documents and interview, namely “work products” and “professional skills.” as secondary evaluation – professional skills.
2. The applicant who has passed the written test receives a certificate and may receive “secondary evaluation” immediately or within 12 – 24 months thereafter. In other words,

the successful applicant for the written examination is allowed to obtain evaluation of “professional skills” within the period.

3. Any applicant can take written examination even on self-learning, and therefore completion of the lecture courses is not mandatory.
4. The lecture training courses are designed to prepare applicants just for the written test and do not contain practical training courses for corporate diagnosis. The practical training courses are separately prepared for the secondary evaluation stage for professional skills.

4.2 Overall Organizational Structure for Certification and Evaluation under the New System

(Conclusions and recommendations)

1. Functions required for the new system and outside the scope of responsibility of CONOCER will be managed by the Ministry of Economy. After the enactment of the new certification system, division of responsibilities among the responsible organizations will be summarized as follows.
 - CONOCER as the accreditation body
 - 1) Development of the certification norm, accreditation and administration of the new system: as continued from the past
 - 2) Preparation of evaluation tools - preparation and management of test problems
 - Certification agencies
 - 1) Supervision of evaluation centers
 - 2) Issuance of the certificate to the applicant (cosigned by CONOCER)
 - Evaluation centers
 - 1) Administration and grading of the written test (primary evaluation process)
 - 2) Evaluation on work experience (secondary evaluation process)
 - 3) Submission of an overall evaluation report to the certification agency
 - Ministry of Economy (responsible for functions and services not covered by CONOCER)
 - 1) Management and supervision of lecture courses and promotional activities
 - 2) Management and supervision of practical training courses and promotional activities

2. The monitoring committee to monitor activities of certification agencies and evaluation centers will not be newly established for the time being. It is advisable that investigation be made of the current evaluation processes under the general consultant system to clarify underlying problems. Upon the result and watching operation of the new system, introduction of the new monitoring committee should be carefully discussed.
3. The new system will involve the three key functions.
 - 1) Preparation of evaluation tools
 - 2) Execution of evaluation processes
 - 3) Execution of training courses

It is strongly suggested that an organization administrate and operate only one function out of those three functions. Separation of organization by function will assure impracticality and transparency of the new system.

4.3 Implementation Procedure for the Written Examination

(Conclusions and recommendations)

1. Test problems will be of multiple choice or filling-blank type with one correct answer, rather than the essay type problems which are difficult to grade due to subjectivity of examiner, while the problem is easy to make.
2. Around 2,000 problems will be created and kept as stock and about 200 problems are randomly selected for each test. One third of the stock will be replaced annually to assure a complete renewal every three years.
3. The pass rate is deemed to be an overall average of 60% (percentage of correct answers), but less than 40% for any single subject makes the applicant fail regardless of high score for other subjects. As the written test is repeated over time, modification should be made in terms of level of difficulty, pass rate, the number of problems, and test duration. As a temporary measures, the pass rate may be adjusted taking the actual results of the written test and the expected number of certified consultants into consideration.

4.4 Implementation Organization for the Written Examination

(Conclusions and recommendations)

1. It is recommended that a sub-committee of the Normalization Committee under supervision of CONOCER be established for preparation and management of the written

test problems with a secretariat. Division of responsibilities between the sub-committee and the secretariat is summarized as follows.

- Sub-committee: Establishment of a guideline concerning written test problems, selection of persons preparing test problems, acceptance of test problems, and supervision of custody of test problems
- Secretariat: Management of general affairs relating to preparation of test problems, custody of test problems keeping secrecy, sending of test problems to organizations executing the test and notification of answers, statistical management and analysis of written test results

2. The sub-committee will be organized out of members of the Normalization Committee and its working groups. The secretariat is to be the organization that the chairman of the sub-committee belongs. Preparation and management of test problems and other field functions can be entrusted to independent organizations such as CENEVAL.
3. Administration and grading of the written test will be handled by the evaluation centers. For an area not having a branch of any evaluation center, nearby evaluation center will send examiners for administration of the written test, while the state government, the local chamber of commerce, an educational institution or other organization will promote the new certification system, recruit applicants and provide the test site. If any problem happens in transparency by this mechanism, the sub-committee or the secretariat handle the grading of the written test.

4.5 Positioning and Operation of Lecture Courses in the New Scheme

(Conclusions and recommendations)

1. The lecture training courses for the written examination should be freely offered by any company or organization as commercial business. The Ministry of Economy should promote the lecture training courses to state governments and other organizations by means of promotion activities and financial support.
2. Textbooks, test problems, curriculum and other tools used for the pilot training course will be made available to the public. Providers of lecture training courses are encouraged to adopt them as the basic model and upgrade them to meet the changing market needs in the competitive environment. Thus, no unified textbook or curriculum will be necessary.

3. Also, providers of lecture training courses are encouraged to create different forms of education according to the market needs, such as nighttime + weekend courses, supplemental courses and distant education.
4. Applicants will not be required to take the training courses as they have other learning opportunities (self-learning, distant education etc.). The written examination will be used as the sole proof of professional knowledge.
5. The former CONSULTE will be reorganized as the one-year course that conforms to the new certification system, which shall be open to the general public too. Persons who have completed the course will be certified as SME consultant without the evaluation process or through the simple review procedure.

4.6 Positioning and Implementation Organization of Practical Training Courses for Corporate Diagnosis

(Conclusions and recommendations)

1. The applicant who has passed the written examination will be required to take the practical training course for corporate diagnosis as an obligation, covering at least two companies, which is conducted by an authorized organization. If the mandatory practical training course comes before the written examination, it is difficult for the practical training course to handle a large number of participants. The practical training course will be conducted for a small group, six persons per group at maximum.
2. The practical training course should be conducted according to the unified “general SME diagnosis procedure,” which will be developed by a sub-committee for work products and professional skills organized under the Normalization Committee. By taking into account requirements of the Ministry of Economy, it may be based on the “corporate diagnosis manual” used for the pilot training course and similar manuals used by government consulting firms.
3. The organization authorized to offer the practical training course is limited to the one having senior consultants or instructors. Eligible organizations include government consulting firms and banks, public and private high education institutes and associations of industry. The Ministry of Economy will approve some of those organizations.

4. The above organizations will issue a certificate to participants who complete the training course. The evaluation score on professional skills of participants should be kept, as confidential information, by the secretariat of the sub-committee. The secretariat notifies the evaluation score to each participant upon request of the evaluation center.

4.7 Treatment of Consultants who Meet the General Consultant Certification System

(Conclusions and recommendations)

1. After the new SME consultant certification system is enacted (slated for March 2003), the certified general consultants who have passed the written test within 24 months (until February 2005) will be also certified as SME consultants too. “Work products” and “professional skills” will not be reevaluated.
2. After certification of the SME consultant becomes mandatory (assumed in January 2004), the certified general consultants will be allowed to work for government programs for the period of 24 months after the enactment of the new certification system (assumed until February 2005).

Chapter 5 Action Plan for the New Certification System

Chapter 5 Action Plan for the New Certification System

When the major issues relating to the introduction of the new certification system, as pointed out in Chapter 4, are properly addressed with agreement among related parties, followed by a formal decision of the Mexican government, various components of the new system will be developed, created or upgraded. In this Chapter, assuming the recommendations of the study team in Chapter 4 are essentially acceptable by the Mexican government, the following key elements of system design and implementation are proposed as an action plan for the introduction of the new certification system.

- (1) The implementation scheme and organization for the new system
- (2) Basic design of lecture training courses
- (3) Basic design of practical training courses
- (4) Implementation procedure for the written examination
- (5) Action plan for implementation of the new certification system

5.1 The Implementation Scheme and Organization for the New System

5.1.1 Implementation scheme for the new training and certification system

The overall implementation scheme proposed by the study team is presented as shown in Fig.5-1.

- (1) Sub-committees responsible for preparation of evaluation tools

The responsibility for preparation of evaluation tools will be transferred from individual evaluation centers to CONOCER, which is assumed to delegate the responsibility to the Normalization Committee under which the following two sub-committees or working groups will be organized by selected members of the Normalization Committee. Each sub-committee will have a secretariat which will preferably be the organization to which the chairman of the sub-committee belongs.

- 1) Sub-committee for Preparation and Management of Written Test Problems (Test Problem Sub-committee)
 - Development of the knowledge evaluation guideline
 - Preparation and management of written test problems (2,000 problems)
 - Distribution of test problems to the evaluation centers (randomly selected)

2) Sub-committee for Evaluation of Work Products and Professional Skills (Professional Skill Sub-committee)

- Development of the work product evaluation guideline
- Development of the professional skills evaluation guideline
- Development of the corporate diagnosis practice guideline

(2) Evaluation center

The certification system will continue to be operated by the three-tier structure, namely an accreditation organization (CONOCER), certification agencies, and evaluation centers. The certification process under the SME consultant system differs from that under the general consultant system in the following respects.

- 1) The evaluation center uses test problems prepared by Test Problem Sub-committee preparation and management of test problems, to administer and grade the written test.
- 2) The evaluation centers evaluate “work products” and “professional skills” according to evaluation tools provided by the Professional Skill Sub-committee. However by making completion of the practical training course for corporate diagnosis prerequisite to certification, the certificate of completion will be more weighed in evaluation of work products and professional skills.

(3) Ministry of Economy

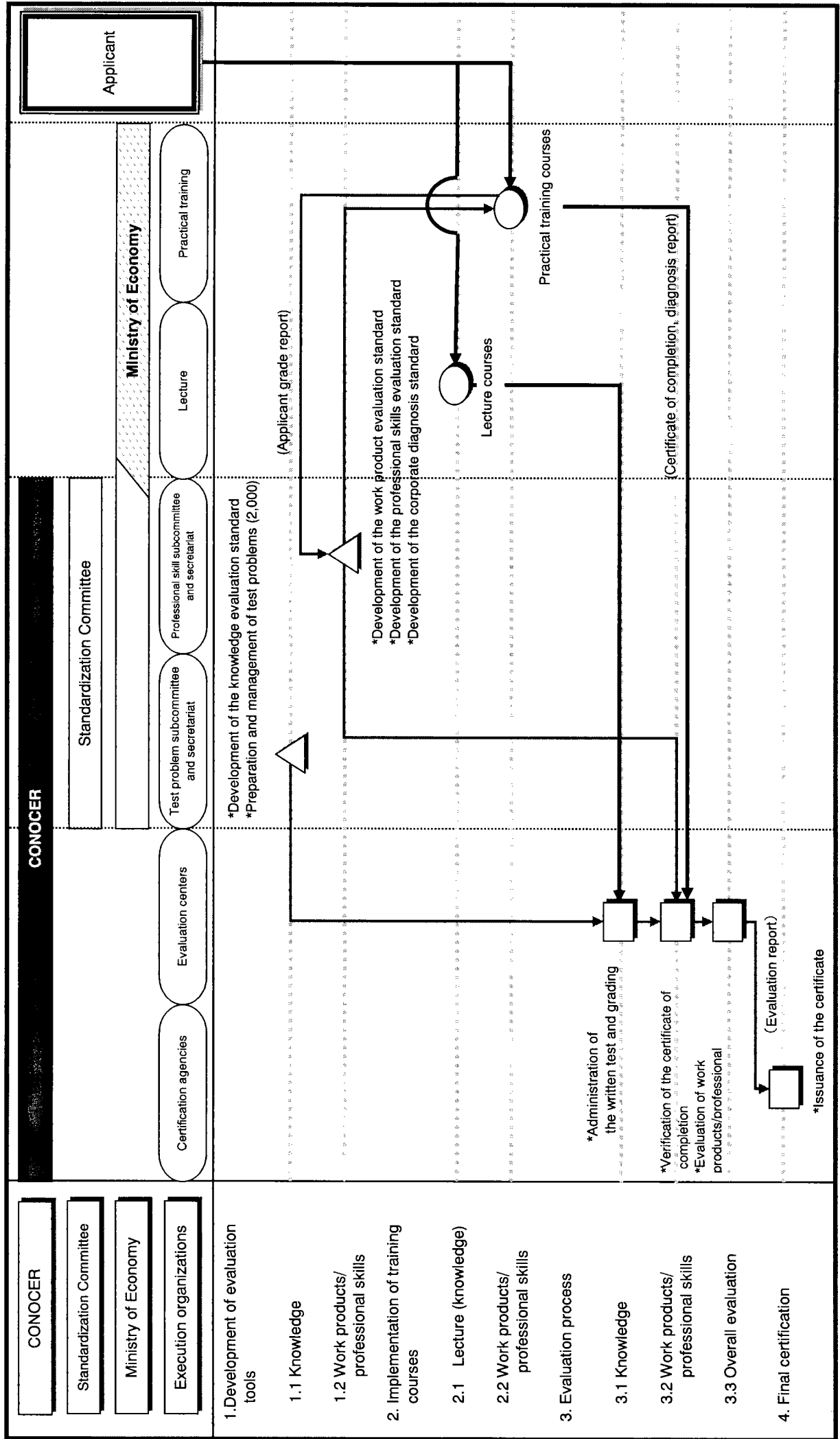
The Ministry of Economy is in a position to promote various SME promotion programs providing subsidies for SME consultants. Thus, it represents users of SME consultants. It will therefore be authorized to act as leading members of the above two sub-committees and express its opinions in development of the evaluation tool guidelines and the evaluation tool itself.

Furthermore, the Ministry of Economy will become the promoter of the following two training services, which are beyond the scope of CONOCER’s responsibility:

- 1) Lecture training courses (teaching basic knowledge in preparation for the written examination)
- 2) Practical training courses for corporate diagnosis (in preparation for evaluation on work products and professional skills)

The implementation guidelines for these two courses will be discussed in detail in 5.2 and 5.3.

Fig. 5-1 Implementation Scheme for the SME Consultant Training and Certification System and Proposed Work Flow



5.2 Basic Design of the Lecture Training Course

5.2.1 Organization which provide classroom lecture

Any organization should be able to offer the lecture training courses for SME consultants without permission or license of the Ministry of Economy. The ministry will make textbooks and test problems used for the pilot training course available to the public, followed by the basic curriculum that is proposed in the following sections. Providing open resources aims to encourage competition among different training organizations, thereby to upgrade the quality of training.

5.2.2 Basic Course Module and Textbooks

The study team and the joint working group developed the following 10 course modules for the pilot training course, on which textbooks and a curriculum were prepared. These modules are recommended here as a base for the future because the results of the pilot training course did not offer any change of the modules.

1. SME Policies and Promotion Programs
2. Legal Aspects
3. Consulting Skills
4. Strategic Management
5. Human Resources
6. Finance and Accounting
7. Information System
8. Operation
9. Marketing and sales
10. Innovation

5.2.3 Base unit of lecture training course timetable (four weeks)

It is recommended that the lecture training course or classroom training course be designed of four-week, full-time courses as a basis. Based on the reviewing of the pilot training course, the duration will be extended from three weeks of the pilot training course to four weeks, as shown in Table 5-1.

- Class size : 40 – 50 persons
- Class hours : Each class will last 2.5 – 3 hours and there will be two classes per day (5-6 hours), totaling 40 classes (100-120 hours) for four weeks, except for recess.
- Teaching method : Classroom lecture plus exercise or case study as required
- Trial examination in preparation for the formal test : To be conducted on the last day.
- Tuition fee (for 4 week lecture) : Around 20,000 peso (1 peso = 0.1US\$)

Table 5-1 Classroom Lecture Timetable (4 weeks, 20 days)

Subject	No. of classes	No. of days
1. SME policy	2	1
2. Legal aspects	2	1
3. Consulting skills	2	1
4. Strategic management	4	2
5. Human resources	4	2
6. Finance/accounting	6	3
7. Information system	2	1
8. Operation	6	3
9. Marketing	6	3
10. Innovation	4	2
(Trial examination)	2	1
Total	40	20

(Note) 1 class = 2.5 – 3 hours; 1 day = 5-6 hours for 2 classes per day

5.2.4 Development of the long-term or weekend classroom lecture

(1) Long-term full-time classroom lecture

To strengthen effect of the lecture training course, the long-term full-time classroom lecture can be considered. It will be developed by modifying the above base unit of 4 week course timetable by the following manners:

- 1) To increase classes for each subject proportionally;
- 2) To add exercise and case study sessions; and
- 3) To increase trial tests using simulated problems

(2) (Nighttime + weekend) classroom lecture

The nighttime + weekend classroom lecture will also offer 40 classes, consisting of one class on the weekday night (two days per week) plus two classes on either Saturday or Sunday, totaling four classes per week. To teach the 40 classes as offered by the four-week full-time course (Table 5-1), the nighttime + weekend course will require 10 weeks (2.5 months). The detailed course design will be made by each provider for lecture training courses.

(3) Distant education

The distant education will provide a correspondence course equivalent to 40 classes taught by the full-time classroom lecture course by using the same textbooks. The training provider will supply trial test problems and case studies and make corrections and comments to each student. Moreover, course materials using video or audio aids may be created by the training provider according to market needs.

5.3 Basic Design of the Practical Training Course

5.3.1 Organization which provide private practical training

The Ministry of Economy will designate several organizations and require them to provide practical training courses for corporate diagnosis according to the standardized procedure. Selection criteria for training organizations are summarized as follows:

- 1) Availability of personnel who is capable of serving as the instructor for corporate diagnosis
- 2) A nationwide organization with branch offices throughout the country

5.3.2 Corporate diagnosis procedure (manual)

The study team has developed a corporate diagnosis manual for the pilot training course. The methodology is essentially based on the analytical technique using the radar chart and has been well received by Mexican instructors and students. While it needs to be further upgraded, it is recommended to use the manual as the basis of the practical training course. In addition, CETRO-CRECE's manual contains well-designed forms and other useful information and should be incorporated where practical.

5.3.3 Instructor training

The study team provided practical training for 15 candidate instructors as part of preparation for the pilot training course and 6 persons who showed excellent performance served as instructors for the pilot training course. They are expected to become the cadre of instructors for the future practical training courses and train instructors to support nationwide deployment. Candidates for practical training instructors should be educated using the standard manual for corporate diagnosis.

5.3.4 Practical training course timetable

The study team conducted the practical training courses three times in Mexico. One is for senior consultants of CETRO-CRECE students in the pilot project carried out in 2001 for five days per corporation; The other two courses are for instructors and students in the pilot training course in 2002 for six days per corporation. Reviewing the results of these courses indicates that more time was required to maximize effectiveness. For this reason, the study team proposes a revised timetable consisting of seven days, which is summarized as follows.

Table 5-2 Practical Training Course Timetable (7 work days per company)

Day	Morning	Afternoon
1st day	<ul style="list-style-type: none"> • Orientation in corporate diagnosis technique 	<ul style="list-style-type: none"> • Briefing by the instructor on the client company • Development of basic policy
2nd day	<ul style="list-style-type: none"> • 1st field diagnosis (interview on the company's profiles and general conditions) 	<ul style="list-style-type: none"> • 1st field diagnosis (continued) (Collection of information)
3rd day	<ul style="list-style-type: none"> • Preliminary analysis 	<ul style="list-style-type: none"> • Development of detailed policy
4th day	<ul style="list-style-type: none"> • 2nd field diagnosis (agreement with the company on the basic policy for diagnosis) (Collection of information) 	<ul style="list-style-type: none"> • 2nd field diagnosis (Collection of information)
5th day	<ul style="list-style-type: none"> • Analysis 	<ul style="list-style-type: none"> • Drafting of the report
6th day	<ul style="list-style-type: none"> • Drafting of the report 	<ul style="list-style-type: none"> • Preparation for presentation
7th day	<ul style="list-style-type: none"> • Presentation on the report to the client company 	<ul style="list-style-type: none"> • Comment from the instructor

(Note) The instructor conducts preliminary diagnosis prior to the start of the course.

5.4 Method of Written Examination

5.4.1 Implementation organization

1) Test Problems Sub-committee

CONOCER will be responsible for development of evaluation tools and will use the Test Problem Sub-committee formulated under the Normalization Committee. The Sub-committee will be responsible for the planning of basic design policy for test problems, selection of problem creators, examination of test problems in terms of adequacy, and safe custody of test problems.

2) Secretariat of the Test Problem Sub-committee

The organization to which the chairman of the sub-committee belongs is assumed to be nominated as the secretariat of the sub-committee. The secretariat will be responsible for custody of test problems, distribution to testing organizations and collection of statistical data.

3) Testing organizations

The evaluation centers will administer the written test and will also send examiners to the area not served by any evaluation center for the purpose of ensuring transparency and fairness of test administration.

5.4.2 Types of test problems and selection for the actual test

In the initial stage, test problems will be of multiple choice (allowing objective grading) or similar type requiring a specific correct answer. As the new system takes root and a higher level of knowledge is required to test the ability of the applicant, essay-type problems will be considered. Around 2,000 problems will be created and kept as stock and 200 problems will be randomly selected for each test. One third of the stock will be replaced annually. Test problems will be created with reference to trial test problems used for the pilot training course.

5.4.3 Number of problems and test hours for the Examination

The pilot training course conducted the trial test for each subject and the number of problems is summarized in Table 5-3. The test consisted of two parts, each lasting 120 minutes, with a 15-minute intermission in between, totaling four hours. As the trial test

did not have any problem in terms of test volume and duration, the formal written test is proposed to be conducted accordingly.

Table 5-3 No. of Problems Set for the Trial Exam (by subject, multiple-choice)

Subject	No. of problems
1) SME policy	10
2) Legal aspects	15
3) Consulting skills	15
4) Strategic management	20
5) Human resources	20
6) Finance/accounting	30
7) Information system	10
8) Operation	30
9) Marketing	30
10) Innovation	20
Total	200

5.4.4 Passing grade and pass rate

The pass rate is established at an overall average of 60% (percentage of correct answers), but 40% or less for a single subject causes the applicant to fail regardless of high score for other subjects.

The above passing grade was used for the trial test during the pilot training course, under which 14 out of 41 participants (34.1%) passed the written test. On the other hand, under the written test conducted after a three-week training lecture course for CETRO-CRECE's senior consultants in 2001, 41 out of 46 participants (89%) attained the average grade of 60%. Note that the pilot course was limited to the manufacturing sector, and CETRO-CRECE's senior consultants had work experience of three or more years, performing corporate diagnosis for nearly 100 companies each. In consideration of the above factors, the passing grade seems to be appropriate.

5.5 Action Plan for Introduction of the New Scheme

Ministry of Economy expects that the new certification system will be officially announced in a gazette of the Federal Government in March 2003, and plans to spend the year of 2003 for establishment of implementation mechanism and promotion and diffusion

of the new system. Ministry of Economy desires to make the new certification system mandatory to those SME consultants who work for government SME promotion programs from the beginning of the year of 2004, and to supply certified consultants as many as required by opening a number of training courses during the year. Although Ministry of Economy once had a target to supply 3,000 certified SME consultants within 2003, the target is now lowered to 500 due to cut-down of the government budget of the Supporting Fund for Micro, Small and Medium Enterprises (FAMPYME). The target number of 500 has still uncertainty if that is the number of trained persons or certified SME consultants. The study team assumed the number to be the number of SME consultants certified in 2003 taking into account the obligation of new certification system in early 2004. Figure 5-2 shows a timetable for 2003 to supply 500 certified SME consultants paralleling to establish implementation mechanism of the new system. The following description is made accordingly.

(Note) FAMPYME is the fund managed by the Ministry of Economy and grants subsidy to the following four areas: (Budget for 2003 was 360 million pesos, but it will be largely reduced for 2004)

- 1) Education and training
- 2) Consulting
- 3) Development of programs and methods to provide 1) and 2)
- 4) Training of experts in the SME related fields and consultants, and professional education

5.5.1 Major milestones

(1) Beg.-March, 2003: Enactment of the new system

The Committee for Normalization of the Consultant Sector has submitted to CONOCER its proposed SME consultants certification norm and CONOCER is currently hearing opinions and comments of related parties or Committee for Approval. The new norm is scheduled to be enacted in early March 2003.

(2) Mid-March, 2003: Establishment of the subcommittees and the secretariats

The study team has proposed the establishment of the following two sub-committees and secretariats under the Committee for Normalization of the Consulting Sector for the purpose of developing evaluation tools. According to the proposal, it is expected to be established in two weeks after the enactment of the new system.

- Evaluation tool for knowledge (written examination):
Committee for Preparation and Management of Written Test Problems (Test Problem Sub-committee)
- Evaluation tool for professional experience (work products and professional skills):
Committee for Evaluation of Work Products and Professional Skills (Professional Skill Sub-committee)

(3) Mid-April, 2003: Completion of the evaluation process guidelines

The two sub-committees will complete the respective evaluation process guidelines as the basis of designing applicable evaluation procedures in the middle of April. Without the evaluation process guidelines, the evaluation centers can not execute their evaluation process.

(4) Beg.-June, 2003: Start of the lecture training courses

The Ministry of Economy will inaugurate the classroom lecture and practical training courses nationwide on May 1.

(5) Beg.-June, 2003: Start of the written examination and practical training courses

It is assumed to begin the written examination at the beginning of July 2003 to examine graduates of the lecture training courses and self-learning persons as well. Ministry of Economy shall start the practical training courses (obligation) not later than July 1, 2003 to receive successful candidates in the written examination.

(6) January 2004: Mandatory certification under the new system

Starting in January 2003, consultants engaged in the government's SME promotion programs will be required to obtain certification under the new system. It should start with FAMPYME. As the number of certified consultants increases, programs requiring certification should be expanded.

Fig. 5-2 Establishment of the Implementation Scheme for the New System and Action Plan for Promotion (2003)

Activity	2003												2004
	1	2	3	4	5	6	7	8	9	10	11	12	1
1: Enactment of the new standard			▲										
2: Committee on Preparation and Management of Test Problems			▲										
2.1 Establishment of the sub-committee and secretariat										
2.2 Development of the "knowledge" evaluation process guideline		(250)	(250)	(250)	(250)	(250)	(250)	(250)		
2.3 Preparation of 2,000 test problems				(250)									
3: Committee on Evaluation of Work Products/Professional Skills			▲										
3.1 Establishment of the sub-committee and secretariat										
3.2 Development of the "work product" evaluation process guideline										
3.3 Development of the "professional skills" evaluation process guideline										
3.4 Development of the "corporate diagnosis" evaluation process guideline										
4: Accreditation of certification agencies and evaluation centers										
Ministry of Education													
5: Implementation of training courses										
5.1 Finalization of course subjects (module) and curriculum										
5.2 Publication of textbooks and sample problems										
5.3 Recruitment and selection of training providers										
5.4 Training of lectures										
5.5 Implementation of lecture training courses										
6: Implementation of practical training courses										
6.1 Finalization of the course curriculum										
6.2 Development of the corporate diagnosis manual										
6.3 Recruitment and licensing of practical training providers										
6.4 Training of practical training instructors										
6.5 Implementation of practical training courses										
7: Start of written exam and practical training													
8: Obligation of the new certification													
(1) Number of persons who take the lecture course						4x40		8x40		8x40		8x40	800 persons
(2) Number of persons who take the written examination							3x100		7x100		7x100		1700 persons
(3) Number of persons who take the practical training courses							17G x 6		34G x 6		34G x 6		510 persons
(4) Number of persons certified under the new system							100		200		200		500 persons

..... Preparation period Implementation period Periodically or regularly implemented

* (8x40) is excluded from the total because those are for certification in next year.

5.5.2 Target figures of output in 2003

Lower part of Fig.5-2 lists four quantitative targets to be achieved by the end of 2003. The target figures are estimated on a basis of the said 500 certified SME consultants in 2003. The following sections show the accumulated total numbers targeted for 2003, together with basic assumptions.

(1) Number of persons certified under the new system: 500

It is assumed that the pass rate of applicants who completed a lecture training course is 40% similar with that of the pilot training course and the pass rate of applicants who studied by self-learning is 20% as a half of the former.

	<u>Applicants</u>	<u>Pass rate</u>	<u>Certified</u>
Graduates of lecture training course:	800	40%	320
Self-learning applicants	<u>900</u>	20%	<u>180</u>
	1,700		500

Upon the above assumption a total of 1,700 applicants take the written examination to reach the 500 certificates. It is also estimated that evaluation processes of work products and professional skills takes one to two months. Any successful applicants of the written examination are deemed to pass the subsequent evaluation processes.

(2) Number of persons who take the written examination: 1,700

The number of 1,700 applicants was estimated in the above (1). The written examination will start in July 2003 and will be held every other month somewhere in the country. It is assumed that three tests will be held in July, seven in September and so on. 100 applicants will take each test. They will include those who have studied by themselves.

(3) Number of persons who take the lecture training course: 1,120 of which 800 will enter evaluation processes within 2003

The lecture courses will gradually start since June 2003 by providers who finished preparation. The course teaching 40 persons is counted as one unit, and the number of units every other month is assumed to grow from four to eight onward. The applicants of 800 out of 1,120 can take evaluation processes within 2003 so that "800" is written in Figure 5-2.

(4) Number of persons who take the practical training course: 510

It is assumed that all persons who have passed the written test are required to take the practical training course. The practical training course will be conducted in the form of group activity (six persons per group) a total of 102 persons (17 groups) will take the course in July 2003, followed by 204 persons (34 groups) in every other month. If the 510 persons take a practical training course in 2003, it is almost the same number of 500 SME consultants certified in 2003. A total of 12-time of openings of practical training courses for 2003 meets the requirement, assuming that an opening trains 42 persons or seven groups with six trainees.

The study team proposed that consultants, who had obtained certification under the general consultant system are exempted from the second evaluation processes for work products and professional skills as far as they passed the written test of the new system within 24 months after the enactment of the new system. If this rule is adopted as proposed, there will be a number of consultants who do not take the practical training course. Besides, as the practical training course becomes full-fledged, corporate diagnosis will be conducted for 170 companies (85 groups x 2 companies) in 2003. In other words, a total of 170 companies are expected to benefit from corporate diagnosis service.

5.5.3 Activity guideline under the action plan

To achieve the above targets according to the milestones, various activities should be conducted as shown in Fig.5-2. Key activities are described as follows.

(1) Development of guidelines of evaluation process

To develop evaluation tools under CONOCER's management, guidelines for evaluation processes need to be established. The evaluation guidelines will be developed by the said two sub-committees. As seen in Fig.5-2, the following guidelines will be completed by mid-April 2003, one and half months after the enactment of the SME consultant certification system, with one-month preparation works.

- | | |
|--------------|--|
| Activity 2.2 | Guideline of "Knowledge" evaluation process |
| Activity 3.2 | Guideline of "Work product" evaluation process |
| Activity 3.3 | Guideline of "Professional skills" evaluation process |
| Activity 3.4 | Guideline of "Practical training course for corporate diagnosis" process |

(2) Preparation of 2,000 problems

As shown in Fig.5-2 (“Activity 2.3 Preparation of 2,000 Test Problems”), the target of 2,000 problems can be achieved in 8 months if 250 problems are created monthly, starting in April 2003. In 2004 and onwards, around 700 problems (one third of the total) need to be created for renewal of the stock. The members of the Test Problem Sub-committee will be responsible for administration, while actual preparation work may be entrusted to an outside organization(s). As for the start of the written test containing 200 problems, it can be commenced when first 250 problems are completed.

(3) Development of the training course curriculum

As shown in Fig.5-2, the following three activities will commence at beg.-February 2003 and will complete at the end of the same month.

Activity 5.1: Design of lecture training courses (module) and the curriculum

Activity 5.2: Publication of lecture course textbooks and sample test problems

Activity 6.1: Finalization of the curriculum for the practical training course

(4) Preparation of the corporate diagnosis manual

This activity will be the responsibility of the Ministry of Economy and corresponds to Activity 6.2 in Fig.5-2, which is expected to take two months from mid-February. As the diagnosis manual for practical training courses has already been completed and used for the pilot training course, some modifications and improvement should be completed by instructors of the pilot training course in about two months.

(5) Recruitment and selection of training organizations

Since the Ministry of Economy has offers from some candidate organizations, the Ministry may finalize Activity 5.3 by mid-May. It is assumed that Activity 6.3 will follow Activity 5.3 with a half month behind.

Activity 5.3: Recruitment and selection of organizations offering the lecture training courses

Activity 6.3: Recruitment and licensing of organizations offering the practical training courses

(6) Training of instructors

Lecturers for practical training courses and for classroom lectures instructors will be intensively trained for three months, starting in April 2003 for lectures and in a half months delay for instructors, followed by regular training to meet the growing needs.

Activity 5.4: Training of classroom lecturers

Activity 6.3: Training of practical training instructors

(7) Implementation of the training course

The Ministry of Economy will be responsible for this activity. As seen in Fig.5-2, Activity 5.5 will be conducted periodically or from time to time, starting in June 2003 and Activity 6.3 does in July 2003. Activity 6.3 will take more time for preparatory works and licensing to providers; for the practical training courses should be mandated if the study team's recommendation is adopted. The delay by one month from the activity of the lecture training courses does not cause any delay of the overall timetable.

Activity 5.5: Implementation of the lecture training courses

Activity 6.3: Implementation of the practical training courses for corporate diagnosis