

<JICA DEVELOPMENT STUDY>

**THE STUDY
ON
THE MASTER PLAN FOR
QUALITY/PRODUCTIVITY IMPROVEMENT
IN
THE REPUBLIC OF TUNISIA

FINAL REPORT
(IMPLEMENTATION REPORT)**

JULY 2008

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

JAPAN DEVELOPMENT SERVICE CO., LTD.

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ABBREVIATIONS

Abbreviations	English	French
AFD	-----	Groupe Agence Française de Développement
AfDB	African Development Bank	Banque Africaine de Développement
ANBEIC	-----	Association Nationale des Bureaux d'Etudes et des Ingénieurs Conseil
AP	Action Plan	Plan d'Action
API	-----	Agence de Promotion de l'Industrie
BFPME	-----	Banque de Financement des Petites et Moyennes Entreprises
CC	Coordination Committee	Comité de Coordination
CETIME	-----	Centre Technique des Industries Mécaniques et Electriques
CEPEX	-----	Centre pour la Promotion des Exportations
CETIBA	-----	Centre Technique de l'Industrie du Bois et de l'Ameublement
CETTEX	-----	Centre Technique du Textile
CNCC	-----	Centre National du Cuir et de la Chaussure
C/P	Counterpart	Homologue
CTAA		Centre Technique de l'Agroalimentaire
CTC	-----	Centre Technique de la Chimie
CTMCCV	-----	Centre Technique des Matériaux de Construction, de la Céramique et du Verre
DFID	UK Department for International Development	-----
EU	European Union	Union Européenne
FAMEX	Export Markets Access Fund	Fonds d'Accès aux Marchés d'Exportation
FEDELEC	-----	Fédération Nationale de l'Electricité et de l'Electronique
FEDEX	-----	Fédération de l'Exportation
FIPA	Foreign Investment Promotion Agency (FIPA)	Agence de Promotion de l'Investissement Extérieur
FODEC	-----	Fonds de Développement de la Compétitivité
GTZ	German Agency for Technical Cooperation	Agence Allemande de Coopération Technique
HACCP	Hazard Analysis - Critical Control Point	-----
IC/R	Inception Report	Rapport Initial
INORPI	-----	Institut National de la Standardisation et de la Propriété Industrielle
INSAT	-----	Institut National des Sciences Appliquées et de Technologie
ISO	International Organization for Standardization	-----

Abbreviations	English	French
JBIC	Japan Bank for International Cooperation	Banque Japonaise de Coopération Internationale
JICA	Japan International Cooperation Agency	Agence Japonaise de Coopération Internationale
KAIZEN	KAIZEN	KAIZEN (Amélioration continue)
MA	Master Plan	Plan Directeur (PD)
MDCI	Ministry of Development and International Cooperation	Ministère du Développement et de la Coopération Internationale
MIEPME	Ministry of Industry, Energy and SME	Ministère de l'Industrie, de l'Énergie et des PME
M/M	Minutes of Meeting	Procès-verbal de la réunion
ONUDI (UNIDO)	United Nations Industrial Development Organization	Organisation des Nations Unies pour le Développement Industriel
OTCE	-----	Office Technique de Coopération Espagnole
PACTEC	-----	Centre Technique de l'Emballage et du Conditionnement
PDM	Project Design Matrix (PDM)	-----
PMN	-----	Programme de Mise à Niveau
PMI	-----	Programme de Modernisation Industrielle
PNUD (UNDP)	United Nations Development Program	Programme des Nations Unies pour le Développement
PP	Pilot Project	Projet-pilote
QC	Quality Control Circle	Cercle de Qualité
QCD	Quality/Cost/Delivery	-----
SOTUGAR	-----	Société Tunisienne de Garantie
S/W	Scope of Works	-----
TC	Technical Center	Centre Technique
TPM	Total Productive Maintenance	-----
TQC	Total Quality Control	-----
TQM	Total Quality Management	-----
TUMAC	Tunisian Accreditation Council	Centre National d'Accréditation (CNA)
UGPQ	-----	Unité de Gestion du Programme National de Promotion de la Qualité
UNDP (PNUD)	United Nations Development Program	Programme des Nations Unies pour le Développement
UNIDO (ONUDI)	United Nations Industrial Development Organization	Organisation des Nations Unies pour le Développement Industriel
UTICA	-----	Union Tunisienne de l'Industrie, du Commerce et de l'Artisanat
W/S	Workshop	Atelier de travail
5S	5S	5S
7S	7S	7S

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Introduction

This Draft Final Report (DF/R) is composed of three parts, i.e. the Implementation Report, the Master Plan and the Manual. The Implementation Report in hand describes the contents and results, etc. of implementation including the study and implementation policies.

1. Background of the Study

Following the conclusion of a partnership agreement with the European Union (EU), Tunisia will abolish its tariff barriers by 2008 and an inflow of high quality and inexpensive goods is expected to take place after the abolition of the tariff barriers. This prospect makes it essential for Tunisia to improve domestic industries which are protected under the current government policy and also to strengthen the international competitiveness of domestic products through productivity improvement activities and the extension of quality control techniques. The Industrial Improvement Programme (Mise a Niveau) has been promoted in Tunisia as a national programme since 1995 and the National Quality Programme Unit (UGPQ) was established in 2005 to deal with concrete pending issues.

The UGPQ is a temporary organization consisting of staff recommended by technical centres which are established in all industrial sectors as well as those from the Ministry of Industry, Energy and SMEs. Its principal aim is to enable 600 local companies by 2010 and ultimately 1,300 local companies to adopt international standards, including those of the International Organization for Standardisation (ISO). However, the UGPQ does not yet have in-depth knowledge or experience regarding quality/productivity improvement activities.

Against this background, the Government of Tunisia made a request to the Government of Japan to conduct a study with a view to formulating (i) a master plan incorporating the necessary policies and proposals for the implementation system for the extension of the quality/productivity improvement activities of the UGPQ and (ii) a relevant action plan. It was the hope of the Government of Tunisia that demonstrative company diagnosis and proposals for specified sub-sectors would be conducted in the course of the study and that human resources development involving CP personnel would form part of the study.

2. Objectives of the Study

This development study aims at studying and analysing the electric industrial sector and the food processing sector, both of which are important industrial sectors in Tunisia, with a view to formulating a master plan which incorporates policies for quality/productivity improvement, a policy implementation system and an action plan, etc. In the course of the formulation of this master plan, various manuals relating to quality/productivity improvement will be prepared while taking the characteristics of Tunisian society and culture into consideration as these manuals will be essential for

the implementation of the action plan. In addition, some local companies in these two sectors will be selected to check the practical effectiveness of these manuals. Furthermore, concrete advice on quality/productivity improvement will be provided during the pilot project with a view to verifying the effectiveness of these manuals as well as the practicality of the action plan. The expected outputs of the Study are listed below.

- (1) To classify the pending issues of the food processing and electric industrial sectors for quality/productivity improvement
- (2) To improve the quality/productivity of each model company by conducting the pilot project and to transfer techniques for quality/productivity improvement activities, such as the 5Ss, KAIZEN and Toyota production system, to the Tunisian side by means of jointly conducting a pilot project with staff of the UGPQ
- (3) To develop manuals, a master plan and an action plan for quality/productivity improvement to provide guidance for companies to improve their quality/productivity in a practical manner using the results of the pilot project.

3. Outline of the Study

The Study is expected to last for 2 years (from August, 2006 until July, 2008) with three phases.

In Phase I (from August to November, 2006), a fact-finding survey was conducted, featuring the quality and productivity improvement efforts of companies, industrial associations and the government, etc. In particular, the fact-finding survey on companies featured 34 companies in the electrical and electronic sector, 30 companies in the food processing sector and 20 companies in other sectors.

In Phase II (from December, 2006 to October, 2007), 15 companies have been selected from among the target companies of the fact-finding survey in each of the electrical and electronic sector and food processing sector for the pilot project. The pilot project commenced in January, 2007 and is scheduled to finish in October.

In Phase III (from October, 2007 to July, 2008), a master plan describing, among other things, the creation of an extension system and an action plan for the nationwide promotion of quality and productivity improvement activities will be compiled based on the findings of the fact-finding survey in Phase I and those of the pilot project in Phase II.

Table 1 (Activities Under the “Master Plan Study for Quality and Productivity Improvement in the Republic of Tunisia”) shows the study activities by phase and by location of activity.

Table 1 Activities Under the “Master Plan Study for Quality and Productivity Improvement in the Republic of Tunisia”

	Field Work in Tunisia	Work in Japan
Phase I		< Preparatory Work in Japan: July to August, 2006 > ① Gathering, sorting and analysis of the relevant information and reference materials ② Confirmation of absent statistical data and conveyance of such absence to the Tunisian side ③ Preparation of the Inception Report (I/R)
	< First Field Survey: September to November, 2006 > ① Explanation of and discussions on the I/R ② Fact-finding survey on quality and productivity improvement activities in Tunisian industrial sectors in general, including the relevant legal system and policies, etc. (20 companies across various sectors) ③ Checking of the support system provided by the government and other organizations for the two target sectors (electrical and electronic sector and food processing sector) ④ Analysis of the present conditions of companies in the two target sectors (34 companies in the electrical and electronic sector and 30 companies in the food processing sector) ⑤ Holding of quality and productivity improvement seminars and workshops, etc. ⑥ Establishment of selection criteria for the model companies for the pilot project ⑦ Selection of model companies for the pilot project (34 companies in the electrical and electronic sector and 30 companies in the food processing sector)	
Phase II		< First Work in Japan: December, 2006 > ① Formulation of the draft pilot project implementation plan ② Compilation of the quality and productivity improvement manuals (draft)
	< Second Field Work: January to February, 2007 > ① Finalisation and establishment of a joint understanding of the pilot project implementation plan ② Establishment of a joint understanding of the quality and productivity improvement manuals (draft) ③ Preparation of proposals for the model companies; monitoring and evaluation of the implementation situation of the proposals	
		< Second Work in Japan: March to April, 2007 > ① Compilation of the Progress Report (P/R)
	< Third Field Survey: May to July, 2007 > ① Explanation of and discussions on the P/R ② Preparation of proposals for the model companies; monitoring and evaluation of the implementation situation of the proposals ③ Compilation of the quality and productivity improvement manuals	
		< Third Work in Japan: July to August, 2007 > ① Compilation of the Interim Report (I/R) ② Acceptance of trainees in Japan
Phase III	< Fourth Field Survey: September to October, 2007 > ① Continuation and completion of the pilot project ② Completion of the manuals	
	< Fourth Field Survey: October to December, 2007 > ① Formulation of the seminar implementation plan (draft) ② Holding of the seminars (at two locations for each of the two sectors)	
		< Fourth Work in Japan: January to April, 2008 > ① Compilation of the Draft Final Report (including the “Master Plan” and the “Action Plan”)
	< Fifth Field Survey: May, 2008 > ① Explanation of the Draft Final Report	
	< Fifth Work in Japan: June, 2008 > ① Compilation of the Final Report	

4. Study Implementation Policy

The study implementation policy is described over six headings in the Inception Report. Judging from the activities implemented in the first and second field surveys, it can be deemed that both were appropriate and valid in light of the implementation policy. The following paragraphs describe the review findings under each heading (policy).

4-1 Thorough Enforcement of Practical Transfer of Technology

Although few in number, there are some managers and executives in private companies who have knowledge of the 5S, kaizen, the kanban system and QCM, etc. However, cases of introducing such techniques into factories are extremely rare. Moreover, responsible officers in the counterparts (C/P) and related agencies have a certain degree of expert knowledge and have acquired techniques and methods concerning improvement of quality and productivity, however, they have not put these skills into practice in real situations. During implementation of the pilot projects (PP), model companies will be directly visited and corporate diagnoses and improvement proposals made, however, rather than making direct proposals to companies, a process of initially placing emphasis on transfer of technology to the C/Ps and enabling the C/Ps to make improvement proposals to each company has been thoroughly planned. Through acquiring knowledge, techniques and methods while utilizing the manual (draft), requiring the C/Ps to create daily diagnosis reports and conducting debate based on them, effort has been made to transfer the “method of thinking” and accumulate practical experience. Moreover, to ensure that knowledge, techniques and methods can be acquired in a theoretical system rather than as disparate elements, workshops will be staged at frequent intervals to promote understanding of each technique.

4-2 Approach from the Viewpoint of Industrial Policy

Seen from the viewpoint of strengthening the international competitiveness of industry, following the removal of tariff barriers with the EU in 2008, the state, industrial sector and individual companies realize that it is indispensable for approaches to be made from each level. However, there is little concrete evidence of the roles that should be played by each entity and the measures that connect each level. At the current time, the fact-finding survey and pilot project have confirmed that leaving quality/productivity improvement activities geared to reinforcing competitiveness to individual companies and industrial sectors (industrial groups) has its limits, and that government support, i.e. an approach based on industrial policy, is required.

4-3 Utilization of Japan’s Experience and Knowledge

Japanese production control technology and manufacturing know-how are considered relatively superior areas in world terms, and since the Tunisian side is strongly hoping for the transfer of Japanese manufacturing technology and techniques, it has actively examined the potential for

utilization. However, from the start of this project, work has been advanced based on the recognition that it is important to devise introduction methods that value the social and cultural climate and values in consideration of the current state of industry in Tunisia.

During the local meetings too, some voices raised the question, “Are Japanese technology, techniques and methods international?” Accordingly, the study team reaffirmed the essential need to be careful not to impose Japanese technology, techniques and methods, according to the originally intended policy.

4-4 Utilization of Existing Machinery and Equipment

Tunisia is currently promoting the renewal of plant equipment as part of the Program Mise a Niveau (PMN) industrial upgrading plan, which has been advanced by the Ministry of Industry, Energy and Small and Medium Enterprises since 1995. During the first field survey, there were some companies that had utilized such support in order to introduce new machinery and equipment, however, there were also confirmed to be numerous companies still utilizing old machinery and equipment. The pilot project in this study will be implemented in order to provide guidance on improving quality and productivity by making use of existing machinery and equipment. Concerning companies that need to promote quality/productivity improvement through introducing new machinery and equipment, advice regarding equipment renewal was included in the proposals and, as a new source of funding, the two-step loan scheme whereby the Japan Bank of International Cooperation (JBIC) offers finance for purchasing new machinery and equipment to small and medium enterprises (with employees of no more than 200) was introduced.

4-5 Utilization of Existing Information and Materials

In the first field survey, the level of use of reports and manuals from Japanese surveys implemented in the past was surveyed, and comments were gathered from local government officials. Moreover, during each field survey, effort was made to collect materials and information on aid programs and projects implemented by other donors especially the EU (the largest donor to the industrial sector in Tunisia) and to utilize these for reference purposes in the project.

4-6 Compatibility with Similar and Related Projects by other Donors

Upon conducting exchange of opinions with other donors in the field surveys, there was found to be no risk of this JICA development study overlapping with or countervailing activities by other donors.

In particular, the EU, which supports the Program Mise a Niveau (PMN) industrial upgrading plan, is conducting support activities for industrial promotion in the areas of coaching, quality improvement and business promotion. Whereas the EU approach to quality improvement focuses on guidance for

the acquisition of ISO certification, this JICA development study aims to improve quality and productivity for specific products; therefore, the intended targets are clearly different and both are in a complementary relationship. The study team and other donors alike realize the importance of conducting the close exchange of opinions and information to ensure that synergistic effects are created from these complementary relationships, and numerous donors, commencing with Germany, Italy and Spain, attended the seminar that was staged by JICA in October 2006.

5. Implementation Contents of the Study

The contents of activities in the study are described below.

Phase 1

5-1 Preparatory Work in Japan (July 2006 ~ September 2006)

5-1-1 Collection, Screening and Analysis of Related Information

Related reports and materials including the report from the project formation study, materials and homepages prepared by government agencies, donors and private agencies, and other related materials were collected and sorted, and analysis was carried out regarding industrial policy, industrial structure, small and medium companies policy and the state of small and medium companies in Tunisia.

5-1-2 Preparation of the Inception Report

Based on the above analysis results, the Inception Report was prepared (French, English and Japanese) and submitted to the Tunisian side, the JICA Tunisia Office and JICA Tokyo.

5-2 First Field Survey (September 2006 ~ November 2006)

5-2-1 Explanation and Discussion of the Inception Report

When commencing the first field survey, the study team conducted ample explanation of the Inception Report (IC/R) to the Tunisian side. The IC/R was explained and discussed and agreement was reached on its contents in the Coordination Committee (CC) of September 5, 2006. The Minutes of Meeting (M/M) were signed between the Director of UGPQ and the JICA Team Leader on September 7. (Appendix A-2: M/M)

5-2-2 Survey of Current Conditions (Government and Industrial Agencies)

(1) Support by other Donors and Priority Sectors in Industrial Promotion

The major donors in Tunisia (United Kingdom, France, Germany, Italy, Spain, United States, Canada, EU, UNDP, UNIDO, AfDB) were visited and information was collected regarding

conditions of aid to Tunisia (aid policies, priority sectors and state of support to the industrial sector).

In particular, the approach of the largest donor, i.e. the EU, was compared to the approach in this project, and it was confirmed that the two approaches are mutually complimentary (see the Master Plan for details).

(2) Confirmation of the Support Setup of Government Agencies and related Organizations, etc. in the Industrial Sector Overall

Conditions of government agencies and private sector agencies involved in support for industry (support to promote entrepreneurship, technical centers working for quality improvement in existing companies, support for raising funds, etc.) were surveyed, in particular issues in the support setup (shortages of human resources in technical centers, inadequate guidance on production lines, lack of business training opportunities for business owners, and so on) were confirmed.

5-2-3 Visit Surveys and Analysis of Current Conditions and Issues in Companies

(1) Current Conditions and Issues in the Industrial Sector Overall

Between September and October 2006, visits were made to 20 companies ranging from major corporations to minute enterprises covering all industrial sectors. (See Appendix A-3 List of Visited Companies (All Sectors)).

(2) Company Visit Surveys in the Two Target Sectors

From large corporations to minute enterprises, 34 companies in the electric industry and 30 companies in the food processing industry were visited and analysis of current conditions in each company and sector was implemented. When making the visit surveys, taking into account the setting of selection criteria for target companies in the pilot project, current conditions were analyzed and assessments carried out from the viewpoint of raising international competitiveness in the areas of quality control technology and productivity improvement activities in each company.

(See Appendix A-4: Evaluation List of Visited Companies).

The findings of the analysis of current conditions in these two sectors were reported to Tunisian officials including other donors in the seminar that was staged on October 27, 2006. At this time, current conditions and problems in the two sectors, improvement approaches and survey methodology, etc. were introduced.

5-2-4 Staging of the Quality and Productivity Improvement Seminar and Workshops

(1) Staging of the seminar

A seminar concerning improvement of quality and productivity was staged, with a view to also selecting candidate companies to host the pilot project in Phase 2. Details are as follows.

Date	: October 27, 2006 (Friday) 8.30~13.00
Venue	: Hotel Abou Nawas Tunis / Room Cartage Avenue Mohamed V 1080 Tunis Cedex, Tunisie Tel: (+216) 71- 350-355 / Fax: (+216) 71-354-986
Main objectives	: 1) To transfer fundamental knowledge concerning improvement of quality and productivity to pilot project candidate companies and Tunisian government agencies (including the technical centers) 2) To widely inform industrial circles in Tunisia about the objectives and activities of the study 3) Through seeking participants from the EU and other donors, to provide a venue for compiling a comprehensive master plan
Main contents	: 1) Opening address (Mme. Zangar Dorzaf L./Director of UGPQ) 2) Greetings from Mr. Machida, Manager of the JICA Office in Tunisia 3) Outline explanation of the Study (Mr. Kikuchi, JICA Study Team Leader) ~ Next, the participants split up into two groups – electric and food – and lectures followed by questions and answers were held simultaneously. ~ <ul style="list-style-type: none">- Electric sector (first half): “Analysis and QC at 33 companies in Tunisia)- Electric sector (second half): “Effects of trade liberalization and strengthening of international competitiveness based on quality”- Questions and answers (electric sector)- Food sector (first half): “Issues and problems in improvement of quality and productivity”- Food sector (second half): “Improvement measures in improvement of quality and productivity”- Questions and answers (For details, refer to the seminar program 2006 in Appendix A-5).
Participants	: Approximately 180 (Government agencies and public organizations: approximately 60/Donors: approximately 10/Private companies: approximately 100/Others: 10) Moreover, in advertising for participants, invitation cards 2006 (see Appendix A-6) were prepared and sent to approximately 500 addresses. For reference, seminar photographs 2006 (Appendix A-7) and articles on the seminar 2006 (Appendix A-8) are attached.

(2) Staging of the Workshop (W/S)

In preparation for implementation of the pilot projects in Phase 2, workshops were staged in order to aid the capacity building of C/Ps and build consensus between the C/Ps and Study Team regarding fundamental know-how concerning quality and productivity.

In the Study, since the C/Ps accompanied the Study Team on the routine company visits and capacity building in the shape of OJT was routinely carried out, the workshops were implemented based around exchange of opinions on the following topics.

- Current conditions and importance of quality and productivity in the food industry (taking the company visits as case studies)
- Current conditions and importance of quality and productivity in the electric industry (taking the company visits as case studies)
- Examination of the contents of the quality and productivity improvement manual (electric) (confirmation of the existing CETIME manual)
- Examination of the contents of the quality and productivity improvement manual (food) (considering complementarity with the ISO manual prepared by the EU)

[Workshop: Food processing Sector]

First Work Shop (Food Processing Sector)	
Date	October 16, 2006 (Monday) 9.00-12.30
Venue	UGPQ conference room
Participants	Mlle. Fatma GUELLOUZ (CTAA and UGPQ) M. Ferchichi Dezzelline (UGPQ) M. Tsuyoshi Kikuchi (JICA Study Team) M. Seiji Sugimoto (JICA Study Team) M. Eisuke Honkawa (JICA Study Team) M. Ahemd Snadli (Interpreter)
Topics	- Concerning the manual contents (considering complementarity with the ISO manual prepared by the EU) - Examination of the selection of target companies in the pilot projects
Main contents	- Background explanation to setting of the manual contents (current conditions and problems based on company interviews) - Explanation of the draft manual contents and exchange of opinions (There was a request to change TPM in Chapter 6 to planned preventive maintenance, and this was approved). - Presentation of the first draft for selection of pilot project companies - Exchange of opinions (among the opinions voiced, one said that new companies should be found because some of the selected companies have little motivation for improvement, and another said that there should be two instead of one date companies for better balance).
Distributed materials	- Quality/productivity improvement manual contents (draft) - List of selected companies
Assessment of participants	- Manual preparation concerning acquisition of ISO, etc. is being advanced in the Mise a Niveau Program (PMI) currently in progress, however, it was confirmed that there is no overlapping or competition with this project and that the two are rather is a complementary relationship. - It was possible to reaffirm the importance of manuals in future dissemination activities.

[Workshop Report: Electric industry]

First Work Shop (Electric Industry)	
Date	October 16, 2006 (Monday) 9.00-12.30
Venue	UGPQ conference room
Participants	M. Herelli Ferid (Director General of CETIME) Mme. Oumaya Affifa (Quality Department of CETIME) M. Shebbi Mohamed (Quality Department of CETIME) M. Mothamen Ramzi (Quality Department of CETIME) M. Hajji Moncef (Productivity Department of CETIME) M. Maamouri (UGPQ - CETIME) M. Kiyoshi SAKAI (JICA Study Team) M. Daboussi Rabah (Interpreter)
Topics	- Current conditions of the electric industry and issues in terms of quality and productivity (based on company visit case studies) - Concerning the manual contents (confirmation of the existing CETIME manual)
Main contents	- Issues and problems confronted by the electric industry <ul style="list-style-type: none"> ▪ There are too many assembly companies. ▪ Shortage of parts industries and vulnerability of dependence on imported components ▪ Imbalance of imports and issues in securing new procurement sources ▪ Insufficient organization for QC and maintenance, marketing, development and purchasing ▪ Concerning local brands and marketing - Concerning the industrial structure <ul style="list-style-type: none"> ▪ An approach to value adding based on stratification of industry is required. - Concerning selection criteria for PP candidate companies <ul style="list-style-type: none"> ▪ Improvement potential and company assessments in quality and productivity - Concerning the manual <ul style="list-style-type: none"> ▪ Quality in the electric industry ▪ Approaches to issues ▪ Attention points considering existing manuals
Distributed materials	- Assessment sheet of visited companies (electric)
Assessment of participants	- Important points were raised and I hope more workshops are staged in future in order to discuss and address the issues. - If possible, I would like to see less analysis and more guidance on concrete solutions. Moving away from methodology regarding 5S and the 7 tools of QC, I would like to see more solutions and guidance.

[Workshop Report: Food processing Sector]

Second Work Shop (Food Processing Sector)	
Date	October 18, 2006 (Monday) 8.00-10.30
Venue	UGPQ conference room
Participants	M. Mohamed Chokri (Director General of CTAA) Mlle. Fatma GUELLOUZ (UGPQ - CTAA) M. Seiji Sugimoto (JICA Study Team) M. Eisuke Honkawa (JICA Study Team) M. Ahemd Snadli (Interpreter)
Topics	- Current conditions of the food industry and issues in terms of quality and productivity (based on company visit case studies)
Main contents	- Current conditions of the food industry in general <ul style="list-style-type: none"> ▪ Concerning sub-sectors and scale of companies, etc. ▪ ISO acquisition and export situation ▪ Significance of the Program Mise a Niveau for companies - Issues and problems in quality <ul style="list-style-type: none"> ▪ Inadequate activities conditional for ISO ▪ Quality (hygiene) standards in Tunisia ▪ Importance of traceability ▪ Quality and market assessment of own products - Issues and problems in productivity <ul style="list-style-type: none"> ▪ Misunderstanding concerning productivity ▪ Machine maintenance and productivity ▪ Human productivity - Concerning the PP candidate company criteria <ul style="list-style-type: none"> ▪ Concerning the manual contents
Distributed materials	- Assessment sheet of visited companies (food) - Draft manual contents
Assessment of participants	- The CTAA has a manual on ISO acquisition procedures, however, the draft manual contents here are complementary to this.

5-2-5 Setting of the Pilot Project Target Companies Selection Criteria

Based on the draft criteria for selecting target companies in the pilot project that were proposed in the Inception Report, the selection criteria were set in discussions with the Tunisian side. In setting the criteria, ample attention was paid to ensure that the scale of companies, corporate operating capacity, range of products, existence of foreign capital and approach to obtaining ISO certification are obtained from the various survey findings following the pilot projects.

The selection criteria that were discussed and decided in the Coordination Committee (CC) held on September 4 and 5, 2006 are as follows.

Table 2 Selection Criteria for Model Companies for the Pilot Project

Selection Criteria		1 Point	3 Points	5 Points	Points Scored
1	Number of companies in the sub-sector	Low	Medium	High	
2	Exporting company, company with potential for import substitution or company which is likely to be threatened by competition from imported products	Low	Medium	High	
3	Company with room for quality and productivity improvement and with a real prospect of a positive outcome	Low	Medium	High	
4	Strong desire to achieve quality and productivity improvement and to cooperate with the pilot project on the part of the company owner	Low	Medium	High	
5	Situation of acquisition of ISO certification or HACCP	None	In Progress	Already Acquired	
Total Score		-	-	-	/25

5-2-6 Selection of Pilot Project Target Companies

Based on the abovementioned selection criteria, assessment was carried out on the visited companies (see the Evaluation List of Visited Companies in Appendix A-4). Moreover, regarding 33 electric companies and 30 food processing companies that were visited, questionnaires were sent by facsimile in order to confirm desire to take part in the pilot project.

Upon conducting the said process, the pilot project target companies were finally selected in the Coordination Committee (CC) of December 1, 2006.

Table 3 shows the 15 companies in the electric and electronics sector and 14 companies in the food processing sector that were selected in the CC.

Table 3 List of Selected Model Companies for Pilot Project

[Electric Industrial Sector]				
No.	Name of Company	Name of Sub-Sector	Principal Products	Location
1	ABS Electronic	Electricity and Electronic Products	TV, airconditioner	Mateur
2	ARELEC	Electricity and Electronic parts	Conector for Power	Tunis
3	Bisma Cable	Electricity and Electronic parts	wireharness, cable, etc.	Tunis
4	COLDEQ	Electricity and Electronic Products	Refrigerator for truck	Ben Arous
5	GAN (Mont Blanc)	Household Electrical Goods	Regrigerator, Washing machine,	Ben Arous
6	GIE	Electricity and Electronic Products	Ballast Concent	Tunis
7	KACEM	Electricity and Electronic parts	Ballast, Transformer	SFAX
8	NOUR	Electricity and Electronic Products	Battery	Ben Arous
9	SEL	Electricity and Electronic Products	Lighting Box	Sfax
10	SIAME	Electricity and Electronic parts	Wireharness, cable, etc.	Nabeul
11	SOFTEN	Electricity and Electronic Products	Solar water heater	Nabeul
12	SOMEF	Electricity and Electronic parts	Switches Socket, Breaker	Tunis
13	TILC	Electricity and Electronic Products	Lighting, Concent	Tunis
14	TTI	Electricity and Electronic parts	Braker, Box	Nabeul
15	Vossloh Schwabe	Electricity and Electronic parts	Ballast, Connector	Ben Arous
[Food Processing Sector]				
No.	Name of Company	Name of Sub-Sector	Principal Products	Location
1	Huilerier Loued	Oil	Olive oil	Chibika
2	L'Appetissante	Confectionary	Biscuit, wafer	Tunis
3	La Générale Alimentaire JOUDA	Vegetable processing	Tomato paste, harissa	El Baten
4	Confiserie Triki-Le Moulin	Confectionary	Candy, gum, shamia	Sfax
5	S.C.A.P.C.B.	Vegetable processing	Tomate paste, harissa, pickled kidney beans, pickled olive, etc.	Grombalia
6	SNBG	Drink	Fruit juice, carbonated beverage	Grombalia
7	VACPA	Preserve	Dates	Ben Khaled
8	El Mazraa	Meat	Turky meat, chicken meat, sausage, catering (delicatessen)	Nabeul
9	ABCO	Fish processing	Canned tuna, canned sardine	Sidi Daoud
10	Medina	Vegetable processing	Artichoke, dried tomato, grilled salad	Zl de Jedeida
11	Sipa	Conditioning agent	Conditioning agent for bread and cake	Bizerte
12	CVBA	Winery	Wine	Bouargoub
13	Med Agro Ruspina	Oil	Olive oil	Moknine
14	Mouna Food	Vegetable processing	Salad in bottle	Mhemdia

5-2-7 Contents and Targets of the C/P Training in Japan (Draft)

The JICA consultants felt the training contents that were discussed in Japan before the first field survey based on the results of the fact-finding survey of companies were appropriate, however, the Director of UGPQ expressed the desire to place more emphasis on practical rather than theoretical contents in the training.

Phase 2

5-3 First Work in Japan (November 2006 ~ January 2007)

5-3-1 Compilation of the Pilot Project Implementation Plan

With respect to the pilot project target companies that were selected in the second field survey, an implementation plan (draft) comprising the framework of the pilot project, division of work, schedule, monitoring and assessment method, etc. was prepared. Regarding each pilot project, care was taken to ensure that appropriate project management utilizing PDM techniques is performed.

5-3-2 Preparation of the Quality/Productivity Improvement Manuals (Draft)

Based on the pilot project implementation plan (draft), the “Quality and Productivity Improvement Manual (Draft)” was prepared for the electric sector and the food processing sector.

5-4 Second Field Survey (January 2007~March 2007)

5-4-1 Discussion and Compilation of the Pilot Project Implementation Plan

The draft pilot projects implementation plan that was prepared in the first work in Japan was explained to and discussed with the Tunisian side and was approved in the Coordination Committee (CC) staged on January 12, 2007. Moreover, with the objective of sharing the pilot project implementation plan (draft) that was agreed in the CC with the companies targeted in the pilot project, a kick-off meeting was staged on January 16, 2007.

The kick-off meeting was attended by the senior executives, quality managers and production managers (i.e. personnel in charge of control departments) of the pilot project target companies. Explanations were given on the framework of the pilot project, the division of work and the implementation schedule, etc. and consent was obtained from the related officials.

The main points of the pilot project implementation plan are outlined below.

[Pilot Project Implementation Plan]

1. Framework of pilot project implementation

1-1 Objectives

In order to compile a master plan (MA) for improvement of quality and productivity of industry in Tunisia, a pilot project (PP) comprising the following activities will be implemented.

- 1) Conduct practical transfer of technology to the counterparts (C/P) regarding the techniques and method of corporate diagnosis and improvement.
- 2) Based on agreement of related officials, implement support for improvement of quality and productivity to the model companies.
- 3) Demonstrate and complete various manuals (drafts) related to improvement of quality and productivity.
- 4) Propose systems for the ongoing promotion of quality and productivity improvement covering all industrial sectors in Tunisia.

1-2 Target Sectors

The target sectors of the pilot project shall be “Electric and Electronics” and “Food Processing.”

1-3 Implementation Period

Diagnosis and improvement will be implemented from January to October 2007. However, because the issues at hand and approaches required to overcome them differ according to each company, the amount of time required to conduct diagnosis and improvement will also vary between companies.

1-4 Implementation Setup

- 1) The diagnosis and improvement teams for each sector will comprise members of the participating companies (executives or production managers of the model companies), UGPQ (at least 1 member) and the JICA consultants (at least 1 quality and productivity improvement officer), and the leader of each diagnosis and improvement team will be appointed from the model companies.
- 2) UGPQ will be the core promotion organization for the pilot project overall.

2. Scope and Method of Company Diagnosis and Improvement

2-1 Scope of Diagnosis and Improvement

Generally speaking, manufacturing comprises the following functions in addition to production activities: ① business strategy, ② marketing, ③ financial control, ④ personnel management, and ⑤ information management, etc. When conducting a general diagnosis of companies, it is necessary to diagnose all of these functions. However, the pilot project here will be implemented focusing on plant diagnosis and improvement directly related to quality and productivity improvement activities, and depending on the case, diagnoses may target functions other than production activities at the discretion of the diagnosis and improvement team.

2-2 Diagnosis and Improvement Method

Prior to implementing the pilot project, a draft manual containing diagnosis and improvement techniques, etc. will be prepared. The diagnosis and improvement team will utilize this in the pilot project implementation phase in order to confirm its effectiveness and complete it following completion of the pilot project.

2-3 Approach to Problem Solving

- 1) The joint team of UGPQ experts and JICA consultants, based on discussions with each model company, will examine a number of approaches to handling the issues faced by each model company and select the approach considered most appropriate.
- 2) A time schedule for problem solving will be prepared for each model company.
- 3) The division of work for problem solving (division of roles between the model company, C/P and JICA consultants) will be decided and implemented for each model company.
- 4) The model companies will take the initiative in solving problems and will be supported by the team of UGPQ experts and JICA consultants.
- 5) In the pilot project implementation phase, monitoring will be implemented at the pre-determined time.
- 6) Based on the results of the pilot project, the final report will be prepared for the companies.

3. Work after Completion of the Pilot Project

- 3-1 Assess the outcomes of the pilot project. The assessment contents will be incorporated into the final report.
- 3-2 Complete a quality and productivity improvement manual that includes self-diagnosis and improvement techniques by companies for each sector, and also prepare a "Guidance Manual" for the C/Ps that will use the said manuals to conduct guidance.
- 3-3 Compile a draft plan of systems that will enable the ongoing promotion of quality and productivity improvement in all industrial sectors.
- 3-4 Reflect the outputs of the pilot project into compilation of the master plan and action plan.
- 3-5 Utilize successful cases in order to demonstrate and disseminate quality and productivity improvement in Tunisian industry.

4. Division of Roles

	Company	UGPQ Technical Center	JICA Consultant
Implementation of Pre-diagnosis (Including preparation of pre-diagnosis report)	○	○	◎
Selection of subject and planning of schedule for each company	◎ ◎ ◎		
Preparing diagnosis daily report		◎	△
Preparing manuals (bare-bones)		○	◎
Implementation of diagnosis and advising of solution method.		○→◎	◎→○
Implementation of KAIZEN	◎	○	○
Interim evaluation	◎ ◎ ◎		
Preparing proposal (final report) for company		◎	△
Finalization of manuals		◎	△
Preparing case study report		◎	△
Organization of W/S regarding system building for implementation of sustainable KAIZEN	○	○	◎
Final evaluation	◎	◎	◎
Transfer of procedure		◎ ◎	

◎ : Responsible Actor ○ : Supporting Actor
 △ : Supervising Editor ■ : Council

5-4-2 Sharing and Correction of the Quality/Productivity Improvement Manuals

It was agreed to share the composition and contents of the quality and productivity improvement manuals (draft) prepared in each sector in discussions with the C/P, and to make appropriate corrections via implementation of the pilot project.

5-4-3 Preparation of the Implementation Plan Concerning Company Diagnosis and Proposal Compilation

Based on the pilot project implementation plan, first the company-separate mini diagnoses were implemented. In these mini diagnoses, in addition to confirming the company representatives of the improvement teams (consisting of representatives from the C/P, JICA consultant and model companies), improvement issues for each company were selected.

The pilot project implementation plans for each company that were set by the improvement teams are as shown in Table 4. Moreover, Table 5 shows the schedule during the pilot project period.

Table 4 Pilot Project Implementation Plans for Each Company

(Electric Industrial Sector)

	Company	Main Products	Issues	Target Department	Improvement Team Members			
					Model Company	UGPQ	CETIME	JICA Team
1	ABS Electronic	TV, airconditioner	1. 5S 2. Improvement	Assembly	Anooar BEJADOU	Mohsen MAAMOURI	Mohamed CHEBBI	Yuichi FUKUSHIMA Kiyoshi SAKAI
2	ARELEC	Conector for Power	1. 5S 2. Layout	Overall	Aamor BOUCHIBA	Mohsen MAAMOURI	Yosr SABBEGH Ramzi METHAMMEM	Yuichi FUKUSHIMA Kiyoshi SAKAI
3	Bisma Cable	Wireharness, cable, etc.	1. Layout 2. Standard work	Overall	Mahrg El AOVEL	Mohsen MAAMOURI	Ramzi METHAMMEM	Yuichi FUKUSHIMA Kiyoshi SAKAI
4	COLDEQ	Refrigerator for truck	1. Layout 2. 5S	Overall	Hedi DRIZET	Mohsen MAAMOURI	Yosr SABBEGH	Yuichi FUKUSHIMA Kiyoshi SAKAI
5	GAN (MontBlanc)	Regrigerator, Washing machine,	1. Tooling time shortening 2. Layout	1. Plastic molding 2. Assembly	Bassem Ben ABDALLAH	Mohsen MAAMOURI	Ramzi METHAMMEM	Yuichi FUKUSHIMA Kiyoshi SAKAI
6	GIE	Ballast Concent	1. Work standards 2. Layout 3. Improvement of productivity in the molding and press plant	1. Assembly line 2. Molding and press	Mhadhbi Samir	Mohsen MAAMOURI	Yosr SABBEGH	Yuichi FUKUSHIMA Kiyoshi SAKAI
7	KACEM	Ballast, Transformer	1. 5S 2. Layout	1. Assembly 2. Press 3. Stock control	Mohamed Kacem	Mohsen MAAMOURI	Mohsen MAAMOURI	Yuichi FUKUSHIMA Kiyoshi SAKAI
8	NOUR	Battery	1. TPM 2. 5S	Overall	Mre Ghassallel Fater	Mohsen MAAMOURI	Mohamed CHEBBI	Yuichi FUKUSHIMA Kiyoshi SAKAI
9	SEL	Lighting Box	1. Improvement of productivity in the spot welding process	Spot Welding	Habib Belgaroui	Mohsen MAAMOURI	Mohsen MAAMOURI	Yuichi FUKUSHIMA Kiyoshi SAKAI
10	SIAME	Wireharness, cable, etc.	1. 5S 2. Improvement		Habib Ayouni	Mohsen MAAMOURI	Afifa OUMAYA	Yuichi FUKUSHIMA Kiyoshi SAKAI
11	SOFTEN	Solar water heater	1. 5S 2. Layout		Mustapha Jebrill	Mohsen MAAMOURI	Afifa OUMAYA	Yuichi FUKUSHIMA Kiyoshi SAKAI
12	SOMEF	Switches Socket, Breaker	1. Waste removal from injection molding	Injection molding	Ameur CHAMMAKHI	Mohsen MAAMOURI	Mohamed CHEBBI	Yuichi FUKUSHIMA Kiyoshi SAKAI
13	TILC	Lighting, Concent	1. Line balance productivity	Overall	Chraiet Abdelhafid	Mohsen MAAMOURI	Ramzi METHAMMEM	Yuichi FUKUSHIMA Kiyoshi SAKAI
14	TTI	Braker, Box	1. Qc circle 2. Waste removal	Overall	Atef Saanouni	Mohsen MAAMOURI	Mohsen MAAMOURI	Yuichi FUKUSHIMA Kiyoshi SAKAI
15	Vossloh Schawabe	Ballast, Connector	1. Q66 productivity improvement	Limited models	Hedi DRIZET	Mohsen MAAMOURI	Ramzi METHAMMEM	Yuichi FUKUSHIMA Kiyoshi SAKAI

(Food Processing Sector)

	Company	Main Products	Issues	Target Department	Improvement Team Members			
					Model Company	UGPQ	CTAA	JICA Team
1	Huilerier Loued	Oil	1. Thorough enforcement of hygiene control fundamentals	All departments	Nóeméne DAOUDI (Responsable du Laboratprie)	Fatma GOUELLOUZ	Selima B. Jihene G.	Seiji SUGIMOTO Yuji KATO
2	L'Appétissante	Confectionary	1. Reduction of losses caused by quality defects 2. Prevention of infiltration of foreign objects	Biscuit department All departments	Sadok BOUZIDI (Responsable Qualité)	Fatma GOUELLOUZ	Selima B. Jihene G.	Seiji SUGIMOTO Yuji KATO
3	La Générale Alimentaire JOUDA	Vegetable processing	1. Improvement of efficiency of energy use 2. Thorough enforcement of hygiene control fundamentals	Tomato washing department All departments	Amel DKIOLI (Responsable Qualité)	Fatma GOUELLOUZ	Mohamed HEJERI	Seiji SUGIMOTO Yuji KATO
4	Confiserie Triki-Le Moulin	Confectionary	1. Reduction of nonconformities in manufacturing 2. Shortening of retooling time 3. Thorough enforcement of hygiene control fundamentals	Candy molding and packaging department Packaging department All departments	Bouthania MAAZOUN (Directrice Qualité & Sécurité)	Fatma GOUELLOUZ	Selima B. Jihene G.	Seiji SUGIMOTO Yuji KATO
5	S.C.A.P.C.B.	Vegetable processing	1. Improvement of machine operating rates 2. Rust prevention of cans 3. Improvement of organized productivity	Harisa, Tomato paste and harisa Manufacturing department and marketing department	Messaoudi LAZHAR (Responsible Production)	Fatma GOUELLOUZ	Anis MAHJOUB	Seiji SUGIMOTO Yuji KATO
6	SNBG	Drink	1. Improvement of machine operating rates 2. Thorough enforcement of hygiene control fundamentals	Juice filling department All departments	Ben Khedher AHMED (Directeur Central)	Fatma GOUELLOUZ	Melika HERMASSI	Seiji SUGIMOTO Yuji KATO
7	VACPA	Preserve	1. Improvement in long-term storage of raw materials 2. Improvement of human productivity	Dates in cold storage Pip removal, weighing, packaging department	Tale SALHA (Quality Manager)	Fatma GOUELLOUZ	Fatma GOUELLOUZ	Seiji SUGIMOTO Yuji KATO
8	El Mazraa	Meat	1. Improvement of human productivity	Chicken, turkey and salami departments	Anis DELZANZ	Fatma GOUELLOUZ	Melika HERMASSI	Seiji SUGIMOTO Yuji KATO
9	ABCO	Fish processing	1. Improvement of human and equipment productivity rates	Manufacturing department	Mohamed SKIKER (Responsable Qualité)	Fatma GOUELLOUZ	Fatma GOUELLOUZ	Seiji SUGIMOTO Yuji KATO
10	Medina	Vegetable processing	1. Improvement of human productivity	Manufacturing department	Mounira Jandoubi (Responsable QC)	Fatma GOUELLOUZ	Mohsen NAJJAR	Seiji SUGIMOTO Yuji KATO
11	Sipa	Conditioning agent	1. Thorough enforcement of hygiene control fundamentals	Manufacturing department	Mohamed HRIZI	Fatma GOUELLOUZ	Mohsen NAJJAR	Seiji SUGIMOTO Yuji KATO
12	CVBA	Winery	1. Thorough enforcement of hygiene control fundamentals 2. Shortening of retooling time	All departments Filling in and packaging department	Ridah BEN KNESIB (Directeur Technique)	Fatma GOUELLOUZ	Mohamed HEJERI	Seiji SUGIMOTO Yuji KATO
13	Med Agro Ruspina	Oil	1. Improvement of human and equipment productivity rates	Filling in and packaging department	M. HACHICHA	Fatma GOUELLOUZ	Selima B. Jihene G.	Seiji SUGIMOTO Yuji KATO
14	Mouna Food	Vegetable processing	1. Improvement of productivity 2. Prevention of infiltration of foreign objects	All departments All departments	Mouafak RIADH (Manager) Rkai LOTFI	Fatma GOUELLOUZ	Anis MAHJOUB	Seiji SUGIMOTO Yuji KATO

Table 5 Tentative Schedule of Pilot Project and Work Description

			2007											
			1	2	3	4	5	6	7	8	9	10		
UGPQ / Technical Center Consultant														
JICA Consultant Team														
Enterprises														
○	◎	○	Exécution du diagnostic préliminaire (Y compris la préparation du Rapport de diagnostic préliminaire) <i>Implementation of Pre-Diagnosis (Including Preparing of Pre-Diagnosis Report)</i>											
◎	◎	◎	Sélection des Sujets et l'établissement d'un Programme pour chaque entreprise <i>Selection of Subject and Planning of Schedule for each company</i>											
○	◎	○	Exécution de Diagnostic et conseiller des Méthodes de Solution. <i>Implementation of Diagnosis and advising of Solution Method.</i>											
○	○	◎	Exécution de KAIZEN <i>Implementation of KAIZEN</i>											
◎	◎	◎	Evaluation Provisoire <i>Interim Evaluation</i>											
◎	△		Préparation des Propositions (Rapport Définitif) pour l'Entreprise <i>Preparing Proposal (Final Report) for Enterprise</i>											
◎	△		Finalisation des Manuels <i>Finalization of Manuals</i>											
◎	△		Préparation du Rapport sur les Etudes de CAS <i>Preparing Case Study Report</i>											
◎	◎	◎	Evaluation Définitive <i>Final Evaluation</i>											

5-4-4 Compilation of Proposals for the Target Companies and Monitoring and Evaluation of the Condition of Implementation of Proposals

The conditions of pilot project implementation will be monitored and evaluated in order to modify the activities according to the smooth implementation and necessity of the pilot project.

Concerning the evaluation period and contents, the JICA consultant proposal was prepared and this was explained to and discussed with the UGPQ side. As a result, this was approved in the CC staged on January 12, 2007, when it was decided to implement an intermediate evaluation (June 2007) and final evaluation (December 2007).

It was decided to appropriately amend the evaluation items according to necessity. Table 6 below shows the evaluation items included in the pilot project implementation plan.

Table 6 Evaluation Items of Pilot Project

Evaluation Items	Evaluation	Remarks (Request)
1. Overall Evaluation of the PP Implementation Plan		
① Appropriateness of the selected problems (themes)	1 2 3 4 5	
② Appropriateness of the selected approach	1 2 3 4 5	
③ Degree of achievement of the expected goals/outcomes	1 2 3 4 5	
④ Composition of the team	1 2 3 4 5	
2. Transfer of Skills (Techniques) to the C/Ps		
① Transfer of basic and practical skills for quality and productivity improvement to the C/Ps	1 2 3 4 5	
② Transfer of guidance and extension methods for quality and productivity improvement to the C/Ps	1 2 3 4 5	
3. Transfer of Skills (Techniques) to the Model Companies		
① Evidence of concrete “quality improvement” and/or “productivity improvement”	1 2 3 4 5	
② Establishment of a system or basis for “quality improvement” and/or “productivity improvement” to suggest a positive outcome in the near future	1 2 3 4 5	
③ Learning of the self-diagnosis/improvement techniques for “quality improvement” and/or “productivity improvement”	1 2 3 4 5	
4. Degree of Satisfaction of the Model Company Owner		
① Degree of satisfaction with the PP results	1 2 3 4 5	

5-5 Second Work in Japan (March 2007 ~May 2007.)

5-5-1 Preparation of Progress Report

A progress report was prepared based on the contents of the first field survey and the results of the pilot project in the second field survey.

5-6 Third Field Survey (May 2007 ~ July 2007.)

5-6-1 Compilation of Proposals for Target Companies and Monitoring and Evaluation of Implementation Conditions

Following on from the second field survey, company diagnoses were carried out regarding the pilot project target companies based on the implementation plan. In addition to compiling proposals for quality/productivity improvement upon gauging the issues and improvement points in each company, conditions surrounding implementation of the recommended items were monitored appropriately.

5-7 Third Work in Japan (July 2007 ~ September 2007.)

5-7-1 Training in Japan

Eight of the counterparts received training in Japan for two weeks from August 16 to August 29, 2007. In response to requests from the counterpart agencies, the training program was arranged with the emphasis on observation of production lines in Japanese companies, visits to related agencies and study of Japanese cases rather than classroom learning. The trainees consisted of managers and engineers at technical centers and management personnel at counterpart agencies who conduct direct guidance of companies in Tunisia. The training program and syllabus are as indicated below in Tables 7 and 8 respectively.

Table 7 Training Program

Date	Day	AM/PM	Training Item	Place
Aug. 16	Thurs.	AM	Briefing and programme orientation	JICA (Tokyo)
		PM	Trade policies in post-war Japan and their implications for developing countries	JICA (Tokyo)
Aug. 17	Fri.	AM	SME support policies in Japan	Organization for Small and Medium Enterprises and Regional Innovation, Japan (SMRJ)
		PM	Productivity improvement activities in Japan and Asia	Asia Productivity Organization (APO)
Aug. 18	Sat.	AM	Technology transfer and technological innovation at SMEs	JICA (Tokyo)
		PM	Sorting of the gathered materials	
Aug. 19	Sun.	AM/PM	Sorting of the gathered materials	
Aug. 20	Mon.	AM	Regional promotion policies	Industrial Promotion Division, Industrial Economy Department, Ohta Ward Office, Tokyo
		PM	Visit to the actual manufacturing site of a parts manufacturer	Mitsuvac Co., Ltd.
Aug. 21	Tues.	AM	Quality management and production management in the beverage industry	Shonan Plant of Kirin Beverage Co., Ltd.
		PM	Japanese-style quality management	Union of Japan Scientists and Engineers (JUSE)
Aug. 22	Wed.	AM	Travelling	
		PM	Quality management and productivity improvement in the household electrical appliance industry	Shizuoka Plant of Mitsubishi Electric Corporation
Aug. 23	Thurs.	AM	Productivity improvement in Singapore	JICA (Tokyo)
		PM	Corporate approach to quality management and HACCP, etc.	Tsurumi Plant of Morinaga & Co., Ltd.
Aug. 24	Fri.	AM	Travelling	
		PM	Quality management and productivity improvement in the precision machining industry	Kofu Office of Yokogawa Electric Corporation
Aug. 25	Sat.	AM/PM	Sorting of the gathered materials	
Aug. 26	Sun.	AM/PM	Travelling	
Aug. 27	Mon.	AM	Proposals for quality and productivity improvement to strengthen international competitiveness	JICA (Central Region)
		PM	Toyota's production system and its reality (I)	Toyota Motor Corporation
Aug. 28	Tues.	AM	Toyota's production system and its reality (II)	Denso Corporation
		PM	Travelling	
Aug. 29	Wed.	AM	Wrapping-up meeting and evaluation	JICA (Tokyo)

Table 8 Syllabus

Date	16th August, 2007
Lecture Title	Trade Policies in Post-War Japan and Their Implications for Developing Countries
Lecturer (Position)	Prof. Masatako Wada, Faculty of Economics, Tokyo University
Key Points of Lecture	<ol style="list-style-type: none"> 1. Changes and characteristics of trade in post-war Japan (changes of the trade structure and the current trade structure) 2. Development factors for trade and trade policies in post-war Japan (business environment for Japan, efforts of the private sector and role of the government)
Date	17th August, 2007
Lecture Title	SME Support Policies in Japan
Lecturer (Position)	Mr. Makoto Ihara, Deputy Manager, International Division, International Control Office, SMRJ
Key Points of Lecture	Changing role of the SMRJ for the development of SMEs in Japan and the operating system, organizational structure and main activities, particularly those related to quality and productivity improvement, of the SMRJ
Date	17th August, 2007
Lecture Title	Productivity Improvement Activities in Japan and Asia
Lecturer (Position)	Mr. Kenneth Mok, Director, Administration and Finance Department, and Mr. Takuki Murayama, Director, Industry Department, Asian Productivity Organization (APO)
Key Points of Lecture	Role played by the APO for quality and productivity improvement in Asia, historical changes of the organizational structure and activities of the APO and examples of promoting productivity improvement activities in specific countries in Asia
Date	18th August, 2007
Lecture Title	Technology Transfer and Technological Innovation at SMEs
Lecturer (Position)	Prof. Masatake Wada, Faculty of Economics, Tokyo University
Key Points of Lecture	<ol style="list-style-type: none"> 1. General image of technological innovation at SMEs in Japan 2. Technological innovation in the car parts industry in Japan 3. Independent and innovative SMEs in Japan 4. Silicon valley model for venture capitals in Japan
Date	20th August, 2007
Lecture Title	Regional Promotion Policies
Lecturer (Position)	Mr. Hideo Hagiwara, Manager, and Mr. Takeshi Aoki, Industrial Promotion Division, Industrial Economy Department, Ohta Ward Office
Key Points of Lecture	<ol style="list-style-type: none"> 1. Present situation and problems of industrial promotion in Ohta Ward 2. History of industrial promotion in Ohta Ward 3. Geographical conditions and problems of industrial promotion in Ohta Ward 4. Policies and prospects for industrial promotion in Ohta Ward
Date	20th August, 2007
Lecture Title	Manufacturing Site of a Parts Manufacturer
Lecturer (Position)	Mr. Koichi Watanabe, Managing Director, Mitsuvac Co., Ltd.
Key Points of Lecture	<ol style="list-style-type: none"> 1. Manufacturing site of the parts industry in Japan 2. Approach of the parts industry to quality management 3. Quality and productivity improvement approaches
Date	21st August, 2007
Lecture Title	Quality Management and Production Management in the Beverage Industry
Lecturer (Position)	Mr. Sanae Eguchi, Chief, Publicity Desk, General Affairs Department, Shonan Plant, Kirin Beverage Co., Ltd.
Key Points of Lecture	<ol style="list-style-type: none"> 1. Outline of the Shonan Plant 2. Quality and productivity improvement approaches 3. Symbiotic plant with the local community
Date	21st August, 2007
Lecture Title	Japanese Style Quality Management
Lecturer (Position)	Mr. Ichiro Ko-otsuka, Counselor, Director of Business Department and Head of International Office, JUSE

Key Points of Lecture	Role played by the JUSE in quality and productivity improvement in Japan and the operating system, organizational structure and activities of the JUSE (award system, training courses/seminars, research activities and publications)
Date	22nd August, 2007
Lecture Title	Quality Management and Productivity Improvement in the Household Electrical Appliance Industry
Lecturer (Position)	Mr. Nobuhito Nishizaki, General Affairs Division, General Affairs Department, Shizuoka Plant, Mitsubishi Electric Corporation
Key Points of Lecture	<ol style="list-style-type: none"> 1. History of Japan's household electrical appliance industry 2. Characteristics of the production system of Mitsubishi Electric Corporation 3. Quality and productivity improvement approaches
Date	23rd August, 2007
Lecture Title	Productivity Improvement in Singapore
Lecturer (Position)	Mr. Yasushi Fukuda, Fukuda Office of Professional Engineers
Key Points of Lecture	<ol style="list-style-type: none"> 1. Outline of the Productivity Development Project in Singapore 2. Issues relating to the transfer of the management system 3. Establishment of a Q/PI system (overall picture and the basic programmes for 5S and Kaizen)
Date	23rd August, 2007
Lecture Title	Concrete Approach to Quality Management and HACCP, etc.
Lecturer (Position)	Mr. Hideo Umezawa, Deputy Manager, Tsurumi Plant, Morinaga & Co., Ltd.
Key Points of Lecture	<ol style="list-style-type: none"> 1. Outline of the Tsurumi Plant 2. Efforts to obtain ISO certification and HACCP 3. Quality management improvement measures
Date	24th August, 2007
Lecture Title	Quality Management and Productivity Improvement in the Precision Machining Industry
Lecturer (Position)	Mr. Hisaya Furuya, Kofe Gr. Chief, Practicing Division, NYPS Promotion Department, Yokogawa Electric Corporation
Key Points of Lecture	<ol style="list-style-type: none"> 1. Outline of the NYPS (New Yokogawa Production System) 2. Characteristics of production at the Kofu Plant 3. Improvement of manufacturing activities using the NYPS
Date	27th August, 2007
Lecture Title	Proposals for Quality and Productivity Improvement to Strengthen International Competitiveness
Lecturer (Position)	Mr. Tsuyoshi Kikuchi, Team Leader, Master Plan Study for Quality and Productivity Improvement in Tunisia
Key Points of Lecture	<ol style="list-style-type: none"> 1. Pending tasks for strengthening of the international competitiveness 2. Strengthening of the international competitiveness through quality and productivity improvement 3. Proposals for quality improvement 4. Proposals for productivity improvement 5. Development of a suitable environment for quality and productivity improvement
Date	27th August, 2007
Lecture Title	Toyota's Production System and Its Reality (I)
Lecturer (Position)	Mr. Kiyoshi Watanabe, Overseas Group, Company PR Department, Toyota Motor Corporation
Key Points of Lecture	<ol style="list-style-type: none"> 1. Outline of Toyota Motor Corporation 2. Toyota's production system
Date	28th August, 2007
Lecture Title	Toyota's Production System and Its Reality (II)
Lecturer (Position)	Mr. Takeshi Kato, No. 2 Planning Office, General Affairs Department, Head Office, Denso Corporation
Key Points of Lecture	<ol style="list-style-type: none"> 1. Outline of Denso Corporation 2. Environmental Issues 3. Toyota's production system

5-8 Fourth Field Survey (September 2007 ~Middle of October 2007)

5-8-1 Compilation of Proposals for Three Target Companies and Monitoring and Evaluation of the Condition of Implementation of Proposals

Following on from the third field survey, company diagnoses were carried out regarding the pilot project target companies based on the implementation plan. In addition to compiling proposals for quality/productivity improvement upon gauging the issues and improvement points in each company, conditions surrounding implementation of the recommended items were monitored appropriately.

5-8-2 Preparation of the Interim Report

The survey findings, contents of proposals and policies of the phase 3 field survey were compiled into the Interim Report. At the CC that was staged on October 18, 2007, the contents of the Interim Report were explained to and discussed with the Tunisian side and approval for the report was obtained.

5-8-3 Completion of the Quality / Productivity Manual

Based on the conditions of implementation of the pilot project, problems and improvement points in the Quality/Productivity Manual were gauged and analyzed, and the manual was completed as a resource for utilization by the counterparts in conducting guidance for companies via the joint work and by companies themselves in the target sectors. (See the Draft Final Report: Manual).

5-8-4 Closing Ceremony

On completion of the pilot project (PP), the Closing Ceremony was staged for officials of the participating companies at the UTIC facility “La Maison de L’Entreprise.” At the ceremony, the Director of UGPQ and JICA Team Leader presented PP participation certificates and company-separate PP final reports (containing the PP participation contents and proposals for the future) to each company. Also, the officials from the participating companies each said a few words of appreciation.

Phase 3

5-9 Fourth Field Survey (October 2007 ~December 2007)

5-9-1 Preparation of the Master Plan for Quality / Productivity Improvement (Draft)

The draft master plan containing guidance methods and planning for companies other than the pilot project target companies in the electric appliance and food processing sectors was prepared. This was discussed with the Tunisian side and general agreement was arrived at on the framework.

5-9-2 Preparation of the Dissemination Seminar Implementation Plan (Draft) and Staging of the Dissemination Seminar

The implementation plan of the dissemination seminar for companies other than the pilot project target companies in the electric appliance and food processing sectors was prepared. This contained details on the organizers and topics of individual seminars, schedule, frequency of seminars, target participants and venues.

The program of the seminar was composed of the current condition of quality/productivity improvement measures in the UGPQ, examples of quality/productivity improvement measures in Japanese companies, successful examples among the PP companies, and an outline of the Manual. In particular, since the seminar contained presentations by technical center consultants as well as presentations by companies that achieved success in the pilot project, the contents were extremely demonstrative.

Moreover, the seminar was staged at two locations in the capital Tunis and in Sfax (the second largest city in the country located approximately 260 km south of Tunis). On both occasions, through holding tours of production lines at the companies that gave presentations on the day after the seminar, the participants had a precious opportunity to directly confirm the effects of Kaizen on production lines.

Date	: November 22, 2007., 8.30~13.30
Venue	: Hotel Africa Tunis / Room “Malawi” and “Zambeze” 50, Avenue Habib Bourguiba B.P. 73 – 1001 Tunis Tunisie Tel: (+216) 71- 347 -477 / Fax: (+216) 71-257 -952
Main objectives	: 1) To inform related officials in Tunisian companies and education agencies about quality/productivity improvement activities. 2) Through explaining to participants the contents of the manual that was prepared in the pilot project, to give an outline introduction to the quality/productivity improvement support services that can be implemented by the UGPQ and technical centers in future. 3) Through having model companies present the activities they implemented and results they achieved in the PP, to raise the level of interest in quality/productivity improvement activities among companies that weren't targeted (including those in other sectors).
Main contents	: 1) Opening address (Mme. Zangar Dorzaf L./Director of UGPQ) 2) Greetings from Mr. Machida, Resident representative / JICA Tunisia Office 3) Outline explanation of the Pilot Project (Mme. Zangar Dorzaf L./Director of UGPQ) 4) Quality/Productivity Improvement in Japan (M. Sakai / Expert of JICA Study Team) 5) Presentation of Results of Pilot Project (Next, the participants split up into two groups – electric and food Sector–) - Electric sector : Presentation of PP results by PP model companies (“SOMEF” / “SOFTEN”)

- Electric sector :
Presentation of Manual by consultant of technical center (CETIME)
 - Food Processing sector :
Presentation of PP results by PP model companies (“SNBG” / “VACPA”)
 - Food Processing sector :
Presentation of Manual by consultant of technical center (CTAA)
 - Questions and answers
- 6) Closing Remarks (Mr. Kikuchi / JICA Study Team Leader)
(For details, refer to the seminar program 2007 in Appendix A-10.)

Participants : Approximately 140

Date : December 04, 2007., 8.30~13.30

Venue : Hotel Mercure Sfax / Room “Cartage 4 ”
Boîte Postale N° 544 Avenue Habib Bourguiba Sfax, Tunisie
Tel: (+216) 74- 255-700 / Fax: (+216) 71-255 -521

- Main objectives :
- 1) To inform related officials in Tunisian companies and education agencies about quality/productivity improvement activities.
 - 2) Through explaining to participants the contents of the manual that was prepared in the pilot project, to give an outline introduction to the quality/productivity improvement support services that can be implemented by the UGPQ and technical centers in future.
 - 3) Through having model companies present the activities they implemented and results they achieved in the PP, to raise the level of interest in quality/productivity improvement activities among companies that weren't targeted (including those in other sectors).

- Main contents :
- 1) Opening address (Mme. Zangar Dorzaf L./Director of UGPQ)
 - 2) Greetings from Mr. Machida, Resident representative / JICA Tunisia Office
 - 3) Outline explanation of the Pilot Project (Mme. Zangar Dorzaf L./Director of UGPQ)
 - 4) Quality/Productivity Improvement in Japan (M. Sakai / Expert of JICA Study Team)
 - 5) Presentation of Results of Pilot Project
 - Electric sector :
Presentation of PP result by PP model companies (“KACEM”)
 - Electric sector :
Presentation of Manual by consultant of technical center (CETIME)
 - Food Processing sector :
Presentation of PP result by PP model company (“Ruspina”)
 - Food Processing sector :
Presentation of Manual by consultant of technical center (CTAA)
 - Questions and answers
 - 6) Closing Remarks (Mr. Kikuchi / JICA Study Team Leader)
(For details, refer to the seminar program 2007 in Appendix A-10.)

Participants : Approximately 60

Moreover, in advertising for participants, invitation cards 2007 (see Appendix A-11) were prepared and sent to approximately 900 addresses.
For reference, seminar photographs 2007 (Appendix A-12) are attached.

5-10 Third Work In Japan (January 2008 ~March 2008)

- Preparation of Draft Final Report

Based on the results of the various activities described so far and the outcomes of the pilot project, proposals for their nationwide application in Tunisia and those for the master plan and action plan were prepared and the Draft Final Report (DF/R) was compiled.

5-11 Fifth Field Survey

5-11-1 Explanation of DF/R

The Coordination Committee was held on May 20, 2008, at which time full explanations and exchange of opinions were conducted with related officials regarding the contents of the DF/R. As a result, the contents of the DF/R were approved by the assembled members. See Annex A-13: M/M (signed on May 20, 2008) for the detailed contents of the discussions.

5-12 Fourth Work in Japan

5-12-1 Compilation of the Final Report

Based on the comments obtained from related officials at the CC on May 20, 2008, modifications were made to the DF/R, resulting in the Final Report (F/R), which was submitted to JICA.



6. Results of the Study

As was described in the Objectives of the Study earlier, the Study had the following three anticipated outputs and levels of achievement.

- (1) The pending issues of the food processing and electric industrial sectors for quality/productivity improvement were clarified.

The first field survey (September ~ November 2006) revealed in a rough manner the quality/productivity improvement issues facing companies in Tunisia, and these became clearer through implementation of the pilot project (PP) (the second, third and fourth field surveys, all implemented in 2007).

Due to the limited time, issues were narrowed down to 2~3 per company in the PP, and the issues and guidelines that each company need to tackle more in the future were compiled into the final report that was presented to the company representatives in the Closing Ceremony.

- (2) The quality/productivity of each model company was improved by conducting the pilot project and techniques for quality/productivity improvement activities, such as the 5Ss, KAIZEN and Toyota production system, were transferred to the Tunisian side by means of jointly conducting a pilot project with staff of the UGPQ.

In the pilot project, target companies were divided between the electric industrial sector and the food processing sector. At each company, the team of JICA consultants and counterparts (UGPQ staff and technical center consultants) conducted company diagnosis, extracted issues, applied techniques and approaches for resolving the issues and worked with the company team on promoting quality/productivity improvement. As a result, more than half the participating companies (27 companies in the final analysis) were able to demonstrate concrete quality/productivity improvement results during the PP period. Moreover, the responsible personnel in the target companies and the counterparts were able to acquire the quality/productivity improvement techniques and approaches that were applied in the PP. Furthermore, through taking part in preparation of the Manual, the counterparts were able to more firmly establish the know-how and theory underlying the techniques and approaches. The counterparts may be able to independently offer guidance to companies if the contents were the same as in the PP, however, in order for them to become capable of freely applying such guidance to real situations, they will need to build their experience while receiving support from internationally experienced consultants (see Chapter 3 for details).

- (3) The Manual, Master Plan and Action Plan for quality/productivity improvement were compiled to provide guidance for companies to improve their quality/productivity in a practical manner using the results of the pilot project.

In line with implementation of the pilot project (PP), a manual (electric industrial sector version and food processing sector version) reflecting the PP experiences was prepared. The counterparts themselves were actively involved (under guidance from the JICA consultants) in the preparation of the Manual to ensure that it will be an effective tool for when the counterparts independently conduct guidance for companies in the future. Moreover, the Master Plan and Action Plan were prepared upon exchanging experiences and information with the counterparts and officials of related agencies in Tunisia.

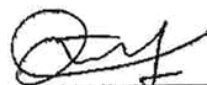
APPENDICES

**THE SCOPE OF WORK
FOR
THE STUDY
ON
MASTER PLAN OF QUALITY/PRODUCTIVITY IMPROVEMENT
IN
THE REPUBLIC OF TUNISIA
AGREED UPON BETWEEN
THE JAPAN INTERNATIONAL COOPERATION AGENCY
AND
THE MINISTRY OF INDUSTRY, ENERGY AND SME's**

Tunis, 22 March 2006



Eizen IREI
Resident Representative of Tunisia Office
Japan International Cooperation Agency
(JICA)



Dorsaf ZANGAR LABIDI
Director of Quality Program Unit
Ministry of Industry, Energy and
Small and Medium Enterprises
The Republic of Tunisia

I. INTRODUCTION:

Tunisia will abolish a customs barrier by 2008 with the partnership conclusion with EU. On this account they have to improve the domestic industry that has been put with a protection policy, and to reinforce competition in the international market. They promote industrial improvement plan (Mise a Niveau) as a national project since 1995. They have recognized reinforcement of the quality/production management system and the production technology as an urgent issue of Tunisia. And national quality program unit (UGPQ) was organized as measures of the issue. UGPQ is a temporary organization that consists of the staff recommended to by technical centers which are established every industrial field. And this unit decides to assist 600 SMEs in the implementation of the quality/productivity management systems by 2010 and aims for contributing to the national objective which is 1300 companies by horizon 2009 with the ability to follow an international standard such as ISO.

Based on such a background, Tunisia government requested Japanese government to conduct the study on master plan of quality/productivity improvement including practical pilot project with staff of UGPQ.

II. OBJECTIVES OF THE STUDY:

Japan side makes study to analyze the present conditions of the companies and business environments of food processing sector and electric industrial sector. Japan side selects about ten companies for each sector as a model and carries out a quality/productivity improvement activity together with the UGPQ staff for a model company. Based on the results of the pilot project Japan side formulates "the manual" which can be used by the UGPQ staff to conduct quality/productivity improvement activity also formulates an action plan as a policy level including the clear concept of practical use and guidance to conduct the consultation for 600 companies targeted.

Output

- (1) To clarify issues of food processing and electric industrial sectors in the quality/productivity improvement
- (2) To improve quality/productivity of each model company by carrying out a pilot project, and to make technology transfer for quality/productivity improvement activity such as 5S, KAIZEN and Toyota Production System to Tunisia side by carrying out a pilot project together with the staff of UGPQ.
- (3) To develop a manual for quality/productivity improvement activity, the master plan and action plan to guide companies to improve quality/productivity in practical manner, using the results of a pilot project.

III. STUDY AREA:

The Study will cover the entire area of Tunisia.

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IV. SCOPE OF THE STUDY:

The study consists of local investigation and guidance in Tunisia and the work in Japan. The study is divided into the following three phases;

1. The first phase

(a) To grasp the present conditions about quality/productivity improvement activity of Tunisian industry including the law and system.

- To study the law and regulations concerned with Tunisia
- To study the present condition about quality/productivity improvement activity of Tunisian industry
- To study the governmental policy about quality/productivity improvement activity

(b) To study to analyze the present conditions of company and business environment for food processing sector and electric industrial sector

- To study the supporting system in each sector of the government
- To visit SMEs in each sector and analyze their present condition and problem

(c) To select model companies and carry out a pilot project for quality/productivity improvement activity as the model company for each sector

- To set the criteria for selecting the model company
- To confirm the selecting process
- To select model companies

2. The second phase

(a) To make a "tentative manual" for quality/productivity improvement activity

(b) To make the technology transfer for quality/productivity improvement activity to Tunisian side by teaching the technology and assisting Tunisian side in implementing tools in selected model companies in each sector using the tentative manual.

- To share the contents of tentative manual with Tunisian side
- To make a plan of implementation for the pilot project
- To visit the model company to diagnose and to make guidance on the quality/productivity improvement activity
- To monitor the process and evaluate the pilot project

(c) To finalize "the Manual"

- To grasp a problem of the tentative manual with Tunisian side based on results of the pilot project
- To finalize the manual with Tunisia side

3. The third phase

(a) To develop master plan which includes recommendations and action plan.

- To prepare a draft of master plan

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- Recommendations such as organization structure to support improving quality/productivity in Tunisia
- To prepare a draft of action plan
- Dissemination schedule of the method developed in the Study
- Sharing of the results of pilot project
- To discuss about the draft of master plan and action plan with Tunisia side
- To finalize the master plan and action plan

(b) To support and advise C/P consultants who will improve quality/productivity of the other SMEs, using the manual.

V. SCHEDULE OF THE STUDY:

The Study will be carried out in accordance with the tentative schedule as attached in the Appendix. The schedule is tentative and subject to be modified when both parties agree upon any necessity that will arise during the course of the Study.

VI. REPORTS:

JICA shall prepare and submit following reports and manual in English and French to the Government of Tunisia

1. Inception Report:

Thirty (30) copies will be submitted to at the commencement of the first work period in Tunisia. This report will contain the schedule and methodology of the Study as well.

2. Progress Report I:

Thirty (30) copies will be submitted at the end of the first work period in Tunisia

3. Interim Report I:

Thirty (30) copies will be submitted within 2 months after second work period in Tunisia.

4. Progress Report II:

Thirty (30) copies will be submitted at the end of the third work period in Tunisia

5. Draft Final Report:

Thirty (30) copies will be submitted within 2 months after forth work period in Tunisia. The Government of Tunisia shall submit its comments within one (1) month after the receipt of the Draft Final Report.

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6. Final Report:

Fifty (50) copies will be submitted within 45 days after the receipt of the comments on the Draft Final Report.

7. Manual for Quality/Productivity Improvement Activity

Fifty (50) copies will be submitted in the beginning of forth work period

VII. UNDERTAKINGS OF THE GOVERNMENT OF TUNISIA:

1. To facilitate the smooth conduct of the Study; the Government of Tunisia shall take necessary measures in accordance with the relevant laws and regulations of Tunisia :

(1) To permit the members of the JICA study team to enter, leave and stay in the Republic of Tunisia for the duration of their assignments therein and exempt them from foreign registration requirements and consular fees ;

(2) To exempt the members of the JICA study team from taxes, duties and any other charges on equipment, machinery, vehicles and other material brought into the Republic of Tunisia for the implementation of the Study;

(3) To exempt the members of the JICA study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the JICA study team for their services in connection with the implementation of the Study;

(4) To provide necessary facilities to the JICA study team for the remittance as well as utilization of the funds introduced into the Republic of Tunisia from Japan in connection with the implementation of the Study;

2. The Government of Tunisia shall bear claims, if any arises, against the members of the Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the JICA study team.

3. Ministry of Industry, Energy and Small and Medium Enterprises, shall act as a counterpart agency to the team and also as a coordinating body with other relevant organizations for the smooth implementation of the Study, on behalf of the Government of Tunisia.

4. Ministry of Industry, Energy and Small and Medium Enterprises shall, at its own expense, provide the team with the following, in cooperation with other organizations concerned :

- Security-related information on as well as measures to ensure the safety of the Team;

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- Information on as well as support in obtaining medical service;
- Available data (including maps and photographs) and information related to the Study;
- Counterpart personnel;
- Suitable office space with necessary equipment; and
- Credentials or identification cards.

VIII. UNDERTAKINGS OF THE JICA:

For the implementation of the study, JICA shall take the following measures:

1. to dispatch, as its expense, study teams to Tunisia;
2. to pursue technology transfer to the Tunisian counterpart personnel (UGPQ and enterprises in the target sector) in the course of study;
3. to arrange the necessary office equipments (computers, printers...) and the appropriate number of vehicles to facilitate the smooth conduct of the study.

IX. CONFIDENCILITY:

Confidentiality shall be kept during the implementation of the Study and the results of the study will be disclosed and opened for the public by necessary measures under the agreement between both sides.

X. CONSULTATION:

JICA and the Ministry of Industry, Energy and Small and Medium Enterprises consult with each other in respect of any matter that may arise from or in connection with the Study.

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TENTATIVE SCHEDULE

Year	2006												2007												2008					
Month	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3						
Phase	Phase 1				Phase 2								Phase 3																	
Study		To grasp the present conditions about quality/productivity improvement activity of Tunisian industry including the law and system.	To study to analyze the present conditions of company and business environment food processing sector and electric industrial sector.		To make a "tentative manual" for quality/productivity improvement activity										To finalize "the Manual"	To make masterplan which includes recommendations and action plan														Explanation for the draft final report
Pilot Project		To implement the Quality / Productivity Improvement seminar and To set the criteria to select model companies	To select the model companies for each sector			To make the technology transfer for quality/productivity improvement activity to Tunisian side by teaching the technology and assisting Tunisian side in implementing tools in selected model companies in each sector using the tentative manual.							To give a lecture of quality/productivity improvement to other SMEs with staff Tunisia side by using the manual.																	
Work in Tunisia																														
Work in Japan																														
Report	△								△																				△	
Month	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3						

IC/R : INCEPTION REPORT
 PR/R : PROGRESS REPORT
 IT/R : INTERIM REPORT
 DF/R : DRAFT FINAL REPORT
 F/R : FINAL REPORT

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MINUTES OF MEETING
FOR
THE STUDY
ON
QUALITY/PRODUCTIVITY IMPROVEMENT
IN
THE REPUBLIC OF TUNISIA

AGREED UPON BETWEEN

THE MINISTRY OF INDUSTRY, ENERGY AND SME's

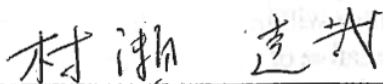
AND

THE JAPAN INTERNATIONAL COOPERATION AGENCY

Tunis, October 3, 2005

Dorsaf ZANGAR LABIDI
Director of Quality Program Unit
Ministry of Industry, Energy and
Small and Medium Sized Enterprises
The Republic of Tunisia




MURASE Tatsuya
Head of the Project Identification Study
Team
Japan International Cooperation Agency
(JICA)

In response to the request of the Government of the Republic of Tunisia (hereinafter referred to as "the Government of Tunisia"), Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a Project Identification Mission (hereinafter referred to as "the Mission") headed by Mr. MURASE Tatsuya from September 17 to October 7, 2005 to clarify the framework of the study on quality/productivity improvement (hereinafter referred to as "the Study") which is set forth in the Scope of Work (hereinafter referred to as "the S/W").

As a result of discussions, JICA and Tunisian authorities agreed and confirmed the following matters for the better understanding of the S/W and for the smoother implementation of the Study.

1. PROJECT TITLE

Both sides agreed that the project title of the study is "Study on Master Plan of Quality/Productivity Improvement".

2. OUTPUTS

Both sides agreed that the objective of the Study is as described in the S/W, and outputs of the Study for accomplishing that objective are as follows:

- (1) To clarify issues of food processing and electric industry sectors in the quality/productivity improvement
- (2) To improve quality/productivity of each model company by carrying out a pilot project, and to make technology transfer for quality/productivity improvement activity to Tunisia side by carrying out a pilot project together with the staff of UGPQ.
- (3) To develop a manual for quality/productivity improvement activity and the master plan and action plan including the practical use method or a guidance method to companies on the basis of results of a pilot project.

3. COUNTERPART

UGPQ (Quality Program Unit : Unite du Programme National de Qualite) will act as a counterpart agency as described in the S/W and both sides agreed that UGPQ will act as a main counterpart (See ANNEX III). In addition, Ministry of Industry, Energy and SME's will act as a partner on the study on quality/productivity improvement.

UGPQ and Ministry of Industry, Energy and SMEs agreed that they would allocate the necessary number of personnel.

4. COORDINATION COMMITTEE

Considering the necessity of involving relevant organizations in the Study, both sides agreed that the Tunisian side would establish a Coordination Committee by the commencement of the Study for the smooth implementation of the Study and effective use of the Study results. The Coordination Committee will advise on the contents of reports submitted by JICA study team. The Coordination Committee will be chaired by the director of UGPQ. This committee will be composed of representative of organizations which are nominated by the UGPQ (See ANNEX II). UGPQ also agreed to clarify the function and its responsibility of the each member by the commencement of the Study.

5. GUIDELINE FOR STUDY ON QUALITY/PRODUCTIVITY IMPROVEMENT

The Coordination Committee will define the guideline for the study on quality/productivity improvement based on Tunisian legal system.

6. PILOT PROJECT

The pilot project will be implemented on the stage of phase 2. Both sides agreed that the details

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of the pilot project would be discussed between JICA study team and Tunisian side. The monitoring of the process and evaluation of the pilot project will be done by both sides.

Tunisian side requested that the number of the companies in the pilot project should be 30. JICA side explained that the number would be determined based on the availability of the budget.

Both side agreed that results of the pilot project would be disclosed for other SMEs in Tunisia.

7. REPORTS

UGPQ requested that all of those reports (e.g. Inception Report, Progress Report, Interim Report, Draft Final Report and Final Report) will be prepared in English and French. Both sides agreed that in case any doubt arises in interpretation, the English text shall prevail.

Both sides agreed that Draft Final Report should be submitted to UGPQ and the Coordination Committee for clearance before publication of Final Report. Both sides also agreed that the Final Report should be open to the general public in order to share the Study results with relevant organizations as many as possible.

8. LANGUAGE FOR THE OFFICIAL CORRESPONDENCE

Both sides agreed that the language to be used in the official correspondence between the Government of Tunisia and JICA study team in the course of the Study is English.

9. CONFIDENTIALITY

JICA explained the basic policy on information disclosure: all the results by JICA technical cooperation projects shall be opened for the public. Tunisian side requested that the confidentiality shall be kept during the implementation of the Study and the results of the Study will be disclosed by necessary measures under the agreement between both sides. JICA agreed to convey this request to JICA headquarters for consideration.

10. OFFICE SPACE AND VEHICLES

UGPQ agreed to provide adequate office space and furniture. UGPQ requested JICA that Japanese side provides the necessary office equipment. JICA agreed to convey this request to JICA headquarters for consideration.

UGPQ requested JICA that Japanese side arranges the appropriate number of vehicles. JICA agreed to convey this request to JICA headquarters for consideration.

11. OTHERS

Output of the Study will be disseminated and utilized by Technical Centers to improve quality/productivity of SMEs.

Tunisian side requested that the cost of the facilities and preparations for seminars and workshops in the Study would be born by JICA.

JICA requested UGPQ to ask UTICA to be involved in the process of the selection of the pilot companies and use of the method developed by the study in SMEs.

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