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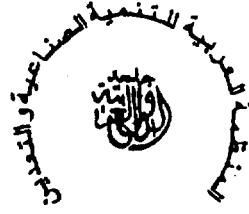
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**FINAL REPORT
OF A WORKSHOP TO ASSESS THE
TECHNICAL ASSISTANCE NEEDS
OF SUGAR INDUSTRY IN THE ARAB REGION
CAIRO, EGYPT, 2-5 DECEMBER 1995**

ملتقى شارع فرنسا - زنقة الخطوات . ص.ب 8019 ، الأمم المتحدة (10102) ، الرباط - المملكة المغربية
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**FINAL REPORT OF
A WORKSHOP TO ASSESS THE TECHNICAL
ASSISTANCE NEEDS OF SUGAR INDUSTRY
IN THE ARAB REGION
CAIRO, EGYPT, 2-5 DECEMBER 1995**

The workshop on "The Present and Future Status of Sugar Industry in the Arab Region" was held in Cairo, Egypt from 2nd to 5th December 1995, at the Management Development Center for Industry under the patronage of His Excellency Dr. Atef Abeid the minister of General Public Enterprise Sector and State for Administrative Reform and Environmental Affairs, and His Excellency Dr. Ibrahim Fawzi Abd El Wahid, the minister of Industry and Mineral Wealth, with a view to studying the present status of sugar plants in the Arab region, analyzing factors affecting productivity, quality and self-sufficiency in sugar and also to propose appropriate means to develop the status of this sector on agricultural and industrial level through development of production process and utilization of raw materials, transfer of technology and economic utilization of by-products to achieve better economic production.

The workshop was organized by the Arab Industrial Development and Mining Organization, jointly with the concerned Arab and international bodies as follows:

- Sugar and Integrated Industries Company (S.I.I.C), Cairo, Egypt.
- The League of Arab States.
- Islamic Development Bank (IDB).
- United Nations Industrial Development Organization, (UNIDO).
- Economic and Social Committee for Western Asia (ESCWA).
- Arab Organization for Agricultural Development (AOAD).

Eighty participants attended the workshop, presenting ministries of industry, agriculture and sugar industries in the following countries (Jordan, Tunisia, Algeria, Saudi Arabia, Sudan, Syria, Iraq, Oman, Egypt, and Morocco), in addition to representatives from Islamic Development Bank, UNIDO, ESCWA, World Sugar Organization, Arab Organization for Agricultural Development, the Arab Authority for Agricultural Investment and Development, the Inter-Arab Investment Company and other Arab companies concerned with sugar consumption together with AIDMO (Annex N°1 (List of Participants)).

In the opening ceremony, Dr. Atef Abeid the minister of the General Public Enterprise Sector and State for Administrative Reform and Environmental Affairs focussed on the Arab remarkable growing of sugar consumption and that forecasting demand will accordingly multiply in the coming ten years, which requires excessive effort and recurrent important investments on the part of Arab countries to overcome the situation.

His Excellency had also stated that Egypt has a technological base for sugar industry dates back to more than 100 years, and is composed of an industry base endowed with sufficient skills for producing spare parts and capital goods for this industry, in addition to research and development and its important role in offering more products through utilization of by-products aiming at improving the economies of production.

His Excellency showed the Egyptian interest in transferring its skills in the sugar sector to all brother countries, if needed .

His Excellency had also insisted on the need to explore raw materials alternatives along with their better exploitation and to propose other different alternatives for optimizing water utilization.

He also clarified that the seasonal operation of plants is greatly influencing the economies of the sugar industry.

In this context, the Egyptian experience urged on utilization of the equipments for a long period of the year through an off seasonal refining of raw sugar during the remaining months of the year.

His Excellency had at last dealt with the issue of pollution caused by sugar industry and also discussed the importance of by-products utilization for producing new valuable products and solving the environment contaminant problems.

Dr. Fawzi Abdlwahid, the minister of Industry and Mineral Wealth in Egypt had on his part treated the importance of the means of coordination in the field of information and statistics related to Arab and World sugar industry and also the importance of utilizing existing capacities and proposing appropriate ways for better utilization of by-products. He, moreover stressed on the importance of establishing a schedule for improving the quality of product.

His Excellency pointed out that sugar industry is amongst the basic sectors embracing the strategic sectors because of their interest they are according to Arab food security.

Arab countries are, moreover, endowed with technical skills and qualifications and capabilities that may enable them to foster the Arab sugar industry and other related industries to have the incentives of exporting their products instead of importing them.

The following participants in the opening ceremony :

- Eng. Adil Al shahawi → Chairman, Holding Company for Food Industries
- Eng. Mohamed Abdel Al Khalif → Chairman, Sugar and Intergrated Industries Company
- Mr. Kamal Senada ⇒ The League of Arab States representative.
- Eng. Abd Elmajid Benan ⇒ The Islamic Development Bank representative.
- Mr. Miranda Da Gruz ⇒ United Nations Industrial Development Organization representative.
- Mr. Issam Hanafi ⇒ Arab Industrial Development and Mining Organization representative.

discussed the importance of sugar industry in the Arab region which was established in the late twenties and experienced remarkable development during the sixties in many Arab countries and which production of white sugar reached 1-5 m .tons from the sugar cane and 622 thousand tons of imported raw sugar in 1993 .

They stressed on the Arab region requirement of sugar which reached 6-4 m.tons and with a value of 2.23 billion \$ in 1993; which means that the Arab region imported about 4.3 million tons for the same year to meet its sugar demand. That is, the Arab self- sufficiency was 33% and is expected to be reduced to 23% in 2005 unless excessive measures are taken to reduce the gap between demand and production.

This is due to raw-material crops shortage firstly, and to low percentage of sugar recovery and also to un-utilization of by- products.

All the speakers emphasized the importance of this workshop which raises satisfaction and expressed their wish to come out with applied recommendations, setting up the main outline of a workplan and executive programmes ready for the achievement of efficiency increase and reinforce the path of development with a view to reaching high level of self-sufficiency.

The workshop is composed of five sessions (Annex (2) workshop programme) as follows:

I- 1st and 2nd session:

The 1st and 2nd session shed light on the sugar industry in Arab region and in the World and country papers of (Egypt, Syria, Sudan, Algeria, Morocco, Iraq and Tunisia).

They discussed the following topics:

- 1- The status of the sugar crops and the cultivated areas.
- 2- Production capacities of sugar industries.
- 3- By-products and their utilization.
- 4- Demand for sugar.
- 5- Refined and imported raw sugar .
- 6- Maintenance and spare parts.
- 7- Manpower.
- 8- Specification and quality control.
- 9- Research and development.
- 10-Environmental impact.
- 11-Problems and obstacles.
- 12-Future plans.

The paper entitled "Lights on the World of Sugar Industry in the Arab Region and in the World" focussed on sugar crops in the world and the world production of raw sugar together with Arab and international sugar trade.

II- 3rd session:

The 3rd session consisted of the following regional papers:

- 1- The present status and the development of agricultural part of the sugar sector in the Arab region.

- 2- The present status and the development of industrial part of the sugar industry in the Arab region.
- 3- Problems and obstacles and the required technical assistance.

These papers pointed out that Arab sugar plants are consuming all the forwarded sugar crops and that the shortage of these crops leads to the decrease of efficiency utilization of sugar plants in Syria and Tunisia to 44%.

The sugar plants in Sudan received 70% of its requirement from sugar crops while sugar plants in Morocco and Egypt did not receive more than 82% of this requirement. This is mainly due to other competitive crops requiring less effort and are more profitable, which requires conducting diagnostic studies aiming at establishing appropriate pricing policies.

The papers added that some sugar plants are equipped with advanced techniques while others are still using obsolete ones.

Concerning the percentage of sugar recovery, the papers pointed that the percentage of recovery in the cultivated crops in the Arab countries is lower than the percentage of sugar recovery in the European countries.

The papers stressed also on some of by-products revenues which are higher than sugar production revenues. As for spare parts, the Arab sugar plants are consuming spare parts estimated to 60 million \$ /year and that some Arab plants import 90% of their requirement of spare parts while some of other plants' importation of spare parts does not exceed 10%.

The papers pointed out that at present the Arab self-sufficiency of sugar does not exceed 33% and that it will be lowered to 23% by 2005. This requires excessive efforts and regular coordination between workers in that sector in the field of utilization of the available capacities, importation of raw sugar, transfer of technology, spare parts production, preparation of studies, exchange of experiences, research and development, benefit from research centres existing in some countries, in addition to identification of fields in need of technical assistance with a view to increasing efficiency and reaching high level of self-sufficiency. Taking into account, that important developing programmes are set up in some Arab sugar plants especially in Egypt and Morocco which witnessed a high increase in production capacity and, the percentage of sugar contents. They also succeeded in improving their potentials to attain self-sufficiency in industrializing and developing equipments, spare parts, and started exploiting by-products in order to produce new, required and high economic value products.

They also succeeded in establishing advanced training and research centres.

4th Session :

Special papers were presented in this session , as follows:

1) The Impact of the International Agreements on Sugar Trade.

The paper focusses on the agreed upon topics during the meetings of April 1995 and expected policies for implementation at the international level and their impact on product and Arab economy especially on sugar. The paper presents the means that should be taken to overcome these changes. The paper also discusses

the importance of Arab countries' participation (governments, authorities, public and private institutions) in World Sugar Organization, and that the impact of GATT Agreements on sugar trade is insignificant.

2) **Optimal Utilization of Water in Sugar Cane Cultivation:**

The paper emphasizes the dangers threatening the World because of the shortage of waters and the measures taken by the Egyptian Company for Sugar and Integrated Industries to overcome this problem in the future, stating that sugar cane requires high irrigation water. Among these measures , conducting studies on modern irrigation techniques to reach high quality results and to use the most economical means for water consumption.

3) **Activities of Arab Authority for Agricultural Investment and Development in the Field of Sugar Crops Production and Industrialization.**

The paper explains the importance of sugar crops and future activities, measures and plans assigned to the above mentioned authority in cooperation with related organizations to improve efficiency utilization.

4) **Seeds Improvement Processing and their Impact on Acre Productivity.**

The Paper stresses the need of conducting studies on sugar crops breeding and improved seed by researchs undertaken by the Sugar and Integrated Industries Company .

5) **Improvement of the Maintenance Management in the Egyptian Sugar Company and Integrated Industries.**

The paper presents the maintenance systems in sugar plants and studies carried out in this field by the company and findings achieved after the application of integrated maintenance systems including preventive and planned maintenance and maintenance by condition monitoring, and improvement and rehabilitation measures.

6) - **Application of ISO 14001 Environmental Protection:**

The paper states the importance of environmental protection from sugar by-products which polluted the environment by the application of total management system and adoption of ISO 14001; together with the importance of the treatment and production of these by-products.

A FIELD VISIT:

The participants in the workshop conducted a field visit to the National Company for Corn Products and they followed- up an analytical explanation presented about the company's objectives and also about its important role in meeting the requirements of various institutions and companies utilizing sugar. The participants had also discussed the economies and the importance of fructose production , and examined productivity process and the company's working system.

5th Session:

Discussion and establishment of the workshop recommendations stated as follows:

RECOMMENDATIONS:**1) SUGAR RAW MATERIALS:**

- 1- To encourage a high quantity and quality of sugar crops cultivation, pricing policies should be set up taking into account the cultivators revenues in comparison with other agricultural products, provided that the price is suitable for the quality and quantity available. This, therefore, requires conducting studies and recurrent field researches by the Arab sugar companies in cooperation with concerned authorities.
- 2- AIDMO in cooperation with Arab and international organizations are assigned to stress on the establishment of agro-industrial complexes in the Arab countries which are suitable for establishment of such industry.
- 3- Further care should be accorded to agricultural crops to increase productivity per/acre by considering the fertilizers requirements, irrigation schedule, control of diseases and weeds, follow-up of crops growth, sugar cane cuttings, and picking up of core seeds according to the periodical analysis, and transportation of the crops to the plants in the same day.

2) UTILIZATION OF AVAILABLE CAPACITIES:

Coordination between the concerned Arab bodies in the refining sugar plants is required to utilize the available capacities, with a view to exporting sugar to the Arab countries which have a shortage of refining capacities in accordance with the economic utilization of the equipment and the product and in comparison with imported sugar as final product or establishment of raw sugar refineries plants.

3) TRANSFER OF SKILLS AND MODERN TECHNIQUES:

Exchange of technical skills related to sugar industry and by-products between Arab sugar producing countries in the field of agriculture, industry and other related fields such as research and development of current and new products, costs and formation of technical staff in addition to capital equipment production and the spare parts.

4) BY-PRODUCTS UTILIZATION:

Conducting technical and economical studies on by-products utilization and production of new profitable products taking into consideration the comparative incentives and the advantage of the Egyptian Company for Sugar and Integrated Industries' experience in this field.

5) CONSUMPTION OPTIMIZATION:

In order to minimize the production cost and increase product economies, it is recommended to optimize consumption and waste in irrigation and fertilizing operations taking advantage of field waste , in addition to optimization of water consumption during production process through utilization of closed circuit, decrease of sugar products waste and optimization of steam and electric consumption by using capacities to increase the power factor.

6) RESEARCH AND DEVELOPMENT:

a) In the field of agriculture:

- Obtaining developed and improved strains from sugar cane and sugar beet.
- Increase the productivity of various kinds of commercial sugar cane.
- Diagnose and analyse all diseases and pest hazards facing sugar crops, and setting up ways to overcome them.
- Identify factors influencing the growth and waste of sugar contents.

b)- In the field of industrial processing:

- Improvement of industrial processing to increase productivity , reduce losses and utilization of modern technological techniques.
- To obtain new varieties of sugar industry products and their by- products.

7- STANDARDIZATION AND QUALITY CONTROL:

- 1- With the requirement of the new global market mechanisms of sugar products and by-products conformity to the international standardization (ISO), all Arab companies are accordingly requested to obtain certification conformity to the total quality management system and to benefit from the gained experiences of the Sugar and Integrated Industries Company.
- 2- Issuance of unified Arab standards for raw materials, final products and by-products together with an establishment of quality control manuals.

8-MAINTENANCE AND SPARE PARTS:

Taking advantage of the Arab experiences in the field of the application of preventive maintenance systems and the spare parts production.

9- ENVIRONMENTAL PROTECTION:

The existing Arab sugar plants are accorded the task of treating the polluted water and air aiming at achieving a non-polluted industry through treatment of the following:

- Factories drainage
- Utilization of filter clay
- Utilization of by-products to produce more valuable products.

10- THE GAP BETWEEN DEMAND AND THE ARAB PRODUCTION:

To reduce the gap between demand and Arab production, AIDMO is entrusted, jointly with organizations, federations and related companies to define investment opportunities and prepare project profiles about sugar industry and promotion of these projects with the Arab investors and funds.

11- ARAB COORDINATION:

- 1- Arab coordination between sugar plants in the Arab states is very important especially in the following fields:
 - Importation of raw sugar
 - Supply of spare parts and capital equipments.
 - Maintenance, rehabilitation and capital equipment manufacturing.
 - Research and development
 - Exchange of information
 - Re-utilization of by-products
 - Standard specification and preparation of quality control manuals.
- 2- To call the League of Arab States for activating and supporting the Arab Federation for Sugar to carry out its duties all over the Arab region.
- 3- To call for the support of the National Committee for Sugar and to call companies and bodies working in the field of sugar to join the committee.
- 4- Arab companies are strongly recommended to join the World Sugar Organization for the services it may forward to companies in terms of consolidation and reinforcement of sugar trade economies.

12- TECHNICAL ASSISTANCE:

To increase the production capacities and efficiencies of sugar industry existing in Arab countries, the following issues have to be taken into account :

a) TRAINING:

Training of the technical staff working in sugar crops cultivation and sugar industry especially the ones related to maintenance operations and production management in the following countries: Tunisia, Algeria, Syria, Sudan , Iraq and the Egyptian and Moroccan sugar plants.

b) TECHNICAL ASSISTANCE:

- 1- To provide specialized experts in sugar cultivation for Syria, Tunisia and Iraq to reinforce the quality of sugar beet crop by offering encouraging incentives to cultivators.
- 2- Providing specialized experts in sugar cane cultivation to assist Sudan and Iraq in developing sugar cane fields and agricultural research centres.
- 3- Providing specialized experts in sugar production technology to assist Sudan, Iraq , Algeria and Syria to improve and develop production and productivity in quality and quantity.

4- Providing specialized experts in research centres requirements in Morocco and Egypt in order to carry out researchs dealing with by-products utilization.

C- FINANCIAL ASSISTANCE:

Extra financial assistance is needed for the rehabilitation process of the existing sugar plants in the Arab region, and also for providing the required spare parts and equipments which may enable the plants to refine raw sugar during sugar cane and sugar beet off season with the aim of improving the economies of production.

The concerned Arab companies are, therefore, required to prepare project profiles and details about the financial assistance needed to enable the Arab industrial development organizations, federations, institutions, banks and funds to examine the required financial potentials and possibility of their accomplishment.

The number and the technical levels of the trainees will be defined together with time, duration of training and the technical assistance, in coordination with related companies and AIDMO and jointly with UNIDO, IDB , ESCWA, the Egyptian Company for Sugar and Integrated Industries and the Moroccan companies.

13. The Arab Industrial Development and Mining Organization in cooperation with other organizations and institutions are entrusted to follow-up the workshop recommendations.

THANKS AND ACKNOWLEDGMENT

At the closure of the recommendations, the participants agreed to pay tribute to His Excellency Dr.Atef Abeid, the minister of General Public Enterprise Sector and the State for Administrative Reform and Environmental Affairs and His Excellency Dr.Ibrahim Fawzi Abdl Wahid, the minister of Industry and the Mineral Wealth for opening the workshop and for the fruitful instruction they presented during the opening speech.

They also expressed their thanks to Engineer Mohamed Abdel Al Khalif, chairman of the Sugar and Integrated Industries Company and to his technical and managerial assistants for their scientific and technical contributions, the good organization and the warm reception which made this conference successful.

They also expressed their thanks to His Excellency General Mohamed Ahmed Hussein, the director of Management Development Center for Industry and his assistants for the facilities they offered to the workshop.

(ANNEX N°1)

**LIST OF PARTICIPANTS IN THE
WORKSHOP OF
" THE PRESENT STATUS
OF THE SUGAR INDUSTRY IN THE ARAB REGION "
CAIRO 2-5/12/1995
HELD AT THE MANAGEMENT DEVELOPMENT
CENTER FOR INDUSTRY**

COUNTRY / INSTITUTION	NAME	POSITION
JORDAN	Mr. Yahya Elalami	Director General, The Production Company at the Jordanian Industrial and Commercial Company
TUNISIA	Mr. Zakaria Hamad	Director, Plant Products Transformation Food Industries Department
	Mr. Abdel Aziz Aliyat	Chairman, Tunisian Sugar Complex
	Mr. Mohamed Mounsif Al Roubai	Chairman, Tunisian Company for Sugar
ALGERIA	Mr. Belkasah Mohamed AÛ Ramadan	Director General, The National Establishment For Sugar
	Mr. Mohamed Lasib	Production Manager
	Mr. Darif El Twani	Chemical Specialist
SAUDI ARABIA	Mr. Mohamed Ben Ali Al Koud	Engineer, Saudi Consulting House
	Mr. Mazin Abdellah	Engineer, United Sugar Company(SAFOULA)
SYRIA	Mr. Issa Ibrahim	Technical Affairs Director, General Establishment for Sugar
	Mr. Mounir Farah	Production Director, General Establishment for Sugar
	Mr. Mohamed Amine Haddad	Director, Agricultural Division at the General Establishment for Sugar

	Mr. Adnan Ben Mohammed Izat	Director, Food Industries
	Mr. Abdellah Ben Mohamed Soubhi	Chairman, Sugar Industries Association
	Mr. Haitham Hicham	Member of the General Union Board for Sugar
	Mr. Mohamed Nour Eddine Salkini	Sugar Products Industrialist
	Mr. Walid El Khani	Food Industries Consultant
SUDAN	Mr. Othman Elnadir	Director General, Kenana Sugar
	Mr. Awad Elkarim Hussein Mekki	Expert, Kenana Sugar Company
	Mr. Hamad Ali Hamad	Expert, Ministry of Industry
IRAQ	Mr. Falah Said Jebr	Secretary General, Arab Federation for Food Industries
	Mr. Nasir Ibrahim Hassan	Chief Engineers, The Ministry of Industry and Minerals
	Mr. Kayoun Ali Hussein	Chief Engineers, Sugar Company
	Mr. Mounib Youness Fathi	Agricultural Engineer, Sugar Company
Oman	Mr. Khatim Ben Khamiss ElMaamri	Director General, Agriculture Management for Animal and Fish Resources
	Mr. Hamad Seif Nassir ElMaamri	Director General, Ibn Elorouba Establishment for Trade and Entreprise
EGYPT	Mr. Mohamed Abdellah Khalif	Chairman, Sugar and Integrated Industries Company
	Mr. Abdelhalim Mohamed	Advisor, Sugar and Integrated Industries Company
	Mr. Salam Fath Ellah Shewil	Director, Industrial Production Affairs, Sugar and Integrated Industries Company

	Mr.Salam Fath Ellah Shewil	Director, Industrial Production Affairs, Sugar and Integrated Industries Company
	Mr.Ridwan Hankal	Director, Agricultural Production Affairs, Sugar and Integrated Industries Company
	Mr.Abbas Hilal	Director General, Agricultural Production Affairs at the Sugar Company
	Mr.Ali Hassan	Director General, Sugar Production at the Sugar Company.
	Mr.Mhamdi Yassin Mohamed	Director General of Fermentation, Sugar Company
	Mr.Sabri Aziz	Project Affairs Acting Director, Sugar and Integrated Industries Company
	Mr.Abderrazak Hanafi	Mechanical Engineering Director General, Sugar and Integrated Industries
	Mr.AbdelHamid Fawzi	Refining Plants Director, Sugar Company
	Mr.George Najib Chahalal	Director General, Production Researchs, Sugar Company
	Mr.Mahmoud Darwich	Director General, Sugar and Refinement Researchs, Sugar and Integrated Industries Company
	Mr.Hassan Ahmed Jad	Director General, Production Affairs at the Sugar and Integrated Industries Company
	Mr.Adel AbdelHamid	Director, Industrial Operations Research Center at the Sugar and Integrated Industries Company

	Mr. Abdenasser Mohamed	Expert, Sugar and Integrated Industries Company
	Mr. Ahmed Abdelmounim Zaki	Production Director General, Refinement Plants at the Sugar Company
	Mr. Diyai Ibrahim Daoud	Deputy Director, General Relations at the Sugar and Integrated Industries Company
	Mr. Ali Ibrahim Qutb	Director, Refining Plants and Chemicals Affairs , Sugar and Integrated Industries Company
	Mr. Rifaat Ismail Ibrahim	Holding Company for Food Industries
	Mr. Abdessattar Sulaiman	Director, Technical Sectors, Holding Company for Food Industries
	Mr. Mohamed Asaad	Advisor, Holding Company for Food Industries
	Mr. Aniss Abdelaziz	Director, Research and Quality Sector, Holding Company for Food Industries
	Mr. Naji Iskandar	Director General, Holding Company for Food Industries
	Mr. Ali Azz El Arab Badr Eddine	Director, Marketing Sector, Holding Company for Food Industries
	Mr. Mohamed Abdelfattah Mohamed	Director, Production Sector, Holding Company for Food Industries
	Mr. Mohamed Chaouki Abdelwahab	Chairman and Deputy Manager, Dakahlia Company for Sugar
	Mr. Abdelmajid Mohamed ElGhaich	Director General, The National Company for Corn Productions
	Mr. Abdelhamid Mustapha Salama	Chairman and Deputy Manager, Delta Sugar Company

	Mr.Ibrahim Hussein Abu Hatab	Expert, Delta Sugar Company
	Mr.Amine Assaid Youssef	Expert, Delta Sugar Company
	Mr.Mohamed Mustapha Etabak	Expert, Delta Sugar Company
	Mr.Abdessalam Ajouz	Expert, Delta Sugar Company
	Mr.Mr.Jamal Said	Expert, Delta Sugar Company
	Mr.Abdellah Abdedaim	Under-secretary of State, Ministry of Agriculture, Board of Sugar Crops
	Mr.Rajaa Said Labib	Director, Food Projects Department, General Organization for Industry
	Mr.Tarik Saad Zaghoul	Arab Organization for Industry
MOROCCO	Mr.Ettahiri Mimoun	Engineer, AGA Engineering Company
	Mr.Ezakkari Mohamed	Chief, Agricultural Division for Research , Studies and formation at the Sugar Institute
	Mr.Azz ElArab Loudyi	KOSOUMAR Sugar
	Mr.Abbadi Abdellatif	Ministry of Agriculture
LEAGUE OF ARAB STATES	Mr.Kamel Senada	Director, Department of Arab Cooperation
ISLAMIC DEVELOPMENT BANK	Mr.Abdelmajid Benan	Engineer
INTERANTIONAL STANDARD (ISO) ORGANIZATION	Mr.Peter Baron	Chief Executive, World Sugar Organization(London)
ARAB CORPORATION FOR INVESTMENT AND AGRICULTURAL DEVELOPMENT	Mr.Mohamed Othman Elhassan Elkarouri	Director, Department of Economic Relations and Joint Work

ARAB INVESTMENT GUARANTEE COMPANY	Mr.Abduh Taha Ayoub	Chief Division
ARAB INVESTMENT COMPANY	Mr.Abderrahman Echayee	Director, Department of Agricultural Project/Riyadh
UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION (UNIDO)	Mr.Miranda Da Cruz	Agro-based Industries Branch
	Mr.Abdel Aziz Bediwe	Expert
ECONOMIC AND SOCIAL COMMITTEE FOR WESTERN ASIA (ESCWA)	Mr.Mohamed Abderrahman	Industry Division
ARAB ORGANIZATION FOR AGRICULTURAL DEVELOPMENT	Mr.Khachi Errawi	Expert
ARAB INDUSTRIAL DEVELOPMENT AND MINING ORGANIZATION	Mr.Issam Hanafi	Acting Director, Department of Studies and Programs
	Mr.Ali AbdelHussein Karim El Abbadi	Expert
	Mr.Mouayad Mohamed Zaki AbdelAziz	Specialist

(Annex N°2)
WORKSHOP PROGRAMME
"The Present Status of the Sugar Industry in the Arab Region"
Cairo- 2-5/12/1995 held at the Management
Development Center for Industry

Saturday 2/12/95	
9.00 - 10.00	Registration
10.00 -12.00	<p>Opening speeches</p> <ul style="list-style-type: none"> - Mr. Mohammed Abdel Al Khalif, Board Chairman, Sugar and Integrated Industries. - Mr. Kamel Senada, The league of Arab States representative. - Mr. Abdelmajid Benane, Islamic Development Bank representative. - A paper presented by Mr. Issam Hanafi, On behalf of Mr. Mohamed Karbid, Secretary General, Arab Industrial Development and Mining Organization. - Adil Chihawi, Chairman, Holding Company for Food Industries. - His Excellency Dr. Ibrahim Fawzi, the Minister of Industry and Mineral Wealth. - His Excellency Dr. Atef Mohammed Abeid, the Minister of General Public enterprise Sector and the State for Administrative Reform and Environmental Affairs.
12.00 - 12.30	Break
12.30 - 14.15	1st Working Session
	President of the session: Mr. Othman Nadir, Director General, Kenana Sugar Company/ Sudan
*12.30 - 13.00	"Light on Sugar Industry in the World and in the Arab Region"-by Dr. Falah Said Jabr, Arab Federation for Food Industries.
*13.00 - 13.30	Working paper/Dr. Salama Shewil, Egypt.
*13.30 - 13.45	Working paper / Mr. Mohammed Amine Haddad/ Syria
* 13.45 - 14.15	General Discussion
SUNDAY 3/12/1995	
9.00 - 11.00	2nd Working session

	President of the session:Mr.Adnan Dakhakhini , president of Food Industries Committee / Syria
9.00 - 9.15	Working paper of Sudan, Mr. Awad Abdelkarim Mekki
9.15 - 9.30	Mr. Lassib Mohammed / Algeria
9.30 - 9.45	Mr. Ezakaoui Mohamed / Morocco.
9.45 - 10.00	Mr. Nassir Ibrahim El khafaji / Iraq
10.00 - 11.00	General Discussion
11.00 - 11.30	Break
11.30 - 14.00	3rd Working Session
	President of the session : Dr. Falah Said Jabr, Secretary General of Arab Federation for Food Industries.
11.30 - 12.00	" The Agricultural Status of Sugar Sector" Mr.Khachi Errawi, Arab Organization for Agricultural Development.
12.00 - 12.30	"The Industrial Status of Sugar sector" Mr. Ali Elabbadi, Arab Industrial Development and Mining Organization.
12.30 - 13.00	"Problems Facing Sugar Industry Sector and the Technical Assistance". Mr. Abdelazim Bedewi, UNIDO
13.00 - 14.00	General Discussion
MONDAY 4/12/1995	
9.00 - 11.00	4th Working session:Specialized papers
	President of the session : Mr. Abdelhalim Mohamed, Sugar and Integrated Industries Company
9.00 - 9.15	"The Impact of International Agreements on Sugar Trade" Dr. Peter Baron (ISO)
9.15 - 9.30	"Optimization of Water Utilization in Sugar Cane Cultivation". Mr. Ridwan Haykal, Sugar and Integrated Industries Company.

9.30 - 9.45	"The Activities of Arab Corporation for Investment and Agricultural Development in the Field of Sugar Crops Production and Industrialization". Dr. Mohamed Othman, Arab Corporation for Investment and Agricultural Development.
9.45 - 10.00	"Crops Improvement Processes and their Impact on Acre Productivity" Dr. Jad Elkarim Esseid, Sugar and Integrated Industries Company.
10.00 - 10.15	"Improvement of Maintenance Management in Sugar and Integrated Industries Company" Dr. Abderrazzak Hanafi.
10.15 - 10.30	A working paper jointly prepared by Kenana Sugar and Arab Company for Investment. Dr. Abderrahman Echayei.
10.30 - 11.00	Application of ISO 140.000 on Environmental protection.
11.00	A field trip to the " National Company for Corn Products" located in 10 th of Ramadan.
Tuesday 5/12/1995	5th working session
	President of the session: Mr. Mohamed Abdel Al Khalif , Board Chairman, Sugar and Integrated Industries Company.
12.00 - 13.00	Discussion of the Final Report and Recommendations
13.30	Closing session