

TRAINING CENTRE

RDCR

ELECTRICAL AND ELECTRONIC INDUSTRIES

DEMOCRATIC REPUBLIC OF CONGO

Interim Survey Report

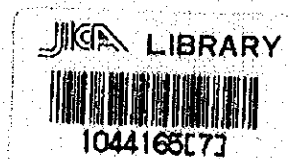
January 1978

Japanese International Cooperation Agency

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**TRAINING CENTRE  
FOR  
ELECTRICAL AND ELECTRONIC INDUSTRIES  
IN THE REPUBLIC OF IRAQ**

**Preliminary Survey Report**



**January, 1975**

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## CONTENTS

Introduction .....	1
1. Outline of the Training Centre to be Established .....	2
2. Major Points which Require Further Studies and Discussions .....	5
3. Japan's Collaboration in Establishing and Managing the Training Centre .....	8
Appendices:	
(1) A List of the Members of the Japanese Preliminary Survey Mission .....	10
(2) Itinerary of the Japanese Preliminary Survey Mission in Iraq .....	11
(3) Record of Discussions between Iraqi and Japanese Delegations .....	12

## INTRODUCTION

The national objective of industrialization in Iraq is greatly constrained by the shortage of technically skilled manpower. Industrial schools and technical training centres are being fully utilized to train people, by accommodating two or three shifts of trainees every day. However, these centres are still insufficient to provide the skilled manpower necessary to meet the national demand. The Government of Iraq plans to establish nine additional vocational training centres of which Ministry of Industry will undertake to establish six centres.

Under such circumstances the Government of Iraq has officially requested Japan's technical cooperation in establishing a training centre for electrical and electronic industries. In the meantime, the "Agreement on Economic and Technical Cooperation between the Republic of Iraq and Japan" was signed on 16 August, 1974. Article Five of this Agreement states that Japan's technical cooperation to Iraq will cover "providing technical assistance for training centres and technical institutes in Iraq to be mutually agreed upon". In accordance with the Agreement, the Japanese Government has confirmed that it would send an official mission to Iraq to conduct a survey on the intended training centre before the end of 1974.

The Japanese Preliminary Survey Mission visited Iraq during 24 November to 10 December, 1974 and discussed with the Iraqi officials and other related persons subjects of mutual concern related to the establishment of the Training Centre for Electrical and Electronic Industries. The following are the views of the Japanese Mission, based on its discussions and observations in the Republic of Iraq.

The Japanese Mission members are very grateful to the Iraqi Government officials and other persons whom they met for their kind arrangements, hospitality, and useful information rendered to the Mission.

## 1. OUTLINE OF THE TRAINING CENTRE

After a series of discussions with the Iraqi officials and persons concerned, the concept of the training centre has been outlined as follows:

### (1) Objective

The Iraqi Electrical and Electronic Training Centre is to have the purpose of providing workers with technical skills required for repair and maintenance services in both electrical and electronic industries in the Republic of Iraq.

### (2) Location and Buildings

a. Zafaranya seems to be the best of the alternative sites for the location of the Training Centre. However, in case any difficulties might arise which would affect the use of Zafaranya, Al-Taji, considered to be the second best, will be chosen for the location.

b. A minimum of one hundred thousand square meters of land is required to accommodate all the necessary buildings and facilities for the Training Centre.

c. Housing accommodations for Japanese technical experts are to be provided within the space of the Training Centre.

d. Buildings in the Training Centre are to be equipped with an air-conditioning system and lifts, which could be used as practical training equipment.

### (3) Training Course

a. The six following regular courses for technical training are planned. The number of trainees for each course is shown in parentheses.

- (i) Electric Lifts (30 persons)
- (ii) Air-conditioning and Refrigeration Equipment (30 persons)
- (iii) Radio, T. V., and Electronic Calculators (60 persons)
- (iv) Electric Installations and Motor Windings (30 persons)
- (v) Electric Controls and Measuring Instruments (30 persons)
- (vi) Audio-Visual Equipment (30 persons)

b. A regular course is given for three years (36 months) and is divided into two parts; the first 18 months for the basic training and the second 18 months for the advanced training. The former session will be given by the Iraqi side and the latter by the Japanese experts.

c. A special short term (6 to 9 months) course is also planned in order to upgrade the skills of workers. However, this is subject to the conditions of the Training Centre for facilities, equipment, and the availability of instructors.

d. It is suggested that audio-visual methods of education be introduced to make training more effective.

#### (4) Trainees

a. Trainees to be deemed qualified to enroll in a regular course must have successfully completed nine years of education in Iraq.

b. The total number of new enrollments in six regular courses is expected to be 210 persons.

#### (5) Teachers and Instructors

a. Teachers are to be appointed from among graduates of universities, and instructors, from among those of the Institute of Technology in Iraq.

b. Candidate Iraqi teachers and instructors are to be trained in Japan for one year before they begin their training activities at the Training Centre.

c. Japanese experts are to cover some specific fields of teaching and technical training in the Training Centre. Regarding various services to be provided by the Iraqi Government, they will be treated as equally as other foreign experts working in Iraq.

#### (6) Financings

a. Land required for the Training Centre is to be secured by the Iraqi Government.

b. Costs of building construction and the operation of the Training Centre are to be borne by the Iraqi Government, excluding the salaries of Japanese experts and Japan's provisions of machines, equipment, and tools.



## 2. MAJOR POINTS WHICH REQUIRE FURTHER STUDIES AND DISCUSSIONS

The following are the major points which are not clarified fully, and therefore, require further study and discussion between the representatives of the two Government so as to expedite the establishment of the planned Training Centre.

### (1) Training Course

#### a. Regular Courses

The Japanese Mission has suggested that, to begin with, three regular courses should be started as the first phase of training; they are (i) Electric Lifts, (ii) Air-Conditioning and Refrigeration Equipment, and (iii) Radio, T. V., and Electronic Calculator. The Iraqi delegation, however, has strongly requested to start all six courses at the same time from the very beginning of the training. The Japanese side will give a consideration to this point and the Iraqi side will be informed of the decision of the Japanese side in July, 1975, when the Japanese Implementation Survey Mission will visit Iraq.

#### b. Curricula

Appropriate curricula suitable to the expected trainees must be established, with the most deliberate considerations, in order to achieve the objective of the Training Centre. Special attention has to be paid to two points, especially by the Japanese experts who are responsible for training in the Centre: one is an identification of the level of the knowledge of would-be trainees in science and technology, and the other is a determination of skill-level target of would-be trainees at the end of the three years' training. In consideration of these two points the Japanese side makes the utmost effort to prepare a draft of curricula. The made-up draft will be presented to the Iraqi side by the Japanese Implementation Survey Mission.

#### c. Teachers and Instructors

After curricula have been formed, it is necessary to identify the number of teachers and instructors required and their specific fields of training responsibility,

including those of Japanese experts. The Iraqi side also needs to determine the candidates who are to be trained in Japan for one year.

d. Administration

Administrative organization is a question of fundamental importance regarding the establishment of the Training Centre, because budget allocation and staffing are in large part determined by it. Key personnel on the Iraqi side should be appointed before July, 1975, so that they can work out specific subjects in detail, with the Japanese Implementation Survey Mission.

(2) Construction of Buildings

Construction of buildings and facilities takes time for tendering, etc., so sufficient period for preparation is needed. Layout drawings of buildings and facilities will be submitted to the Iraqi side as a part of Japan's technical cooperation. It is ideal if this could be done before July, 1975. Regarding detailed aspects of installation and design of facilities and equipment, the Japanese Implementation Survey Mission will hold discussions with the Iraqi counterparts in July, 1975.

(3) Identification of Machines, Equipment, and Tools to be Installed

What kinds of machines, equipment, and tools are to be installed in the Training Centre is obviously a question of great importance. This is closely related to the contents of curricula. Identification of machines, etc. to be installed requires careful consideration especially in the electrical and electronic industries, since the technology in those industries is highly developed and sophisticated in developed countries, while they are least existent in the Republic of Iraq today. Three points are important as criteria in selection of technology for the Training Centre;

- (1) Whether such technology can be managed by trainees and workers after a fixed period of training;

- (ii) Whether the technology can contribute toward meeting the social demand for maintenance and repair in the country;
- (iii) Whether the technology and the replacement parts will be available in the future.

### 3. JAPAN'S COLLABORATION IN ESTABLISHING AND MANAGING THE TRAINING CENTRE

Japan's technical cooperation programs will provide the following four items, as grants.

#### (1) Implementation Survey

The Government of Japan will send the Implementation Survey Mission to Iraq in or about July, 1975. This Mission will be charged with the following tasks:

- (i) Socio-economic study including financial analysis of the management of the Training Centre;
- (ii) Manpower planning in the Training Centre;
- (iii) Curriculum formation for the training courses;
- (iv) Identification of machines, equipment, and tools to be installed in the Training Centre;
- (v) Advisory services for the administrative organization of the Training Centre;
- (vi) Advisory services for the layout of the Training Centre.

It is hoped that the Iraqi counterparts will prepare information and ideas with respect to the above six points.

#### (2) Recruitment of Japanese Technical Experts

The Japanese Government will recruit and send, at her own expense, the necessary number of Japanese qualified experts who will work in the Training Centre as teachers and instructors. They will be sent to Iraq in accordance with the bilateral agreement which will be signed during October to December, 1975.

#### (3) Provision of Machines, Equipment, and Tools Required for the Operation of the Training Centre

Necessary machines, equipment, and tools including some replacement parts which are required for operating the Training Centre will be provided by the Japanese Government. These necessary machines, etc., will be identified by the Japanese Implementation Survey Mission.

(4) Training of Iraqi Teachers and Instructors in Japan

Those Iraqi teachers and instructors who will work in the Training Centre will be trained in Japan for one year. All the expenses necessary for this training are to be borne by the Japanese Government. The number of those trainees to be trained in Japan will be decided at a later stage.

Timing is an important element for any kind of planned activity. This is true regarding the establishment of the Training Centre under planning right now. The Japanese Preliminary Survey Mission considers to be workable the tentative schedule as shown in the chart which follows for the future actions to be taken which mainly refer to Japan's collaboration.

Tentative Schedule for Establishing Iraqi Electrical and Electronic Training Center

	1975												1976												1977					
	J.	F.	M.	A.	M.	J.	J.	A.	S.	O.	N.	D.	J.	F.	M.	A.	M.	J.	J.	A.	S.	O.	N.	D.	J.	F.	M.	A.	M.	J.
Preliminary Survey Report	[Bar from Jan to Feb 1975]																													
Implementation Survey													[Bar from Apr to May 1976]																	
Conclusion of Agreement													[Bar from Jun to Aug 1976]																	
Construction of Buildings	[Bar from Mar to Aug 1975]												[Bar from Sep 1975 to Aug 1976]												[Bar from Sep 1976 to Aug 1977]					
Training of Iraqi Instructors in Japan													[Bar from Sep 1975 to Aug 1976]																	
Shipment of Japanese Machines & Equipment																									[Bar from Sep 1976 to Aug 1977]					
Japanese Experie																									[Bar from Sep 1976 to Aug 1977]					

Appendix (1)

LIST OF MEMBERS OF THE JAPANESE PRELIMINARY SURVEY  
MISSION FOR IRAQ ELECTRICAL AND ELECTRONIC TRAINING CENTRE

TAKEO KUROKO	Leader	Director, Department of Mining & Industrial Development Cooperation  Japan International Cooperation Agency
AKIO NOJIMA		The Japan Society of Industrial Machinery Manufacturers
HIRONAKA IKEHARA		Electronic Industries Association of Japan
NOBUHIRO MIYAKE		Machinery & Information Industries Bureau, Ministry of International Trade and Industry
YOSHIYUKI OTSUKA	Coordinator	International Trade Policy Bureau, Ministry of International Trade and Industry

Appendix (2)

ITINERARY OF THE JAPANESE PRELIMINARY SURVEY MISSION IN IRAQ

Nov. 24	Sun.	Departure from Tokyo
25	Mon.	Arrival in Bagdad
26	Tue.	Embassy of Japan; Ministry of Planning
27	Wed.	States Company for Electrical Industry Inspection of proposed sites for the Training Centre
28	Thu.	Mechanical Technical School
29	Fri.	District of Babylon
30	Sat.	Ministry of Planning; Electrical Technical School Japanese Trading Firms in Iraq
Dec. 1	Sun.	Higher Engineering Institute; JETRO Office
2	Mon.	Light Industries Company; Embassy of Japan
3	Tue.	Vocational Training Institute for Railway; Ministry of Planning Observation of lifts and air-conditioning equipment of M. O. P.
		Bagdad to Basra
4	Wed.	States Company of Fertilizer; Port Administration of Basra.
		Basra to Bagdad
5	Thu.	Embassy of Japan
6	Fri.	Inspection of proposed sites for the Training Centre
7	Sat.	Embassy of Japan; Ministry of Planning
8	Sun.	Ministry of Planning; Embassy of Japan (Record of Discussions)
9	Mon.	Ministry of Planning (Signing of the Record of Discussins)
		Bagdad to Tokyo
10	Tue.	Arrival in Tokyo

Appendix (3)

RECORD OF DISCUSSIONS HELD AT BAGDAD BETWEEN THE IRAQI AND  
JAPANESE DELEGATIONS DURING THE PERIOD FROM 26TH NOVEMBER  
TO 8TH DECEMBER 1974 FOR THE ESTABLISHMENT OF A TRAINING  
CENTRE FOR THE ELECTRICAL AND ELECTRONIC INDUSTRIES

In accordance with article V of the Agreement on economic and technical co-operation between the Government of Japan and the Government of the Republic of Iraq,

The Japanese and Iraqi delegations, led by Mr. Takeo Kuroko, Director of Mining and Industrial Development Co-operation Department, Japan International Co-operation Agency, and Mr. Ismail Deleimi, Director General, Educational and Social Department, Ministry of Planning, Government of Iraq, held many meetings in Bagdad during the period from 26th November to 8th December, 1974, to discuss procedures and related information necessary for the implementation of a Training Centre for electrical and electronic industries in Iraq as stipulated under the above-mentioned Agreement between the two countries. The lists of members of the two delegations are appended (Annexure I and II).

The two delegations discussed and exchanged views in the meetings on issues related to the establishment of this Centre as follows:

1. Site of the Centre:

Three sites were proposed by the Iraqi delegation for the location of the Centre. The Japanese delegation visited two of these sites in the areas of Zafaranya and Al-Taji, and has preferred the Zafaranya area to the others.

The Iraqi delegation however felt that should there be difficulties in allocation of a suitable site in the Zafaranya area, they would consider the Al-Taji area as the other alternative.



2. Space:

The Japanese delegation felt that taking into account of possible future expansion of the Centre, it would be necessary to provide a land of minimum 100,000 square meters for the Centre. The Iraqi delegation stated that they can easily secure the required space.

3. Fields of Training and Enrollment of Trainees:

The Japanese and Iraqi delegations revised the fields of training, the enrollment of trainees in the Centre as per details appended in Annexure III. Also, it was understood that trainees pursuing regular courses should spend the first eighteen months on basic training.

The Japanese delegation informed that they wished to divide implementation of the Centre into two phases. The first phase includes three fields; (a) Electric Lifts, (b) Air-conditioning and refrigeration equipment, and (c) Radio, T. V. and electronic calculating machines. The second phase includes the three remaining fields as per Annexure III, and taking into account of budget allocations in Japan, the Japanese delegation proposed to start with the first phase and keep the second phase for later discussions.

The Iraqi delegation, however, requested implementation of both phases at the same time and informed that they were ready to provide the necessary buildings and sufficient number of Iraqi instructors for the operation of the Centre. Depending on availability of surplus in the budget, the Japanese side will consider the Iraqi request. This request would be studied by the competent authorities in Japan and they would inform the Iraqi side accordingly by July, 1975.

4. Entrance Qualification of Trainees and Duration of Courses:

The Iraqi delegation explained that the Centre should aim at providing skilled workers required for repair and maintenance services, and that entrance qualification should be graduates of nine years education.

The Iraqi delegation further explained that duration of the regular courses should be three years including basic training during the first half, and that in addition to the regular courses, the Centre should provide special short term (six to nine months) training for up-grading of workers, taking into account of capacity of teachers and instructors and availability of training equipment.

5. Teachers and Instructors:

The Japanese delegation understood that the Iraqi Government should appoint the teachers from graduates of universities, and the instructors from graduates of the Institute of Technology respectively, and that candidates of the teachers and instructors would be sent to Japan for training for a period of one year.

The Japanese delegation expressed that the necessary number of teachers and instructors and their specialized fields would be indicated in a report prepared by the delegation to be communicated to the Iraqi side latest by 28th February, 1975.

6. Buildings:

The Iraqi delegation stressed the urgency of establishment of this Centre and indicated that it would be important to take necessary measures for inviting tenders for buildings construction as early as possible. The Iraqi delegation, therefore, requested that the Japanese side should extend the existing cooperation and assistance in preparing a layout drawing of the buildings with training equipments. The Japanese delegation informed that they would make arrangements to meet the Iraqi request and submit the required information through the Japanese Implementation Survey Mission expected to visit Iraq around July 1975.

The Iraqi delegation emphasized the necessity to submit this information through diplomatic channels before July 1975, if possible. The Iraqi delegation will submit the maps and general information about the plot of land to be allocated for the Centre as soon as possible, latest by 28th February, 1975.

The Japanese delegation suggested that the buildings should be equipped with a central air-conditioning system and a lift which could be used as practical training equipment, and requested that all the houses for the Japanese experts should be built in the Centre location.

7. Budget for Construction of Buildings of the Centre;

The Iraqi delegation stated that the budget for the required buildings can be easily allocated.

This record of discussions was signed in Baghdad on 9th December, 1974.

Ismail Deleimi  
Head  
of the Iraqi Delegation

Takeo Kuroko  
Head  
of the Japanese Delegation

