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July 9, 1999

Directorate General of Agricultural Engineering,  
Ministry of Agriculture

Dear Sir,

Subject : Preparatory Study on the Detailed Design Study of Rural Water Supply  
Project-2001 in the Republic of Tunisia

Thank you very much for your kind cooperation extended to our Preparatory Study Team (JICA Mission). I am pleased to inform you that our Team has successfully completed our tasks and that the main results are as follows.

1. Directorate General of Agricultural Engineering (DGGR) informed JICA Mission that they would submit an application with Terms of Reference (T/R) (see Appendix I for sample) of "The Detailed Design Study of Rural Water Supply Project-2001 in the Republic of Tunisia" (the Study).
2. JICA Mission showed draft Scope of Work for the Study (S/W) for a reference (see Appendix II), although it did not mean any commitment on the implementation of the Study. This S/W is not finalized yet and would be subject to change through the close consultation with each respect organization until the final decision for implementation of the Study would be made by the Government of Japan.
3. DGGR and JICA Mission held a series of discussions on the Study expected to be conducted by JICA. The main issues discussed are noted in Appendix III.

I will report these results to the organizations concerned in Japan upon my returning.

sincerely yours,



P.P. KOBAYASHI Katsumi  
Leader of the Preparatory Study Team,  
Japan International Cooperation Agency (JICA)

cc: Mr.RIDHA AZAIZ	Counselor, Direction Asia
Mr.Khéilil KAMMOUN	Ministry of Foreign Affairs
	Asia Department Head
	Ministry of International Cooperation and
	Foreign Investment
Mr. KAWADA, Masahiro	Counselor,
	Embassy of Japan in the Republic of Tunisia
Mr.TSUJIOKA, Masao	Resident Representative, JICA Tunisia Office

(DRAFT)

APPENDIX I

SCOPE OF WORK

FOR

THE DETAILED DESIGN STUDY

ON

THE PROJECT FOR RURAL WATER SUPPLY PROJECT

IN

THE REPUBLIC OF TUNISIA

AGREED UPON BETWEEN

MINISTRY OF AGRICULTURE

AND

JAPAN INTERNATIONAL COOPERATION AGENCY

TUNIS, , 1999

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Ministry of Foreign Affairs

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Mr.  
Resident Representative  
Tunisia Office  
Japan International Cooperation Agency

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Ministry of International Cooperation  
and Investment

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Ministry of Agriculture

## I. INTRODUCTION

In response to the request of the Government of the Republic of Tunisia (hereinafter referred to as "the Government of Tunisia"), the Government of Japan has decided to conduct a Detailed Design Study on the Project for Rural Water Supply Project in the Republic of Tunisia (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

Accordingly the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of the Government of Tunisia.

The present document sets forth the scope of work for the Study.

## II. OBJECTIVES OF THE STUDY

The objectives of the Study are:

1. to prepare detailed design and the tender documents of Project-2001 in Rural Water Supply Project agreed on between the Overseas Economic Cooperation Fund and the Government of Tunisia, which will contribute to development of rural water supply, and
2. to pursue technology transfer to the counterpart personnel in the course of the Study.

## III. STUDY AREA

The Study shall cover\_\_ sub-projects in rural area of Tunisia.

## IV. STUDY ORGANIZATION

Directorate General of Agricultural Engineering, Ministry of Agriculture (hereinafter referred to as "DGGR") shall act as a counterpart agency to the Japanese study team and also as a coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

DGGR will, as the executing agency of the project, take responsibilities that may arise from the products of the Study.

## V. SCOPE OF THE STUDY

In order to achieve the objectives mentioned above, the Study will cover the following:

1. Supplementary Data Collection and Field Study.
2. Review of Feasibility Study conducted by DGGR and the other related information including the result of OECF's appraisal.
3. Detailed Design.
4. Operation, Management and Maintenance Plan and Sensitization Program considering Participatory Approach and Gender Aspects.
5. Construction Plan and Implementation Plan.
6. Environmental Impact Assessment, if necessary,
7. Cost Estimation, and
8. Preparation of the Final Report and the Tender Documents in conformity with "Guidelines for Procurement under OECF Loans", dated on Dec. 1997.

## VI. SCHEDULE OF THE STUDY

The tentative schedule of the Study is shown in the attached sheet of Annex.

## VII. REPORTS

JICA will prepare and submit the following reports in English to the Government of Tunisia.

### 1. Inception Report

Twenty (20) copies at the beginning of the Study in the Republic of Tunisia.

This report will describe the Study schedule, methodology and Study Team members' assignment.

2. Draft Final Report and Draft Tender Documents:

Twenty (20) copies of Draft Final Report and ten(10)copies of Draft Tender Documents at the end of the Study in Tunisia. The Tunisia side shall submit their comments within one(1) month after the receipt of the Draft Final Report and Draft Tender Documents.

3. Final Report and revised Draft Tender Documents:

Twenty (20) copies of Final Report and ten(10)copies of revised Draft Tender Documents within one(1) month after the receipt of the comments on the Draft Final Report and Draft Tender Documents.

4. Monthly Reports and Design Reports:

Ten (10) copies each. The progress of the Study will be reported by month. Besides, Design Reports will be submitted after the completion of the design of each project component.

## VIII. UNDERTAKINGS OF THE GOVERNMENT OF TUNISIA

1. To facilitate the smooth conduct of the Study, the Government of Tunisia shall take the following necessary measures:

- (1) to secure the safety of the Japanese study team,
- (2) to permit the members of the Japanese study team to enter, leave and sojourn in Tunisia for the duration of their assignment therein, and exempt them from foreign registration requirements and consular fees,
- (3) to exempt the members of the Japanese study team from taxes, duties, fees and any other charges on equipment, machinery and other materials brought into and out of Tunisia for the conduct of the Study,
- (4) to exempt the members of the Japanese 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 Japanese study team for their services in connection with the implementation of the Study,
- (5) to provide necessary facilities to the Japanese study team for the remittances as well as utilization of the funds introduced into Tunisia from Japan in connection with the implementation of the Study,
- (6) to secure permission for the Japanese study team to enter into private properties or restricted areas for the implementation of the Study,

- (7) to secure permission for the Japanese study team to take all data and documents including photographs and maps related to the Study out of Tunisia to Japan, and
  - (8) to provide medical services as needed. It's expenses will be chargeable to members of the Japanese study team.
2. The Government of Tunisia shall bear claims, if any arise against the member of the Japanese study 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 member of the Japanese study team.
3. DGGR shall, at its own expense, provide the Japanese study team with the following, in cooperation with other organizations concerned:
  - (1) Available data and information related to the Study,
  - (2) Counterpart personnel and supporting staff,
  - (3) Necessary number of vehicles with drivers for the Japanese study team,
  - (4) Suitable office space with necessary equipment in Tunis, and
  - (5) Credentials or identification cards to the member of the Team.

## VIII. UNDERTAKINGS OF JICA

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

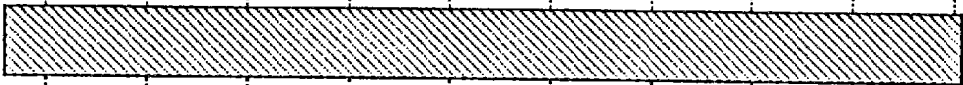


- (1) to dispatch, at its own expense and on a grant basis, the study team to Tunisia, and
- (2) to pursue technology transfer to the counterpart personnel in the course of the Study.

## IX. OTHERS

JICA and DGGR shall consult with each other in respect of any matter that may arise from or in connection with the Study.



## TENTATIVE SCHEDULE

	1	2	3	4	5	6	7	8	9	10	11	12
Work in Tunisia												
Work in Japan												
Report	▲ IC/R									▲ DF/R		▲ F/R

IC/R :Inception Report  
 DF/R :Draft Final Report  
 F/R :Final Report

D R A F T  
APPLICATION FOR THE  
TECHNICAL COOPERATION (DEVELOPMENT STUDY)  
BY THE GOVERNMENT OF JAPAN

APPENDIX II

1. Project Digest

(1) Project Title: Detailed Design Study of the Rural Water Supply Project -2001 in the  
Republic of Tunisia

(2) Location: .

(3) Implementing agency:

Number of the staff of the Agency:

Budget allocated to the Agency:

Organization chart:

(4) Justification of the project:

(5) Desirable time of commencement of the project:

(6) prospective funding source:

(7) other relevant projects:

2. Terms of reference of the proposed Study

(1) Necessity of the Study

(2) Necessity of the Japanese Technical Cooperation

(3) Objectives of the Study

- 1) to prepare detailed design and the tender documents of Project-2001 in Rural Water Supply Project agreed on between the Overseas Economic Cooperation Fund and the Government of Tunisia, which will contribute to development of rural water supply, and
- 2) to pursue technology transfer to the counterpart personnel in the course of the Study.

(4) Areas to be covered by the Study

The Study shall cover \_\_\_ sub-projects in rural area of Tunisia.

(5) Study Organization

Directorate General of Agricultural Engineering, Ministry of Agriculture (hereinafter referred to as "DGGR") shall act as a counterpart agency to the Japanese study team and also as a coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

(6) Scope of the Study

In order to achieve the objectives mentioned above, the Study will cover the following:

1. Supplementary Data Collection and Field Study,
2. Review of Feasibility Study conducted by DGGR and the other related information including the result of OECF's appraisal,
3. Detailed Design,
4. Operation, Management and Maintenance Plan and Sensitization Program considering Participatory Approach and Gender Aspects,
5. Construction Plan and Implementation Plan.

6. Environmental Impact Assessment, if necessary.
7. Cost Estimation, and
8. Preparation of the Final Report and the Tender Documents in conformity with "Guidelines for Procurement under OECF Loans", dated on Dec. 1997.

(7) Study Schedule

The Study should be started at the earliest possible date and about \_\_ months period will be required for the Study.

(8) Expected Major Outputs of the Study

Draft Tender Documents for each sub-projects of the program (the components of the projects are changeable during the Study). The Draft Tender Documents should be composed of the designs and drawings, specifications, Bill of Quantity, cost estimates, and other necessary documents for tender.

(9) Request of the Study to other Donor Agencies: None

3. Facilities and information for the Study Team

(1) Assignment of counterpart personnel of the implementing agency for the Study:

Required personnel will be assigned to the Study Team.

(2) Available data, information, documents, maps etc., related to the Study

(Please attach the list)

(3) Information on the security conditions in the Study area

4. Global Issues

(1) Environmental components:

Improvement of water supply service level will contribute to improve the living environment and sanitary condition in the Study area.

(2) Anticipated environmental impact and constraint:

(3) Anticipated impacts on women caused by the project

## 5. Undertaking of the Government of Tunisia

(1) To facilitate the smooth conduct of the Study, the Government of Tunisia shall take the following necessary measures:

- 1) to secure the safety of the Japanese Study team (hereinafter referred to as "the Team"),
- 2) to permit the members of the Team to enter, leave and sojourn in Tunisia for the duration of their assignment therein, and exempt them from foreign registration requirements and consular fees.
- 3) to exempt the members of the Team from taxes, duties, fees and any other charges on equipment, vehicles, machinery and other materials brought into and out of Tunisia for the conduct of the Study.
- 4) to exempt the members of the 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 Team for their services in connection with the implementation of the Study,
- 5) to provide necessary facilities to the Team for the remittances as well as the utilization of the funds introduced into Tunisia from Japan in connection with the implementation of the Study,
- 6) to secure permission for the Team to enter into private properties or restricted areas for the implementation of the Study.
- 7) to secure permission for excavation, road blocking, detour, and so on if necessary for the Study.

- 8) to secure permission for the Team to take all data and documents including photographs and maps related to the Study out of Tunisia to Japan, and
- 9) to provide medical services as needed. Its expenses shall be chargeable to the members of the Team.

(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 member of the Team.

(3) DGGR shall, at its own expense, provide the Team with the following, in cooperation with other organizations concerned:

- 1) Available data and information related to the Study.
- 2) Counterpart personnel and supporting staff.
- 3) Necessary number of vehicles with drivers for the Team
- 4) Suitable office space with necessary equipment in Colombo, and
- 5) Credentials or identification cards to the member of the Team.

Signed:

on behalf of the Government of Tunisia

Title:

Date

Memorandum of Preparatory Study on the Detailed Design Study of Rural Water  
Supply Project-2001 in the Republic of Tunisia

The Preparatory Study Team of Japan International Cooperation Agency (hereinafter referred to as "JICA Mission") was dispatched to Tunisia from July 5 to July 10 to discuss on The Detailed Design Study of Rural Water Supply Project-2001 (hereinafter referred to as "the Study") in Tunisia, while a mission of Overseas Economic Cooperation Fund (hereinafter referred to as "OECF") visited Tunisia for the appraisal of proposed Japanese Yen Loan projects.

JICA Mission carried out a field reconnaissance in the study area and had a series of discussions with Directorate General of Agricultural Engineering, Ministry of Agriculture (hereinafter referred to as "DGGR") on the Study under the condition that it did not mean any commitment on the implementation of the study. The list of those who attended these discussions is attached.

DGGR provided JICA Mission explanation and information on existing procedure on Rural Water Supply Project for the purpose of further understanding and better execution of the Study.

List of documents and drawings used are attached.

The main issues discussed are as follows :

1. Position of JICA Mission

JICA Mission explained the background (relationship with the OECF project) and tasks of the mission. DGGR understood it.

2. Detailed Design as Development Study Scheme

JICA Mission explained that with regard to the products of the Study when conducted under the Japanese Technical Assistance Scheme (Development Study Scheme), DGGR is to take responsibility that may arise from the said products. DGGR understood and agreed.

3. Close Consultation

DGGR and JICA Mission both agreed that close consultation between two parties would be essential to coordinate OECF's Scheme and JICA's Development Study

## Scheme for smooth execution of Rural Water Supply Project.

### 4. Local Consultant

JICA Mission and DGGR both reached the common recognition that Japanese Consultant (hereinafter referred to as "Study Team") which will execute the Study shall select local consultant in respect with the relevant laws and regulations in force in Tunisia and with cooperation with Regional Directorate General for Agricultural Development, Ministry of Agriculture, and should consider the role of CRDA on Contracts between the Study Team and local consultant.

### 5. Official Request of the Study

JICA Mission explained that the official request of the Study is necessary for the Japanese Government to decide the implementation of the Study. DGGR replied that they would prepare and submit it as soon as possible.

And the Mission also explained the outline of the steps from the application to the commencement of the Study, as below:

- (1) Submission of official request,
- (2) Decision by the Japanese Government,
- (3) Notice to the Tunisian Government,
- (4) Dispatch of Second Preparatory Study Team by JICA,
- (5) Signature on Scope of Work,
- (6) Selection of Japanese Consultant by JICA, and
- (7) Commencement of the Study.

### 6. Title of the Study

JICA Mission proposed the title of the Study "The Detailed Design Study of Rural Water Supply Project-2001 in the Republic of Tunisia". DGGR recognized the explanation of JICA Mission.

Both sides agreed that the matter would be finalized by Signature on S/W stated as above.

### 7. Terms of References

- (1) Both side recognized that the number of sub-project is 46 (forty-six). And it will be varied by the progress of the Study.
- (2) DGGR requested supplemental study including topographic survey on Feasibility Study. JICA Mission agreed the request.



- (3) DGGR explained Environmental Impact Assessment is not necessary for this Project but Social Impact Study and Economic Impact Study are necessary and to be executed in the Study. JICA Mission agreed.
- (4) DGGR requested to study Operation, Management and Maintenance Plan with Sensitization Program by each sub-project. JICA Mission replied that to appropriate extent those would be studied.
- (5) DGGR strongly requested that reports should be written in French. JICA Mission replied to consider it positively.

#### 8. Draft Scope of Work

- (1) JICA Mission pointed that Undertakings in S/W are same as past ones.
- (2) DGGR stated not possible to offer vehicles to the Study Team due to shortage of them.
- (3) DGGR also stated to offer office with furniture but not able to offer telephone, fax machine and copy machine. The Mission requested to make their effort to prepare those appliances because they are necessary at whole project period.

#### 9. Other

Items with which both sides could not reach to the mutual agreement are to be adjusted by Signature on S/W.

## List of Attendance

### (Tunisia Side)

#### Ministry of Agriculture

Mr. Sardouk Youssef	Ingenieur en Chef, Genie Rural, AEP des Zones Rurales, Directorate General of Agricultural Engineering
Mr. Jameleddine Brahmi	Chef de Service des Etudes, Directorate General of Agricultural Engineering
Mr. Fakhfakh Mohamed	Chef de Service des Travaux, Directorate General of Agricultural Engineering

### (Japanese Side)

#### JICA Preparatory Study Team

Mr. Katsumi Kobayashi	Leader, Second Development Study Div., Social Development Dept.
Mr. Yoshio Fukuda	Study Planning, Second Development Study Div., Social Development Dept.
Mr. Masayuki Shibahara	Interpreter

#### JICA Tunisia Office

Mr. Keiichi Takemoto	Deputy Resident Representative, JICA Tunisia Office
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#### The Overseas Economic Cooperation Fund (OECF)

Mr. Kakutoshi Ohori	Country Officer, Div., Operations Dept.
Mr. Hiroyuki Fukuda	Deputy Director, 1st Technical Div., Technical Dept.

## List of information provided by DGGR

1. Dossier d'appel d'offres d'etudes
2. Manuel de sensibilisation
3. Cahier des plans types
4. Cahier des charges pour les travaux
5. Methodologie de depouillement
6. Modele d'etudes d'AEP

**REPUBLIC OF TUNISIA**

**MINISTRY OF AGRICULTURE**

**APPLICATION FOR THE  
TECHNICAL COOPERATION  
BY THE GOVERNMENT OF JAPAN**

**STUDY OF  
THE RURAL WATER SUPPLY  
PROJECT 2001 IN TUNISIA  
(DEVELOPPEMENT STUDY)**



**الإدارة العامة للهندسة الريفية**

***Directorate General of Rural Engineering***

**JULY 1999**

APPLICATION FOR THE  
TECHNICAL COOPERATION  
BY THE GOVERNMENT OF JAPAN

STUDY OF THE RURAL WATER SUPPLY  
PROJECT 2001 IN TUNISIA  
( DEVELOPMENT STUDY )

1. Project Digest :

(1) Project Title : Detailed Design Study of the Rural Water Supply Project - 2001 in the Republic of Tunisia

(2) Location : Sub-projects are selected in 17 Governorates of the country (see Appendix I)

(3) Implementing agency :

- Directorate General of Rural Engineering (DGGR), Ministry of Agriculture.
- Number of the staff of the Agency : Technical staff :16 engeneer and 12 technical assistants .
- Budget allocated to the Agency : 2.5 millions DT
- Organisation chart : (Appendix II)

(4) Justification of the project :

The project aims to supply with potable water 97 000 inhabitants and to improve the global of water supply rate in rural area to 80% at 2001(target of the nine national plan).

(5) Desirable time of commencement of the project :

The first quarter of 2000 - at last April 2000

(6) Prospective funding source :

Grant of the Government of Japan (JICA)

(7) Other relevant projects : None

## 2. Terms of reference of the proposed Study :

### (1) Necessity of the Study

To prepare detailed design and the tender documents of sub-project - 2001 in the rural water supply project, which are necessary to the execution of water systems.

### (2) Necessity of the Japanese Technical Cooperation

Necessity of technical assistance to improve the methodology adopted for working on water supply studies and pursue technology transfer to the counterpart personnel in the course of the study.

### (3) Objectives of the study :

The objectives of the study are :

1) to prepare detailed design and the tender documents of sub-project -2001 in Rural Water Supply Project agreed on between the Overseas Economic Cooperation Fund and the Government of Tunisia, which will contribute to development of rural water supply, and

2) to pursue technology transfer to the counterpart personnel in the course of the Study.

### (4) Areas to be covered by the Study

The Study shall cover about 46 sub-projects in rural area of Tunisia. The list of these sub-projects is attached in Appendix III.

### (5) Study Organisation :

Directorate General of Rural Engineering (DGGR), Ministry of Agriculture (hereinafter referred to as " DG/GR") shall act as a counterpart agency to the Japanese study team and also as a coordinating body in relation with other governmental and non-governmental organisations concerned for the smooth implementation of the Study.

### (6) Scope of the Study

In order to achieve the objectives mentioned above, the Study will cover the following :

1. Supplementary Data Collection and Field Study,
2. Feasibility Studies including topographic survey,
3. Detailed Design,
4. Operation, Management and Maintenance Plan and Sensitization Program Considering Participatory Approach and Gender Aspects for each sub-project,
5. Construction Plan and Implementation Plan,
6. Social and Economic Impact Assessment,
7. Cost Estimation and Financial Analysis Including water fees and expected Budget of the AIC,
8. Preparation of the Final Report and the Tender Documents in conformity with "Guidelines for Procurement under OECF Loans", dated on Dec. 1997.

These aspects will be analysed in conformity with the existing methodology and documents used for executing water supply study. List of documents and drawings used is attached in Appendix IV.

#### (7) Study Schedule

The Study should be started at the earliest possible date. About 12 months period will be required for the Study.

#### (8) Expected Major Outputs of the Study

Draft tender documents for each sub-projects of the program (the components of the projects are changeable during the Study). the Draft Tender Documents should be composed of the designs and drawing, specifications, bill of quantity, cost estimates, and other necessary documents for tender.

#### (9) Request of the Study to other Donor Agencies : None

### 3. Facilities and information for the Study Team :

- (1) Assignment of counterpart personnel of the implementing agency for the Study: Required personnel will be assigned to the Study Team.
- (2) Available data, information, documents, maps etc., related to the Study.
- (3) Information on the security conditions in the Study area .

#### 4. Global Issues :

##### (1) Environmental components:

Improvement of water supply service level will contribute to improve the living environment and sanitary condition in the Study area.

##### (2) Anticipated environment impact and constraint :

Improvement of the public Hygien.

##### (3) Anticipated impacts on women caused by the project :

Saving time for fetching water, which will be invested in children education and in some type of productive activities.

#### 5. Undertaking of the Government of Tunisia :

(1) to facilitate the smooth conduct of the Study, the Government of Tunisia shall take the following necessary measures:

1) to secure the safety of the Japanese Study team (hereinafter to as "the Team"),

2) to permit the members of the Team to enter, leave and sojourn in Tunisia for duration of their assignment therein, and exempt them from foreign registration requirements and consular fees.

3) to exempt the members of the team from taxes, duties, fees and any other charges on equipment, vehicles, machinery and other materials brought into and out of Tunisia for the conduct of the Study.

4) to exempt the members of Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the member of the Team for their services in connection with the implementation of the Study,

5) to provide necessary facilities to the Team for the remittances as well as the utilisation of the funds introduced into Tunisia from Japan in connection with the implementation of the Study,

6) to secure permission for the Team to enter into private properties or restricted areas for the implementation of the Study,

7) to secure permission for excavation, road blocking, detour, and so on if necessary for the Study,



8) to secure permission for the Team to take all data and documents including photographs and maps related to the Study out of Tunisia to Japan and

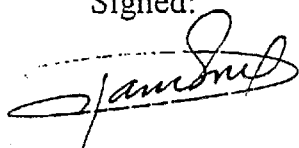
9) to provide medical services as needed. Its expenses shall be chargeable to the members of the Team.

(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 member of the Team.

(3) DGGR shall, at its own expense, provide the Team with the following, in cooperation with other organisations concerned:

- 1) Available data and information related to the Study,
- 2) Counterpart personnel,
- 3) Suitable office space, and
- 4) Credentials or identification card to the member of the Team.

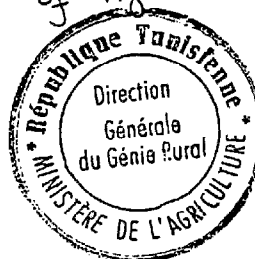
Signed:



on behalf of the Government of Tunisia

date 27 JUL. 1999

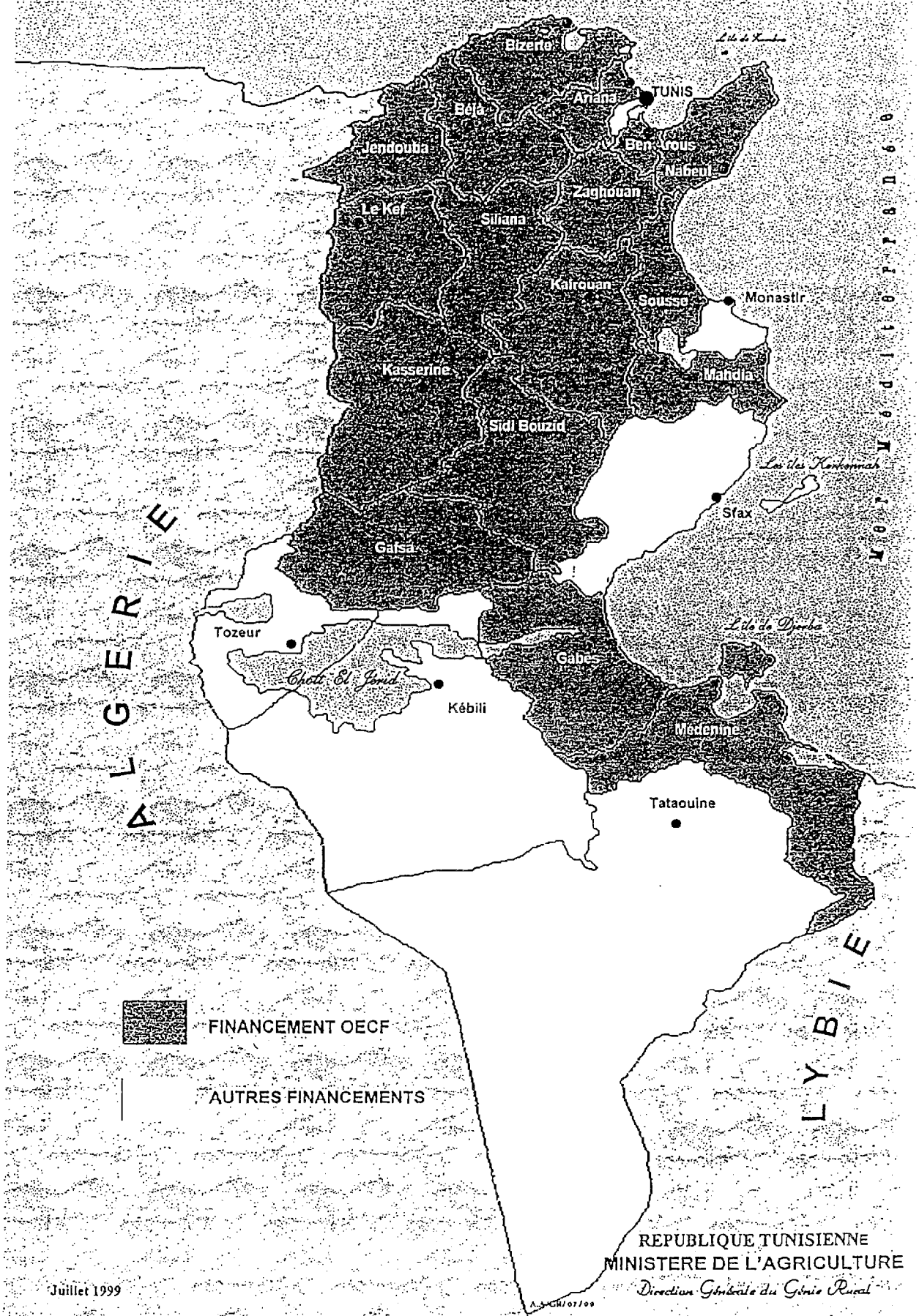
Title: Director General  
of Agricultural Engineering



# ALIMENTATION EN EAU POTABLE

PROGRAMME 2000-2001

FINANCEMENT OECF



FINANCEMENT OECF



AUTRES FINANCEMENTS

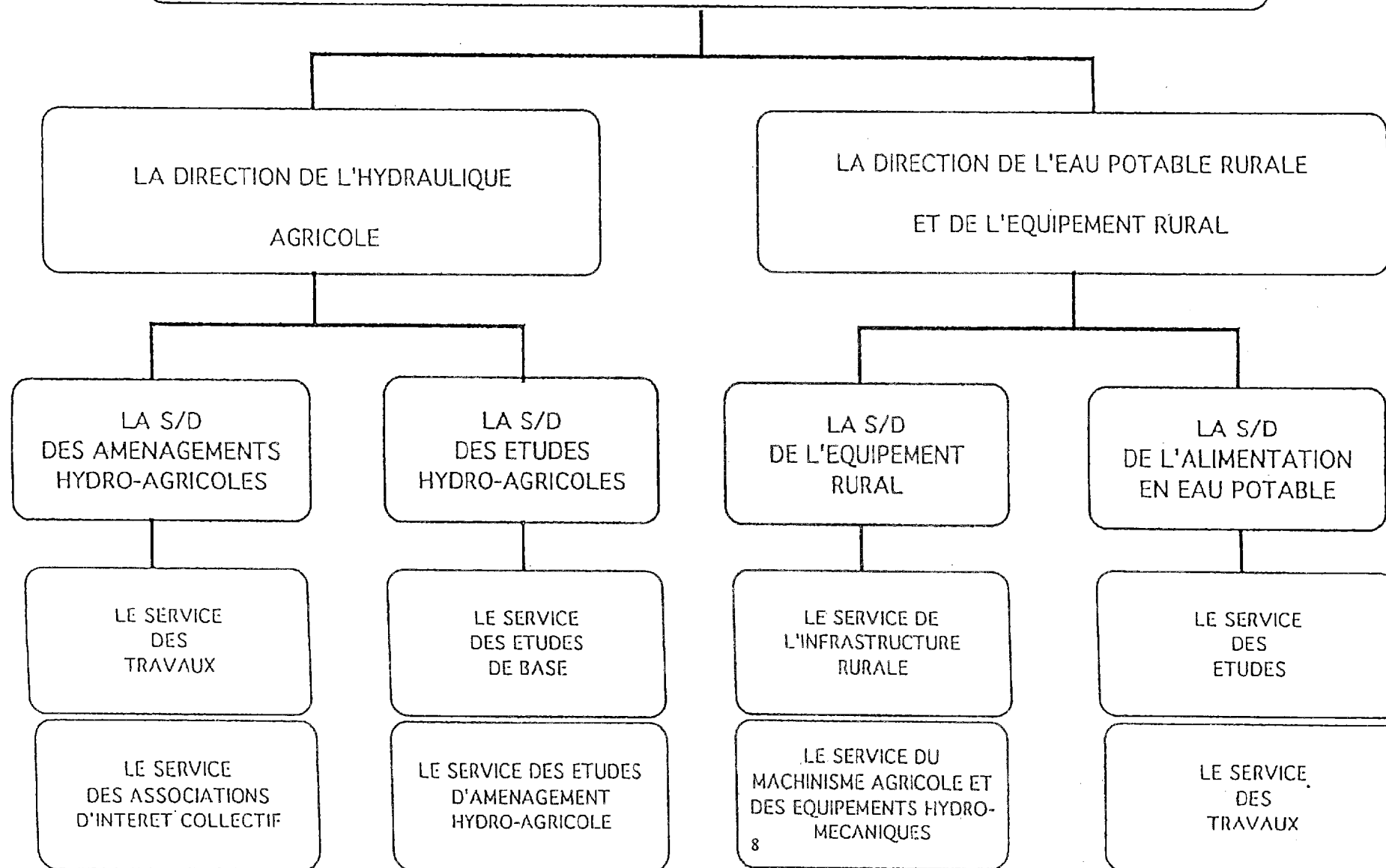
Juillet 1999

A. J. CH/07/99

REPUBLIQUE TUNISIENNE  
MINISTRE DE L'AGRICULTURE  
Direction Générale du Génie Rural

# LA DIRECTION GENERALE DU GENIE RURAL ET DE L'HYDRAULIQUE AGRICOLE

Appendix II



## LIST OF SUB-PROJECTS - 2001

Priorité	An	Gouvernorat	Sous-Projet	Population 1998	Besoins en Eau 1998 (m³/day)	Population 2015	Besoins en Eau 2015 (m³/day)	Source d'Eau	Remarques
39	2001	MAHDIA	COMPLEXE EL AJTHA	888	31,3	1088	45,3	PIQUAGE SONEDE	
40	2001	GABES	CHAABET EJJAYER	400	21,0	450	26,8	PIQUAGE SONEDE	
41	2001	MAHDIA	COMPLEXE BOUSSLIM	8608	305,1	10543	441,0	PIQUAGE SONEDE	
42	2001	BIZERTE	SIDI MANSOUR	978	33,8	1178	49,0	FORAGE	
43	2001	SIDI BOUZID	BLAIDIA	1110	39,6	1430	54,5	FORAGE	
44	2001	SIDI BOUZID	BOUCHHIA	1500	47,9	1932	55,9	FORAGE	
45	2001	GABES	BATEN TRAMIA	610	31,3	687	40,1	EXTENSION GR	
46	2001	GADES	EZZAJIRA	250	11,5	281	15,2	EXTENSION GR	
47	2001	SOUSSE	OUE EL KHARROUB	643	23,8	828	34,4	PIQUAGE SONEDE	
48	2001	KAIROUAN	ZGAINIA	342	11,5	398	16,6	EXTENSION GR	
49	2001	LE KEF	MHAFDHIA - GHRAJSSIA	700	31,6	700	40,6	PIQUAGE SONEDE	
50	2001	SIDI BOUZID	AMMIRA	500	15,5	644	17,2	FORAGE	
51	2001	SIDI BOUZID	MAIROUGA	800	26,7	1030	33,4	FORAGE	
52	2001	SOUSSE	OUARRAD	2665	98,7	3433	142,9	PIQUAGE SONEDE	
53	2001	BIZERTE	DOUMIS	1152	39,9	1337	57,8	FORAGE	
54	2001	JENDOUBA	SIDI SALAH	455	14,0	487	20,3	PIQUAGE SONEDE	
55	2001	KAIROUAN	CHIELALGA	1452	48,6	1691	70,5	EXTENSION GR	
56	2001	KASSERINE	SIDI HARRATH - GOUASSEM	936	37,1	1206	52,7	FORAGE	
57	2001	LE KEF	CHAAABA - O.EI ASSEL - HINADIA	675	32,2	675	40,9	FORAGE	
58	2001	NABEUL	DANIOUSS	1365	51,8	1700	73,7	PIQUAGE SONEDE	
59	2001	JENDOUBA	OULED DHIFALLAH	1922	63,3	2057	89,8	BARRAGE	
60	2001	KAIROUAN	GUJIFETT	600	20,1	699	29,1	EXTENSION GR	
61	2001	BEJA	EL FTETNA - EL HAMRA	1344	44,3	1367	54,8	SOURCE	
62	2001	GAFA	HENCHIR EDHOUAMIER	200	6,3	218	9,1	EXTENSION GR	
63	2001	GAFA	KHANGUET ZAMMOUR	623	19,5	678	28,3	EXTENSION GR	
64	2001	JENDOUBA	BELDIA	2133	63,7	2283	95,1	BARRAGE	
65	2001	JENDOUBA	JOUAOUA 1 / BATTABA	4818	148,2	5156	214,7	BARRAGE	
66	2001	KAIROUAN	HIMDET	780	26,1	908	37,8	FORAGE	
67	2001	KASSERINE	DAAYSIA	690	27,2	889	38,6	FORAGE	
68	2001	KASSERINE	OULED LAGSAB	440	16,3	567	23,6	FORAGE	
69	2001	MEDENINE	CHOUAMIEKH - R. ENNAGUEB	1878	65,6	2460	85,9	PIQUAGE SONEDE	
70	2001	ZAGHOUAN	CHEGAIGUIA et SOUAYSSIA	350	11,2	387	16,2	EXTENSION GR	
71	2001	ZAGHOUAN	JIMLA	300	9,5	332	13,8	FORAGE	
72	2001	BEN AROUS	SIDI FREDI	618	32,0	1073	45,8	PIQUAGE SONEDE	
73	2001	MEDENINE	EGHIGUIGUIA	480	16,7	629	21,8	PIQUAGE SONEDE	
74	2001	MEDENINE	TARF ELLIL	445	15,8	583	21,1	PIQUAGE SONEDE	
75	2001	KASSERINE	MARTHOM - MAJA	570	21,1	734	30,6	FORAGE	
76	2001	BEJA	CHOUABIA	900	24,6	915	32,4	SOURCE	
77	2001	MEDENINE	BOUGUEDDIMA	264	9,9	346	14,4	PIQUAGE SONEDE	
78	2001	ARIANA	FAJH EL ANIRINE-SIDI GHRIB	300	11,9	413	17,2	PIQUAGE SONEDE	
79	2001	BEJA	LAHOUACHE	400	13,8	407	18,5	FORAGE	
80	2001	GAFA	TILEJIA	860	27,0	936	39,1	EXTENSION GR	
81	2001	JENDOUBA	MAALIM	2019	62,1	2161	89,9	BARRAGE	
82	2001	ARIANA	TYAYRA	156	5,7	207	7,8	PIQUAGE SONEDE	
83	2001	BEN AROUS	OULED BEN MILED and OULED SAAD	915	45,7	1389	66,2	PIQUAGE SONEDE	
84	2001	ARIANA	HINAJEM ESSOUFLA	135	5,3	186	7,7	PIQUAGE SONEDE	
Sous-Total				50163	1768	59948	2478		
Total				96706	3404	114233	4727		

Source: Etude SAPRCF

List of information provided by DGGR

1. Dossier d'appel d'offres d'etudes
2. Manuel de sensibilisation
3. Cahier des plans types
4. Cahier des charges pour les travaux
5. Methodologie de depouillement
6. Modele d'etudes d'AEP