

## NOTICIAS FAD/FEV

### CONVOCATORIA DE CONCURSO PARA ELABORAR EL ESTUDIO DE VIABILIDAD PARA «EL SANEAMIENTO DE LA CUENCA DEL LAGO TUZ». REPUBLICA DE TURQUIA

1. El Gobierno de la República de Turquía, a través del Ministerio de Medio Ambiente, convoca a las empresas españolas a un concurso para elaborar el Estudio de Viabilidad para «el Saneamiento de la cuenca del lago Tuz».
2. Este Estudio de Viabilidad tiene un coste aproximado de **hasta 100 millones de pesetas** y será financiado con cargo a la Línea de Financiación de Estudios de Viabilidad (FEV Modalidad Pública), cuyos recursos provienen del Fondo de Ayuda al Desarrollo.
3. Las empresas españolas interesadas en la realización del estudio deberán presentar sus ofertas según la documentación que se detalla en los Términos de Referencia (Anexos I y II) antes de las **12:00 horas del día 29 de septiembre de 2000**. El Ministerio de Medio Ambiente turco, bajo la supervisión de la Administración española, evaluará las ofertas presentadas de acuerdo con los baremos recogidos en el Anexo III.

Se presentarán cuatro ejemplares: dos copias en turco para el Ministerio de Medio Ambiente, cliente de estudio, y dos copias en español, una para la Oficina Económica y Comercial de la Embajada de España en Turquía y otra para la Subdirección General de Gestión de la Deuda Externa y Evaluación de Proyectos de la Secretaría de Estado de Comercio y Turismo.

#### A. MINISTERIO DE MEDIO AMBIENTE

Mr. Melih Akalin  
Subsecretario Adjunto  
Eskisehir Yolu, Km 8  
06100 Ankara  
Tel: 0312.286 26 05/ 285 54 02  
Fax: 0312. 285 33 19

#### B. CONSEJERO ECONOMICO Y COMERCIAL DE LA EMBAJADA DE ESPAÑA EN TURQUIA.

D. Luis Orgaz García  
And Sokak, 8/14  
06680 Cankaya. ANKARA  
Tel: (00-90312) 468 7047/8/9  
Fax: (00-90312) 468 68 75  
E-mail: buzon.oficial@ankara..ofecome.mcx.es

#### C. SUBDIRECCION GENERAL DE GESTION DE LA DEUDA EXTERNA Y EVALUACION DE PROYECTOS

D<sup>a</sup> Begoña Montoro Zulueta  
Paseo de la Castellana, 162 Planta: 8; Despacho: 16  
28046 MADRID

#### 4. Para ampliar información deberán dirigirse a:

Subdirección General de Gestión de la Deuda Externa y Evaluación de Proyectos  
Teléfono: (91) 583 5245/ 5254/ 5463  
Fax: (91) 583 52 55  
Att: D<sup>a</sup> Begoña Montoro Zulueta  
D<sup>a</sup> M<sup>a</sup> Jesús de Gonzalo Gámir



SECCION  
ESTADISTICO-  
INFORMATIVA

## FEASIBILITY STUDY FOR THE SANITATION OF THE TUZ LAKE BASIN

### I. INTRODUCTION

The Tuz Lake is the second largest lake in Turkey. It has a high ecological value, for it is used by migratory birds, such as flamingos, as an hibernation area. It is thus considered a unique ecosystem. Additionally the lake is currently used as a salt mine, producing 73 por 100 of the salt consumed in Turkey.

During the 70s, a watering canal of 185 Km was constructed in order to develop the agricultural uses of the Tuz Lake basin. This canal transports the water from a nearby basin and, at the same time, it is used to collect the sewage waters of Konya, the most important city in the area, as well as other waste products of the basin. This latter includes not only urban waste products but also industrial ones such as heavy metals. In consequence, contaminated water is being poured into the Tuz Lake basin - which is especially vulnerable to hydrologic unbalance - and the Lake is therefore being contaminated by urban and industrial sewage waters and by the fertilizers and pesticides used in agriculture. This endangers the economic interests and the basin's ecosystem.

Responsibility for the Tuz Lake is shared among different public entities. Since the lack of coordination among them was hindering the development of an integral plan, it was decided that the Lake related activities were to be coordinated by the Turkish Environmental Ministry. The Ministry established the infrastructure needed to develop a drainage system for the Tuz Lake basin, including four purifiers and four rubbish dumps.

The solution of the Tuz Lake environmental problems lies in the first place with the Turkish authorities order of priorities. For this reason, a specific Commission has just been created which is coordinated by the Environmental Ministry, with representatives from the General Directorate fo Hydraulic Civil Works, Monopolies, the Iller Bank (the regional bank which finances the infrastructure civil works) and the Konya municipality. An integrated and speedy solution for the main sources of contamination (i.e. urban and industrial waste products and rubbish dumps) has to be found, otherwise economic and environmental damage is foreseen. If the current situation persists, there is a high risk of degradation which could lead to saltwork exploitation being limited.



### SECCION ESTADISTICO- INFORMATIVA

At the same time, salt production should be increased, due to the envisaged growth in demand, and its quality guaranteed, in order to maintain its food use.

The achievement of these goals requires global treatment of the present problems. Thus, Turkish authorities are planing to develop a Master Plan of Environmental Projects which will establish the appropriate technical and economic conditions and the timetable in order to build the necessary infrastructure for the sanitation of the Tuz Lake basin.

### II. SELECTION PROCEDURES

1. The Terms of Reference prepared by the Turkish Environmental Ministry and approved by the Spanish Administration will be attached to the tender as Annex I.
2. A general invitation to tender will be published, with the support of the Spanish Administration, so all interested Spanish Companies will be able to submit a Statement of Interest, enclosing the information requested in Annex I and II
3. The Turkish authorities, under the supervision of the Spanish Administration will evaluate the final bids, according to the evaluation criteria outlined in Annex III.
5. The maximum cost of the Study will be 100 million pesetas.

## FEASIBILITY STUDY FOR THE SANITATION OF THE TUZ LAKE BASIN

### ANNEX I TERMS OF REFERENCE

1. Restricted to Spanish Companies
2. Goals of the Study: Feasibility Study to determine the socio-economic, technical and environmental feasibility for constructing environmental infrastructure for the sanitation of the Tuz Lake basin. The aim is to sustain and develop its salt production, which at the present time is threatened by contamination problems and by the alteration of the hydric balance (contamination and dissolution of salt concentration) and to regenerate the Lake ecosystem, which is important as a reproduction area for water species, especially flamingos.
3. Scope of the Study:

The Feasibility Study must establish the Master Plan of the Environmental Projects which will determine the infrastructures needs, number, location, dimension and kind of treatment. Additionally, it should determine the ground use guidelines (especially urban, industrial and agricultural) which will enable an appropriate exploitation of the natural resources. At the same time, this process should prevent further damage of the fragile ecosystem, foster its regeneration and, last but not least, guarantee the saltwork exploitation which is highly important for the economy, on a local and national basis.

#### 1. ENVIRONMENTAL INVENTORY

- *Social-economic and demographic analysis.*
- *Study of the environmental determining factors.*
- *Natural-physical Characterization*
  - Climate
  - Geology-Pedology- Geomorphology
  - Vegetation
  - Fauna
  - Landscape
  - Artistic-historical resources (heritage)
- *Hydrology-Hydrogeology and Water Quality*
  - Geology-Hydrogeology
  - Hydrology and Pouring System
  - Hydrologic Model of the Basin
  - Water Quality Model. Autopurifying
  - A synthesis of existing data related to the current situation and to sanitation projects will also be carried out, expressed in terms of pollution load and water quality in particular.
  - The various water needs and uses will be assessed in the basin in a prospective manner by integrating forecasts on demand increase, forecasts on the evaluation of uses per type while taking into account the various development projects of water consumer.



SECCION  
ESTADISTICO-  
INFORMATIVA

- *Drainage (Draining System)*
  - Water Purification
  - In order to assess the necessary level of waste water treatment, it is important to know the ratio between the global discharge and self-purification capacity of natural medium.
  - Please explain the water purification, DAFO Analysis and EDAR Treatment.
  - Draining Network
- *Waste Inventories*
  - Urban and Industrial Waste Management
  - In Lake Basin resources and quantities of municipal waste, industrial hazardous waste and medical waste will be determined.
  - Types of waste being recovered currently, disposal methods, locations and service of these types of waste will be determined.
  - By taking year the 2020 into consideration, the types and the quantities of the waste will be estimated including the period up to 2020.
- *Soil Uses*
  - Primary Sector. Watering (Irrigation) Demand
  - Tuz Lake Saltwork Exploitation
- *Territorial Organization and Urbanism*
  - Territorial Organization
  - Urban Planning
  - Responsibilities System in the Hydrographic Basin Management



**S E C C I O N**  
**ESTADISTICO-**  
**INFORMATIVA**

## 2. PLANIFICATION

- *DAFO Analysis.*
- *Zonification. Delimitation of prior performance areas and guidelines*

## 3. PERFORMANCE PROGRAMME

- *Purifying and Drainage Plan. EDAR Treatment, Location and dimensions*

A special expertise will be carried out regarding the reuse of waste water from the treatment plant and the identification of equipment for waste water reuse and characteristics and performance.

### *Feasibility Project:*

By taking the year 2020 as a target “Integrated Solid Waste Management Plan” including municipal waste, industrial hazardous waste and medical waste, will be prepared and regional facilities will be planned with the aim of environmentally sound management of these wastes and organisation model on regional management will be developed.

- “Regional Waste Management Model” including the management (collecting, transporting, recovering and disposal) of solid waste which is arising from all the related activities and settlement areas taking place in Lake Basin and effecting the ecological balance of Tuz Lake and its salt production quality, will be formed.
- According to the types of waste disposal methods locations will be determined and agreeable opinions of governorship, municipality and people, who live around the selected area for disposal facility, related the selection of location will be taken.
- Proposed facilities and locations will be approved by Ministry of Environment. Feasibility and application projects of disposal facilities, transfer stations and intermediate storage, including technical and financial evaluations, will be developed. Location, technology, capacity and other characteristics of these facilities will be determined.
- Operation manual of the proposed recovery and disposal facilities.
- Types and number of equipment and tools required for proposed model will be determined.
- Analysis of sewage-sludge will be done and hazard properties of the sludge will be determined. According to the resources, quantities and characteristics of these treatment sludge, disposal methods and locations will be determined but the priority will be on the reuse or recovery. Technical and financial evaluation of investment and operation of the facilities the other characteristics of proposed method will be given.
- *Solid Waste products management Plan. Solid Waste products treatment stations location, dimensions and treatment. Feasibility of garbage-mud integral treatment.*
- *Other environmental programmes:*
  - Soil retrieval programme. Erosion Control.
    - Excess water because of the insufficient drainage and salinity.
    - Erosion Control (especially wind erosion).
    - Water and soil pollution coming from excess fertilizer and pesticides uses.
  - Soil Analyses.
  - Residual Investigations.
    - Investigation of the pesticides remains into the soil, water resources and foods.
    - Determination of the Pesticides Tolerance Level for Turkey.
  - Watering and agricultural practices improvement programme.
  - Protection and regeneration of particularly interesting ecosystems.
  - Lake decontamination programme.
  - Economic activities reinforcement through the basin natural resources development.



#### 4. ECONOMIC- FINANCIAL STUDY.

#### 5. ANEX

Spanish providers of goods and services needed for the development of the project.

4. The client will provide to the Spanish consultant all the information and documents that may be useful in the execution of the feasibility study, as well as a work team.

**LIST OF WORK TEAM:**

**1. Coordinator:**

Melih AKALIN. Deputy Undersecretary  
Tel: (0090312) 286 26 05/285 54 02  
Fax: (0090312) 285 33 19

**2. Responsible Department and Managers:**

Sami AGIRGUN: General Director (General Directorate of Environmental Pollution, Prevention and Control)  
Tel: (0090312)  
Fax: (0090312) 285 58 75

Lürfi ÇAKMAK: Manager (Water and Soil Management Department)  
Tel: (0090312) 285 67 03  
Fax: (0090312) 285 58 75

Mahir ERDEM: Chief (Waste Management Department)  
Tel: (0090312) 287 99 63 (5312)  
Fax: (0090312) 285 58 75

**3. Related Department and Managers:**

Kumru ADANALI: Chief (Foreign Relations Department)  
Tel: (0090312) 285 17 05  
Fax: (0090312) 285 37 39

**4. Experts:**

Meryem ARSLAN: Chemical Eng. (Water and Soil Management Department)  
Tel: (0090312) 287 99 63 (5407)  
Fax: (0090312) 285 58 75

Suat HACHIHASANOGLU: Environmental Expert (Waste Management Department)  
Tel: (0090312) 287 99 63 (5401)  
Fax: (0090312) 285 58 75

Fatma Serpil BONCUK: International Relations Expert (Water and Soil Management Department)  
Tel: (0090312) 287 99 63 (5407)  
Fax: (0090312) 285 58 75

Zerrin LEBLEBICI: Environmental Expert (Water and Soil Management Department)  
Tel: (0090312) 287 99 63 (5413)  
Fax: (0090312) 285 58 75

5. Interested companies should submit certain documents, in accordance with the criteria in Annex II, in order to qualify for the final bids. Four copies should be submitted: two in Turkish to the Ministry of Environment and two in Spanish, one to the Spanish Embassy's Commercial Office in Ankara and one to the Subdirección General de Gestión de Deuda Externa y Evaluación de Proyectos in Madrid.



SECCION  
ESTADISTICO-  
INFORMATIVA

**MINISTRY OF ENVIRONMENT**

Sr. Melih AKALIN  
Deputy Undersecretary  
Ministry of Environment  
Eskisehir Yolu, Km. 8  
06100 Ankara  
Tel: (0090312) 286 26 05 / 285 54 02  
Fax:(0090312) 285 33 19

**COMMERCIAL OFFICE IN ANKARA**

Sr. D. Luis Orgaz García  
Consejero Económico y Comercial  
And Sokak, 8/14  
06680 Cankaya. ANKARA  
Tel: (0090312) 468 7047/8/9  
Fax: (0090312) 468 6975  
E-mail: buzon.oficina@ankara.ofcomes.mcx.es

**SUBDIRECCION GENERAL DE GESTION DE DEUDA EXTERNA Y EVALUACION  
DE PROYECTOS**

Sra D<sup>a</sup> Begoña Montoro  
Ministerio de Economía  
Paseo de la Castellana 162  
MADRID 28071. SPAIN  
Tel: (00341) 583 52 45  
Fax: (00341) 583 52 55

6. Any change in the proposed team should be discussed beforehand with both the Turkish and the Spanish Administrations and, if not accepted, will cause the termination of the contract.
7. The bids should include both economic and technical proposals.
8. The technical proposal will determine the scope of the study, methodology used, work plan, and activities' time-table cost and benefit analysis.
9. The economic proposal should be broken down into cost units, unitary cost and total cost for each category team. Other expenses related to the completion of the study, such as field trips, etc, should also be broken down. This should include every cost factor of the project. The cost should be stated in Spanish pesetas.
10. The proposal has a validity of six months. During this period, the conditions have to be maintained, especially those related with the work team, scope and methodology, cronogram of the works and price.
11. Companies are encouraged to associate. In this case, their should make explicit their links with other companies and when a collective bid is made, responsibilities should be clearly defined for each of the consultants involved.
12. There is a limit for the local expenditure at 15 por 100 of the total costs of the Study. Within this limit, the Spanish firms can make coordination with any one of the Turkish firms.
13. The Ministry of Environment will evaluate the bids, under the supervision of the Spanish Administration, according to the evaluation criteria of Annex III.



**SECCION  
ESTADISTICO-  
INFORMATIVA**

14. During the completion of the study, the successful bidder will submit a monthly report. This will include progress on the study, actual and expected obstacles, suggested actions and deviations from the master plan, and will be submitted in Turkish, Spanish and English (optional), before the 15th of the following month.
15. Payment:
- 25 por 100 upon awarding of the contract
  - 25 por 100 upon reaching the middle stage to be accorded by the Turkish Ministry of Environment, the winner of the tender and the Spanish Administration.
  - 50 por 100 upon acceptance of completed study on the part of the Turkish Ministry of Environment and the Spanish Administration.

## FEASIBILITY STUDY FOR THE SANITATION OF THE TUZ LAKE BASIN

### ANNEX II STATEMENT OF INTEREST IN THE TENDER



**SECCION  
ESTADISTICO-  
INFORMATIVA**

Companies must submit:

1. Company Annual Report or audited Balance Sheet and Financial Statement of the last available year.
2. General information on the company, which must include:
  - shareholders,
  - date of establishment,
  - sales of the last five years,
  - workforce, part-time and full-time workers: qualifications and experience.
3. A list of previously awarded projects must include details on: client, amount of the contract, date of start and ending, work team and a description of the project. Studies of a similar technical content and objectives should be especially highlighted.
4. Short description of intended approach and general scope of the project.
5. Proposed work team. It should include CV and letter of commitment valid for six months. The following data should be enclosed for each individual of the team:
  - name,
  - place and date of birth,
  - nationality,
  - academic degrees,
  - working languages,
  - related experience (including responsibilities and description of the jobs),
  - general experience,
  - miscellaneous (publications, seminars, etc.)

**FEASIBILITY STUDY FOR THE SANITATION OF THE TUZ LAKE BASIN**

**ANNEX III  
CRITERIA FOR THE EVALUATION OF THE PROPOSALS**

Criteria	Weight
I. TECHNICAL PROPOSAL.....	80
1. Company Reliability and Work Team.....	35
• Associations between Companies.....	10
• Experience in similar projects .....	10
• Financial Capability .....	5
• Key members of the work team.....	10
2. Quality Technical Proposal .....	45
• Approach.....	5
• Scope.....	15
• Methodology and Work Plan .....	20
• Time Schedule.....	5
II. ECONOMIC PROPOSAL.....	20
TOTAL SCORE .....	100



S E C C I O N  
ESTADISTICO-  
INFORMATIVA