

付 属 資 料

付属资料 1. S/W 及び MM

**SCOPE OF WORKS
FOR
THE STUDY
ON
INTEGRATED WATER MANAGEMENT
IN
THE REPUBLIC OF BULGARIA**

AGREED UPON

BETWEEN

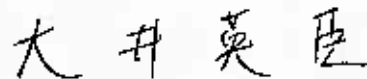
**MINISTRY OF ENVIRONMENT AND WATER
AND
JAPAN INTERNATIONAL COOPERATION AGENCY**

Sofia 14 October 2005



Mrs. Lubka KATCHAKOVA

Deputy Minister
Ministry of Environment and Water



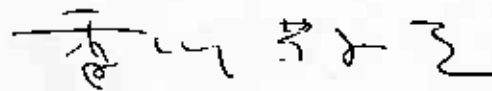
Mr. Hidetomi OI

Leader of Preparatory Study Team
Japan International Cooperation Agency



Mr. Ivo KONOV

Director, Donor Programmes Directorate
Ministry of Economy and Energy



Mr. Keizo KAGAWA

Resident Representative
JICA Bulgaria Office

I .INTRODUCTION

In response to the request of the Government of the Republic of Bulgaria (hereinafter referred to as "the Government of Bulgaria"), the Government of Japan decided to conduct the Master Plan Study on Integrated Water Management in the Republic of Bulgaria (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 Bulgaria.

Regarding "The Master Plan Study on Integrated Water Management in the Republic of Bulgaria", JICA dispatched the Preparatory Study Team headed by Mr. Hidetomi Oi to Bulgaria from 20 March to 31 March 2000, and made discussions with the Ministry of Environment and Waters (hereinafter referred to as "the MoEW") and related ministries and agencies about the Scope of Works of the Study (hereinafter referred to as "S/W") and exchanged views. Then the S/W was signed between JICA and MoEW on 11 October 2000 in Sofia.

After the signing of the S/W, the negotiation about the Technical Cooperation Agreement between the government of Japan and the government of the Republic of Bulgaria has been continued until on 15 December 2004. The Study, therefore, has been postponed until the conclusion of the negotiation of the Technical Cooperation Agreement.

The current situation surrounding the water management in Bulgaria requires amending of the original S/W, which was discussed between JICA, MoEW and Ministry of Economy and Energy. And they agreed as shown in the following contents on 14 October 2005 (letters with underline).

Following shows the amended S/W of the Study on 11 October 2000.

II. OBJECTIVES OF THE STUDY

The objectives of the Study are;

- 1 To assist the MoEW in the implementation of the requirements of EU Water Framework Directive (hereinafter referred to as "WFD") which includes:
 - Preparation of the River Basin Management Plans for the selected Areas
 - Development of GIS, Monitoring Programs and Water Resource Balance for the whole country
- 2 To transfer technology and conduct training on Integrated Water Management to the counterpart personnel in the course of the study.

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III. SELECTED AREA

The selected areas are East Aegean Sea River Basin District and West Aegean Sea River Basin District shown in Annex I .

IV. SCOPE OF THE STUDY

Basic strategy and guideline on Integrated Water Resources Management, GIS and Monitoring are for the whole country and in particular for the selected River Basin Districts.

Phase I: Basic Study

- 1) Consideration of laws and regulations with relation of implementation of the River Basin Management Plan in accordance with Annex VII of EU WFD
- 2) Collection and analysis of related data and information
- 3) Field reconnaissance
 - (1) Hydrological investigation
 - (2) Existing condition of water usage
 - (3) Present condition of existing facilities related to water resources management
 - (4) Water quality investigation for chemical index and biological index
 - (5) Groundwater sources
 - (6) Other relevant investigations
- 4) Assessment, updating and further development of the existing GIS Database considering EU WFD's guideline as well as future utilization for Integrated Water Management.

Notes:

- (1) European Commission: relevant EU legislation and document concerning implementation of the EU WFD. (2000/60/EC)
- (2) MoEW; Draft Concept "Design of Geographic Database (GeoDB) and Geographic Information System (GIS) to assist the creation of Integrated Water Management Plans for the Water Resources Basin Management in accordance with the EU WFD", 2004
- 5) Workshop and Public Consultation for grasping existing problems and directions for improvement of water and its management in accordance with the EU WFD.
- 6) Identification and assessment of constraints related to Integrated Water Management

Phase II: Formulation of River Basin Management Plan

- 1) Water Demand Projection
 - (1) Setting up of socio-economic framework
 - (2) Domestic water
 - (3) Agricultural and industrial water

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- (4) Water balance
- 2) Water Resources Potential Analysis
 - (1) Hydrological analysis
 - (2) Available water resources
 - (3) Water resources potential
 - (4) Water balance
- 3) Water Quality Analysis with relation with the requirement EU WFD
 - (1) Analysis on pollution load
 - (2) Analysis on water quality
- 4) Further Development of the GIS Database
- 5) Basic Strategy and Guideline on Integrated Water Management, GIS and Monitoring for selected River Basin Districts.
- 6) Workshop and Public Consultation on the Basic Policy and Strategy for Integrated Water Management in accordance with EU WFD
- 7) Formulation of River Basin Management Plan for Integrated Water Management
 - (1) Integrated Water Management Plan (surface water quantity and quality, and groundwater quantity and quality)
 - (2) Consideration of Laws and regulation in relation to implementation of EU WFD Annex VII.
 - (3) Establishment of monitoring plan
 - (4) Program of measures scenarios in accordance with EU WFD
- 8) Economic Analysis
- 9) Implementation Plan
- 10) Evaluation of River Basin Management Plan
 - (1) Economic evaluation
 - (2) Financial evaluation
 - (3) Social impact assessment
 - (4) Initial Environmental Evaluation (IEE)
- 11) Preparing Guidelines for Application of Integrated Water Management in accordance with EU WFD.

V. SCHEDULE OF THE STUDY

The Study will be carried out in accordance with the tentative schedule as attached in Annex II .

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VI. REPORTS

JICA will prepare and submit the following reports in English to the MoEW and the MoEE.

1. Inception Report

Thirty (30) copies will be submitted at the beginning of PHASE I .

2. Interim Report

Thirty (30) copies will be submitted at the end of PHASE I .

3. Draft Final Report

Thirty (30) copies will be submitted at the end of the study.

The MoEW and the MoEE will submit their comments within one (1) month after the receipt of the Draft Final Report.

4. Final Report

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

VII. UNDERTAKINGS OF THE GOVERNMENT OF BULGARIA ACCORDING WITH THE AGREEMENT ON TECHNICAL COOPERATION BETWEEN THE GOVERNMENT OF JAPAN AND THE GOVERNMENT OF BULGARIA SIGNED ON 15 DECEMBER 2004

1. The Government of Bulgaria shall accord privileges, exemptions and other benefits to JICA study team in accordance with the Agreement on Technical Cooperation between the Government of Japan and the Government of Bulgaria signed on 15 December 2004.
2. The Government of Bulgaria shall bear claims, if any arises, against the member of the Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the study, except when such claims arise from gross negligence or willful misconduct on the part of the JICA study team.
3. MoEW shall act as the counterpart agency to JICA study team and also as the coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.
4. MoEW, at its own expense, provide the JICA study team with the following, in cooperation with other organizations concerned;

- (1) Security-related information on as well as measures to ensure the safety of the



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JICA study team

- (2) Information on as well as support in obtaining medical service
- (3) Available data (including maps and photographs) and information related to the study
- (4) Counterpart personnel from concerned authorities
- (5) Suitable office space with necessary equipment
- (6) Credentials or identification cards

VIII. UNDERTAKING OF JICA

For the implementation of the study and in accordance with the Agreement on technical cooperation between the Government of the Republic of Bulgaria and the Government of Japan, JICA will provide the following:

1. dispatching study team to the Republic of Bulgaria for the study implementation;
2. providing the Government of the Republic of Bulgaria with equipment, machinery and materials necessary for the study;
3. providing the Government of the Republic of Bulgaria with other forms of technical cooperation as may be decided upon by mutual consent between the two Governments representatives;
4. pursuing technology transfer to counterpart personnel in the course of the study.

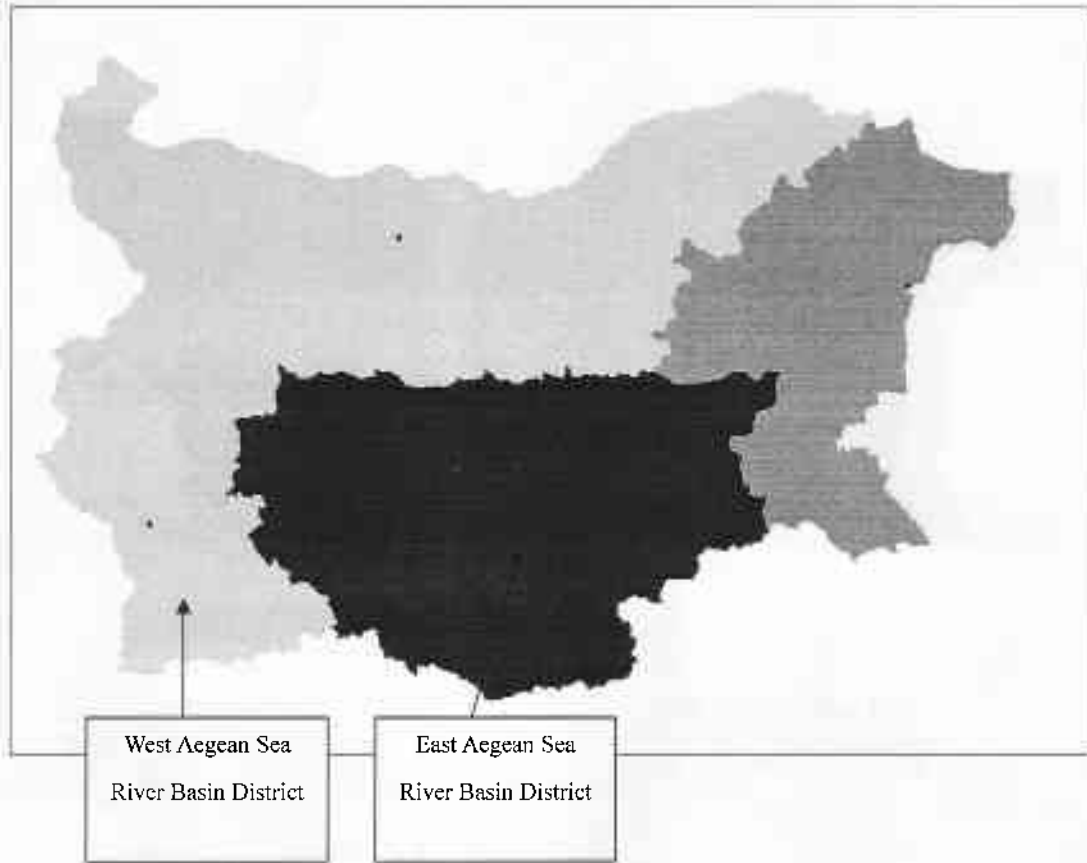
IX. CONSULTATION

JICA, MoEW and the Ministry of Economy and Energy will consult each other in respect of any matter that may arise from or in connection with the study.

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Annex I

Selected Area



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Annex II Tentative Schedule of the Study

**Tentative Schedule
THE STUDY ON INTEGRATED WATER MANAGEMENT IN THE REPUBLIC OF BULGARIA**

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Phase	Phase I						Phase II												
Work Schedule	[Gantt chart for Phase I]						[Gantt chart for Phase II]												
Report	▲					▲												▲	▲
	IC/R					IT/R												DF/R	F/R

NOTE :
 IC/R : Inception Report
 IT/R: Interim Report
 DF/R : Draft Final Report
 F/R : Final Report
 * The steering committee will be held whenever necessary to share the progress of the study

**MINUTES OF MEETING
ON
SCOPE OF WORKS
FOR
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ON
INTEGRATED WATER MANAGEMENT
IN
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AGREED UPON

BETWEEN

**MINISTRY OF ENVIRONMENT AND WATER
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Sofia 14 October 2005



Mrs. Lubka KATCHAKOVA

Deputy Minister
Ministry of Environment and Water



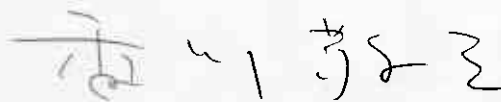
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Director, Donor Programmes Directorate
Ministry of Economy and Energy



Mr. Keizo KAGAWA

Resident Representative,
JICA Bulgaria Office

This Minutes of Meeting has been prepared for a better and proper understanding of the S/W for the Study on Integrated Water Management in the Republic of Bulgaria agreed upon between Ministry of Environment and Water (hereinafter referred to as "MoEW") and Japan International Cooperation Agency (hereinafter referred to as "JICA") on 14 October 2005.

1. TITLE OF THE STUDY

The title of the study is "the Study on integrated water management" as described in the S/W.

2. TARGET YEAR

Target year is 2015 in accordance with EU Water Framework Directive (WFD).

3. SELECTED AREA

The selected areas are East Aegean Sea River Basin District and West Aegean Sea River Basin District.

4. STUDY PERIOD

The maximum study period is 24 months. The official study period will be determined in the Inception Report.

5. COMPUTER SYSTEM AND GIS DEVELOPMENT

Bulgarian side requested JICA to provide computer system, and to develop GIS for the whole MoEW system (MoEW, Executive Environment Agency and the four River Basin Directorates) in accordance with the requirements of the EU WFD. The Team will convey the request to the JICA Headquarters for the final decision.

6. COLLECTION AND ANALYSIS OF RELATED DATA AND INFORMATION

Data collection and analysis have been in good progress in each River Basin Directorate. These works will continue and will be completed as early as possible so that JICA study may use the result for formulation of River Basin Management Plan from the early stage of the study.

7. IMPLEMENTATION OF GIS DATA BASE

The works for the two selected River Basin Districts will be done by Bulgarian counterparts with the assistance of Bulgarian engineer(s) who will be hired by JICA.

8. MONITORING SYSTEM

Monitoring system will be upgraded in accordance with EU WFD. A Proposal for the development of the early warning system for accidental pollution and flood events will be elaborated by the study team.

Guidelines for the planning of monitoring system at national level will be prepared as a joint undertaking of Bulgarian counterparts and JICA study team. JICA study team will contribute based on the experience and knowledge in Japan.

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Monitoring systems of the two pilot river basin districts will be reviewed in detail and improvement will be proposed wherever necessary so as to upgrade the systems in compliance with the requirements of EU WFD.

9. INTEGRATED WATER RESOURCES MANAGEMENT

The methodology for the development of integrated water resources management (water balance) will be prepared jointly by JICA study team and Bulgarian counterparts for the whole country. The methodology will be implemented in details for the selected River Basin Districts.

10. COORDINATION MECHANISM OF THE STUDY

In order to support the Study in various ways and to direct the implementation of the study in proper way reflecting opinions of key organizations concerned the Steering Committee will be established.

The Steering Committee will perform the following:

- To review regularly the progress and achievements of the study;
- To exchange views on major issues arising from or in connection with the study;
- To approve the modification to activities depending on the necessity.

The Steering Committee will be called by the Chairperson periodically.

The members of the Steering Committee will be provisionally as follows;

Chairperson: Deputy Minister, Ministry of Environment and Water

Bulgarian side:

Director, Donor Programmes Directorate, Ministry of Economy and Energy

Representative of Water Directorate, MoEW

Representative of Executive Environment Agency

Director of East Aegean Sea Basin Directorate, MoEW

Director of West Aegean Basin Directorate, MoEW

Representative of Danube Basin Directorate, MoEW

Representative of Black Sea Basin Directorate, MoEW

Representative of Ministry of Regional Development and Public Works

Representative of Ministry of Agriculture and Forestry

Representative of National Institute of Meteorology and Hydrology, Bulgarian Academy of Sciences

Representative of National Association of Municipalities



Representative of Bulgarian National Association on Water Quality
Representative of University of Architecture, Civil Engineering and Geodesy
Personnel concerned to be decided by Bulgarian side

Japanese side:

Representatives of the JICA team
Representative of the Embassy of Japan in the Republic of Bulgaria
Representative of the JICA Bulgaria Office
Personnel concerned to be decided by Japanese side

Persons invited by the Chairperson may attend the Steering Committee meetings.

11. STAKEHOLDER MEETING

In accordance with the EU WFD and the Water Act of Bulgaria, MoEW/River Basin Directorates will host and facilitate stakeholder meetings at suitable timing with the aim of sharing the information on progress of the study. JICA will support MoEW to hold stakeholder meetings.

12. SUPPORT OF CAPACITY BUILDING

In order to achieve the objective of the study as mentioned in the S/W, JICA will support capacity building of MoEW through the on-the-job training during the study period. The Bulgarian side proposed that counterpart team headed by MoEW will jointly work at all times with the study team as core facilitators and focal points and accept technical transfer. Members of the team are required to be assigned from the selected River Basin Directorates of MoEW, in advance of the commencement of the Study.

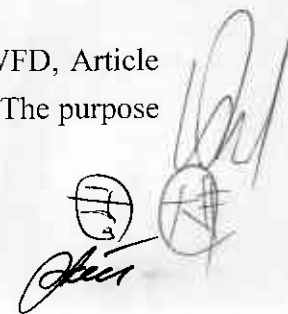
13. TRAINING OF COUNTERPART PERSONNEL IN JAPAN

MoEW requested JICA to conduct training of 8 to 10 persons of counterpart personnel in Japan for the effective technology transfer. The Team will convey the request to the JICA Headquarters for the final decision.

14. SEMINARS AND/OR WORKSHOPS

Seminars and/or workshops will be jointly held by MoEW and the study team to transfer the technology to the Bulgarian counterparts.

Stakeholder meetings for public discussion will be held in accordance with EU WFD, Article 14 by MoEW and the River Basin Directorates of East and West Aegean Districts. The purpose

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includes the followings.

- (1) To inform the stakeholders of the timetable and work program for the study;
- (2) To inform the stakeholders of an interim overview of the significant water management issues identified in the river basin;
- (3) To inform the stakeholders of draft plan

The study team will support the meetings with the preparation of materials concerned, presentation of the issues from a technical aspect and financial means.

15. ENVIRONMENTAL AND SOCIAL CONSIDERATIONS

The Team explained JICA's Guidelines for Environmental and Social Considerations, and that it will be applied to the study. MoEW understood the policy of JICA guidelines, and agreed in principle to the following responsibilities and requirements

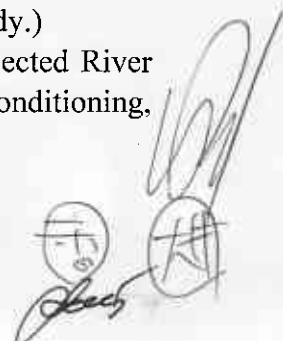
- (1) MoEW shall be responsible for conducting necessary Environmental and Social Considerations in collaboration with the Study team. This shall be corresponding to Environmental Assessment of Plans and Programs, which is designated in Article 81(1)1 of Environmental Protection Act, the Republic of Bulgaria
- (2) The information disclosure on the plans and study reports concerned shall be made in order to ensure the participation and dialogues with various stakeholders, and achieve appropriate environmental and social considerations.
- (3) The above-mentioned responsibilities and requirements will also be applied when Initial Environmental Examination (IEE) is necessary for programs of measures and investment plans designed in the integrated water management plan. The Study team shall provide MoEW with technical support in order to conduct IEE.
- (4) In the course of implementation of the Study, public consultation and discussion with communities and stakeholders shall be held according to Water Act of the Republic of Bulgaria and EU Directive 2000/60/EC. The Study Team shall provide MoEW with technical support in order to hold stakeholders meetings.

16. DISCLOSURE OF INFORMATION

The disclosure of information such as the study reports is necessary to ensure the participation and dialogues with various stakeholders, in order to achieve appropriate environmental and social considerations.

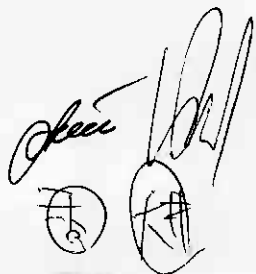
17. UNDERTAKING OF THE GOVERNMENT OF THE REPUBLIC OF BULGARIA ACCORDING WITH THE AGREEMENT ON TECHNICAL COOPERATION BETWEEN THE GOVERNMENT OF JAPAN AND THE GOVERNMENT OF BULGARIA SIGNED ON 15 DECEMBER 2004

- (1) Bulgarian side provides the study team with all available data in the MoEW system (including geographical maps and photographs and information related to the Study.)
- (2) Bulgarian side provides office space in the headquarters of MoEW and the selected River Basin Districts of MoEW with office furniture, Internet equipment, air-conditioning, telephone lines and electricity for the use by the study team.



18. REPORTS

The result of the study will be open to the public in order to achieve maximum use of the study results.

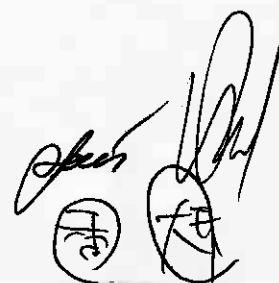
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List of Attendants

A. Bulgarian Side

Government

Mrs. Lubka Katchakova	Deputy Minister, MoEW
Mr. Jordan Dardov	Deputy Minister, MoEW
Mr. Ivo Konov	Director, Donor Programmes Directorate, MoEE
Mr. Vladimir Dontchev	State expert, Water Directorate , MoEW
Mr. Nikola Matev	State expert, Water Directorate, MoEW
Mr. Radoslav Stanolov	Chief expert, Donor Programmes Directorate, MoEE
Mrs. Galina Balusheva	Senior expert, Water Directorate, MoEW
Mrs. Detelina Peicheva	Junior expert, International Cooperation Department, MoEW

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B. Japanese Side

Preparatory Study Team

Mr. Hidetomi OI	Leader
Mr. Koji SUJINO	River Basin Management
Mr. Tsuyoshi SASAKA	Water Resources Management/ Environmental and Social Considerations
Mr. Toshiro IWAHASHI	Hydrology/Water quality
Mr. Junichi HIRANO	Study Planning

JICA Bulgaria Office

Mr. Keizo KAGAWA	Resident Representative
Mr. Hiroyuki NONAKA	Project Formulation Advisor



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付属資料 2. 質問表への回答

2006/04/28

**Ministry of Environment and Waters
of
The Republic of Bulgaria**

QUESTIONNAIRE

by
The Preparatory Study Team
for
The Master Plan Study on Integrated Water Resources Management
in The Republic of Bulgaria

October 2005

Japan International Cooperation Agency

Please prepare written answer to the following questionnaire and submit it to the JICA Preparatory Study Team (the JICA Team), whose visit to your offices is scheduled between 03 October and 19 October in 2005. If there are important related documents and reports concerning each question, please provide them to the team or indicate the place where they are available. We appreciate English copies and electronic data file (such as CD or Diskette) for the answers, together with the hard copies.

Your answers are precious and essential in our preparation of the TOR for the full-scale Study.

Questions

1. Requirements for admission to EU on river basin management for water resources

1.1 Please specify the current targets regarding the requirements. Targets refer to the steps specified in Article 3 to Article 24 of ‘Directive 2000/60/EC of the European Parliament and the Council of 23 October 2000, establishing a framework for Community action in the field of water policy’.

Indicate what aspects can be done by your side and what ones need JICA assistance currently.

<p>Targets <Article 3 to Article 24></p>	<p style="text-align: center;">< Specify more detailed steps in the relevant articles, where possible. ></p> <p>art.3 of WFD was transposed in Chapter X “Water management” of Water Act from 2000, and according to it our 4 River Basin Directorates were established in 2002 – 2003.</p> <p>Art.4 – this article from WFD was included into the Draft Water Management Act (in process of approval by relevant institutions).</p> <p>Art.5 requires for each river basin District:</p> <ul style="list-style-type: none"> - an analysis of its characteristics - a review of the impact of human activities on the status of surface waters and on the ground water (IMPRESS) - an economic analysis of water use <p>Art.6 requires the establishment of Register(s) of the Protected areas</p> <p>Art.7 – not covered yet</p> <p>Art.8 – not covered yet</p> <p>Art.9 – not covered yet</p> <p>Art.10: 10.1. – yes; 10.2a and 10.2b – yes; 10.2c – not covered yet</p> <p>Art.11 – no</p> <p>Art.12 – no</p> <p>Art.13 – no, but the procedure for the preparation of River Basin Management Plans is open according to the requirements of the Water Act. There are 4 Terms of Reference for the preparation of the 4 River Basin Management Plans, approved by the Minister of Environment and Waters in 2004.</p> <p>Art.14 – no yet. There are 4 River Basin Councils established to each River Basin Directorate according to the Water Act.</p> <p>Art.15.2 – Report on the art.5 and art.6 preliminary river basin overview</p>
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	From Art.16 till Art.23 – no Art.24 – The Draft of the Water Management Act was prepared and the procedure for its approval has been started.
Ourselves	Art.3 – River Basin Authorities establishment Art.4 – Setting up the Environmental water quality objectives Art.5 and Art.6 - The requirements of both articles were covered through the preparation of the National Report on water management at river basin level in the Republic of Bulgaria, presented to the European Commission in May 2005. This report is the initial one. Art.7 – Water used for the abstraction of drinking water All articles which are not mentioned in JICA assistance will be implemented by us Art.24 – Harmonization of Bulgarian legislation with the WFD
JICA assistance	Art.5 – Review of the results of the work done on the pressure and impact analysis. Assistance in the development of more detailed assessment of the pollution load and its impact on the quality of receiving waters. Art.8 – Monitoring Programs of water status for surface, ground water and protected areas Art.11 – Programs of measures in order to achieve the environmental water quality objectives established under the requirements of Article 4. Art.13 – River Basin Management Plans Art.14 – Public consultation on the basic policy and strategy for integrated water management in Bulgaria Art.16 – Strategies against pollution of water (some of them – measures taken against pollution from priority substances) Art.17 – Strategies to prevent and control pollution ground waters Development of GIS (in accordance with the requirements of EU WFD and the Guidance Document) for the whole MOEW system: MOEW, River Basin Districts and Executive Environment Agency.

1.2 Please describe the current achievement level in Bulgarian Water Sector, compared with EU requirements for river basin management. (Add the lines, if necessary !)

Items of EU requirements on River Basin Management	Current Achievement Level of Bulgarian Side	
	Cleared	Not done yet
Art.5 – characteristics of the River Basin Districts, review of the environmental impact of the human activities on water use	Initial study	Water balance Upgrading of the analysis on the water pollution load and on water quality
Art.8 – Monitoring Programs of water status	no	Monitoring Programs according to the requirements of WFD – surveillance, operational and investigative
Art.3	yes	In 2002 – 2003 the River Basin Districts were identified according to the Water Law and accordingly

		the River Basin Directorates were established as the competent authorities for the water management on a river basin basis.
Art.13 - River Basin Management Plan	no	Formulation of the River Basin Management Plan for integrated water management (surface water quantity and quality and groundwater quantity and quality)
GIS requirements according to EU WFD		Development of GIS for the whole MOEW system – MOEW, River Basin Directorates and Executive Environmental Agency

2. Priority among 4 basins in developing water resources management system

Could you indicate the priority among the 4 basin districts (Danube, Black Sea, East Aegean Sea, West Aegean Sea) ?

Place the districts in order of priority with explanatory reasoning.

Order of priority		>	>	>
Reason	Policy Technical Social Others			

3. Changes or Progress after the previous JICA preparatory study

3.1 Kindly explain the present status of each Danube District, Black Sea District East Aegean Sea District and West Aegean Sea District in district-wise on Basin Directorates and Basin Council.

3.2 Kindly provide us with the latest organization charts of MOEW and relevant organizations to water resources management.

3.3 Kindly explain on database by GIS in Bulgaria.



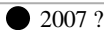
3.4 Kindly indicate the important changes or the progress relevant to water resources management issues after the previous JICA study in March 2000.

	Title	Description of the changes or progress
National Plan	<ul style="list-style-type: none"> • National Economic Development Plan • Sector Plan in Water Resources Mgmt • 	
Legislation Criteria Env. Standards Guidelines	<ul style="list-style-type: none"> • Law for the Waters • • • 	
International Agreement or Convention on Environmental Conservation	<ul style="list-style-type: none"> • • • • 	
Relevant Administration or Organizations	<ul style="list-style-type: none"> • MOEW • Regional Inspectorate for Env. & Water Executive Agency of Environment • Supreme Consultative water Council • MOAF • MORDPW • MOH • NIMH • National Electricity Company • Water Company • Irrigation Systems Limited • Others 	
National Projects and Studies in Water Sector	<ul style="list-style-type: none"> • • • • 	
Donor Projects, Studies and Assistance in Water Sector	<ul style="list-style-type: none"> • • • • 	
Social Economy or Local/ Regional Economy	<ul style="list-style-type: none"> • • • • 	
Others	<ul style="list-style-type: none"> • • • 	

4. Timetable of Bulgarian Water Sector up to EU accession

Kindly indicate the time schedule (or time limit) for the steps you should take (in water and environmental sector) up to the time of Bulgarian accession into EU.

Steps means procedural requirements, preparation of technical elements and plans, administrative actions and all that important.

Steps to be taken regarding the water sector	Time Limit Yr. Mo	Expected period of action 
Ex. Establish Basin Directorates	XX.XX	 00.03 XX.XX
EU accession	07. XX	 ● 2007 ?

5. On the 4 Basin Districts (Danube, Black Sea, East Aegean Sea, West Aegean Sea)

5.1 Basin Maps of the 4 Basin districts

- 1) Please provide them (the base maps) to the JICA Team, if they are available.
- 2) Indicate the current information on the following, if there are any updates after the previous preparatory study in March 2000.

Type of Map	Description	Available at	Any updates ?	Related Basin
Topographic maps	1/5000-1/100,000 1/5000, 10000 1/25000, 50000 1/100,000	CARTGRAPHIA (need permission for purchase)		
Aerial photos	1/5000 (taken in 1990)	Min. of Agriculture		
Land use plan and maps		Min. of Agriculture		
Geological maps	1/500,000	Min. of Industry MOEW		

5.2 Existing River Profile and Cross Sections Survey

Please fill in the following table (you can modify the table form & items, if necessary)

Name of River	Name of Basin District	Survey section (location/section and total length along river)	Survey year	Remarks (Agency, Interval, Availability, etc.)

5.3 Existing Database of the 4 Basin districts

- 1) Indicate or describe the existing database on **the water demand or water usage**. Check the corresponding basin district name. Specify the place if possible.

Also kindly indicate the corresponding EU requirement and the current achievement level in Bulgaria. (If no requirement in this issue, simply write in (N/A)).

Danube () Black Sea () East Aegean Sea () West Aegean Sea() Specify the place if possible: < >

EU requirement	Current Achievement Level	
	Cleared	Not cleared (current level of progress)

- 2) Indicate or describe the existing database on **the surface water distribution** including the river system. Check the corresponding basin district name. Specify the place if possible.

Danube () Black Sea () East Aegean Sea () West Aegean Sea() Specify the place if possible: < >

EU requirement	Current Achievement Level	
	Cleared	Not cleared (current level of progress)

- 3) Indicate or describe the existing database on **the groundwater distribution**. Check the corresponding basin district name.

Danube () Black Sea () East Aegean Sea () West Aegean Sea() Specify the place if possible: < >

EU requirement	Current Achievement Level	
	Cleared	Not cleared (current level of progress)

- 4) Indicate or describe the existing database on **water volume**. Check the corresponding basin district name.

Danube () Black Sea () East Aegean Sea () West Aegean Sea() Specify the place if possible: < >

EU requirement	Current Achievement Level	
	Cleared	Not cleared (current level of progress)

- 5) Indicate or describe the existing database on **water quality**. Check the corresponding basin district name.

Danube (<input type="checkbox"/>) Black Sea (<input type="checkbox"/>) East Aegean Sea (<input type="checkbox"/>) West Aegean Sea(<input type="checkbox"/>) Specify the place if possible: < _____ >

EU requirement	Current Achievement Level	
	Cleared	Not cleared (current level of progress)

6) Indicate or describe the existing database on **hazard mapping**. Check the corresponding basin district name.

Danube (<input type="checkbox"/>) Black Sea (<input type="checkbox"/>) East Aegean Sea (<input type="checkbox"/>) West Aegean Sea(<input type="checkbox"/>) Specify the place if possible: < _____ >

EU requirement	Current Achievement Level	
	Cleared	Not cleared (current level of progress)

7) Indicate or describe the existing database on **pollution map**. Check the corresponding basin district name.

Danube (<input type="checkbox"/>) Black Sea (<input type="checkbox"/>) East Aegean Sea (<input type="checkbox"/>) West Aegean Sea(<input type="checkbox"/>) Specify the place if possible: < _____ >

EU requirement	Current Achievement Level	
	Cleared	Not cleared (current level of progress)

8) Indicate or describe the existing database on **land use including existing zonings for conservation and industrial purposes**. Check the corresponding basin district name.

Danube () Black Sea () East Aegean Sea () West Aegean Sea() Specify the place if possible: < >

EU requirement	Current Achievement Level	
	Cleared	Not cleared (current level of progress)

9) Indicate or describe the existing database on **the inventory of water related structure and facilities**. Check the corresponding basin district name.

Danube () Black Sea () East Aegean Sea () West Aegean Sea() Specify the place if possible: < >

EU requirement	Current Achievement Level	
	Cleared	Not cleared (current level of progress)

10) Indicate or describe the existing database on **the statistics of population distribution and demographic change**. Check the corresponding basin district name.

Danube () Black Sea () East Aegean Sea () West Aegean Sea() Specify the place if possible: < >

EU requirement	Current Achievement Level	
	Cleared	Not cleared (current level of progress)

11) Indicate or describe the existing database on **the industrial distribution**. Check the corresponding basin district name.

Danube () Black Sea () East Aegean Sea () West Aegean Sea() Specify the place if possible: < >

EU requirement	Current Achievement Level	
	Cleared	Not cleared (current level of progress)

5.4 Existing System of the 4 Basin districts

- 1) Indicate the existing **management network system** on water resources and describe its function. Check the corresponding basin district name. Also kindly indicate the corresponding EU requirement and the current achievement level in Bulgaria. (If no requirement in this issue, simply write in (N/A)).

Danube () Black Sea () East Aegean Sea () West Aegean Sea()

EU requirement	Current Achievement Level	
	Cleared	Not cleared (current level of progress)

- 2) Explain **the budget allocation** for water resources management in the 4 basin districts.

Total budget (these 5 years):

2001	2002	2003	2004	2005

Budget application cycle every year (month, organization related)

(→ → →)

Items of Budget: list up the items of budget regarding water resources management

Indicate the composition of financial sources for water resources management

Unit: \$ or Euro / %

	National Budget	Donor Fund	Special Fund	Others
2003	/ %	/ %	/ %	/ %
2004	/ %	/ %	/ %	/ %
2005	/ %	/ %	/ %	/ %

- 3) Describe **the current state of implementation** of the existing management network system. Indicate **what hurdles are there** in implementation of the system. Check the corresponding basin district name.

Danube () Black Sea () East Aegean Sea () West Aegean Sea()

5.5 Database or System to be developed

Please describe what database or systems need to be developed further to satisfy EU requirements.

	database or systems needs to be developed	Time Limit for Completion
Danube		
Black Sea		
East Aegean Sea		
West Aegean Sea		

6. Attached is the list of the surface monitoring network provided to the JICA S/W mission team in 2000. Kindly revise the data, if there are any additions.

LIST OF THE MP OF THE SURFACE WATER MONITORING NETWORK

□	□ of NIP	NAME OF THE MP	Scheme
		DANUBE River Basin	
1	1	Danube River - Novo Selo - km 433.6	D
2	2	Danube River - after Vidin	R
3	3	Danube River - after r. Lom and Lom - km 741	R
4	5	Danube River - after Orvahovo	R
5	167	Danube River - before r. Iskar	D
6	7	Danube River - after Nikopol	R
7	8	Danube River - after Svishlov	R
8	173	Danube River - before Russe	D
9	9	Danube River - after Russe	R
10	11	Danube River - at Silistra port	D
		TILOK River Basin	
11	12	Timok River at Bregovo	O
		VOYNISHKA River Basin	
12	13	Voynishka River at Turnvane	O
		ARCHAR River Basin	
13	14	Archar River at Archar	O
		LOM River Basin	
14	476	Lom River at Gorni Lom	B
15	15	Lom River before Lom	O
		TSIBRITSA River Basin	
16	477	Tsibritsa River above Smolvanovtsi	B
17	16	Tsibritsa River at Dolni Tsibar	O
		OGOSTA River Basin	
18	173	Chiprovtska River above Chiprovtsi	B
19	478	Ogosta river before Ogosta reservoir	O
20	479	Ogosta reservoir before dam wall	Re
21	17	Ogosta River after Ogosta reservoir	B
22	174	Ogosta River after Montana	R
23	480	Botunva River above Varshevs	R
24	481	Botunva River before inflow in Ogosta River	R
25	18	Ogosta River at Kobilvak	R
26	342	Ogosta River at Sofronievo	R
27	22	Seut River after Bvala Slatina	R
28	181	Seut River before inflow in Ogosta river after Mizia	R
29	19	Ogosta river before inflow in Danube	O
		ISKAR River Basin	
30	347	Iskar River after Beli Iskar Reservoir	B
31	483	Cherni Iskar River before Govedantsi	B
32	24	Iskar River after Samokov before Iskar Reserv.	O
33	484	Iskar reservoir before wall	Re
34	485	Iskar River after Iskar Reservoir	B
35	185	Lesovska River at Dolni Bogrov	R
36	33	Blato River before inflow in Iskar River	R
37	27	Iskar River at c. Kunilo - Novi Iskar	D
38	29	Iskar River at Reburkovo	R
39	351	Iskar river at Roman	B
40	487	Kozo Dol river before inflow in Malak Iskar riv	B
41	194	Kalna river after Botevergrad	R
42	36	Malak Iskar river at Roman	R
43	197	Iskar river at Orshovitsa	D
44	32	Iskar river at Gigen	O
		VIT River Basin	
45	198	Beli Vit river above Ribanitsa	B
46	201	Vit river after Sadovevs	R
47	39	Vit river after inflow of Bars river at Yasen	R
48	40	Vit river after Dolna Mitropoliva at Bivolare	R
49	41	Vit river after Gulvantsi	D
		OSUM river Basin	
50	488	Cherni Osum river above Cherni Osum	B
51	42	Osum river after Trovan	R
52	44	Osum river after Lovetch	R
53	207	Osum river at Izpev	D
54	46	Osum river at Cherkvitsa	O
		YANTRA River Basin	
55	308	Yantra river at Yabaltsa	B
56	309	Yantra river after Pump station - Gabrovo	R

□	□ of NIP	NAME OF THE MP	Scheme
		TUNDJA River Basin	
119	243	Tundia river before Kalofer	B
120	309	Tundia at the end of Koprinka reservoir	O
121	519	Koprinka reservoir before the wall	Re
122	148	Tundia river before Kazanlak	B
123	311	Tundia river at the Yasoda bridge	R
124	325	Tundia river at Nikolaevo	O
125	75	Zhuchchevo reservoir before the wall	Re
126	76	Tundia river at the Banva bridge	B
127	590	Mochuritsa river at Avramov	B
128	316	Mochuritsa river after Kamobat	R
129	152	Mochuritsa river before inflow in Tundja river - Yambol	R
130	327	Tundia river after Yambol	R
131	80	Tundja river at the Elhovo bridge	R
132	328	Tundja river at the bridge to Srem	Bo
		MARITSA River Basin	
133	256	Maritsa river at Raduil	B
134	83	Maritsa river at Belovo	R
135	531	Chepinska river at Chelivovo	B
136	523	Mutinitsa river before Batak reservoir	O
137	523	Batak reservoir before the wall	Re
138	524	Mutinitsa river after Batak reservoir	B
139	136	Chepinska river before inflow in Maritsa	R
140	387	Topolnitsa river before Koprivshitsa	B
141	99	Topolnitsa river at the road to Pirdop	R
142	100	Topolnitsa river before Topolnitsa reservoir	O
143	101	Topolnitsa reservoir before the wall	Re
144	525	Topolnitsa river after Topolnitsa reservoir	B
145	259	Topolnitsa river before inflow in Maritsa	R
146	260	Maritsa river at Pazardjik - road to Sofia	R
147	526	Luda Yana river above Strelcha	R
148	102	Luda Yana river at Rosen	B
149	468	Stambolviski	R
150	527	Vucha river above Trigrad	B
151	107	Vucha river after Devin	R
152	108	Vucha river at Y. Gruevo	R
153	265	Maritsa river in Plovdiv	R
154	91	Maritsa river under Flowdiv	R
155	528	Chepelarska river above Proeled	B
156	110	Chepelarska river at the bridge to Bachkovo	R
157	111	Chepelarska river before inflow in Maritsa	R
158	529	Strvama river above Klisura	B
159	530	Strvama river at Banva	R
160	103	Strvama river before inflow in Maritsa	R
161	92	Maritsa river at Parvomav	R
162	94	Maritsa river at 3 km after Chem. Plant	R
163	104	Bedechna river at Mogila	R
164	531	Blainitsa river above Konyovo	B
165	350	Blainitsa river before Radnevo	R
166	532	Suvunilitsa river above Rakhititsa	B
167	105	Sazlivka river at Gulubevo	R
168	270	Sazlivka river before inflow in Maritsa	R
169	533	Harmanlitska river before Trakiets	B
170	394	Harmanlitska river at Dinevo	R
171	96	Maritsa river after Harmanli	R
172	97	Maritsa river under Svilenerad	Bo
		ARDA River Basin	
173	273	Arda river before Rudezem	B
174	275	Cherna river after Ustovo	R
175	112	Arda river at Vehlino	R
176	534	Malka Arda river at Kutela	B
177	535	Malka Arda river at Banite	R
178	113	Arda river at the end of Kurdjali reservoir	O
179	536	Kardjali reservoir before the wall	Re
180	278	Arda river after Kardjali reservoir	B
181	279	Arda river after Kardjali	O
182	537	Studen Kladenets res. Before the wall	Re

57	216	Dryanovska river before inflow in Yantra river	R
58	258	Yantra river after inflow of Drvanovska	R
59	49	Yantra riv after pump st on road to Samovodene	R
60	492	Stara Reka river after Kesarevo	R
61	493	Dulvunitsa river at Dulvunitsa	R
62	356	Golvama river at hydro-meteorological station	R
63	220	Leledia river before inflow in Yantra	R
64	53	Rositsa river under Sevlievo	R
65	495	Rositsa river before Stambolovski reservoir	O
66	496	Stambolovski res. Before the wall	Re
67	497	Rositsa river after Stambolovski reservoir	B
68	358	Rositsa river before inflow in Yantra	R
69	359	Yantra river at Karanisi	D
70	52	Yantra river before inflow in Danube - Novograd	O
		RUSSENSKI LOM River Basin	
71	361	Beli Lom river above Beli Lom reservoir	B
72	229	Beli Lom river at Pisanets	R
73	362	Popovska river after Popovo	R
74	232	Cherni Lom river at Ostritsa	R
75	499	Baniski Lom river above Gorski Senovets	R
76	234	Cherni Lom river at Cherven	R
77	57	Russenski Lom river at Basarabovo	D
78	235	Russenski Lom river before Danube	O
		PROVADIYSKA River Basin	
79	500	Provadiyska river before Baskovo	B
80	58	Provadiyska river after Provadiya	R
81	367	Provadiyska river after "Padina" - slime pond	R
		DEVNENSKA River Basin	
82	368	Devnenska river after cement plant	R
		SUHA River Basin	
83	375	Suha river after Dobnch	R
		BATOVA River Basin	
84	503	Izvorska river above Dolnitshte	B
85	60	Batova river before inflow in Black Sea	O
		KAMCHIVA River Basin	
86	504	Vrana river above Prolaz	B
87	62	Vrana river at Kochovo	R
88	505	Ticha river above Ticha	B
89	61	Ticha river before inflow in Vrana river	R
90	63	Poroina river under Dimitnevo	R
91	242	Golvama Kamchiva river at Arkovna	R
92	371	Golvama Kamchiva river at Daleopol	R
93	506	Kotelnska river above Kotel	B
94	373	Kamchiva river before Kamchiva reservoir at Beronovo	O
95	507	Kamchiva reservoir before the wall	Re
96	374	Kamchiva river after Kamchiva reservoir	B
97	457	Luda Kamchiva river at Bilka	O
98	508	Tsonevo reservoir before the wall	Re
99	509	Kamchiva river after Tsonevo reservoir	B
100	66	Kamchiva at "Poda" region	O
		DVOYNITSA River Basin	
101	510	Dvoynitsa river at Kozichino	B
102	462	Dvoynitsa river at the bridge before inflow in Black Sea	O
		HADJIYSKA River Basin	
103	511	Hadiivska river above Preobraizentsi	B
104	377	Hadiivska river at the bridge (road to Varna)	O
		AHELOY River Basin	
105	512	Ahelov at Belodol	B
106	378	Ahelov - outflow	O
		AYTOSKA River Basin	
107	513	Avtoska river above Topolitsa	B
108	68	Avtoska river before inflow in Burgas lake	O
		ROPOTAMO River Basin	
109	514	Ropotamo river above Novo Panicharevo	B
110	69	Ropotamo river before inflow in Black Sea	O
		DYAVOLSKA River Basin	
111	315	Dvavolska river above Yarna Polvana	B
112	384	Dvavolska river outflow	O
		KARAACH River Basin	
113	316	Karaach river at Visitsa	B
114	385	Karaach river at the road to Tsarevo	O
		VELEKA River Basin	
115	317	Velevka above Brushlivan	B
116	71	Velevka at Sinemoretz	O
		REZOVSKA River Basin	

183	538	Arda river after Studen Kladenetsa reservoir	B
184	540	Vurbitsa river at Vurli Dol	B
185	281	Vurbitsa river before Studen Kladenets res.	R
186	283	Arda river at the bridge to Oreshan	R
187	541	Arda river before Ivavlovgrad reservoir	O
188	542	Ivavlovgrad res. Before the wall	Re
189	115	Arda river after Ivavlovgrad reservoir	Bo
		BYALA River Basin	
190	543	Bvala river at Glumovo	B
191	544	Bvala river before the border	Bo
		DOSPAT River Basin	
192	545	Dospat river at Medenu Polvani	B
193	546	Dospat river before Dospat reservoir	O
194	547	Dospat reservoir before the wall	Re
195	548	Dospat river after Dospat reservoir	B
196	396	Dospat river after Dospat	Bo
		MESTA River Basin	
197	285	Mesta river above Yakonuda	B
198	287	Mesta river before inflow in Razlozha	R
199	549	Mesta river at Momina kula	R
200	117	Mesta river after Hadjidimovo	Bo
		STRUMA River Basin	
201	293	Struma river after Studena reservoir	B
202	296	Struma river at the bridge - Batanovtsi	R
203	550	Treklvanska river above Dolna melna	B
204	399	Treklvanska river before inflow in Struma	B
205	121	Struma river at Ruzhdavitsa	R
206	551	Dragovishtitsa river above Dolno Uvno	B
207	471	Dragovishtitsa river before inflow in Struma	R
208	299	Struma river at Nevestino	R
209	552	German river above Sapareva Banya	B
210	126	German river before inflow in Struma	R
211	553	Struma river before Blagoevgrad	R
212	123	Struma river at Krupnik	R
213	557	Lebnitsa river at Nikudin	Bo
214	558	Lebnitsa river at Lebnitsa	R
215	554	Strumeshnitsa river at Strumeshnitsa	Bo
216	301	Strumeshnitsa river after Petrich	R
217	124	Struma river at the border	Bo
		ERMA River Basin	
218	555	Erma river at Strezimirovtsi	B
219	556	Erma river after Trun	Bo
		NTSHAVA River Basin	
220	473	Nishava river above Godetch	B
221	472	Nishava river at Kalotina	Bo
		LAKES	
222	128	Beloslavsko lake opposite to outflows of Provadiyska and Devnenska	R
223	404	Beloslavsko lake - east	R
224	409	New canal Varna lake - Black sea - outflow	R
225	410	Old canal	R
226	129	Burgas lake - east	R
227	411	Burgas lake - west	R
228	130	Mandrensko lake - east	R
229	412	Mandra reservoir - west	R
		BLACK SEA	
230	131	BS at cape Shabla	S
231	414	BS at Rusalka	S
232	302	BS at Kavarna - bridge at the sea station	S
233	133	BS at Balchik	S
234	134	BS opposite Albena	S
235	135	BS opposite Zlatni Pvasatsi	S
236	136	BS at St. Konstantin	S
237	137	BS opposite North Beach of Varna	S
238	415	BS opposite Varna bay	S
239	138	BS opposite Kamchiva outflow	S
240	303	BS opposite Dvoynitsa outflow	S
241	140	BS opposite Slunchev bryag	S
242	304	BS opposite Nesebar port	S
243	305	BS opposite Ravda	S
244	141	BS opposite Pomorie	S
245	306	BS opposite Sarafovo	S
246	142	BS opposite Central beach of Burgas	S
247	307	BS opposite fish port Burgas	S
248	308	BS opposite oil port Burgas	S
249	470	BS - Vromos bay	S

117	518	Rezovska river above Slivarevo	B
118	386	Rezovska river outflow	O

250	143	BS at Sozopol	S
251	144	BS - primorsko	S
252	145	BS opposite Tsarevo	S
253	146	BS opposite Ahlepol	S

- 1) Kindly provide the map [Basic Hydrogeological Observation Network] of latest version.
- 2) Kindly provide River level (discharge) gauging stations of latest version.
- 3) Kindly provide data on present use of underground water.

7. Groundwater

7.1 Provide data of hydrological observation on spring yield (inland springs), including:

- 1) Agency responsible for measurement of spring flow
- 2) Availability of the data on total volume of spring water in each of the watershed (river basin)
- 3) Data of major springs utilized as the source of irrigation and/or water supply with spring yield and volumes by water use category.

7.2 Provide information/data on wells and production amount from wells, including:

- 1) Responsible for giving permission for well construction,
- 2) Agency responsible in control and management of pumping from wells,
- 3) Data on total production of the wells by region or by water shed, if any,
- 4) Any experience on the seasonal simultaneous water level measurement in majority of the wells regardless of public and private wells,
- 5) Agencies drilling equipment and drilling crew,
- 6) Methods applied for drilling public wells in direct jobs of certain agencies or in commercial bases,
- 7) Information on well drilling companies in Lebanon, and
- 8) Provide following information/data:
 - Estimated total number of the tube wells so far drilled in each region or each water shed, and
 - Number of the wells that are under management of certain agencies with the data of well structure (depth, diameter, screen type/location), water level (static and dynamic), production amount (daily, monthly and annual).

7.3 Provide the coefficients applied in the previous studies for water resources development, including:

- 1) Previous study reports referring to coefficients of run-off, infiltration and evapo-transpiration,
- 2) Give us information where and how to obtain the materials for determination of above mentioned coefficients, such as:

- Topographic maps in scales of 1/5,000 - 1/100,000,
- Map of land use and/or vegetative cover, and
- Map of surface geology and/or soil.

8. Environmental Law and Assessment Scheme

- 1) Please indicate the basic law on environmental impact assessment.
- 2) Please indicate the government organization in charge of environmental and social considerations including environmental/social impact assessment.
- 3) Give us the flowchart for environmental impact assessment process. Specify the project types and project stage (such as feasibility study stage) that environmental and social considerations are required.
- 4) What does Bulgarian law require for public consultation in planning process or development projects? Specify the corresponding legislation.

9. Consultants/Firms available for the assistance to the Study

Please give us the information on local consultants or firms on your organizations register.

Name	Field of speciality	Contact Address	Tel/Fax No.	E-mail address	Contact person in charge
DELPHIN Projekt Ecotechnica Gmbh		Sofia 1202 4, Timok str. Floor 6	+35929319855 +35929319856	Delphineco@aster.net	Prof. Ivan Sekoulov
AQUAPARTNER Ltd.		Sofia 1303 2a, Marko Balabanov str.	+3592874251 +3592814108	Aqualtd@mb.bia-bg.com	Atanas Paskalev
ATEC consult ltd		Sofia 1421 1, Hristo Smirnenski blvd. Bl.A, floor 1	+35928662063	Atec_consult@abv.bg	Roumen Arsov, Grigor Mihaylov, Balcho Balchev
Stefan Modev		Sofia	+35928654892 +359888624297		
Angel Angelov		Sofia	+35929895868 +359888216172	Angelov_eco@abv.bg angelov_eco@netbg.com	

Note: Required fields for local consultants are not sure yet. But, the considerable fields are as follows:

- 1) Topographic survey
- 2) Facility inventory survey
- 3) Hydrometric survey
- 4) Groundwater survey

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- 5) Water use survey
- 6) Water quality survey
- 7) Environmental impact assessment survey
- 8) Public consultation management, etc.

10. Other Particular Information, if any.

Please inform and explain the other particular conditions for implementation of the Study, if any.

付属資料 3. 資料収集リスト

資料リスト (収集資料 / 口 専門家作成資料)

主管部長	文書管理課長	情報管理課長	技術情報課長
			図書館受入日

	プロジェクトID	調査団番号	調査の種類 又は指導科目	担当部署	地球環境部
地域	中欧・東欧	全国総合水資源管理計画調査事前調査団	調査の種類 又は指導科目	担当部署	地球環境部
国名	ブルガリア	環境水省 (MOEW)	現地調査期間 又は派遣期間	担当者 氏名	平野 潤一

番号	資料の名称	形態(図書、ビデオ、地図、写真等)	複製資料	取集資料	専門家作成資料	JICA作成資料	サイト	発行機関	取扱区分	図書館記入欄
1	Environmental Protection Act, 2002 (英語)			*				Republic of Bulgaria, National Assembly (MOEWのホームページでダウンロード可能: http://www.moew.government.bg/index_e.htm)	JR-CR () SC	
2	Regulation on the Conditions, Procedure and Methods for Environmental Assessment of Plans and Programs, 2004 (英語)	法令コピー	*					Ministry of Environment and Water (MOEWのホームページでダウンロード可能: http://www.moew.government.bg/index_e.htm)	JR-CR () SC	
3	Manuals for Environmental Assessment of Plans and Programmes in Bulgaria, 2002 (英語)	法令コピー	*					Ministry of Environment and Water (MOEWのホームページでダウンロード可能: http://www.moew.government.bg/index_e.htm)	JR-CR () SC	
4	Ordinance on the terms and procedure for making environmental impact assessment of investment proposals for construction, activities and technologies, 2003 (英語)	法令コピー	*					Ministry of Environment and Water (MOEWのホームページでダウンロード可能: http://www.moew.government.bg/index_e.htm)	JR-CR () SC	
5	Guidance on EIA for Investment Proposals, 2002 (英語)	法令コピー	*					Ministry of Environment and Water (MOEWのホームページでダウンロード可能: http://www.moew.government.bg/index_e.htm)	JR-CR () SC	
6	Order No. RD-848 (組織間調整室・Inter Institutional Unitの設置令) (英語)	法令コピー	*					Ministry of Environment and Water	JR-CR () SC	
7	Questionnaire の回答 (環境水省水局本部) (英語)	プリントアウト	*					Ministry of Environment and Water	JR-CR () SC	
8	Questionnaire の回答 (東エーゲ海流域管理局) (英語)	プリントアウト	*					Ministry of Environment and Water (EARBD)	JR-CR () SC	
9	Questionnaire の回答 (西エーゲ海流域管理局) (英語)	プリントアウト	*					Ministry of Environment and Water (WERBD)	JR-CR () SC	

資料リスト (収集資料/口専門家作成資料)

主管部長	文書管理課長	情報管理課長	技術情報課長	図書編入日

地域	プロジェクトID	調査団番号	調査の種類 又は指導科目	担当部署	地球環境部
中欧・東欧	調査団名又は専門家 氏名	全国総合水資源管理計画調 査事前調査団		開発調査 (事前調査)	地球環境部
国名	配属機関名	環境水省 (MOEW)	現地調査期間 又は派遣期間	2005.10.01~10.20	平野 潤一

番号	資料の名称	形態(図書、ビデオ、地図、写真 等)	複製 資料	専門家 作成資 料	JICA作 成資料	計表	発行機関	取扱区分	図書館記入欄
10	西エーゲ河流域管理局の流域管理計画作成業務TOR (ブルガリア語)	文書コピー	*				Ministry of Environment and Water	JR-CR () SC	
11	黒海流域管理局の流域管理計画作成業務TOR (ブルガリア語)	簡易製本	*				Ministry of Environment and Water	JR-CR () SC	
12	Annex II : Terms of Reference, 6/2004 (西エーゲ海メ スタ川総合流域管理プロジェクトのTOR, 2004年6月) (英 語)	文書コピー	*				Ministry of Regional Development and Public Works	JR-CR () SC	
13	Institutional Strengthening of East Aegean Sea River Basin Directorate in Bulgaria for Implementation of Some WFD Requirements in Arda River Pilot Basin. EVD REF: MAT04/BG/9/3, Inception Report-Final, June 2005 (東エーゲ海アルダ川プロジェクト・インセンション レポート) (英語)	報告書コピー					ARCADIS (オランダのコンサルタント会社)	JR-CR () SC	
14	ダニエーブル川流域管理局の活動年報、2004年 (ブルガリ ア語)	製本	*				Ministry of Environment and Water (DRBD)	JR-CR () SC	
15	Standard Summary Project Fiche (ダニエーブル川 Twinning Projectのプロジェクト・ドキュメント、2003 年)	文書コピー	*				CFCL, Republic of Bulgaria	JR-CR () SC	
16	黒海流域管理局の活動概要ブレゼンテーション資料 (ブ ルガリア語)	資料コピー	*				Ministry of Environment and Water (BSBD)	JR-CR () SC	
17	EBRD Information, April 2005 (英語)	資料コピー	*				European Bank for Reconstruction and Development (EBRD) Bulgarian Office	JR-CR () SC	
18	EU Phare & ISPA Projects List (英語)	資料コピー	*				European Union Bulgarian Office	JR-CR () SC	
19	State of GIS in MOEW and It's Departments (ブレゼン テーション資料)	資料コピー	*				Ministry of Environment and Water (Executive Environmental Agency)	JR-CR () SC	
20	National Report on Water Management at River-Basin Level in the Republic of Bulgaria, March 2005 (英 語)	報告書コピー	*				Ministry of Environment and Water (MOEWのホームページでダウンロード可能: http://www.moew.government.bg/index_e.htm)	JR-CR () SC	

資料リスト (■収集資料/□専門家作成資料)

主査部長	文書管理課長	情報管理課長	主査課長	技術情報課長	図書館受入日

	プロジェクトID	調査団番号	発行機関	取扱区分	図書館記入欄
地域	中欧・東欧	調査団名又は専門家氏名 全国総合水資源管理計画調査事前調査団	調査の種類 又は指導科目	地球環境部	
国名	ブルガリア	配属機関名 環境水省 (MOEW)	現地調査期間 又は派遣期間 2005. 10. 01～10. 20	担当者 氏名 平野 潤一	

番号	資料の名称	形態(図書、ビデオ、地図、写真等)	収集資料	専門家作成資料	JICA作成資料	資料	発行機関	取扱区分	図書館記入欄
21	Annual State of the Environment Report 2001, Green Book (英語)	報告書コピー	*				Ministry of Environment and Water (MOEWのホームページでダウンロード可能 : http://www.moew.government.bg/index_e.htm)	JR-CR () SC	
22	Format of an Annual Environmental Report, 2003 (英語)	文書コピー	*				Ministry of Environment and Water (MOEWのホームページでダウンロード可能 : http://www.moew.government.bg/index_e.htm)	JR-CR () SC	
23	Data Model and GIS Design Work Package No1, Integrated Management of the Waters of Nestos/Mesta River Basin, South West Region-Blagoevgrad District, Bulgaria, September 2005 ブルガリアの水関連法 (英語)	簡易製本	*				European Commission EC Phare SOGREAH/PM Consortium	JR-CR () SC	
24	MOEWのプロジェクト・リスト概要 (英語)	資料コピー プリントアウト		*	*		ブルガリアJICA事務所	JR-CR () SC	
25	Questionnaire回答, MOEW HQ, 18 October 2005	CD	*				Ministry of Environment and Water	JR-CR () SC	
26	事前調査団へのドナウ川流域管理局ブレゼンテーション資料	CD	*				Ministry of Environment and Water (水局本部)	JR-CR () SC	
27	EUROPEAID/119665/D/SV/BG (メスタ川プロジェクトGIS-Database)	CD2枚組み	*				Ministry of Environment and Water (DRBD)	JR-CR () SC	
28	東エーゲ海流域管理局, Questionnaireへの回答/Maps-Annexes/流域管理計画作成業務のTOR/情報源リスト (英語・ブルガリア語)	CD	*				Ministry of Environment and Water (WARBD)	JR-CR () SC	
29	東エーゲ海流域管理局, 事前調査団に対するブレゼンテーション資料 (英語・ブルガリア語)	CD	*				Ministry of Environment and Water (EARBD)	JR-CR () SC	
30	東エーゲ海流域管理局, Report under Art.5 and Art.6 of WFD-EARBD (英語・ブルガリア語)	CD	*				Ministry of Environment and Water (EARBD)	JR-CR () SC	
31		CD	*				Ministry of Environment and Water (EARBD)	JR-CR () SC	

資料リスト (■収集資料/□専門家作成資料)

主管部長	文書管理課長	主管課長	情報管理課長	技術情報課長	図書館受入日

	プロジェクトID	調査団番号			
地域	中欧・東欧	調査の種類 又は指導科目	開発調査 (事前調査)	担当部署	地球環境部
国名	ブルガリア	現地調査期間 又は派遣期間	2005. 10. 01 ~ 10. 20	担当者 氏名	平野 潤一
		全国総合水資源管理計画調査事前調査団			
		環境水省 (MOEW)			

番号	資料の名称	形態(図書、CD、DVD、地図、写真等)	収集資料	専門家作成資料	JICA作成資料	発刊機関	取扱区分	図書館記入欄
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