

添付資料 1 調査団員・氏名

調査団員・氏名

第一次現地調査 調査団員名簿

氏名	担当	所属
福田 義夫	調査団長	国際協力事業団 無償資金協力部 業務第一課 課長代理
宇野 純子	計画管理	国際協力事業団 無償資金協力部 業務第一課
岡賀 敏文	業務主任/給水計画	パシフィックコンサルタンツインターナショナル
任田 直人	施設・機材計画	パシフィックコンサルタンツインターナショナル

第二次現地調査 調査団員名簿

氏名	担当	所属
岡賀 敏文	業務主任/給水計画	パシフィックコンサルタンツインターナショナル
平山 一夫	地下水開発計画	パシフィックコンサルタンツインターナショナル
任田 直人	施設・機材計画	パシフィックコンサルタンツインターナショナル
中武 俊一	環境配慮/事業運営・維持管理計画	パシフィックコンサルタンツインターナショナル
荒木 敬幸	積算/調達管理	パシフィックコンサルタンツインターナショナル

基本設計概要書 現地説明団員名簿

氏名	担当	所属
村岡 敬一	総括	国際協力事業団 オーストリア事務所 所長
宇野 純子	計画管理	国際協力事業団 無償資金協力部 業務第一課
岡賀 敏文	業務主任/給水計画	パシフィックコンサルタンツインターナショナル
任田 直人	施設・機材計画	パシフィックコンサルタンツインターナショナル
中武 俊一	環境配慮/事業運営・維持管理計画	パシフィックコンサルタンツインターナショナル

添付資料 2 調査行程

調査行程

第一次現地調査 調査日程

No.	Date	Day	官団員		コンサルタント団員	
			福田	宇野	岡賀	任田
1	Mar 19	Wed		成田発 (11:35) → ウィーン着 (16:10, OS052)		
2	20	Thu		大使館、JICA 表敬 ウィーン (13:40) → スプリ (15:25, OS779)		
3	21	Fri		外務省表敬、運輸・通信省 (MTC) 表敬 インセプション・レポート説明・協議 (MTC)		
4	22	Sat		現地踏査 (Gazi Baba 郡、Ilinden 郡、Petrovec 郡)		
5	23	Sun	成田発(11:35)→ウィーン着 (16:10, OS052)		現地踏査 (Aracinovo 郡、Cucer Sandevo 郡)	
6	24	Mon	ウィーン(13:40)→スプリ (15:25, OS779)		MTC、自治体との協議および現地踏査 (Cair 郡)	
7	25	Tue		MTC との協議および現地踏査 (Zelenikovo 郡)		
8	26	Wed		MTC との M/D 案協議および現地踏査 (Studenicani 郡)		
9	27	Thu	MTC との M/D 署名 スプリ(16:55)→ウィーン(18:40, OS780)		M/D 協議・署名 現地踏査 (Aracinovo 郡)	
10	28	Fri	大使館、JICA 報告 ウィーン発(15:30) →アフリカ着(17:35, AF764)	ウィーン発(13:50)→	現地踏査 (Gazi Baba/ Ilinden/ Petrovec 郡)	
11	29	Sat		→成田着(9:25, OS051)	資料整理・翻訳	
12	30	Sun			評価案作成	
13	31	Mon			現地踏査 (Zelenikovo 郡、Studenicani 郡)	
14	Apr 1	Tue			現地踏査(Cucer Sandevo 郡)	
15	2	Wed			現地踏査(Cair 郡) テクニカル・ノート(T/D)協議	
16	3	Thu			テクニカル・ノート(T/D)署名 スプリ (16:55) →ウィーン (18:40, OS780)	
17	4	Fri			大使館、JICA 報告	
18	5	Sat			ウィーン発 (14:35) →	
19	6	Sun			成田着 (8:55, OS051)	

第二次現地調査 調査日程

No.	Date	Day	岡賀	中武	荒木	任田	平山	
1	May 7	Wed	成田 (10:40)→ウイーン (16:00) OS052					
2	8	Thu	JICA オーストリア事務所、在ウイーン日本国大使館報告 ウイーン (13:40)→スロベニア (15:20) OS779					
3	9	Fri	Ministry of Transport and Communication (MTC) 調査方針・工程説明					
4	10	Sat	村落調査準備			現地再委託見積依頼		
5	11	Sun	資料整理					
6	12	Mon	合同会議					
7	13	Tue	現地踏査 (Pobozje) Public Health Institute (水質試験見積依頼)					
8	14	Wed	現地踏査 (Kuceviste)					
9	15	Thu	環境省 統計局		積算条件調査	現地踏査 (Pobozje, Kuceviste)		
10	16	Fri	現地踏査 (Cverovo)					
11	17	Sat	ポリエチレン管工場視察					
12	18	Sun	資料整理					
13	19	Mon	MTC 協議 保健省 (水質基準、水質検査再委託)		積算条件調査	現地踏査 (Dolno Kolicani)		
14	20	Tue	スロベニア市水道 PE 協議		現地踏査 (Jurumleri)			
15	21	Wed	現地踏査 (Pakosevo, Taor)					
16	22	Thu	KfW 協議(Germany) EAR 協議		積算条件調査	現地踏査 (Zelenikovo)		
17	23	Fri	現地踏査 (Zelenikovo: Novo Selo, Strahojadica)				採水	
18	24	Sat	資料整理					
19	25	Sun	資料整理					
20	26	Mon	現地踏査 (Jurumleri)					
21	27	Tue	財務省協議			現地踏査 (Ilinden)	揚水試験準備	
22	28	Wed	現地踏査 (Ilinden)					揚水試験
23	29	Thu	現地踏査 (Gazi Baba)					
24	30	Fri	現地踏査 (Petrovec)					土質調査打合
25	31	Sat	資料整理		現地踏査 (Cvetovo)		資料整理	
26	June 1	Sun	資料整理					資料整理
27	2	Mon	MTC 協議			現地踏査 (Petrovec)		採水
28	3	Tue	現地踏査 (Radisani)					スロベニア (OS5782) ウイーン (OS051)
29	4	Wed	農林省			現地踏査 (Radisani)		成田(08:30)
30	5	Thu	MTC 協議			現地踏査 (Petrovec)		
31	6	Fri	スロベニア市水道 PE 協議			現地踏査 (Radisani)		
32	7	Sat	資料整理					
33	8	Sun	資料整理					
34	9	Mon	MTC 協議					
35	10	Tue	合同会議 調査結果発表 (要請内容の確認)					
36	11	Wed	MTC 協議					
37	12	Thu	MTC 協議, スロベニア(16:55)→ウイーン(18:40)OS780					
38	13	Fri	JICA オーストリア事務所報告、日本国大使館報告					
39	14	Sat	ウイーン (14:35) OS051					
40	15	Sun	Narita (08:55)					

基本設計概要説明 調査日程

No.	Date	Day	村岡	宇野	岡賀	任田	中武
1	July 27	Sun		成田→ウイーン		成田→ウイーン ウイーン→スロベニア	
2	28	Mon		JICA 打合せ 日本国大使館打合せ ウイーン→スロベニア		MTC 報告書説明	
3	29	Tue	ウイーン→スロベニア		外務省表敬 MTC 表敬、報告書概要説明・協議 在スロベニア 日本国大使館 連絡事務所 表敬、スケジュール説明		
4	30	Wed			MTC ミツ案協議 合同会議 Ilinden サイト視察	MTC 協議	
5	31	Thu			MTC ミツ案協議 ミツ署名 Cucer Sandevo サイト視察 スロベニア→ウイーン	MTC 協議 積算条件補足調査	Cucer Sandevo サイト視察
6	Aug 1	Fri		日本国大使館報告		MTC 協議 Civil Engineering Institute	
7	2	Sat				団内打合せ 積算条件補足調査	
8	3	Sun				資料整理	
9	4	Mon				Studenicani 郡協議 Dolno Kolicani 補足調査	
10	5	Tue				Zelenikovo 郡協議 スロベニア市水道 PE 在スロベニア 日本国大使館 連絡事務所 調査結果報告	
11	6	Wed				スロベニア市水源視察	
12	7	Thu				スロベニア→ウイーン、ウイーン→	
13	8	Fri				成田	

添付資料 3 関係者リスト

マケドニア国側 関係者リスト

Ministry of Transport and Communication (運輸通信省)

Mr. Milaim Ajdini	Minister
Mr. Dejan Kosutic	Deputy Minister
Mr. Goce Stankoski	Head of Department
Mr. Bozidar Stojcev	Senior Adviser
Mr. Kosta Pantev	
Mr. Marin Delivanov	Road Infrastructure Adviser – Senior Expert

Ministry of Foreign Affairs (外務省)

Ms. Vera Modanu	State Counselor
Ms. Lidija Ristovska	Head of Unit

General Secretariat (首相府)

Mr. Igor Markovski	Assistant Director, Sector for European Integration
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Ministry of Environment and Physical Planning (環境省)

Mr. Ljubomir Janev	Minister
Mr. Kiril Nasteski	State Secretary
Mr. Metodja Dimovski	Head of Department (European Integration)
Mr. Sokol Klincharov	Head of EIA

Ministry of Agriculture, Forestry and Water Economy (農業・森林・水経済省)

Mr. Kenan Selmani	Director of Administration for water economy
Mr. Goce Lazarevski	Head of Sector for improvement of water regime
Mr. Cele Ristevski	Director of project for South Vardan

Ministry of Finance (財務省)

Ms. Svetlana Janevska	State Advisor
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Republic Institute for Health Protection (保健局)

Dr. Blagoja Aleksoski	Director
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PWME Water Management of Macedonia (水管理委員会)

Dr. Stanislava Dodeva	Manager, Development, Design and Investments Department
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Republic Institute for Statistical Office (統計局)

Mr. Doucho Gerasimovski	Director
Ms. Miza Todozova	Sector for Public Information

State Authority for Geodetic Works (測地局)

Ms. Bisera Jakimovska	Director
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Cucer Sandevo Municipality

Mr. Voislav Kirandjic	Mayor
Mr. Mirko Zdravkovic	Advisor to the Mayor regarding communal issues
Mr. Vladimir Preshevski	General Manager of Public Enterprise

Cair Municipality

Mr. Ace Milenkovski	Mayor
Ms. Kara Jovkovska	Director of Urban Planning
Mr. Zdravko Zdravkovski	Communal Inspector

Aracinovo Municipality

Mr. Resat Ferati	Mayor
Mr. Kjani Aliti	Advisor of Municipal Council
Mr. Eljmaz Iseni	Secretary of Municipal Council

Ilinden Municipality

Mr. Ristovski Cedomir	Mayor
Mr. Zika Stojanovski	General Manager of Public Enterprise Ilinden

Gazi Baba Municipality

Mr. Borche Stefanovski	Mayor
Mr. Blagoj Kchev	Head of Communal Infrastructure
Mr. Laste Stajanovski	Secretary of Local Community of Jurumleri
Mr. Lazo Kanzorov	President of Local Community of Goce Delcev
Mr. Stzasho Stojchevski	Staff of Municipality for Local Community Idorizovo and Kolonie Idorizovo

Petrovec Municipality

Mr. Arsovski Blaze	Mayor
Mr. Orce Bozinovski	Mayor
Mr. Bliaze Arsovski	Manager
Mr. Azizovich Tbaz	President of Local Community of Kjojia
Mr. Ramadunovski Shevshet	President of Local Community of Ognjanci

Studenicani Municipality

Mr. Azem Sadiki	Mayor
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Zelenikovo Municipality

Mr. Ljupcho Kuzmanovski	Mayor
Mr. Valdo Georgievski	Head of Sector for Communal Affairs
Mr. Ladamir Georgievski	Urban Planning and Communal Affairs
Mr. Tomche Nikolovski	General Manager of Public Enterprise Zelenikovo

Skopje City Water Supply and Sewerage PE (スコピエ市上下水道公社)

Mr. Jane Cenev	Director General
Mr. Giorgi Todorovski	Head of Design Office
Mr. Gligor Petrovski	Head of Technical Section
Mr. Zoran Bozinovski	Head of Laboratory
Ms. Angelina Skalova	Director of Center for Sanitation Inspection
Mr. Ratomir Kovachev	Director of Sector for Exploitation and Maintenance of Facilities

KfW Office Skopje (ドイツ復興金融公庫)

Mr. Pater Gjorgjiev	Project Coordinator
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GTZ GmbH (ドイツ技術協力公社)

Ms. Marina Naumovska-Milevska	Project Coordinator for Commercialization of Municipal Public Enterprises
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The World Bank Office in Skopje (世界銀行スコピエ事務所)

Mr. Zarko Bogoev Operation Officer

International Management Group (IMG)

Mr. Jorgen Emile Engel Resident Representative

Mr. Pier Paolo Leoni Program Manager

Mr. Mehmed Kopicic Senior Consultant

UN Mine Action Office

Mr. Sandy Powell Project Manager

日本国側 関係者リスト

在オーストリア日本国大使館

中津川一等書記官

在スコピエ日本国大使館連絡事務所

Dr. Kosta Balabanov 名誉総領事

Ms. Kazu Lesmikovska 所員

JICA オーストリア事務所

村岡 敬一 所長

鈴木 昭彦 所員

相原 泰章 企画調査員

本多 裕美子 企画調査員

Ladislav Lesmikovski 技術調整員、スコピエ事務所

添付資料 4 当該国の社会経済状況

マケドニア旧ユーゴスラビア共和国
Former Yugoslav Republic of Macedonia

一般指標					
政体	共和制	* 1	首都	スコピエ (Skopje)	* 2
元首	大統領/ボリス・トライコフスキ (Boris TRAJKOVSKI)	* 1,3	主要都市	ヒトラ、ベレス	* 3
独立年月日	1991年11月20日	* 3,4	労働力統計	951千人 (2000年)	* 6
主要民族/部族名	マケドニア人(南スラブ系67%)、アルバニア系23%	* 1,3	義務教育年数	8年間 (年)	* 13
主要言語	マケドニア語、アルバニア語	* 1,3	初等教育就学率	102.9% (1998年)	* 6
宗教	マケドニア正教70%、イスラム教30%	* 1,3	中等教育就学率	82.5% (1998年)	* 6
国連加盟年	1993年4月8日	* 12	成人非識字率	% (2000年)	* 6
世銀加盟年	1993年2月25日	* 7	人口密度	79.67人/Km2 (2000年)	* 6
IMF加盟年	1992年12月14日	* 7	人口増加率	0.4% (1980~2000年)	* 6
国土面積	25.70千Km2	* 1,6	平均寿命	平均 73.10 男 71.00 女 75.30	* 10
総人口	2,031千人 (2000年)	* 6	5歳児未満死亡率	17/1000 (2000年)	* 6
			カロリー供給量	3,006.6cal/日/人 (2000年)	* 17

経済指標					
通貨単位	マケドニア・デナール (Denar)	* 3	貿易量	(2000年)	
為替レート	1 US\$ = 59.23 (2002年12月)	* 8	商品輸出	1,317.1百万ドル	* 15
会計年度	Dec. 31	* 6	商品輸入	-1,875.2百万ドル	* 15
国家予算			輸入カバー率	2.4 (月) (2000年)	* 14
歳入総額		* 9	主要輸出品目	農産物、金属、衣料品	* 1
歳出総額		* 9	主要輸入品目	石油、化学製品、機械	* 1
総合収支	232.3百万ドル (2000年)	* 15	日本への輸出	5.9百万ドル (2000年)	* 16
ODA受領額	251.9百万ドル (2000年)	* 19	日本からの輸入	4.9百万ドル (2000年)	* 16
国内総生産 (GDP)	3,573.08百万ドル (2000年)	* 6			
一人当たりのGNI	1,620.0ドル (2000年)	* 6	総国産準備	1,362.7百万ドル (2000年)	* 6
分野別GDP	農業 11.8% (2000年)	* 6	対外債務残高	1,464.7百万ドル (2000年)	* 6
	鉱工業 33.1% (2000年)	* 6	対外債務返済率(DSR)	9.3% (2000年)	* 6
	サービス業 55.1% (2000年)	* 6	インフレ率	13.0%	* 6
産業別雇用	農業 男 % 女 % (1998~2000年)	* 6	(消費者価格物価上昇率)	(1990~2000年)	
	鉱工業 % 女 % (1998~2000年)	* 6			
	サービス業 % % (1998~2000年)	* 6	国家開発計画		* 11
実質のGDP成長率	-0.8% (1990~2000年)	* 6			

気象	(年~ 年平均)		観測地:スコピエ (北緯42度00分、西経21度28分)											
月	1	2	3	4	5	6	7	8	9	10	11	12	平均/計	
降水量	3.0	6.0	21.0	49.0	178.0	81.0	77.0	40.0	16.0	42.0	32.0	39.0	584.0mm	* 4,5
平均気温	-0.2	4.3	10.7	15.0	15.8	18.5	22.3	22.4	18.6	12.0	5.7	-0.9	13.6°C	

- *1 各国概況(外務省)
- *2 世界の国々一覧表(外務省)
- *3 世界年鑑2002(共同通信社)
- *4 最新世界各国要覧10訂版(東京書籍)
- *5 理科年表2000(国立天文台編)
- *6 World Development Indicators2002(WB)
- *7 BRD Membership List(WD)
- IMF Members' Financial Data by Country(IMF)
- *8 Universal Currency Converter
- *9 Government Finance Statistics Yearbook 2001(IMF)

- *10 Human Development Report 2002(UNDP)
 - *11 Country Profile(EIU)外務省資料等
 - *12 United Nations Member States
 - *13 Statistical Yearbook 1999(UNESCO)
 - *14 Global Development Finance 2002(WB)
 - *15 International Financial Statistics Yearbook 2002(IMF)
 - *16 世界各国経済情報ファイル 2002(世界経済情報サービス)
 - *17 FAO Food Balance Sheet 2002年6月 FAO Homepage
- 注: 商品輸入については複式簿記の計算法上方式を採用しているため
支払い額はマイナス表記になる。

添付資料 4

マケドニア旧ユーゴスラビア共和国
Former Yugoslav Republic of Macedonia

項目	1996	1997	1998	1999	2000
技術協力	1.19	4.46	4.52	1.31	1.52
無償資金協力	11.23	16.49	10.59	13.06	23.67
有償資金協力		5.35			
総額	12.42	26.30	15.11	14.37	25.19

項目	1996	1997	1998	1999	2000
技術協力	1.05	1.79	4.12	3.67	1.49
無償資金協力	5.05	8.21	6.52	22.23	6.43
有償資金協力					
総額	6.10	10.00	10.64	25.90	7.92

	贈与 (1) (無償資金協力・ 技術協力)	有償資金協力 (2)	政府開発援助 (ODA) (1) + (2) = (3)	その他政府資金及び 民間資金 (4)	経済協力総額 (3) + (4)
二国間援助 (主要共与国)	112.2	-1.3	110.9	-7.6	103.3
1. United States	37.6	-0.3	37.3	0.0	37.3
2. Netherland	20.9	0.0	20.9	0.1	21.0
3. Switzerland	9.2	0.0	9.2	0.0	9.2
4. Japan	7.9	0.0	7.9	0.0	7.9
多国間援助 (主要援助機関)	90.9	48.6	139.5	25.2	164.7
1. EC			86.4	-2.6	83.8
2. IDB			38.4	0.0	38.4
その他	1.5	0.0	1.5	0.0	1.5
合計	204.6	47.3	251.9	17.6	269.5

技術協力: 科学省国際技術協力部
無償: 外務省
協力隊:

*18 政府開発援助 (ODA) 国別データブック 2001 (国際協力推進協会)

*19 International Development Statistics(CD-ROM) 2002 OECD

*20 JICA 資料

**添付資料 5.1 Minutes of Discussions
(March 27, 2003)**



REPUBLIC OF MACEDONIA
MINISTRY OF TRANSPORT AND COMMUNICATIONS
-Department for Housing - Communal Works and Infrastructure-

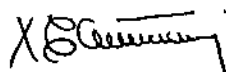
Our number: 18-
Date: 27.03.2003

To Mr. Yoshio FUKUDA
Leader
Basic Design Study Team
JICA

Dear Mr. Fukuda,

I have herein acknowledged your letter dated March 27, 2003 and have confirmed the contents of the attachment of the letter.

Yours Sincerely,


Ministry of transport and communications
HEAD OF DEPARTMENT
Goce Stankoski

March 27, 2003

Mr. Goce Stankoski
Head of Department for Housing Communal Works and Infrastructure
Ministry of Transport and Communications

Dear Mr. Stankoski,

I have the honor to refer to our recent discussions regarding the Project for Improvement of Water Supply in Inhabited Places in Skopje Outskirts (hereinafter referred to as "the Project").

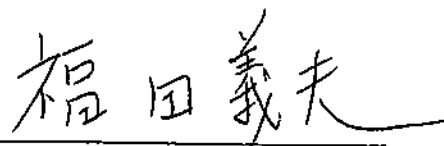
In response to the request of the Government of the Former Yugoslav Republic of Macedonia (hereinafter referred to as "Macedonia"), the Government of Japan decided to conduct a Basic Design Study on the Project and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA"). JICA sent to Macedonia a study team headed by myself for examining the viability of the Project from March 20 to April 3, 2003.

The team held intensive discussions with the officials concerned and also conducted field surveys at the study area with the helpful assistance of the Ministry of Transport and Communications.

In the course of discussions and field surveys, I believe that the main items described on the attached sheets have been confirmed. The team will proceed to further works and prepare the Basic Design Study Report.

On behalf of all the members of the Team, I wish to express my sincere appreciation to the officials concerned of your government for their kind assistance and close cooperation extended to the Team. I hope that the Project will contribute to the enhancement of friendly relations between our two countries.

Yours Sincerely,



Yoshio FUKUDA
Leader
Basic Design Study Team
JICA

ATTACHMENT

1. Objective

The objective of the Project is to improve the water supply services in Skopje Outskirts in order to make safe and stable water supply for the residents.

2. Project Sites

The Project sites requested by the Macedonian side is located in eight municipalities of Aracinovo, Cair, Cucer Sandevo, Gazi Baba, Ilinden, Petrovec, Studenicani, Zelenikovo as shown in ANNEX-1.

3. Responsible and Implementing Organization

The responsible and implementing organization of the Project is the Ministry of Transport and Communications (MTC).

The organization chart is shown in ANNEX-2.

4. Japan's Grant Aid System

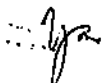
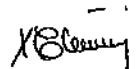
- (1) The Macedonian side has understood Japan's Grant Aid system explained by the Team as described in ANNEX-3.
- (2) The Macedonian side will take necessary measures, as described in ANNEX-3, for smooth implementation of the Project, on condition that the Grant Aid Assistance by the Government of Japan is extended to the Project.

5. Schedule of the Study

- (1) The consultants of the Team will proceed to conduct further studies in Macedonia until April 3, 2003.
- (2) After analyzing the result of the study, JICA will dispatch the Basic Design Study Team (2nd Field Survey Team) to Macedonia in May 2003, to conduct further investigation.
- (3) Based on the Minutes of Discussions and technical examination of the study results, JICA will prepare a draft report in English and dispatch a mission to Macedonia in order to explain its contents around July 2003.
- (4) If the contents of the draft report are accepted in principle by the Macedonian side, JICA will complete the final report and send it to the Macedonian side around September 2003.

6. Other Relevant Issues

The following issues were discussed and confirmed by both sides.

(1) Items requested by the Government of Macedonia

After discussions with the concerned municipalities respectively, the Team and the Macedonian side confirmed the items described in ANNEX-4 as component of request by the Government of Macedonia at this moment in time.

The Team proceeds with further study in 1st and 2nd field surveys based on this mutual understanding as ANNEX-4, and final components of the request from the Government of Macedonia will be confirmed during 2nd field survey scheduled in May 2003.

Both sides fully understood that the appropriateness of the request shall be assessed according to the further studies and analysis in Japan and the final components of the Project shall be decided after the assessment.

(2) Criteria for screening the target settlements for the investigation in the Basic Design Study (2nd Field Survey)

The Macedonian side and the Japanese side agreed that the target settlements for investigation in the Basic Design Study (2nd Field Survey) (hereinafter referred to as "2nd Survey") would be selected based on the criteria shown in ANNEX-5. The result of screening will be confirmed between the Macedonian side and the Team as Technical Notes until the end of the study.

However, actual target settlements for investigation in 2nd Survey are finally decided by the Government of Japan, adding consideration from the view points of the priority between settlements set by each municipalities, budget limitation of grant, study period and so on. The target settlements for investigation in 2nd Survey will be informed to MTC after the decision has made, and MTC will inform to municipalities respectively.

(3) Necessary measures for construction of water supply system

In Macedonia, it is necessary for municipalities to prepare technical documents for water supply system to get construction permission from the MTC. Preparation procedure for technical documents includes items bellow;

(a) To get approval of using new water resources for each system (water rights) from the Ministry of Agriculture, Forestry and Water Economy

(b) To complete necessary procedure for Environmental Impact Assessment if occasion demands

The MTC promised to promote each municipality to take necessary action for the items. Both sides agreed to confirm the proceedings of the items in the 2nd Survey scheduled in May 2003.

(4) Safety and security

The Macedonian side would ensure that necessary measures are taken for the safety and security of the Japanese nationals involved in the Project.

As for mines, the Macedonian side is responsible for completion of removal of all mines in target area of the Project. Both sides agreed that the arrangement according to the issue of mine will be discussed between both sides and necessary action will be taken before the 2nd Survey scheduled in May 2003.

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(5) Provision of necessary data

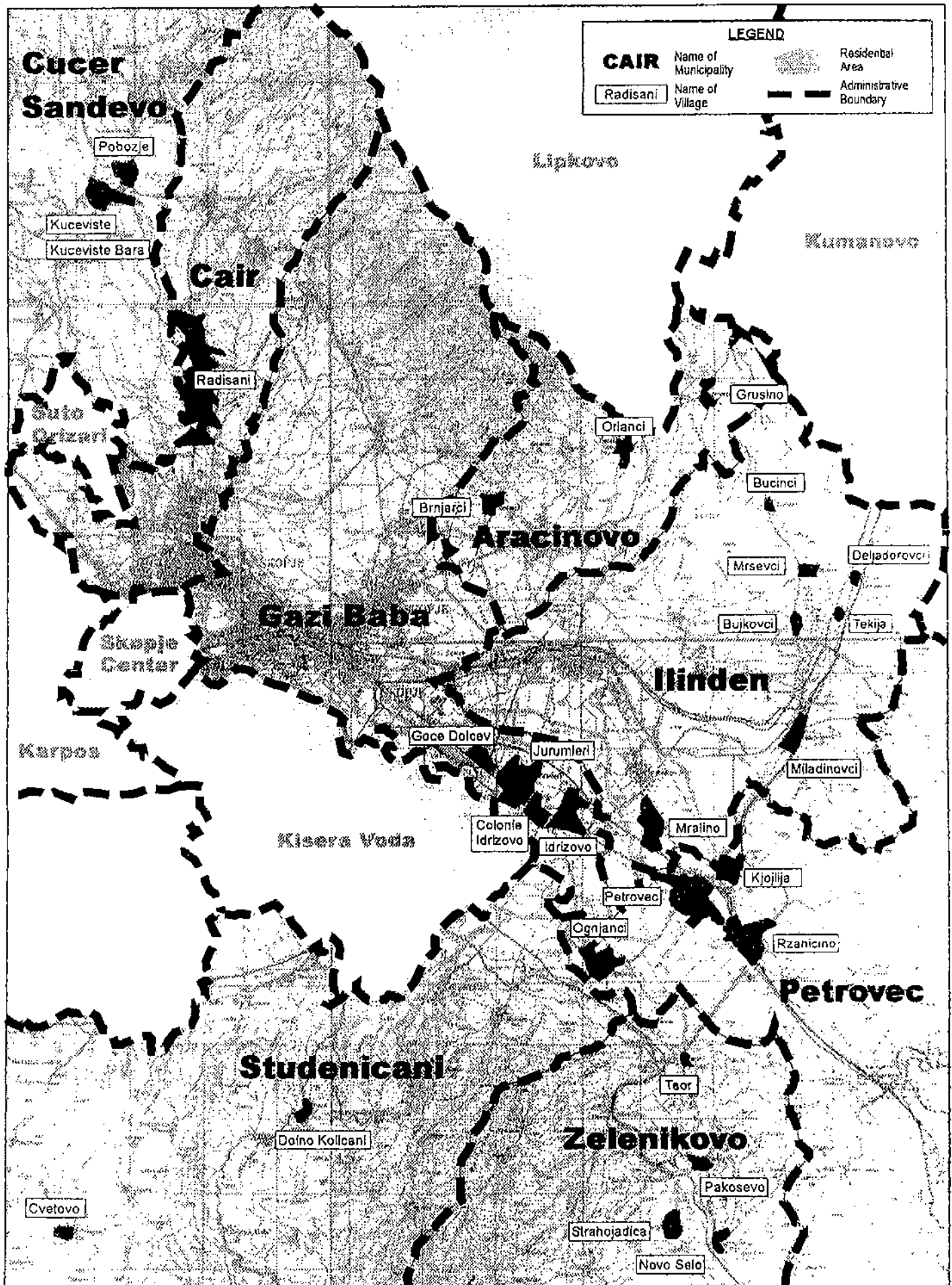
The Macedonian side promised to provide necessary data such as topography map (1/2500 or 1/5000) for the Team for smooth implementation of the Study.

The Macedonian side will prepare them before the 2nd Survey scheduled in May 2003.

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ANNEX-1

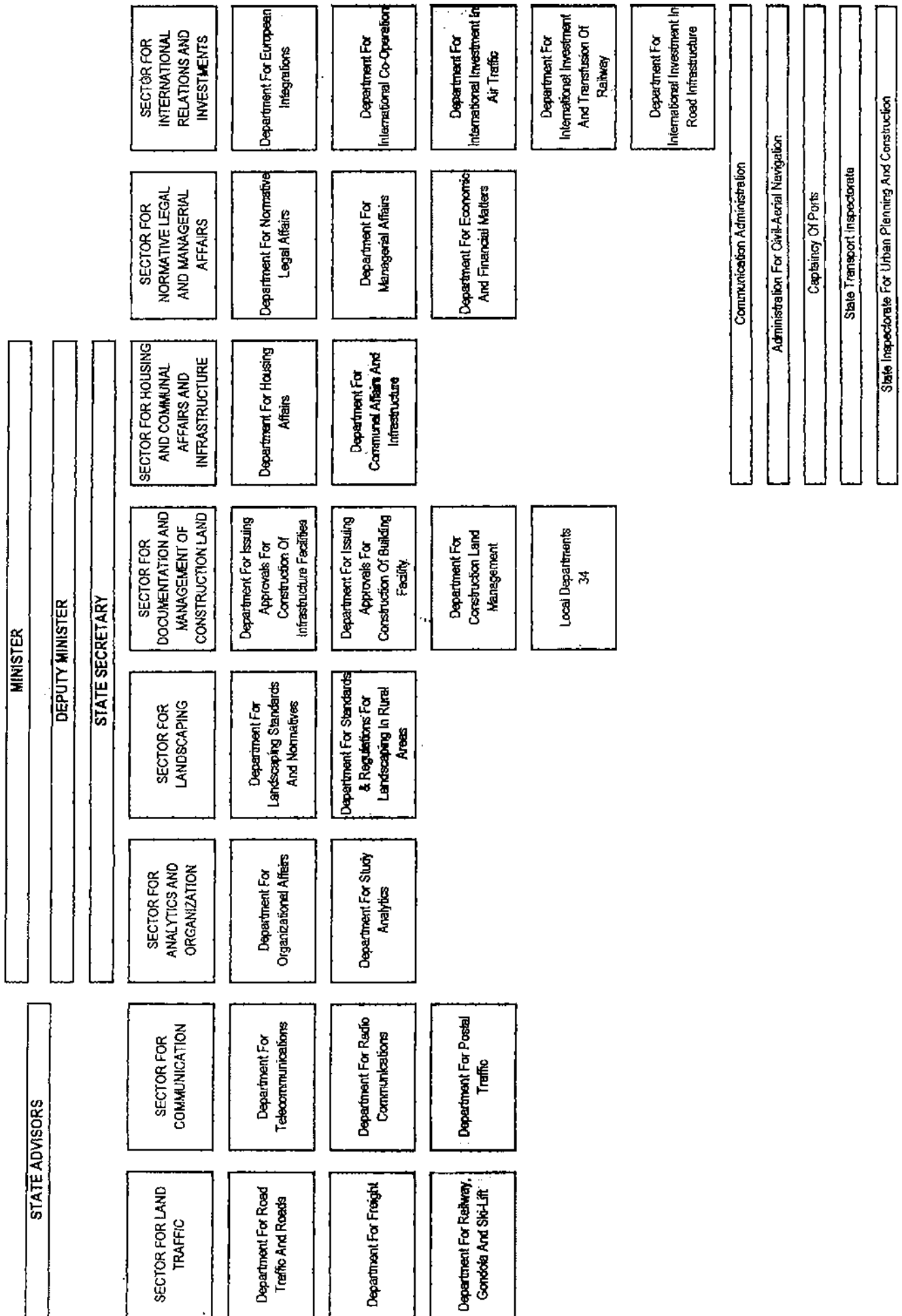


Project Sites Requested by the Government of Macedonia

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ORGANIZATION CHART OF THE MINISTRY OF TRANSPORT AND COMMUNICATIONS



ANNEX-2

72

JAPAN'S GRANT AID

1. Japan's Grant Aid System

(1) Grant Aid Procedures

- 1) Japan's Grant Aid Program is executed through the following procedures.
 - Application (Request made by a recipient country)
 - Study (Basic Design Study conducted by JICA)
 - Appraisal & Approval (Appraisal by the Government of Japan and Approval by the Cabinet)
 - Determination of the implementation
(The Notes exchanged between the Governments of Japan and the recipient country)
 - Implementation (Implementation of the Project)

- 2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study), using Japanese consulting firms.

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Programme, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

(2) Basic Design Study

1) Contents of the Study

The aim of the Basic Design Study (hereinafter referred to as "the Study"), conducted by JICA on a requested project (hereinafter referred to as "the Project"), is to provide a basic document necessary for the appraisal of the Project by the Government of Japan. The contents of the Study are as follows:

- i) Confirmation of the background, objectives and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation;
- ii) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic points of view;
- iii) Confirmation of items agreed on by both parties concerning the basic concept of the Project;
- iv) Preparation of a basic design of the Project; and
- v) Estimation of costs of the Project.

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of Japan's Grant Aid Scheme.

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even through they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

2) Selection of Consultants

For the smooth implementation of the Study, JICA uses a registered consulting firm. JICA selects a firm based on proposals submitted by interested firms. The firm selected carries out a Basic Design Study and writes a report, based upon terms of reference set by JICA.

The consultant firm used for the Study is recommended by JICA to the recipient country to also work in the Project's implementation after the Exchange of Notes, in order to maintain technical consistency and also to avoid any undue delay in implementation should the selection process be prepared.

(3) Japan's Grant Aid Scheme

1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of materials as such.

2) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

3) "The period of the Grant" means the one fiscal year which the Cabinet approves the project for. Within the fiscal year, all procedure such as exchanging of the Notes, concluding contracts with consulting firms and contractors and final payment to them must be completed.

However, in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

4) Under the Grant, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

However, the prime contractors, namely consulting, contracting and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

5) Necessity of "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability of Japanese taxpayers.

6) Undertakings required to the Government of the recipient country

In the implementation of the Grant Aid project, the recipient country is required to undertake such necessary measures as the followings:

i) To secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to commencement of the construction;

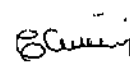
ii) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the site;

iii) To secure buildings prior to the procurement in case the installation of the equipment;

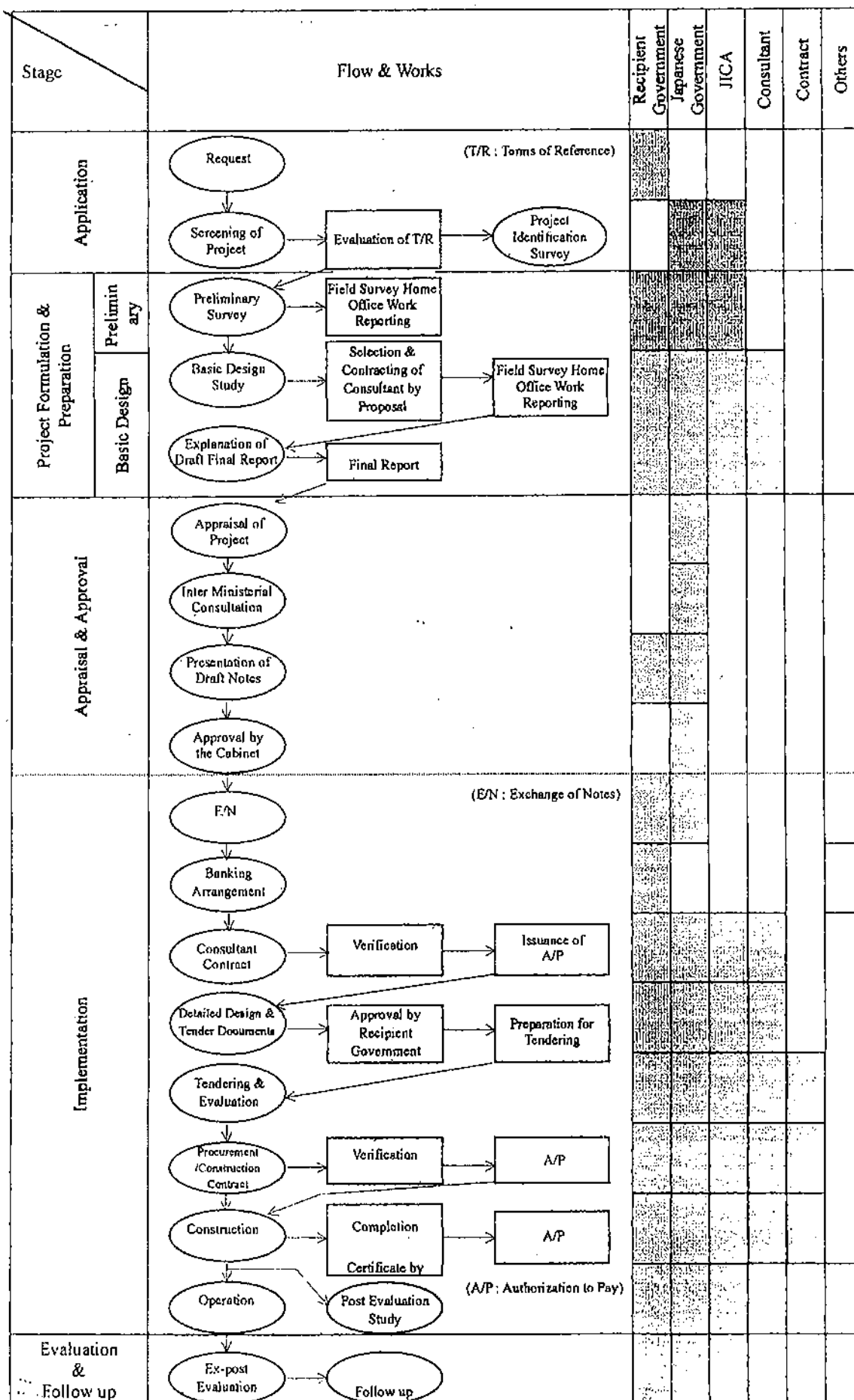
- iv) To ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid;
 - v) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts;
 - vi) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the verified contracts such as facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work;
- 7) Proper Use
The recipient country is required to maintain and use the facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign the necessary staff for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.
- 8) Re-export
The products purchased under the Grant Aid shall not be re-exported from the recipient country.
- 9) Banking Arrangement (B/A)
- a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the verified contracts.
 - b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to Pay (A/P) issued by the Government of recipient country or its designated authority.
- 10) Authorization to Pay (A/P)
The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions to the Bank.

2. Grant Aid Procedure

- (1) Flowchart of Japan's Grant Aid Procedures
Refer to Attachment 1.
- (2) Major Undertaking to be taken by Each Government
Refer to Attachment 2.

FLOW CHART OF JAPAN'S GRANT AID PROCEDURES



Attachment-2

Major Undertakings to be taken by Each Government

No	Items	To be covered by	
		Grant Aid	Recipient side
1	To secure land		●
2	To clear, level and reclaim the site when needed		●
3	To construct gates and fences in and around the site		●
4	To construct the parking lot	●	
5	To construct roads		
	1) Within the site	●	
	2) Outside the site		●
6	To construct the building	●	
7	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1)Electricity		
	a. The distributing line to the site		●
	b. The drop wiring and internal wiring within the site	●	
	c. The main circuit breaker and transformer	●	
	2)Water Supply		
	a. The city water distribution main to the site		●
	b. The supply system within the site (receiving and/or elevated tanks)	●	
	3)Drainage		
	a. The city drainage main (for storm, sewer and others) to the site		●
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the sit	●	
	4)Gas Supply		
	a. The city gas main to the site		●
	b. The gas supply system within the site	●	
	5)Telephone System		
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		●
	b. The MDF and the extension after the frame/panel	●	
	6)Furniture and Equipment		
	a. General furniture		●
	b. Project equipment	●	
8	To bear the following commissions to a bank of Japan for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
9	To ensure prompt unloading and customs clearance at port of disembarkation in recipient country		
	1) Marine(Air) transportation of the products from Japan to the recipient country	●	
	2) Tax exemption and customs clearance of the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site	(●)	(●)

10	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		●
11	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts		●
12	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		●
13	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities as well as for the transportation and installation of the equipment		●

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ANNEX-4

Component of Request by the Government of Macédonia

(1) Cucer Sandevo Municipality

Target Village: **Pobozje**

Transmission Pipe	From pump station to the reservoir
Distribution Reservoir	200 m ³ (1 no.)
Primary Pipe	Reservoir to Pobozje Village
Secondary Network	In Pobozje Village

Target Village: **Kuceviste and Kuceviste Bara**

Intake Facility	
Transmission Facility	From the intake facility to the reservoir
Distribution Reservoir	
Primary Pipe	From Reservoir to Kuceviste Village From Kuceviste to Kuceviste Bara Village
Secondary Network	In Kuceviste and Kuceviste Bara

(2) Cair Municipality

Target Village: **Radisani**

Transmission Pump Station	Including Pump House Structure, Pump Sets (4 sets), Electric Device
Transmission Pipe	From P/S to Higher Reservoir From P/S to Lower Reservoir
Primary Pipe	From higher reservoir to its secondary network From lower reservoir to its secondary network
Secondary Network	In higher and lower zones

(3) Aracinovo Municipality

Target Village: **Grusino, Brnjarci and Orlanci**

Intake Well	Including deep well, submersible pump set, pump house, electric device, connection pipe to transmission pipe (2 wells)
Transmission Pump Facility	Dry chamber for transmission pump (for 3 villages)
Transmission Pipe	From reservoir to Grusino, Brnjarci and Orlanci
Secondary Network	In Grusino, Brnjarci and Orlanci

ANNEX-4

(4) Gazi Baba, Ilinden and Petrovec Municipalities

Target Village (Gazi Baba): **Goce Dolcev, Jurumleri, Colonie Idrizovo and Idrizovo**

Target Village (Ilinden): **Mralino, Bucinci, Mrsevci, Deljadrovci, Tekija, Bujkovci and Miladinovci**

Target Village (Petrovec): **Petrovec, Kjojlja, Rzanicino and Ognjanci**

Intake Well	Two wells in Jurumleri Wellfield (including deep well, submersible pump set, pump house, electric device, connection pipe to disinfection facility) Replacement of one submersible pump in the existing well Installation of new pump set to the existing well in Petrovec (including pump house, electric device, connection pipe to the primary pipe)
Disinfection Facility	Renovation of the existing disinfection facility of Jurumleri Wellfield New construction of one disinfection facility in Petrovec well site
Transmission Pipe	From the existing Bunardzik Reservoir to Mrsevci
Primary Pipe	From Bunardzik to Kadino village From Idrizovo to Petrovec From Petrovec to Kjojlja
Secondary Network	Goce Dolcev, Jurumleri, Colonie Idrizovo and Idrizovo (Gazi Baba) Mralino, Deljadrovci and Tekija (Ilinden) Petrovec, Kjojlja, Rzanicino and Ognjanci (Petrovec)

(5) Zelenikovo Municipality

Target Village: **Taor**

Transmission Pipe	From the existing pipe to Pump Station From Pump Station to Reservoir
Pump Station	Including Pump House Structure, Pump Set, Electric Device
Distribution Reservoir	1 no.
Primary Pipe	From Distribution Reservoir to Taor village From Distribution Reservoir to the archeological site
Secondary Network	In Taor and Archeological Site

ANNEX-4

Target Village: **Pakosevo and Novo Selo**

Primary Pipe	From the existing main pipe to Novo Selo through Pakosevo
Secondary Network	In Pakosevo and Novo Selo

Target Village: **Strahojadica**

Transmission Pipe	From the existing pipe to Pump Station (approx. 100m) From Pump Station to Reservoir
Pump Station	Including Pump House Structure, Pump Set, Electric Device
Distribution Reservoir	1 no.
Primary Pipe	From Distribution Reservoir to Strahojadica village
Secondary Network	In Strahojadica village

(6) Studenicani Municipality

Target Village: **Cvetovo**

Intake Facility	Spring catchment system (4 nos.)
Transmission Pipe	From Intake to Reservoir
Distribution Reservoir	1 no.
Primary Pipe	From reservoir to Cvetovo Village
Secondary Network	In Cvetovo Village

Target Village: **Dono Kolicani**

Intake Facility	Lump Sum
Transmission Pipe	From Intake to Reservoir
Distribution Reservoir	1 no.
Primary Pipe	From reservoir to Dono Kolicani Village
Secondary Network	In Dono Kolicani Village

ANNEX-5

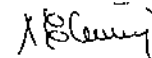
Evaluation Criteria of Target Villages

Primary Evaluation Criteria

Evaluation Item	Criterion	Checkpoint
Prerequisite condition	Security in construction	<ul style="list-style-type: none"> - Past conflict incidents - Current situation - Future prospect
	Existence of water source	<ul style="list-style-type: none"> - Existence of water source and/or water source plan - Field reconnaissance of proposed water source

Secondary Evaluation Criteria

Evaluation Item	Criterion	Checkpoint
Component of request	Purpose of water supply (BHN: Basic Human Needs)	<ul style="list-style-type: none"> - Rate of domestic water supply (Mainly; 70% or more)
	Urgency and Necessity	<ul style="list-style-type: none"> - Rate of population served - Situation of water borne disease
	Project Benefit	<ul style="list-style-type: none"> - Total population of the project site - Project population served
Certainty of the plan	Readiness of Technical Documents (T/D)	<ul style="list-style-type: none"> - Availability of T/D - Technical appropriateness of T/D - Approval by the Macedonian Authorities
Sustainability of waterworks	Management capability of Public Enterprise	<ul style="list-style-type: none"> - Existence of organization - Prospect to organize an enterprise
	Affordability and Willingness of Customers	<ul style="list-style-type: none"> - Average household income by village - Existing water charge (amount, tariff, rate of collection, etc.) - Existence and/or possibility of regulation by municipality level (suspension of water, subsidy to low income, etc.)

**添付資料 5.2 Technical Notes
(April 3, 2003)**

**TECHNICAL NOTES
ON
THE BASIC DESIGN STUDY ON THE PROJECT
FOR
IMPROVEMENT OF WATER SUPPLY IN INHABITED PLACES
IN
SKOPJE OUTSKIRTS**

Based on the Minutes of Discussions signed on March 27, 2003, the consultant members of the Basic Design Study Team (hereinafter referred to as "the Consultant") carried out technical study of the project for improvement of water supply inhabited place in Skopje outskirts (hereinafter referred to as the "Project") until April 3, 2003.

The Consultant held discussion with the officials concerned of Ministry of Transport and Communications and conducted field surveys at the study areas in cooperation with Municipalities concerned.

In the course of study, both parties confirmed the main technical items described in ATTACHMENT.

Skopje, April 3, 2003

岡 坂 敏 文

Okaga Toshifumi
Chief Consultant,
Basic Design Study Team
for the Project for Improvement of
Water Supply in Inhabited Place
in Skopje Outskirts

Goce Stankovski

Goce Stankovski
Head of Department,
Department for Housing - Communal
Works and Infrastructure,
Ministry of Transport and
Communications

ATTACHMENT

1. Target Year

The target year of the Project is to be the year 2005. In facility planning, however, the most economical project life cycle cost (LCC) should be taken into account so that the long life facilities such as intake structure, distribution reservoir, pipelines, etc. would be designed based on water demand for further period.

2. Evaluation of Project Site and Its Criteria

I. Primary Evaluation

(1) Evaluation Condition

	Criteria	Checkpoint	Evaluation (Score)		
			Good (3 pts)	Conditional (1 pts)	Dangerous (0 pts)
A	Security condition	- Past conflict incidents - Current situation - Future prospect	Good (3 pts)	Conditional (1 pts)	Dangerous (0 pts)
B	Existence of water source	- Water source plan - Field reconnaissance	Good (3 pts)	Conditional (1 pts)	Poor (0 pts)

(2) Result of the Primary Evaluation

All the requested sites are evaluated based upon the above conditions. As a result, the following was identified. The evaluation result was tabulated below.

- Securities of the requested sites are confirmed as safe except Aracinovo sites where mine clearance shall be considered before implementation of the project.
- Water sources of the requested sites are assumed to be appropriate except Dolno Kolicani village where risk of water shortage in the proposed source was found.

Municipality	Inhabited Place	Score (points)		
		A Security	B Water Source	Total
Cucer Sandevo	Pobozie	3	3	6
	Kuceviste	3	3	6
	Kucevacka Bara	3	3	6
Cafr	Radisani	3	3	6
Aracinovo	Grusino	1	3	4
	Orlanci	1	3	4
	Bmjanci	1	3	4
Gazi Baba	Goce Delcev	3	3	6
	Jurumleri	3	3	6
	Colonia Idrizovo	3	3	6
	Idrizovo	3	3	6

ATTACHMENT

Municipality	Inhabited Place	Score (points)		
		A Security	B Water Source	Total
Ilinden	Mralino	3	3	6
	Mrsevci	3	3	6
	Bujkovci	3	3	6
	Miladinovci	3	3	6
	Tekija	3	3	6
	Deljadrovci	3	3	6
	Bucinci	3	3	6
Petrovec	Petrovec	3	3	6
	Kjojlija	3	3	6
	Rzanicino	3	3	6
	Ognjanci	3	3	6
Studenicani	Cvetovo	3	3	6
	Dolno Kolicani	3	1	4
Zelenikovo	Taor	3	3	6
	Pakosevo	3	3	6
	Novo Selo	3	3	6
	Strahojadica	3	3	6

II. Secondary Evaluation

(1) Evaluation Conditions

	Criteria	Checkpoint	Evaluation (Score)		
C	Purpose of domestic	C1: Rate of domestic water	Major (3 pts)	Less (1 pt)	Minor (0 pts)
	Urgency and necessity	C2: Rate of population served of Municipality	Less 70% (3 pts)	70 - 90% (1 pt)	90 - 100% (0 pts)
		C3: Situation of water born disease (Water quality)	Significant (3 pts)	Not much (1 pt)	Seldom (0 pts)
	Requested site	C4: Consistency with the original requested site	No change (1 pt)	-	Changed (0 pts)
		C5: Possibility to connected to the original system	Possible (1 pt)	-	No (0 pts)
		C6: Overlapping of request with other donor	No (3 pts)	-	Yes (0 pts)
D	Readiness of Technical documents (T/D)	D1: Availability of T/D	Ready (3 pts)	Underway (1 pt)	No (0 pts)
		D2: Technical appropriateness	Appropriate (1 pt)	-	Uncertain (0 pts)
		D3: Approval by Municipality	Approved (3 pts)	-	Not Yet (0 pts)
E	Management capability of Public Enterprise	E1: Existence of Public Enterprise	Exist (3 pts)	Underway (1 pt)	No (0 pts)
		E2: Willingness and Affordability to Pay	Good (3 pts)	Conditional (1 pt)	No (0 pts)
F	Environment	F1: Sewerage system	Existing (3 pts)	Planned (1 pt)	No Plan (0 pts)

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ATTACHMENT

(2) Result of the Secondary Evaluation

Requested Site	Population	Priority	Evaluation item													
			C1	C2	C3	C4	C5	C6	D1	D2	D3	E1	E2	F	Total	
Cucer Sandevo	13 inhabited places	8,693 people	2002 census (7493) plus Kcevaka Bara (1200)													
	Population served	4,243 48.8%	Data based on 1994 census population													
	Pobožje	960 11.0%	3rd	3	3	1	1	1	3	3	1	3	3	3	1	26
	Kceviste	3,500 40.3%	1st	3	3	1	0	0	3	3	1	3	3	3	1	24
	Kcevacka Bara	1,200 13.8%	2nd	3	3	1	0	0	3	1	0	3	3	3	1	21
Gair	5 inhabited places	70,441 people	2002 census, One urban and four villages													
	Population served	42,265 60.0%	Rate of population served estimated													
	Radisani	6,500 37.5%	1st	3	3	3	1	1	3	3	1	3	3	3	1	28
Aračinovo	6 inhabited places	11,315 people	2002 census													
	Population served	8,000 70.7%	including on-going project													
	Gruslno	1,500 13.3%	1st	3	1	1	1	1	3	3	1	3	1	3	1	22
	Orlanč	900 8.0%	2nd	3	1	1	1	1	3	3	1	3	1	3	1	22
	Ermarč	418 3.7%	3rd	3	1	1	1	1	3	1	1	3	1	3	1	20
Gazi Baba	23 inhabited places	72,780 people	2002 census													
	Population served	45,124 62.0%	Rate of population served assumed from the urban population													
	Goca Delcav	1,280 1.8%	2nd	3	3	3	0	1	3	3	1	3	3	3	1	27
	Jurumleri	3,326 4.6%	1st	3	3	3	1	1	3	3	1	3	3	3	1	26
	Colonje Idrizovo	850 1.2%	4th	3	3	3	0	1	3	1	1	3	3	3	1	25
	Idrizovo	1,500 2.1%	3rd	3	3	3	1	1	3	1	1	3	3	3	1	26
Ilinden	12 inhabited places	16,180 people	Data from PE Ilinden													
	Population served	14,360 88.8%	Data including water supply system from Oil Refinery Factory													
	Mralino	830 5.1%	1st	3	1	3	1	1	3	3	1	3	3	3	1	26
	Mrasevci	700 4.3%	2nd	3	1	1	0	1	3	3	1	3	3	3	1	23
	Bujkovci	670 4.1%	2nd	3	1	1	0	1	3	3	1	3	3	3	1	23
	Miladinovci	1,500 9.3%	2nd	3	1	1	0	1	3	3	1	3	3	3	1	23
	Tekija	270 1.7%	6th	3	1	1	0	1	3	3	1	3	3	3	1	23
	Delladrovci	490 3.0%	5th	3	1	1	0	1	3	3	1	3	3	3	1	23
	Bucinci	230 1.4%	7th	3	1	1	0	1	3	3	1	3	3	3	1	23
Petrovec	17 inhabited places	8,205 people	2002 census													
	Population served	1,085 13.2%	including individual local water supply system													
	Petrovec	2,490 30.3%	1st	3	3	3	1	1	3	3	1	3	3	3	1	28
	Razanićino	903 11.0%	3rd	3	3	3	1	1	3	3	1	3	3	3	1	26
	Koštija	354 4.3%	4th	3	3	3	1	1	3	1	1	3	3	3	1	26
	Ognjanč	1,207 14.7%	2nd	3	3	3	1	1	3	1	1	3	3	3	1	26
Studenicani	18 inhabited places	17,314 people	2002 census													
	Population served	15,100 87.2%	including on-going project													
	Cvetovo	1,000 5.8%	1st	3	1	1	0	0	3	3	1	3	1	3	1	20
Dolno Kolicani	1,800 10.4%	2nd	3	1	1	0	0	3	3	0	3	1	3	1	19	
Zelenikovo	15 inhabited places	4,115 people	2002 census													
	Population served	2,500 80.8%	Without weekend house residents													
	Taor	158 3.8%	4th	3	3	3	0	1	3	3	1	3	3	3	1	27
	Pakosevo	222 5.4%	1st	3	3	3	1	1	3	3	1	3	3	3	1	28
	Novo Selo	168 4.1%	2nd	3	3	3	1	1	3	3	1	3	3	3	1	28
Straholadica	222 5.4%	3rd	3	3	1	1	1	3	3	1	3	3	3	1	26	

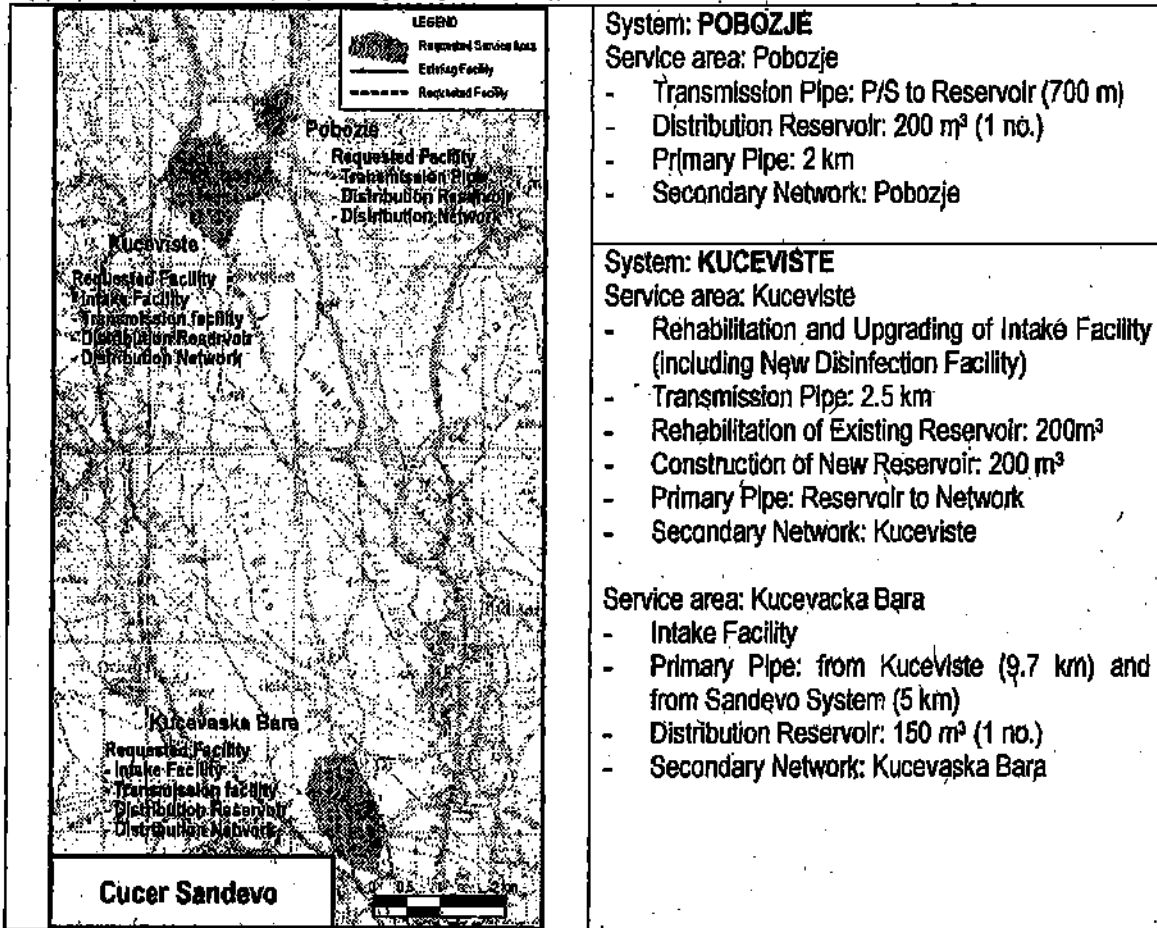
(Note)

- Population data sources are based on 2002 census, interview from municipality, figure in the technical document.
- Each requested village is prioritized among each municipality based on opinion of municipality as well as the consultant.
- Evaluation points are scored by the consultant based on field survey and discussion with MTC.

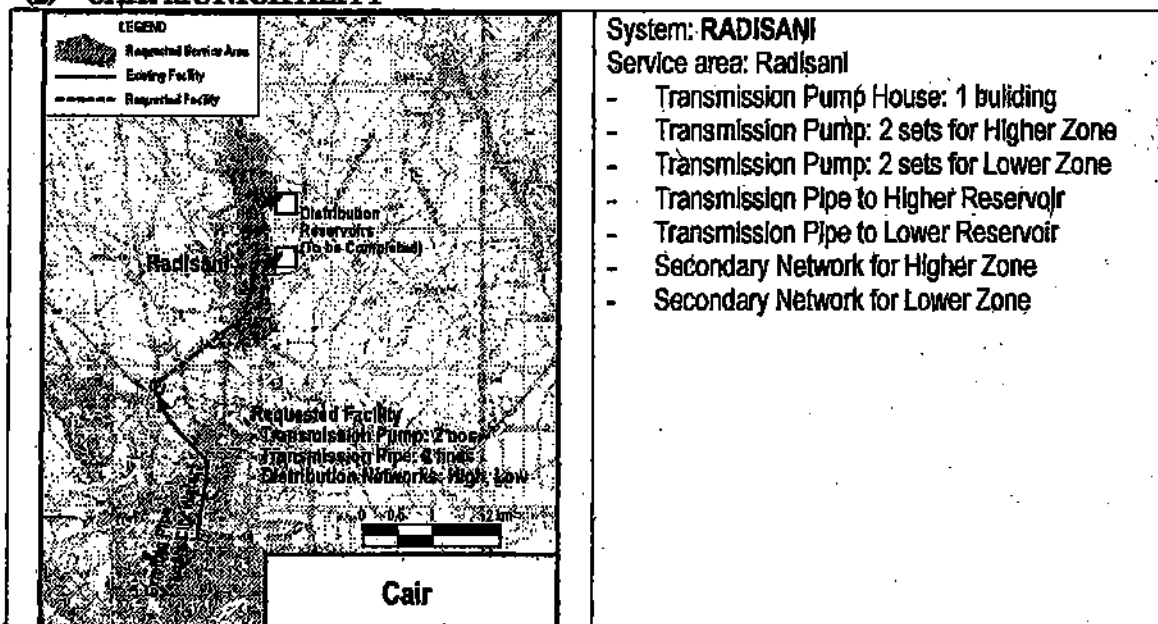
ATTACHMENT

3 Components of the Request by the Government of Macedonia

(1) CUCER SANDEVO MUNICIPALITY



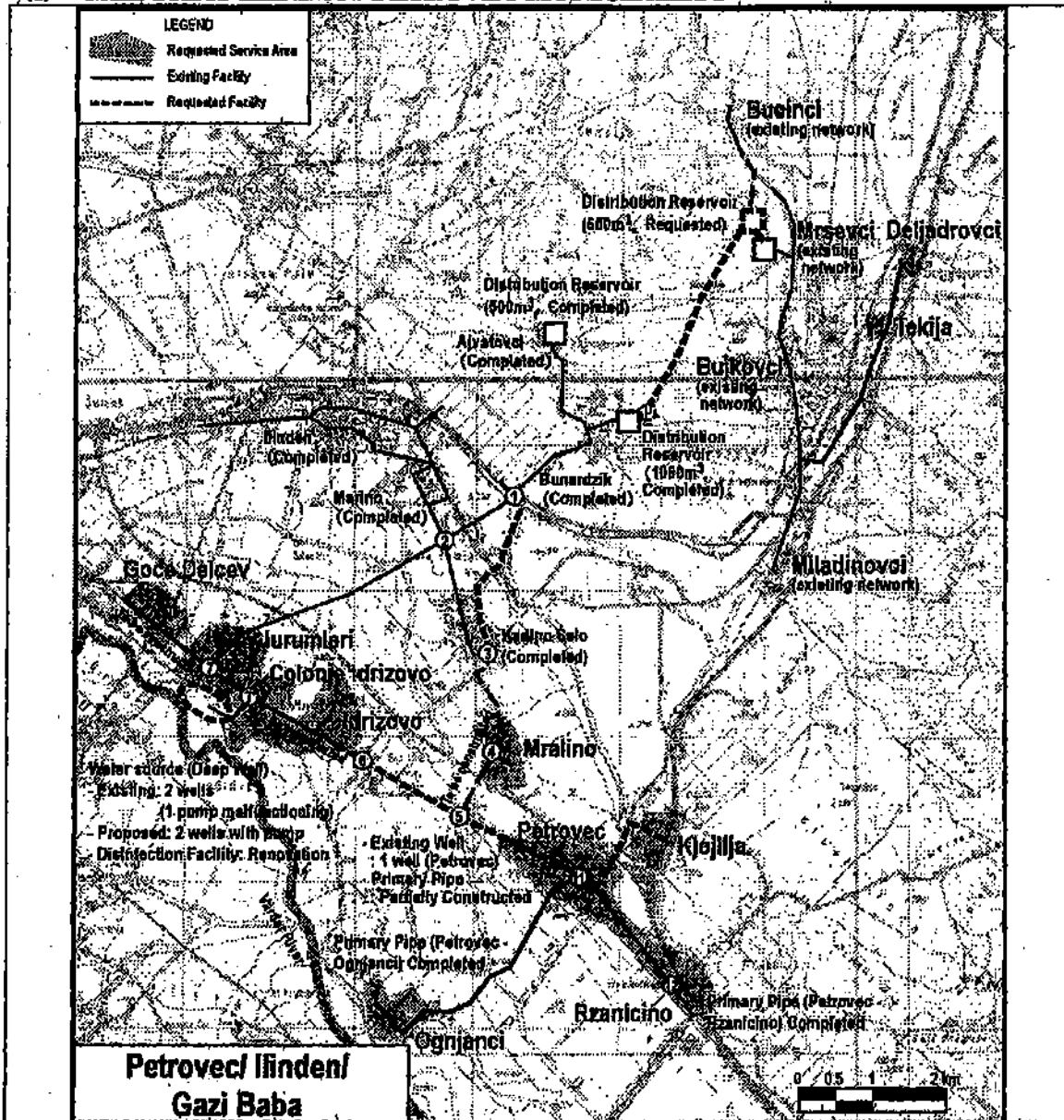
(2) CAIR MUNICIPALITY



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ATTACHMENT

(3) GAZI BABA/ ILINDEN/ PETROVEC MUNICIPALITY



System: GAZI BABA, ILINDEN and PETROVEC

Service area (Gazi Baba): Gocce Delcev, Jurumleri, Colonie Idrizovo, Idrizovo (4 villages)

Service area (Ilinden): Mralino (1 village)

Service area (Petrovec): Petrovec, Ognjanci, Rzanicino, Kjojlja (4 villages)

- Intake Well In Jurumleri: Two New Wells (Jurumleri, Gazi Baba)
- Intake Pump of Jurumleri: One Pump to be Replaced (Jurumleri, Gazi Baba)
- Disinfection Facility in Jurumleri: Renovation (Jurumleri, Gazi Baba)
- Intake Pump In Petrovec: Installation of Pump (Petrovec)
- Disinfection Facility for Petrovec Well (Petrovec)
- Intake Pipe: Petrovec Well to the Primary Pipe (Petrovec)
- Primary Pipe: 1 - 3 (2,015 m) (Ilinden)
- Primary Pipe: 5 - 6 (2,313 m) (Gazi Baba)
- Primary Pipe: 5 - 11 (1,720 m) (Petrovec)
- Primary Pipe: 11 - Kjojlja (1,300 m) (Petrovec)
- Secondary Network: Gocce Delcev, Jurumleri, Colonie Idrizovo, Idrizovo (Gazi Baba)

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ATTACHMENT

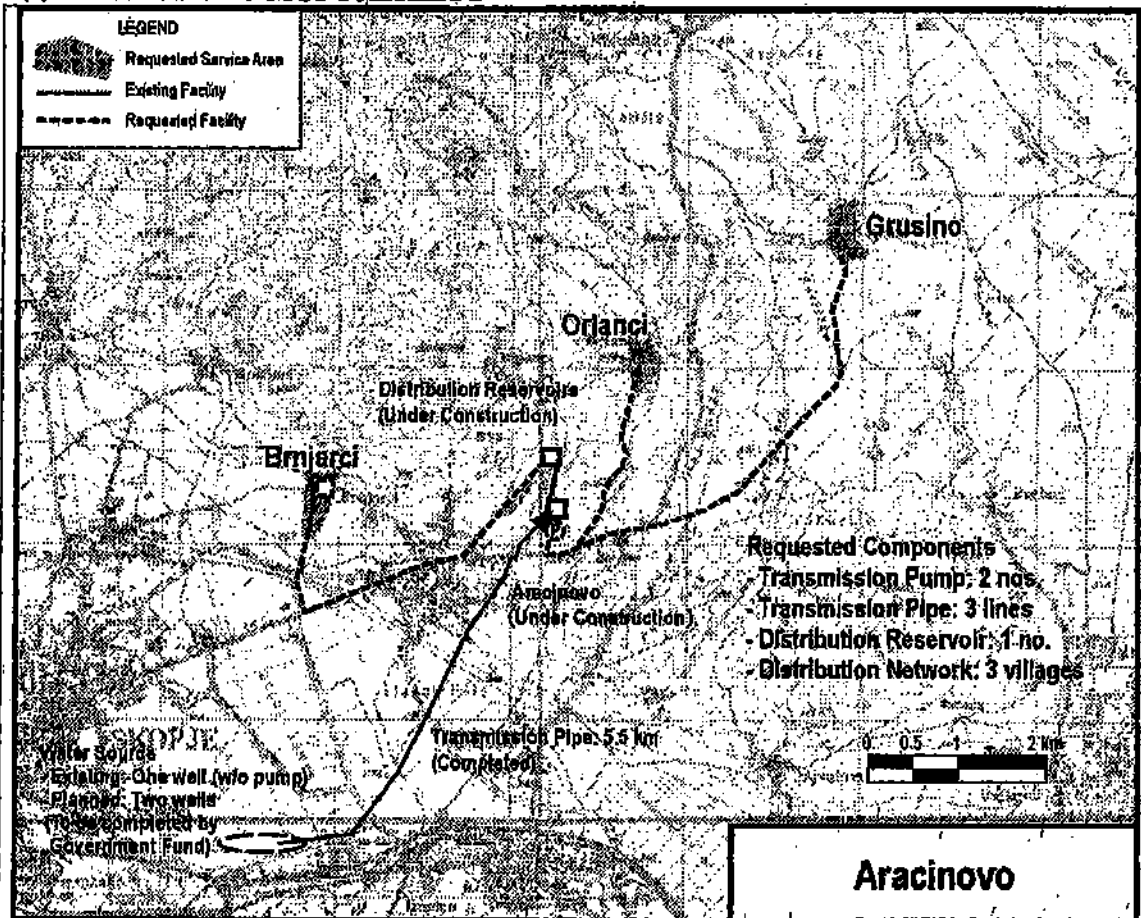
- Secondary Network: Mralino (Ilinden)
- Secondary Network: Petrovec, Ognjanci, Rzanicino, Kjojlja (Petrovec)

System: ILINDEN EAST

Service area (Ilinden): Mrsevci, Bujkovci, Miladinovci, Bucinci, Deljadrovci, Tekija (6 villages)

- Transmission Pump: Bunardzik (Ilinden)
- Transmission Pipe: Bunardzik – New Reservoir (Ilinden)
- Distribution Reservoir in Mrsevci: 500 m³ (Ilinden)
- Secondary Network: Deljadrovci, Tekija (Ilinden)

(4) ARACINOVO MUNICIPALITY



System: ARACINOVO

Service area: Grusino

- Dry Chamber and Transmission Pump for Grusino
- Transmission Pipe: Pump Station to Grusino
- Secondary Network

Service area: Brnjarci

- Transmission Pipe: High Reservoir to Brnjarci
- Distribution Reservoir in Brnjarci
- Secondary Network

Service area: Orjanci

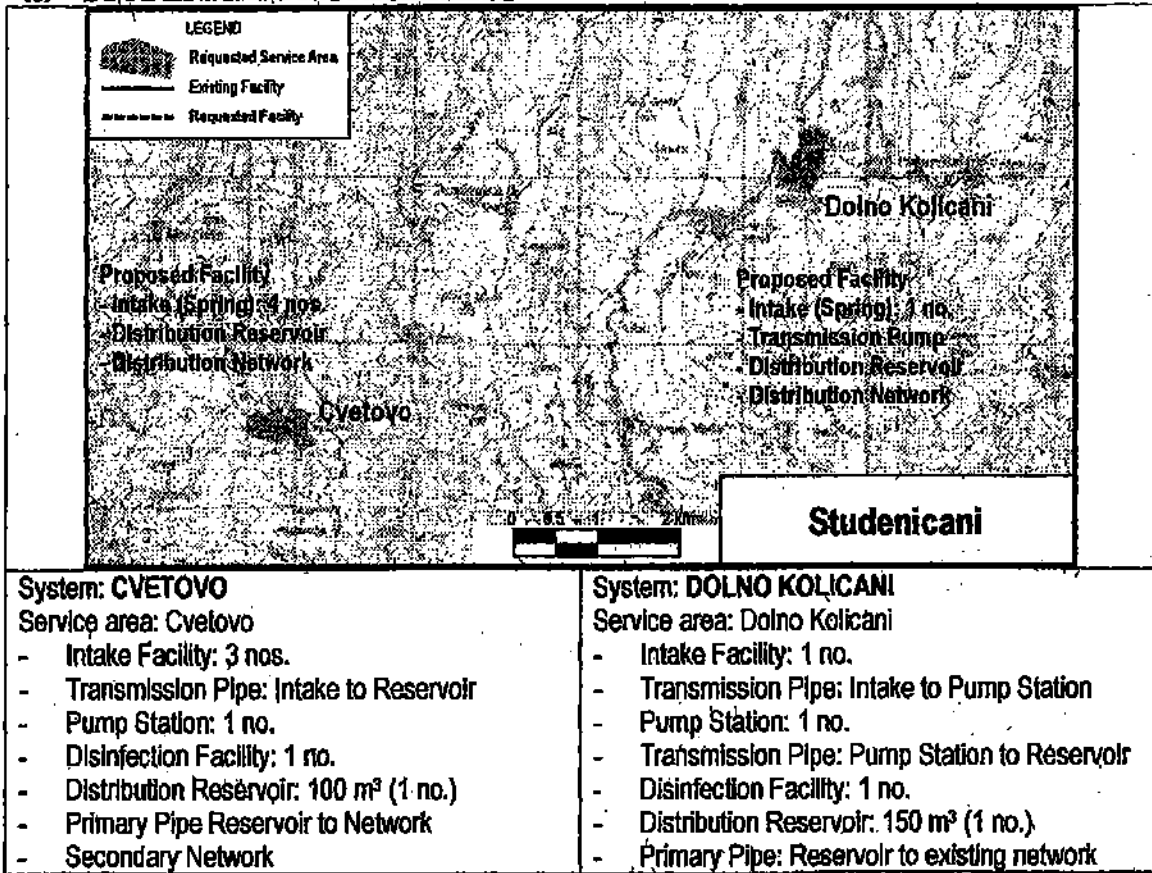
- Dry Chamber and Transmission Pump for Orjanci
- Transmission Pipe: Pump Station to Orjanci
- Secondary Network

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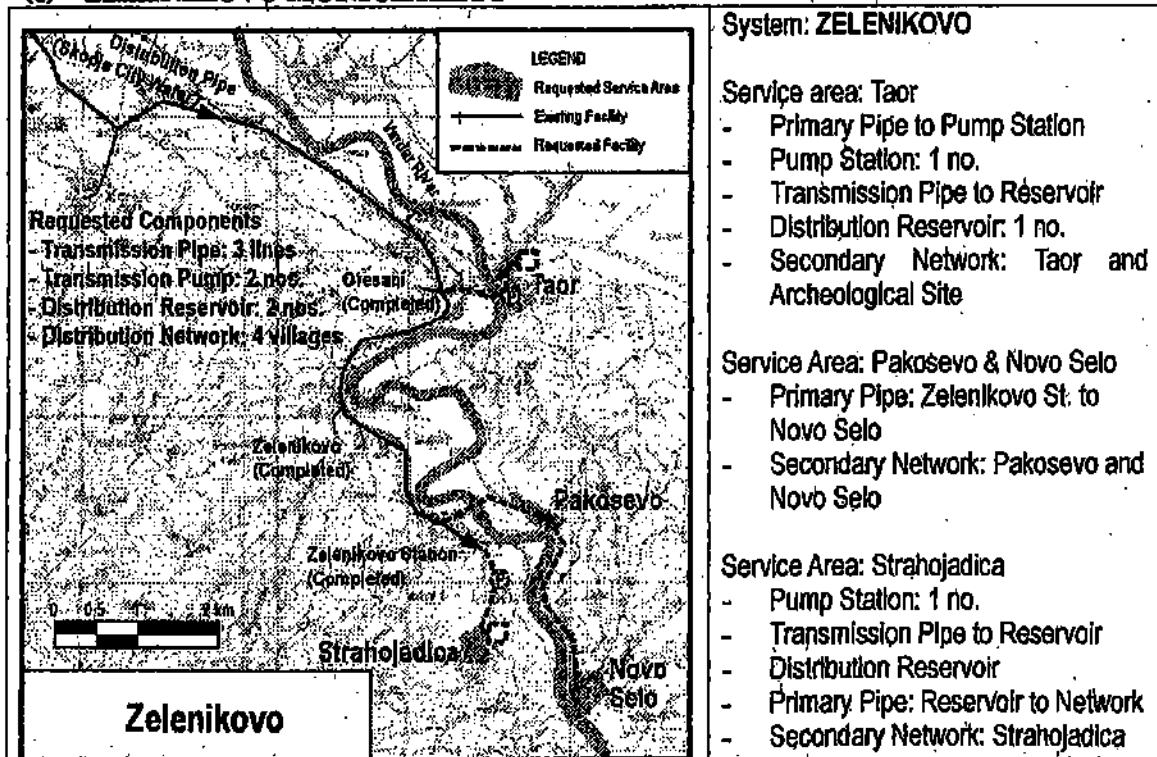
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ATTACHMENT

(5) STUDENICANI MUNICIPALITY



(6) ZELENIKOVO MUNICIPALITY



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**添付資料 5.3 Minutes of Discussions
(June 12, 2003)**



REPUBLIC OF MACEDONIA
MINISTRY OF TRANSPORT AND COMMUNICATIONS
-Department for Housing - Communal Works and Infrastructure-

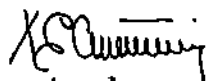
Our number: 18-
Date: 12.06.2003

To Mr. Toshifumi OKAGA
Chief of Consultant
Basic Design Study Team
JICA

Dear Sir,

I have herein acknowledged your letter dated June 12, 2003 and have confirmed the contents of the attachment of the letter.

Yours Faithfully,


Ministry of transport and communications
HEAD OF DEPARTMENT
Goce Stankoski

12 June, 2003

Mr. Goce Stankoski
Head of Department for Housing Communal Works and Infrastructure
Ministry of Transport and Communications

Dear Mr. Stankoski,

I have the honor to refer to our recent discussions regarding the Project for Improvement of Water Supply in Inhabited Places in Skopje Outskirts (hereinafter referred to as "the Project").

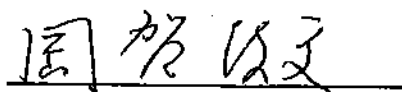
From March to April 2003, Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched Basic Design Study Team (1st Field Survey) on the Project to the Former Yugoslav Republic of Macedonia (hereinafter referred to as "Macedonia"). After discussions on the study result in Japan, JICA sent to Macedonia the Basic Design Study Team (2nd Field Survey) (hereinafter referred to as "the Team") headed by myself for conducting further studies and discussions from May 8 to June 12, 2003.

The team held intensive discussions with the officials concerned and also conducted field surveys at the study area with the helpful assistance of the Ministry of Transport and Communications.

In the course of discussions and field surveys, I believe that the main items described on the attached sheets have been confirmed. The team will proceed to further works and prepare the Basic Design Study Report.

On behalf of all the members of the Team, I wish to express my sincere appreciation to the officials concerned of your government for their kind assistance and close cooperation extended to the Team. I hope that the Project will contribute to the enhancement of friendly relations between our two countries.

Yours Sincerely,


Toshifumi OKAGA
Chief of Consultant
Basic Design Study Team
JICA

ATTACHMENT

1. Contents of the Minutes of Discussions signed on 27 March 2003

The Macedonian side and the Japanese side confirmed the contents of the Minutes of Discussions signed on 27 March 2003.

2. Project Sites

The Project sites finally requested by the Macedonian side are located in seven municipalities of Cucer Sandevo, Cair, Gazi Baba, Ilinden, Petrovec, Studenicani and Zelenikovo as shown in ANNEX-1.

3. Schedule of the Study

- (1) Based on the Minutes of Discussions and technical examination of the study results, JICA will prepare a draft report in English and dispatch a mission to Macedonia in order to explain its contents around July 2003.
- (2) If the contents of the draft report are accepted in principle by the Macedonian side, JICA will complete the final report and send it to the Macedonian side around September 2003.

4. Other Relevant Issues

The following issues were discussed and confirmed by both sides:

(1) Items requested by the Government of Macedonia

After discussions with the Team, the items described in ANNEX-2 were finally requested by the Government of Macedonia. JICA will assess the appropriateness of the request and will report the findings to the Government of Japan.

However, the final items to be included in the Project and their specifications, quantity, scale or volume will be determined after analysis in Japan.

Both sides have understood that such criteria as listed below would be applied for determination of the final components of the Project:

- Managerial, administrative and technical competence of the responsible and implementing organization
- Economic, social and environmental viability of the Project
- Policy and financial commitment of the Macedonian side

Budgetary allocation by the Japanese side for the Project

(2) Request components for Radisani inhabited place

Components for Radisani inhabited place are overlapping with the contract agreement between Cair Municipality and the local contractor which includes procurement of pump sets and construction of entire primary pipelines. Both sides agreed that MTC shall settle the overlapping, through coordination with Cair Municipality, the local contractor and Skopje City PE. The components settled by MTC should be discussed with Japanese side around July 2003, when the mission for explanation of the draft report comes..

(3) Necessary measures for construction of water supply system

MTC shall take all responsibilities to arrange any necessary provisions for construction permission. MTC promised to promote each municipality to take necessary action before the Project commencement. Both sides agreed to confirm a deadline for necessary measures around July 2003 when the mission for explanation of the draft report comes.

- Water Right:
To acquire valid water rights (Applicable project sites: Cvetovo and Dolno Kolicani)
- Agreement with Skopje City PE:
To acquire legal agreement to construct water supply facilities and to operate and maintain them under the management of Skopje City PE for the project site of Cair Municipality.
And to acquire legal agreement for construction of water supply facilities and for permanent water supply from the Skopje City PE for the project site of Zelenikovo Municipality.
- Environmental Impact Assessment (EIA):
To complete EIA for the project sites.
- Land Acquisition:
To acquire lands for all proposed construction sites. Although major sites for intake, pump station and reservoir sites have already been secured, land issues remain unsolved in some proposed pipeline routes.
- Other Approvals/ Permissions:
To arrange any other approvals and permission necessary for construction of the Project, such as road crossing, railway crossing, river crossing, use of existing bridge structures, etc.

(4) Construction schedule conducted by the Municipalities respectively

Both sides confirmed that the construction schedules conducted by the Municipalities are as follows. Each Municipality shall take responsibility for construction work, and MTC shall promote Municipalities in order to complete within the schedule.

- Distribution Reservoirs of Radisani:
To complete two reservoirs by August 2003.
To complete primary pipeline (approx. 600 m) by August 2003.
- Primary Pipelines of Gagi Baba/ Ilinden/ Petrovec:
To complete the scope of Macedonian side by December 2003.

(5) Individual house connection

Both sides agreed that procurement of water meters and pipes used for individual house connections as well as actual cost and work needed for the internal house connections will be borne by the Macedonian side including end users.

(6) Operation and maintenance

The water supply facilities to be constructed under the Project must be properly operated and maintained by the Macedonian side. The Macedonian side with its strong political and administrative commitment will prepare an adequate institutional setup including employment of new staff, budgetary allocation and necessary legislation.

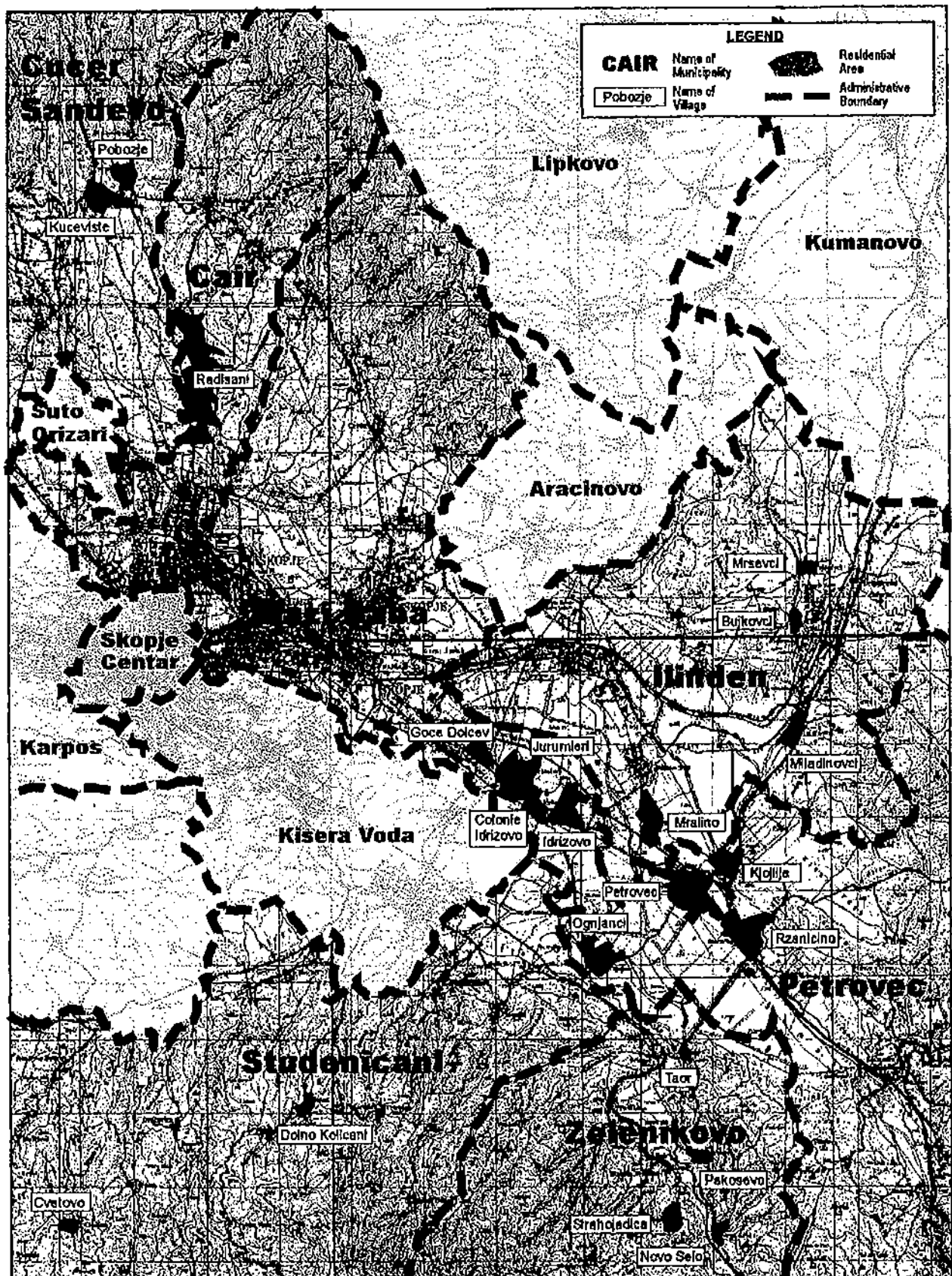
(7) Safety and security

The Macedonian side would ensure that necessary measures are taken for the safety and security of the Japanese nationals involved in the Project.

(8) Technical conditions for the design

Both sides agreed concerning technical conditions for the water supply design as shown in ANNEX-3. Japanese side will proceed basic design work based on ANNEX-3. However, final conditions will be determined after analysis in Japan.

ANNEX 1

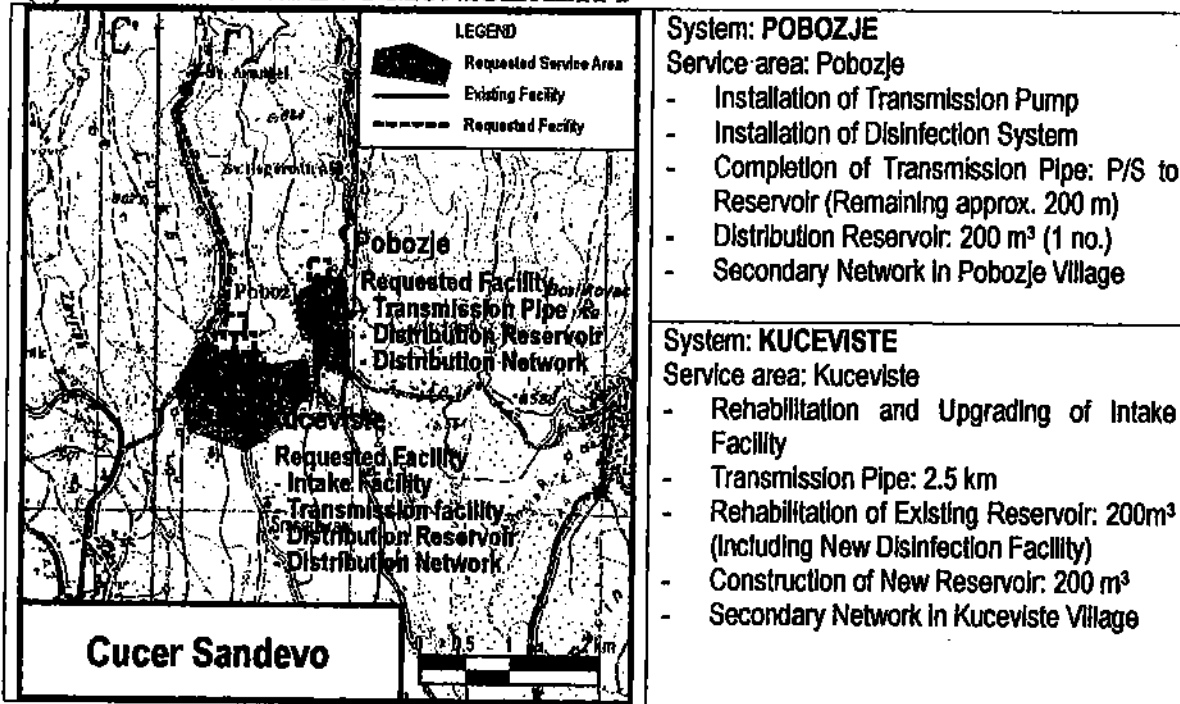


Locations of the Project Sites

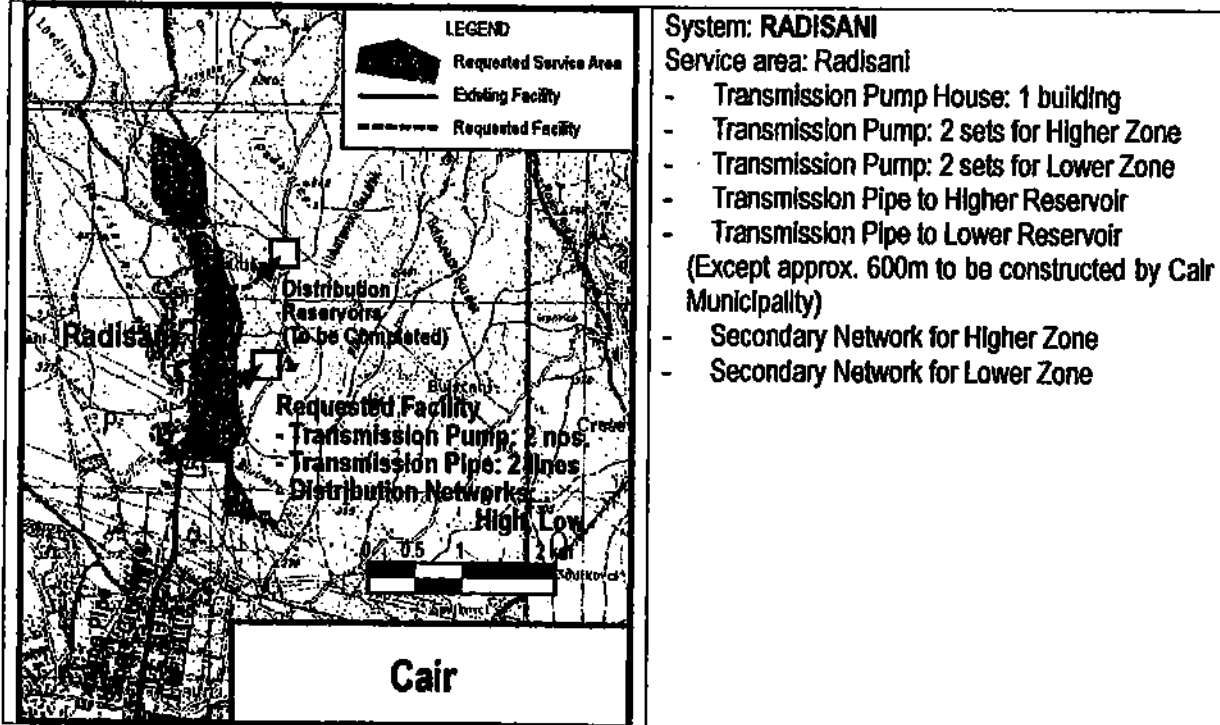
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Components of the Request

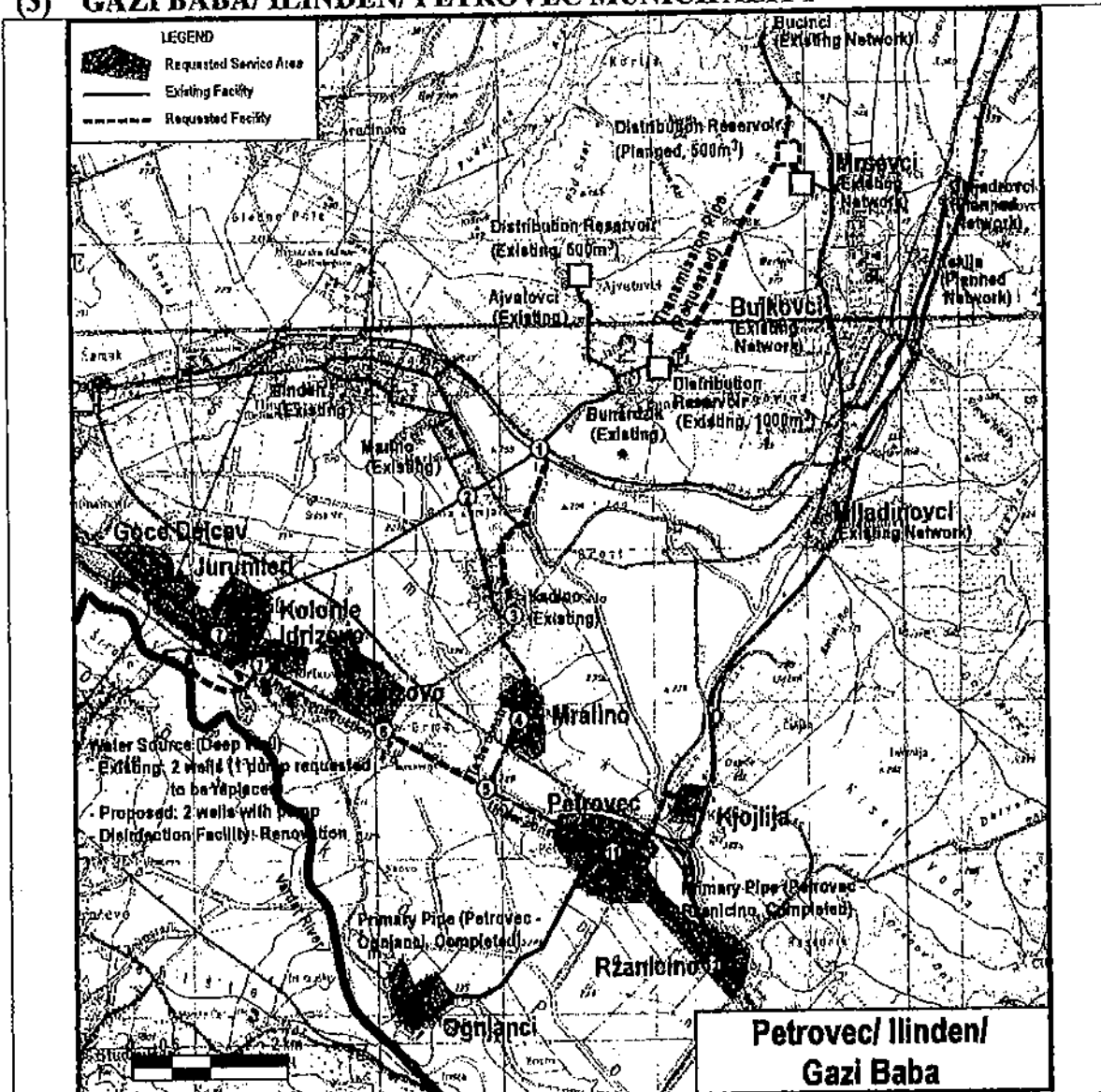
(1) CUCER SANDEVO MUNICIPALITY



(2) CAIR MUNICIPALITY



(3) GAZI BABA/ ILINDEN/ PETROVEC MUNICIPALITY



System: GAZI BABA, ILINDEN and PETROVEC

Service area (Gazi Baba): Gocce Delcev, Jurumleri, Kolonie Idrizovo, Idrizovo (4 villages)

Service area (Ilinden): Mralino (1 village)

Service area (Petrovec): Petrovec, Ognjanci, Rzanicino, Kjojlija (4 villages)

- Intake Well in Jurumleri: Two New Wells (Jurumleri, Gazi Baba)
- Intake Pump of Jurumleri: One Pump to be Replaced (Jurumleri, Gazi Baba)
- Disinfection Facility in Jurumleri: Renovation (Jurumleri, Gazi Baba)
- Primary Pipe: 1 - 3 (2,015 m, Ilinden), 5 - 6 (2,313 m, Ilinden), 11 - Kjojlija (1,300 m, Petrovec)
- Secondary Network: Gocce Delcev, Jurumleri, Kolonie Idrizovo, Idrizovo (Gazi Baba)
- Secondary Network: Mralino (Ilinden)
- Secondary Network: Petrovec, Ognjanci, Rzanicino, Kjojlija (Petrovec)

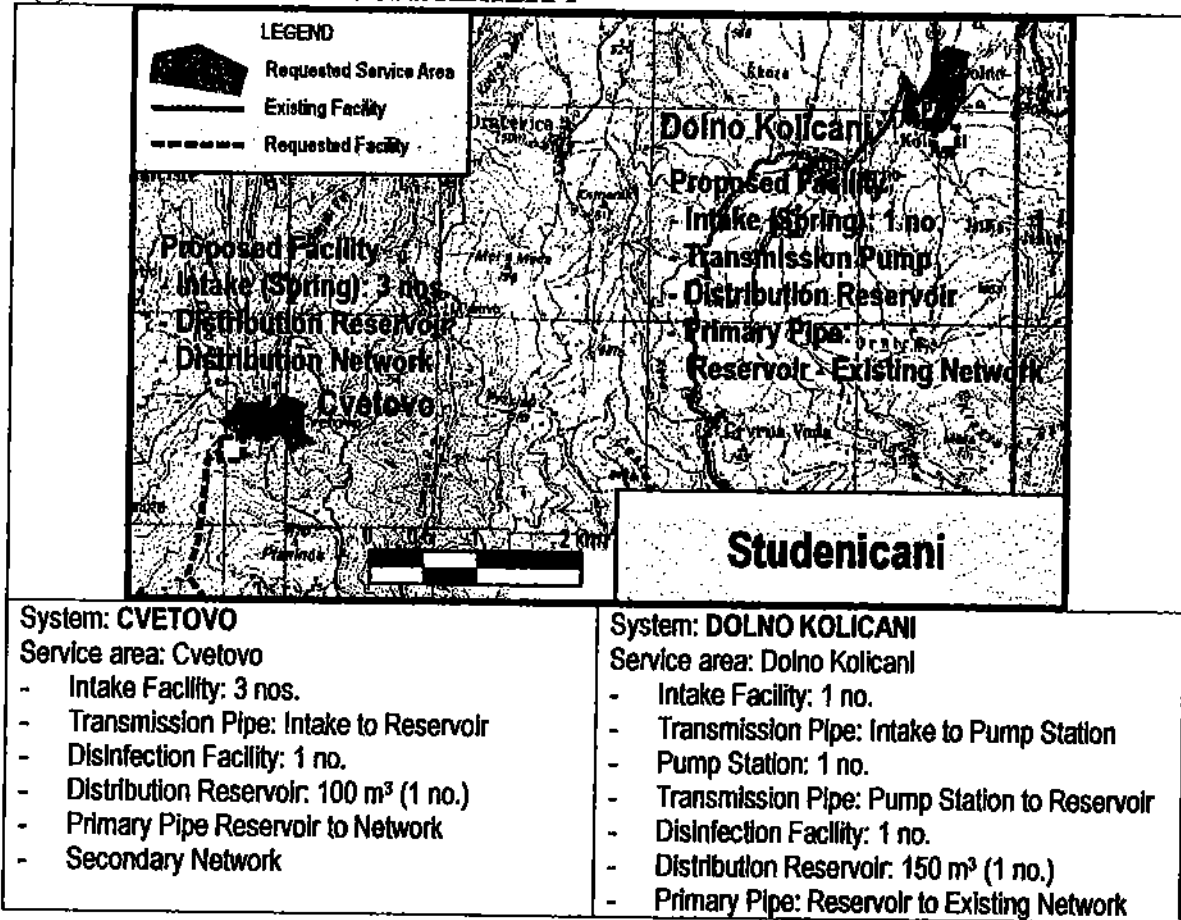
System: ILINDEN EAST

Service area (Ilinden): Mrsevci, Bujkovci, Mladinovci (3 villages)

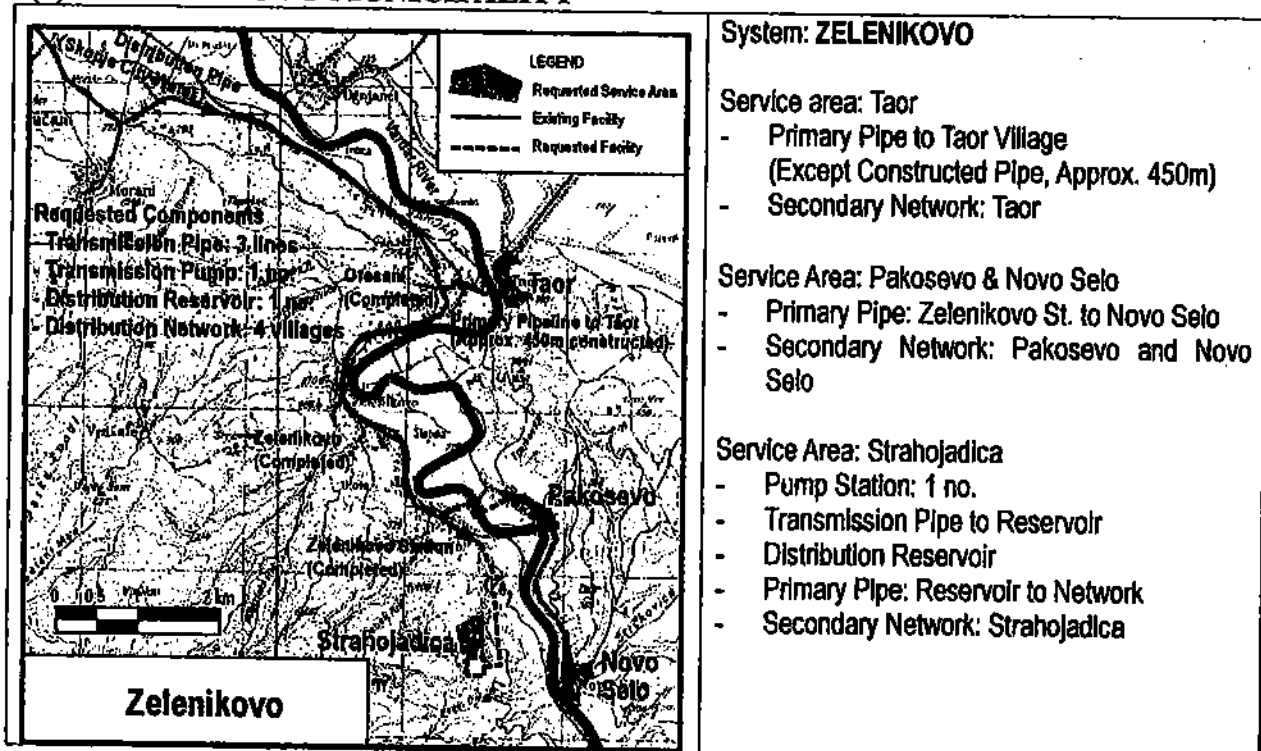
- Transmission Pump: Bunardzik Reservoir Site (Ilinden)
- Transmission Pipe: Bunardzik - Existing Reservoir (Ilinden)

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(4) STUDENICANI MUNICIPALITY



(5) ZELENIKOVO MUNICIPALITY



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ANNEX 3

Technical Conditions**1. Target Year**

The target year is to be the year 2005. Since the Japan's Grant Aid is applied in principle for basic and urgent public needs with high priority by efficient investment under the limited budget, the design of water supply system should be based on the present conditions and requirements.

2. Population and Water Demand Forecast

The population in the target year (2005) is based on the figure formulated through discussion with the municipalities concerned. Water demand by each inhabited place is calculated by the following formula:

$$[\text{Water Demand}] = [\text{Population in 2005}] \times [\text{Unit Demand (L/c/d)}]$$

The water demand is determined taking into account of the following conditions:

- (1) Unit water demands for domestic use are to be 100, 125, 145 and 150 L/c/d depending on the living conditions by inhabited places under this Project.
- (2) Other water uses such as for school, hospital, public facilities, etc. are to be 20 or 30% of domestic water use.
- (3) The livestock water use mentioned in the Technical Document is not included in the water demand of the Project.

3. Design Water Capacity

- (1) The leakage rates are to be 10 and 20 % of water demand. 10 % is applied for the new distribution systems, and 20% for the existing systems.
- (2) Peak factors (maximum daily factor) are to be 1.5 and 1.3 based on the Technical Document. The factor was verified by the billing data issued from Ilinden PE and design norm of Skopje City PE.

ANNEX 3

Population, water demand and design water capacity are summarized in the following table.

Water Demand and Design Water Capacity

Municipality	Inhabited place	Population served in 2005 (people)	Water Demand		Daily Ave. (m3/d)	Including Leakage (m3/d)	Daily Max. (m3/d)
			Domestic (m3/d)	Others (m3/d)			
Cucer	Pobozje	791	99	30	129	143	214
Sandevo	Kuceviste	2,119	212	64	275	344	517
Cair	Radisani	8,939	1,341	402	1,743	1,937	2,518
Gazi Baba	Goce Delcev	1,464	212	64	276	345	517
	Jurumleri	3,420	496	149	645	806	1,209
	Kolonie Idrizovo	1,327	192	58	250	313	469
	Idrizovo	2,456	356	107	463	579	868
Ilinden	Bujkovci	690	100	30	130	163	244
	Mrsevci	721	105	31	136	170	255
	Miladinovci	1,545	224	67	291	364	546
	Mlalino	855	124	37	161	201	302
	Existing area	11,838	1,717	515	2,231	2,789	4,184
	Future expansion area	1,020	148	44	192	240	361
Petrovec	Ognjanci	1,293	194	58	252	315	457
	Petrovec	2,667	400	120	520	650	943
	Kjojllja	379	57	17	74	92	134
	Rzanicino	967	145	44	189	236	342
Studenicani	Cvetovo	851	85	17	102	113	170
	Dolno Kolicani	335	34	3	37	46	69
Zelenikovo	Taor	175	26	8	34	38	57
	Pakosevo	253	38	11	49	55	82
	Nova Selo	170	26	8	33	37	55
	Strahojadica	259	39	12	51	56	84
Total	21 inhabited places	44,534					
		31,676					

4. Facility Design

(1) Water source

Three types of water sources, namely (i) Skopje City water, (ii) spring water and (iii) groundwater, are proposed in the projected area. The required design capacity and exploitable intake capacity are shown below.

ANNEX 3

Water Source Capacity and Required Design Capacity

Type	System or inhabited place	Exploitable intake capacity (m ³ /d)	Required design capacity (m ³ /d)
Skopje City Water	- Radisani (Cair)		2,905
	- Taor, Pakosevo, Novo Selo and Strahojadica (Zelenikovo)		279
Spring Water	- Pobožje (Cucer Sandevo)	561	214
	- Kuceviste (Cucer Sandevo)	518	517
	- Cvetovo (Studnicani)	173	170
	- Dolno Kolicani (Studnicani)	69	69
Groundwater	- Gazi Baba, Ilinden, Petrovec	11,232	10,895

(2) Intake Facility

Intake pump (submersible type) for Jurumleri intake shall be the same discharge capacity and same head with the existing pump (Well No.2).

(3) Pipes

(3-1) Pipes for transmission and distribution shall be polyethylene pipes in principle. Steel pipes and ductile iron pipes should also be taken into account for Ilinden East transmission pipe and Radisani primary and secondary pipes.

(3-2) Pipe diameters and routes shall be reviewed and designed based on the water demand forecast and the results of field reconnaissance.

(3-3) Covering depth for pipe embedding would be 1.2 m in average and 0.8 m at minimum. Sand bedding should be considered when it is technically required such as rocky terrain, soft soil in ductile iron pipe laying, etc.

(4) Reservoir

(4-1) Storage capacities of the reservoirs are designed considering minimum retention time of 6 hours and fire fighting water volume. The capacities would be reviewed and set after analysis in Japan.

(4-2) Taking into account of the operation and maintenance, water level gauge (mechanical type) and water meter would be proposed to be equipped with each reservoir.

ANNEX 3

(5) Disinfection

Disinfection facility (chlorination dosing system) for every system that has own water source would be proposed. Dosing points and system are tentatively proposed as follows:

Project site	Dosing Point	Dosing System
Pobozje	Outlet pipe of the new transmission pump	Hypochloride dosing system by a diaphragm pump to be automatically controlled by operation of the transmission pump
Kceviste	Inlet pipes to the distribution reservoirs	Hypochloride dosing system by a diaphragm pump to be manually controlled
Jurumier	Outlet pipes of intake wells	Hypochloride dosing system by multi diaphragm pumps to be automatically controlled by operation of the number of submersible pumps
Cvetovo	Receiving chamber of the new reservoir	Hypochloride dosing system by a diaphragm pump to be manually controlled
Dolno Kolican	Outlet pipe of the new transmission pump	Hypochloride dosing system by a diaphragm pump to be automatically controlled by operation of the transmission pump

(6) Pump Station

Discharge capacity and head in the Technical Documents shall be reviewed in Japan. Control system are tentatively proposed as follows:

Project site	Control System
Pobozje	Manual On/Off
Radisani	Automatic On/Off by water level of the reservoir
Ilinden East	Manual On/Off
Strahojadica	Automatic On/Off by water level of the reservoir