

APPENDIX 1 MEMBER LIST OF THE SURVEY TEAM

List of Study Team Members (Basic Design Study)

Name	Responsibility	Position
Hayao Adachi	Team Leader	International Cooperation Expert, General Institute of International Cooperation, Japan International Cooperation Agency
Akihito Sanjo	Planning Management	No. 1 Survey Section, Grant Aid Survey Department, Japan International Cooperation Agency
Kango Mito	Work Chief / Operation and Maintenance Planning	Yachiyo Engineering Co., Ltd.
Kaoru Nakajima	Collection and Haulage Planning	Yachiyo Engineering Co., Ltd.
Takaaki Kawauchi	Landfill Disposal / Environmental Consideration	Yachiyo Engineering Co., Ltd.
Toshio Yano	Cost Estimation / Procurement Planning	Yachiyo Engineering Co., Ltd.

List of Study Team Members (Basic Design Outline Explanation and Study)

Name	Responsibility	Position
Kunizo Tokita	Team Leader	Development Specialist, JICA
Kango Mito	Project Manager/Operation and Maintenance Planner	Yachiyo Engineering Co., Ltd.
Kaoru Nakajima	Collection and Transportation Planner	Yachiyo Engineering Co., Ltd.

APPENDIX 2 SURVEY SCHEDULE

1. Basic Design Study

No.	Date	Day	Weather	Place of Stay	Transfer	Outline of Survey Work	
1	13/11	Tu.	Fair	Paris	12.30 Departure from Narita (AF-275) 17.10 Arrival in Paris	Transfer Departure of Study Team from Tokyo (JICA: Adachi, Sanjo; Consultant: Sannohe, Nakajima, Kawauchi)	
2	11/12	Wed.	Fair	Damascus	13.30 Departure from Paris (AF-572) 19.15 Arrival in Damascus	Transfer Arrival of Study Team in Damascus	
3	11/13	Th.	Fair	Aleppo	Courtesy calls and meetings a Japanese Embassy and Syria of JICA Courtesy calls to the SPC (Sta Planning Commission) and M of Local Administration		
4	11/14	Fri.	Cloudy	Aleppo	Damascus to Aleppo	Courtesy call and explanation of the questionnaire concerning conditions of use of equipment supplied under the Project for Improvement of the Solid Waste Treatment System in Damascus at the Department of Cleanliness in Damascus	
5	11/15	Sat.	Cloudy/ Rain	Aleppo		Courtesy calls to the Mayor of Aleppo and Governor of Aleppo Courtesy call and explanation of the Inception Report and questionnaire at the Aleppo Cleansing Affairs Department	
6	11/16	Sun.	Cloudy	Аlерро		Visit to and check of affairs at the final disposal site and compost plant Check of current conditions in target areas for collection improvement Preparation of draft Minutes	
7	11/17	Mon.	Fair	Aleppo		Confirmation of contents of the Request Discussion of draft Minutes	
8	11/18	Tu.	Fair	Aleppo		Discussion and explanation of the questionnaire	
9	11/19	Wed.	Fair	Aleppo (Nakajima, Kawauchi) Damascus (Adachi, Sanjo, Sannohe)	Aleppo to Damascus (Adachi, Sanjo, Sannohe)	Signing of the Minutes Preparation for the survey of the amount and nature of solid waste tascus Transfer	

No.	Date	Day	Weather	Place of Stay	Transfer	Outline of Survey Work
10	11/20	Th.	Fair	Aleppo (Nakajima, Kawauchi) Damascus (Adachi, Sanjo, Sannohe)	Narita to London and departure from London (Yano)	Report and signing of Minutes at the SPC Report to the Japanese Embassy and Syria Office of HCA Discussion of questionnaire
11	11/21	Fri.	Fair	Aleppo (Nakajima, Kawauchi) Damascus (Adachi, Sanjo, Sannohe, Yano)	Arrival in Damaseus (Yano)	Preparation for the survey of the amount and nature of solid waste Discussion of questionnaire Visit to Damascus City compost plant
12	11/22	Sat.	Fair	Aleppo (Nakajima, Kawauchi) Damascus (Adachi, Sannohe, Yano)	Departure from Damascus (Sanjo) Damascus to Aleppo (Sannohe, Yano)	Start of the survey of the amount and nature of solid waste Visit to and explanation of additional questionnaire at the Damascus Department of Cleanliness
13	11/23	Sun.	Fair	Aleppo	Departure from Damascus (Adachi)	Survey of the amount and nature of solid waste Site survey Discussion of questionnaire
14	11/24	Мов.	Fair	Aleppo	Arrival in Narita (Sanjo)	Survey of the amount and nature of solid waste, composition analysis Discussion of questionnaire Survey of Aleppo City market
15	11/27	Tu.	Fair	Aleppo		Survey of the amount and nature of solid waste, time and motion survey Survey of Aleppo market
16	11/26	Wed.	Fair	Aleppo		Survey of the amount and nature of solid waste Compost plant survey Hearing survey of private solid waste collectors Survey of Aleppo market
17	11/27	Th.	Fair	Aleppo		Survey of the amount and nature of solid waste Start of survey of vehicles entering the final disposal site Hearing survey of hospital solid waste conditions and private waste product recovery operators

No.	Date	Day	Weather	Place of Stay	Transfer	Outline of Survey Work
18	11/28	Fri.	Fair	Aleppo		Survey of the amount and nature of solid waste, data compilation
					Aleppo to Damascus	Survey of vehicles entering the final disposal site
					(Yano)	Materials compilation
19	11/29	Sat.	Rain/ Cloudy	Ateppo		Survey of the amount and nature of solid waste
						Survey of vehicles entering the final disposal site
						Hearing survey of industrial solid waste
						Survey of Damascus City market
20	11/30	Sun.	Fair	Aleppo		Survey of vehicles entering the final disposal site
						Vehicle weighing survey
						Survey of Damascus City market
					Damascus to Aleppo (Yano)	Discussion of questionnaire at the Damascus Department of Cleanliness
21	12/1	Mon.	Fair	Aleppo	Aleppo to Damascus (Kawauchi)	Survey of vehicles entering the final disposal site
						Compilation of data on the amount of solid waste
22	12/2	Tu.	Fair	Aleppo		Survey of vehicles entering the final disposal site
						Survey of related future plans
1			1			Survey of Aleppo City market
		ļ				Preparation of field report
23	12/3	Wed.	Fair	Aleppo		Analysis of data on the amount of solid waste
						Survey of related future plans
						Survey of Aleppo City market
						Preparation of field report
24	12/4	Th.	Fair	Aleppo	Arrival in Narita (Kawauchi)	Analysis of data on the amount of solid waste
						Survey of related future plans
<u></u>						Preparation of field report
25	12/5	Fri.	Fair	Aleppo		Discussion of field report
26	12/6	Sat.	Fair	Ateppo		Vehicle weighing
		<u> </u>				Presentation of field report
27	12/7	Sun.	Fair	Damascus	Aleppo to Damascus	Transfer

No.	Date	Day	Weather	Place of Stay	Transfer	Outline of Survey Work
28	12/8	Mon.	Fair	Damascus		Damascus Department of Cleanliness, discussion of the compost plant questionnaire
						Survey of Damascus City market
						Report to the Japanese Embassy and Syria Office of JICA
29	12/9	Tu.	Fair	Onboard aircraft	•	Transfer
			1		Damascus (AF 677)	Study Team (Sannohe, Nakajima,
			1		5.55 Arrival in Paris	Yano)
					13.30 Departure from Paris (AF 276)	Departure from Damaseus
30	12/10	Wed.	Fair	Home	9.15 Arrival at Narita	Transfer
						Arrival at Narita of Study Team (Sannohe, Nakajima, Yano)

2. Basic Design Outline Explanation

No.	Date	Day	Weather	Place of Stay	Transfer	Outline of Survey Work	
1	2/8	Sun.	Fair	Paris	12.20 Departure from Narita (J1. 405) 16.55 Arrival at Paris 12.30 Departure from Narita (AF 275) 17.10 Arrival at Paris	Transfer Departure from Tokyo of Study Team (JICA: Tokita) Transfer Departure from Tokyo of Study Team (Consultant: Mito, Nakajima)	
2	2/9	Mon.	Fair	Damascus	13.30 Departure from Paris (AF 672) 19.15 Arrival at Damascus	Transfer Arrival at Damascus of Study Team (JICA: Tokita; Consultant: Mito, Nakajima)	
3	2/10	Tu.	Fair	Aleppo	Damascus to Aleppo	Courtesy calls and meetings at the Japanese Embassy and Syria Office of JICA Courtesy calls to the SPC (State Planning Commission) and Ministry of Local Administration Transfer	
4	2/11	Wed.	Fair	Αὶερρο		Courtesy calls to the Damascus Department of Cleanliness, the Governor of Aleppo and Mayor of Aleppo Additional survey of compost plant and scheduled site of the transfer station	
5	2/12	Th.	Fair	Aleppo		Explanation and discussion of the Basic Design Outline Additional survey of workshop and new final disposal site	
6	2/13	Fri.	Cloudy	Aleppo		Internal discussions	
7	2/14	Sat.	Fair	Aleppo		Discussion of tentative Minutes	
8	2/15	Sun.	Fair	Damascus	Aleppo to Damascus	Signing of Minutes Transfer	
9	2/16	Mon.	Fair	Damascus		Report to SPC and signing of Minutes Report to Ministry of Local Administration, Japanese Embassy and Syria Office of JICA	
10	2/17	Tu.	Fair	Onboard aircraft Damascus	1.50 Departure from Damascus (AF 677) 5.55 Arrival at Paris 9.25 Departure from Damascus (BA 6702) 14.00 Arrival at London 19.00 Departure from London	Transfer Study Team (Mito, Nakajima) Transfer Study Team (Tokita)	

No.	Date	Day	Weather	Place of Stay	Transfer	Outline of Survey Work
11	2/18	Wed.	Fair	Onboard aircraft	13.30 Departure from Paris (AF 276)	Study Team (Mito, Nakajima)
		<u> </u>			15.40 Arrival at Narita	Arrival at Narita of Study Team (Tokita)
12	2/19	Th.	Fair	Home	9.15 Arrival at Narita	Arrival at Narita of Study Team (Mito, Nakajima)

APPENDIX 3

LIST OF PARTY CONCERNED IN THE RECIPIENT COUNTRY



List of Party Concerned in the Recipient Country

POST AND NAME	PROFESSIONAL POSITION
• JAPANESE EMBASSY IN SYRIA	
MR. TAKESHI KAGAMI	AMBASSADOR EXTRAORDINARY AND PLENIPOTENTIARY
MR. KATSUHITO SAKA	FIRST SECRETARY IN CHARGE OF ECONOMIC COOPERATION
MR. KAZUO SHIMOGAKI	STUDY EXPERT
• SYRIA OFFICE OF JAPAN INTERNATIONAL COOPERATION AGENCY	
MR. KATSUHIKO EBINA	MANAGER
MR. SHINJI GOTOH	STUFF
MRS. TSUGIKO MUTOH	STUFF
• STATE PLANNING COMMISSION : SPC	
MR. BASSAM AL-SIBAI	DIRECTOR OF TECHNICAL AND SCIENTIFIC COOPERATION
MR. SAHACH HARIRI	CHIEF OF LOCAL ADMINISTRATION CONCERN
• MINISTRY OF LOCAL ADMINISTRATION	
MR. MOHI-DEEN NAJAAR	MANAGER OF PUBLIC RELATION
• MINISTRY OF AGRICULTURE	
MR. GHASAN SHERIF	MANAGER OF AGRICULTURAL AND LAND RECLAMATION IN ALEPPO
MR. AKIRA MATSUKAWA	AGRICURUTURAL SPECIALIST OF JICA
• ALEPPO GOVERNORATE	
MR. MOHAMED MOSTAFA MIRO	GOVERNOR
ALEPPO CITY COUNCIL	
MR. MOHAMED ESTEF	CHAIRMAN OF CITY COUNCIL
DR. FARID ZEIDAN	DIRECTOR OF HEALTH AFFAIRS

PROFESSIONAL POSITION POST AND NAME CLEANSING AFFAIRS DEPARTMENT HEAD OF CLEANSING AFFAIRS DEPT. MR. MOHAMED EL MOHAMED CHIEF OF PENALTIES AND FOLLOW-UP MR. HUSAM AL HAMED SECTION CHIEF OF CLEANSING SECTION MR. HASSAN DIBOO • COMPOST PLANT, EQUIPMENT DEPT. MANAGER OF COMPOST PLANT MR. ABMED AJAM STREETS AND ROADS OFFICE, CITY COUNCIL HEAD OF STREETS AND ROADS OFFICE MR. KEFAH ABOU RUDEN OFFICE OF OLD CITY REHABILITATION MR. TOUFIK KLZIEH MANAGER MR. ADLI QUDSI CONSTRUCTION CONSULTANTS • PUBLIC ESTABLISHMENT OF WATER SUPPLY AND SEWERAGE IN ALEPPO MAINTENANCE AND COMMISSIONING MR. WARIF CHUAIBI MANAGER HEALTH DRAINAGE ASSOCIATION HEAD OF HEALTH DRAINAGE ASSOCIATION MR. TAREEF NOUMAH **ENGINEER** MR. YOUSEF ALNAJAR GENERAL COMPANY FOR ENGINEERING AND CONSULTING ALEPPO BRANCH DIRECTOR MR. HABIB CHOUKRI DR. ALADINE LOLAH PROFESSOR OF UNIVERSITY OF ALEPPO DEPARTMENT OF CLEANLINESS MANAGER, DEPARTMENT OF CLEANLINESS MR. AMIR BOUKHARI

Post and Name	Professional Position		
• DEPARTMENT OF SOLID WASTE COM AND FINAL DISPOSAL SITE	IPOST PLANT		
MR. SAMI AL DEBS	MANAGER, DEPARTMENT OF SOLID WASTE COMPOST PLANT AND FINAL DISPOSAL SITE		
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APPENDIX 4 MINUTES OF DISCUSSION

MINUTES OF DISCUSSIONS THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT OF WASTE DISPOSAL EQUIPMENT IN ALEPPO CITY

IN THE SYRIAN ARAB REPUBLIC

In response to a request from the Government of the Syrian Arab Republic, the Government of Japan decided to conduct a basic design study on the Project for Improvement of Waste Disposal Equipment in Aleppo City (hereinaster referred to as "the Project") and entrusted the study to Japan International Cooperation Agency (JICA).

JICA has sent to the Syrian Arab Republic a study team, headed by Mr. Hayao Adachi, Development Specialist, Institute for International Cooperation, JICA, from November 11 to December 10, 1997.

The team held discussions with the officials concerned of the Government of the Syrian Arab Republic and conducted a field survey in the study area.

In the course of the discussions and field survey, both sides have confirmed the main items described on the attached sheets. The team will proceed to further works and prepare the basic design study report.

Aleppo, November 19, 1997

Mr. Hayao Adacht Team Leader

Basic Design Study Team

JICA

Eng. Mohamed Estef

Chairman of Aleppo City Council

The Syrian Arab Republic

Witness:

Mr. Bassam Al Sibai

Director

Technical & Scientific Cooperation

State Planning Commission

The Syrian Arab Republic

ATTACHMENT

1. Objective

The objective of the Project is to improve the environmental condition in Aleppo City by procurement of the necessary vehicles and equipment for solid waste management.

2. Project Site

The Project site is Aleppo City and final disposal site of Aleppo. The location of the Project site is shown in Annex-I.

- 3. Responsible and Implementing Agencies
 - (1) Responsible Agency of the Project
 Ministry of Local Administration
 - (2) Implementing Agency of the Project
 Aleppo City Council

4. Items requested by the Syrian side

After discussion with the basic design study team, the items requested by the Syrian side for the realization of the Project were confirmed, as shown in Annex-II with priority. However, final items, quantity and specifications to be procured under Japan's Grant Aid will be decided after further studies in Japan, taking into account the followings,

- existing conditions of solid waste collection vehicles and final disposal site equipment,
- solid waste generation amount in the city,
- operation and maintenance capability,
- financial and administrative viability.

5. Major Points of Discussions

- (1) Target year shall be Year 2002.
- (2) It was confirmed that collection and disposal for industrial and medical waste is out of scope.
- (3) Project area for collection improvement shall be within the city boundary areas as shown in Annex-III.
- (4) In the above Project area, the objectives to procure collection vehicles shall be for the streets of which width are not less than 3 m approximately. As for the streets of which width are less than 3 m approximately, Syrian side shall consider improvement of collection methods.
- (5) It was confirmed that the Syrian side should plan to provide the complete transferring system taking into consideration the increase of the amount of solid waste to be collected through the Project.

6. Schedule of the Study

- (1) The team will proceed to further studies in the Syrian Arab Republic until December 8, 1997.
- (2) JICA will prepare a draft basic design study report and dispatch a mission to explain it to Syrian side in the middle of February 1998.

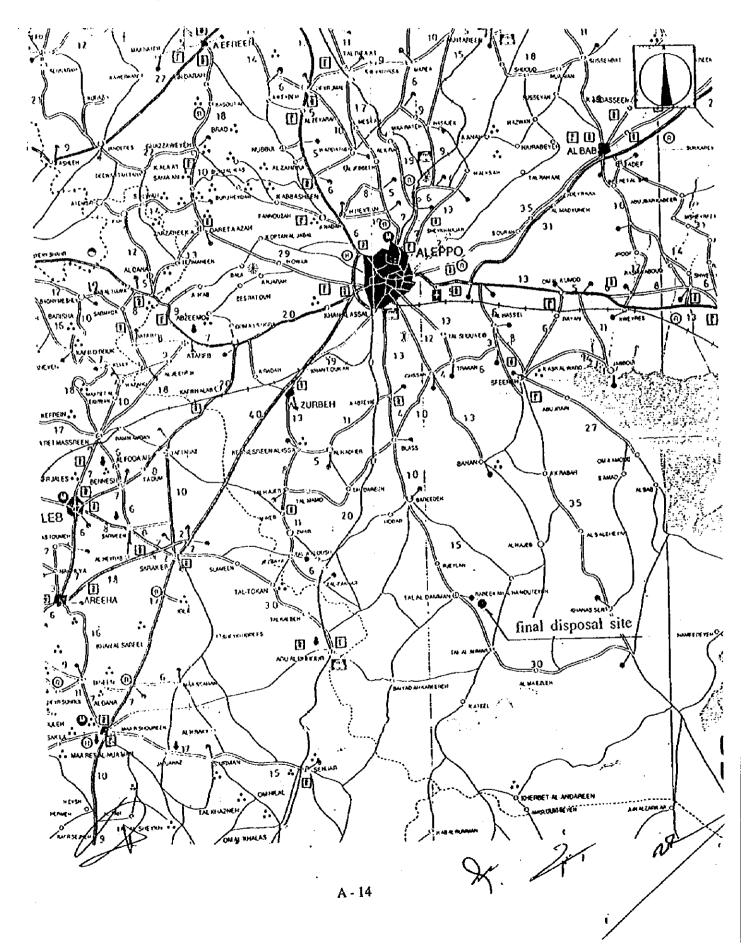
 If both sides agree on the contents of the report, JICA will complete the final report and send it to the Government of the Syrian Arab Republic around the end of March 1998.

7. Japan's Grant Aid System

- (1) Syrian side has understood the system of Japanese Grant Aid explained by the Team (Annex-IV).
- (2) Syrian side will take necessary measures, as described in Annex-V, for smooth implementation of the Project, on condition that the Grant Aid by the Government of Japan is extended to the Project.

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Annex-1 Project Site



Annex-II Items requested by the Government of the Syrian Arab Republic

LIST OF EQUIPMENT

No.	PURPOSE	EQUIPMENT	QUANTITY	PRIORITY
1		Garbage truck (Compactor) 2ton	10	Α
2		Garbage truck (Compactor) 3ton	15	٨
3	Collection	Garbage truck (Compactor) 7ton	22	Λ
4		Garbage dump truck	3	٨
5		Water tank truck	-	С
6	1	Cesspool emptier	•	С
7		Bulldozer	1	Α
8	Operation of	Trash compactor	1	В
9	final disposal site	Dozer shovel	1	В
10	1	Motor grader	-	С
11	1	Excavator	1	В
12	1	Wheel loader	2	Α
13	Others	Mobile workshop	1	В
4	1	Spare parts	1	Λ

Classification of Priority

A: First Priority

; urgent

B: Second Priority

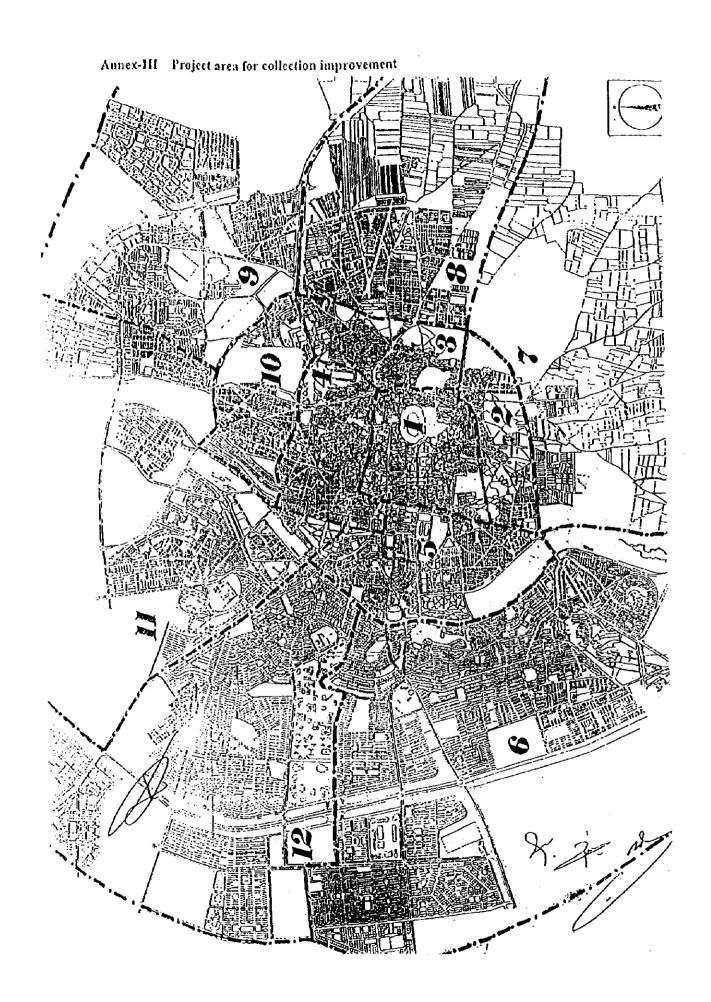
; to be clarified

Third Priority ; not required

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Japan's Grant Aid Scheme

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

Cabinet)

Determination

(The Notes exchanged between the Governments of Japan

of Implementation

and the recipient country)

(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 HCA (Japan International Cooperation Agency) to conduct a study on the request. Secondly, JICA conducts the study (Basic Design Study), using (a) Japanese consulting firm(s).

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Program, 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 Japanese Government. The contents of the Study are as follows:

- a) Confirmation of the background, objectives, and benefits of the requested project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation.
- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic point of view.
- c) Confirmation of items agreed on by both parties concerning the basic concept of the Project.
- d) Preparation of a basic design of the Project
- e) 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 though 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 confinned by all relevant organizations of the recipient country ()

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through the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Study, JICA uses (a) registered consultant firm(s). JICA selects (a) firms(s) based on proposals submitted by interested firms. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by IICA.

The consulting firm(s) used for the Study is(are) recommended by JICA to the recipient country to also work on 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 repeated.

3. Japan's Grant Aid Scheme

(1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non-reinbursable 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 (F/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 Aid" means the one fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with (a) consultant firm(s) and (a) contractor(s) 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 Aid, 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 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 to Japanese taxpayers.

- (6) Undertakings required of 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 following:
 - 1) To secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to commencement of the construction.
 - 2) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites.
 - 3) To secure buildings prior to the procurement in case the installation of the equipment.
 - 4) 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.
 - 5) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts.
 - 6) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such 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 staff necessary 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 should not be re-exported from the recipient country.

- (9) Banking Arrangements (B/A)
 - 1) 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.
 - 2) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an authorization to pay issued by the Government of the recipient country or its designated authority.

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Annex-V Necessary measures to be taken by the Government of the Syrian Arab Republic on condition that Japan's Grant Aid is extended.

- 1. To bear commissions to the Japanese foreign exchange bank to execute the banking services based upon the banking arrangement.
- 2. To ensure prompt unloading and customs clearance at port of disembarkation in the Syrian Arab Republic and facilitate internal transportation therein of the products purchased under the Grant.
- 3. To ensure the customs clearance at the port, inland transportation from the port to Aleppo (Municipality's storage) with Syrian side's expense, and to bear the cost for bonded storage at the port.
- 4. To exempt Japanese nationals from custom duties, internal taxes and other fiscal levies which may be imposed in the Syrian Arab Republic with respect to the supply of the products and services under the verified contracts, and to take necessary measures for such tax exemption.
- 5. To accord Japanese nationals, whose services may be required in connection with the supply of products and services under the verified contracts, such facilities as may be necessary for their entry into the Syrian Arab Republic and stay therein for the performance of their work.
- 6. To use and maintain properly and effectively all the equipment purchased under the Grant.
- 7. To bear all the expenses other than those covered by the Grant, necessary for the execution of the Project.
- 8. To provide necessary data and information for the Project.

9. To assign exclusive counterpart engineers and technicians for the Project.

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MINUTES OF DISCUSSIONS

BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT OF WASTE DISPOSAL EQUIPMENT IN ALEPPO CITY IN THE SYRIAN ARAB REPUBLIC (CONSULTATION ON DRAFT REPORT)

In Februrary 1998, the Japan International Cooperation Agency (JICA) dispatched a Basic Design Study Team on the Project for Improvement of Waste Disposal Equipment in Aleppo City (hereinafter referred to as "the Project") to the Syrian Arab Republic, and through discussions with the Syrian Arab Republic side, field survey, and technical examination of the results in Japan, has prepared the draft report of the Study.

In order to explain and to consult the Syrian Arab Republic side on components of the draft report, JICA sent to the Syrian Arab Republic a study team, which is headed by Dr. Kunihiro TOKIDA, Development Specialist, Japan International Cooperation Agency (JICA), and is scheduled to stay in the country from February 9 to 17, 1998.

As a result of discussions, both parties confirmed the main items described on the attached sheets.

Aleppo, February 15, 1998

Dr. Kunihiro TOKIDA

Team Leader

Basic Design Study Team

JICA

Eng. Mohamed Estef

Chairman of Aleppo City Council

The Syrian Arab Republic

Witness:

Mr. Bassam Al Sibai

Director

Technical & Scientific Cooperation

State Planning Commission

The Syrian Arab Republic

ATTACHMENT

1. Components of the Draft Report

The Government of the Syrian Arab Republic has agreed and accepted in principle the components of the Draft Report proposed by the Team.

2. Japan's Grant Aid System

- (1) The Government of the Syrian Arab Republic has understood the system of Japan's Grant Aid explained by the Team, as described in Annex-I.
- (2) The Government of the Syrian Arab Republic will take necessary measures, as described in Annex-II, for smooth implementation of the Project, on condition that the Grant Aid assistance by the Government of Japan is extended to the Project.

3. Further schedule

The Team will make the final report in accordance with the confirmed items, and send it to the Government of the Syrian Arab Republic by the end of April, 1998.

4. Other relevant issues

The Syrian Arab Republic side agreed the followings;

- (1) The Aleppo City Council (hereinaster referred to as "the City Council") shall construct the proposed transfer station as described in Annex-III by January 1999.
- (2) The City Council shall completely construct the new final disposal site now under construction at 60 km south away from the city center by January 1999. The City Council shall operate and manage it by taking due safety measures against environmental pollution caused by solid waste disposal to the final disposal site.
- (3) The City Council shall procure and distribute sufficient numbers of containers properly during Fiscal Year 1998.
- (4) The City Council shall install the weigh-bridge purchased under the Grant Aid at the new transfer station and shall operate and manage the equipment by themselves.
- (5) The City Council shall maintain and use the equipment purchased under the Grant Aid properly and shall assign staff necessary for the operation and maintenance. The equipment purchased under the Grant Aid shall not be rented or transferred to any other parties such as private contractors.

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- (6) The City Council shall plan the complete solid waste management system taking the increase of the amount of solid waste to be collected through the Project into consideration and shall secure the appropriate budget for effective execution of the system.
- (7) The City Council shall establish the separated collection and disposal system for the hazardous industrial and medical wastes and shall not dispose such wastes into the new final disposal site without any treatment or effective protection against environmental pollution.
- (8) The City Council shall obtain consent from the relevant authorities concerned of the environmental issues about the operation of the new transfer station and the new final disposal site in the places where the City Council is planning to construct.

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Annex-I Japan's Grant Aid Scheme

Japan's Grant Aid Scheme

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

Cabinet)

Determination (The Notes exchanged between the Governments of Japan

of Implementation and the recipient country)

(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 (Japan International Cooperation Agency) to conduct a study on the request. Secondly, JICA conducts the study (Basic Design Study), using (a) Japanese consulting firm(s).

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Program, 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, IICA 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 Japanese Government. The contents of the Study are as follows:

- a) Confirmation of the background, objectives, and benefits of the requested project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation.
- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic point of view.
- c) Confirmation of items agreed on by both parties concerning the basic concept of the Project.
- d) Preparation of a basic design of the Project
- e) 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 though 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

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through the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Study, JICA uses (a) registered consultant firm(s). JICA selects (a) firms(s) based on proposals submitted by interested firms. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA.

The consulting firm(s) used for the Study is(are) recommended by JICA to the recipient country to also work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency.

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 Aid" means the one fiscal year (April to March) which the Cabinet approves the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with (a) consultant firm(s) and (a) contractor(s) 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 Aid, 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 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 to Japanese taxpayers.

(6) Undertakings required of 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 following:

1) To secure land necessary for the sites of the Project and to clear, level and rectain the land prior to commencement of the construction.

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- 2) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites.
- 3) To secure buildings prior to the procurement in case the installation of the equipment.
- 4) 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.
- 5) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts.
- 6) To accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such 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 staff necessary 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 should not be re-exported from the recipient country.

(9) Banking Arrangements (B/A)

- 1) 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.
- 2) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an authorization to pay issued by the Government of the recipient country or its designated authority.

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Annex-II Necessary measures to be taken by the Government of the Syrian Arab Republic on condition that Japan's Grant Aid is extended.

- 1. To bear commissions to the Japanese foreign exchange bank to execute the banking services based upon the banking arrangement.
- 2. To ensure prompt unloading and customs clearance at port of disembarkation in the Syrian Arab Republic and facilitate internal transportation therein of the products purchased under the Grant.
- 3. To ensure the customs clearance at the port, inland transportation from the port to Aleppo (Municipality's storage) with Syrian side's expense, and to bear the cost for bonded storage at the port.
- 4. To exempt Japanese nationals from custom duties, internal taxes and other fiscal levies which may be imposed in the Syrian Arab Republic with respect to the supply of the products and services under the verified contracts, and to take necessary measures for such tax exemption.
- 5. To accord Japanese nationals, whose services may be required in connection with the supply of products and services under the verified contracts, such facilities as may be necessary for their entry into the Syrian Arab Republic and stay therein for the performance of their work.
- 6. To use and maintain properly and effectively all the equipment purchased under the Grant.
- 7. To bear all the expenses other than those covered by the Grant, necessary for the execution of the Project.
- 8. To provide necessary data and information for the Project.
- 9. To assign exclusive counterpart engineers and technicians for the Project.

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Annex-III The proposed transfer station

- 1) The Cost Estimation
- 2) Construction Schedule
- 3) Location of the proposed transfer station
- 4) Arrangement of the proposed transfer station

The Project for the Construction and Preparation Works for the Transfer Station at Sheikh Saeed area

The Cost Estimation (for estimated quantities)

No.	Description	Unit	Quantity	Unit price (S.P.)	Total Price (S.P.)
i	Leveling for the site and the streets (Site Preparation)	m³	25,000	60	1,500,000
2	Complete fence	m	500	ι,500	750,000
3	Steel gates of 5m width with the supports	No.	2	10,000	20,000
	Back filling with crushed lime stone layer of 30cm thickness including compaction	ııı²	20,000	70	1,400,000
5	M.C.O. Layer (Liquid asphalt)	m²	20,000	10	200,000
6	7cm Asphalt layer	m²	1,400	1,400	1,960,000
7	Side walk curbs	m	2,000	320	640,000
8	Reinforcement concrete works for plat forms and weigh bridge	m³	330	5,000	1,650,000
9	Building works for the administration building and weigh bridge house	m²	100	5,000	500,000
	Building works for car wash, workshop, and lubrication building	m²	400	6,000	2,400,000
	Construction of well water with the necessary pumps	Lot	1	1,500,000	1,500,000
12	Water tank with the necessary water supply system for the Project	Lot	1	1,000,000	1,000,000
13	Rain water channels 40 x 50 including excavation	m	200	2,000	400,000
14	Rain water chambers	No.	30	6,000	180,000
15	Lighting works for the Project	Lot	1	900,000	900,000
1	Total		<u> </u>		15,000,000

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Aleppo City Council Studies Office The Project for the Construction and Preparation Works for the Transfer Station at Sheikh Saeed Area

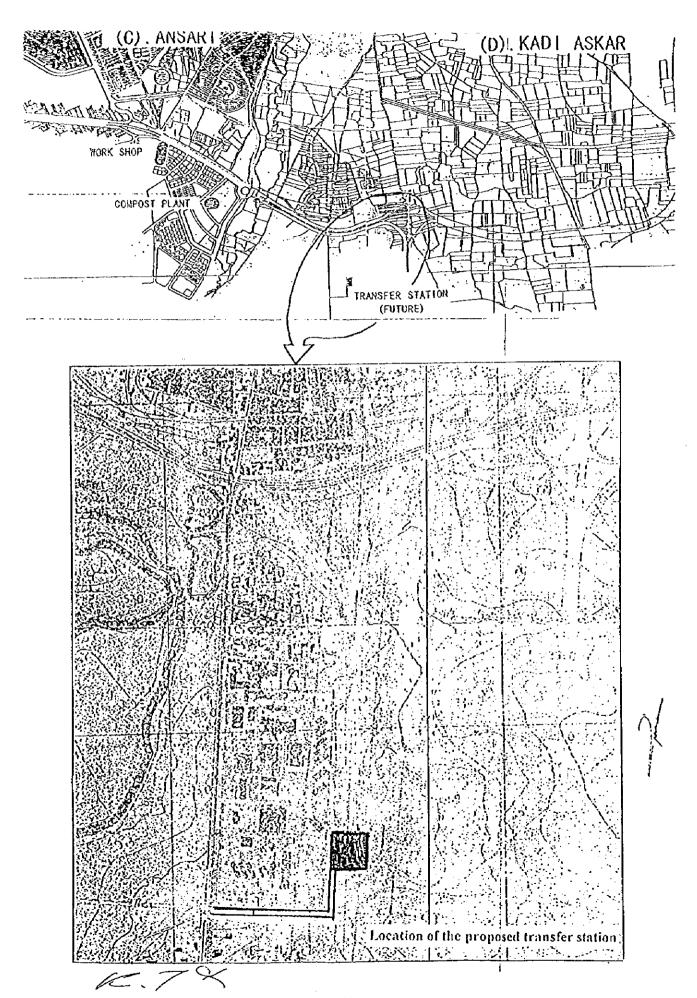
Construction Schedule

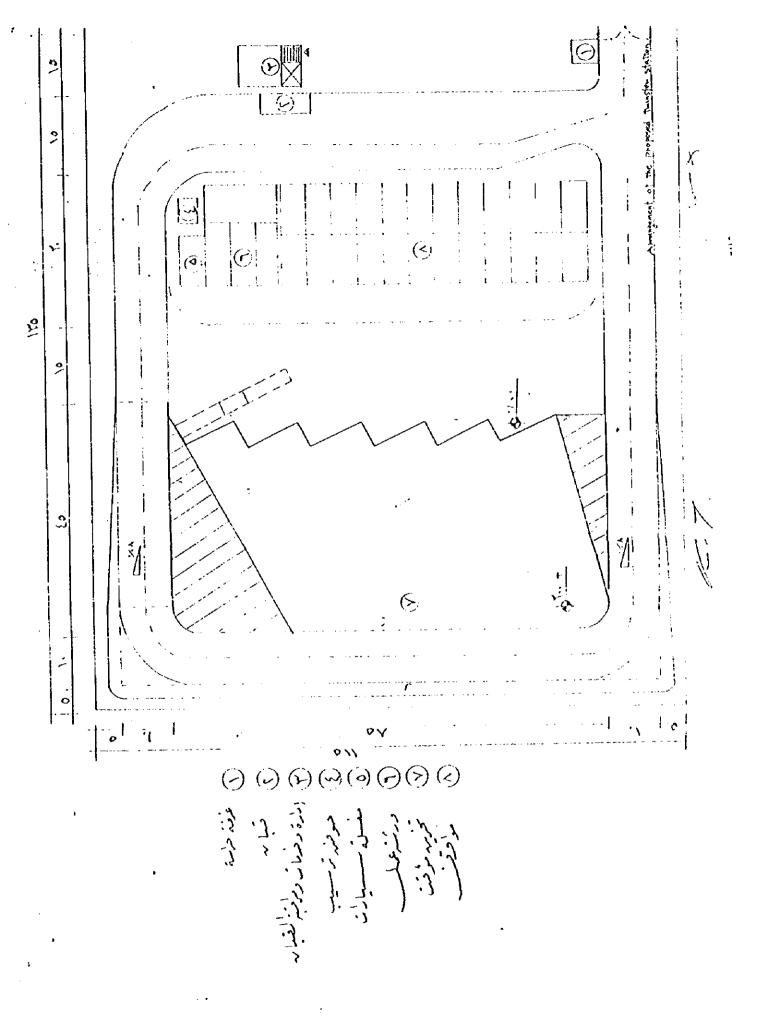
Z	Description				1998	86					1999	
•	1701141 1303 A	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	Excavation and foundation works											
7	R.C. Retaining walls and sewer system			W. 18.								
3	Back filling, compaction and side walk curbs											
4	Construction of the well water necessary pumps											
\$	Concrete skeleton for administration, workshop, car wash buildings and the water											
9	Building and finishing works for administration, workshop and car wash											
7	Concrete base for the weigh bridge					WReceiving the design drawing	the design			4 H 4		Installation
90	Asphalt layer		:									
٥	Construction works of the fence and gate					April Control of the		-				
10	Lighting works for the Project					(A) (A) (A)						

Transfer Station-Schoolite

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APPENDIX 5

COST ESTIMATION BORNE BY THE RECIPIENT COUNTY

Cost Estimation Borne by the Recipient Country

1. Procurement of container for Compactor Truck

Item	Unit price (US\$)	Unit	Quantity	Price (US\$)	Description
0.2m3 Container	150.00	unit	096	144,000.00	
0.7m3 Container	250.00	umt	370	92,500.60	
I 2m3 Container	300.00	Hit	420	126,000.00	
				362,500.00	

2. Domestic inland transportation

Îtem	Unit price (US\$)	Unit	Quantity	Price (USS)	Description
Cost for bonded storage	1.687.00	day	7.00	11,810.00	
Commission for custom clearance	2.00	E	3,068	6,136.00	
Transportation (vehicles)	530.001	Mit	86.0	29,680.00	
Transmortation (landfill equipment)	90.009	unit	5.00	3,000.00	
Transportation (spare parts)	160.00	tican	20.00	3,200.00	
Sultatoral				53,826.00	

3. Weigh Bridge

Item	Unit price (US\$)	Chrit	Quantity	Price (USS)	Description
Installation	12,500.00	lot	1.00	12,500,00	
Control Room	10,000.00	ស្ត	1.00	10,000.00	
Ground Total				22,500.00	

4. Ground Total

Item	Unit price (USS) Unit	Unit	Quantity	Price (US\$)	Description
Container	362,500.00	lot	1.00	362,500.00	
Domestic inland transportation	58,140.00	lot	1.00	58,140.00	
Weigh Bridge	22,500.00	lot	1.00	22,500.00	
Ground Total				443,140.00	

APPENDIX 6 OTHER RELEVANT DATA

The result of solid waste unit generation and composition analysis

To understand the amount of waste generation and the waste composition in Aleppo City, the solid waste unit generation survey and solid waste composition survey were carried out from Nov.22 to Nov.29.

In this field survey, following samples were taken from each area that was selected by the Municipality.

- Residential area	High income area	1 sample, each 10 households
	Middle income area	2 samples, each 10 households
	Low income area	2 samples, each 10 household
- Commercial area	Shops	2 samples, each 4 shops
	Restaurant	2 samples, each 1 restaurant
- Market area		1 sample
- Public facilities		1 sample
- Office		1 sample
- Street waste		i sample

The results of waste generation and composition analysis are shown in Table-A.6-1, and Tabel-A.6-2.

Table-A.6-1 Unit generation and Bulk density

	Unit g	generation	Bulk de	nsity
Residential High	0.68	kg/day.capita	0.23	t/m³
Middle	0.50	kg/day.capita	0.21	t/m³
Low	0.42	kg/day.capita	0.29	√m³
Commercial	6.51	kg/100m ²	0.09	Ưm³
Restaurant	29.81	kg/100m²	0.49	√m³
Market	125.9	kg/100m ²	0.32	₩ ³
Public	0.60	kg/100m ²	0.07	t/m³
Office	0.82	kg/100m²	0.06	t∕m³
Road	10.80	kg/100m	0.29	t/m³

Table-A.6-2 Waste composition

	F	Residentia	ıl	Commercial	Market	Public	Office	Road
	High	Middle	Low	Commission	Market	Lanue	Office	Nuau
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Combustible								
Paper	14.1	14.3	7.3	9.0	2.0	38.1	46.3	3.0
Textile	1.9	2.0	2.7	2.1	2.1	0.6	0.0	0.7
Plastic	15.5	8.4	6.5	7.8	8.7	16.9	16.5	15.6
Rubber & Leather	0.0	2.0	1.1	0.0	27.7	0.0	0.8	1.3
Wood	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.7
Putrescible matter	67.3	70.3	76.4	74.2	53.9	8.1	22.0	6.2
Other (over 5mm)	0.0	0.1	0.1	0.2	0.0	13.8	1.6	31.3
Other (under 5mm)	0.6	0.7	1.5	0.3	0.6	18.8	0.0	18.6
Sub total	99.3	98.0	95.9	93.6	95.0	96.3	87.3	77.5
Non-Combustible								
Metal	0.7	1.6	1.3	2.8	2.1	0.0	12.7	0.1
Glass	0.0	0.4	1.8	2.7	0.6	3.7	0.0	0.2
Ceramic	0.0	0.0	0.7	0.8	2.2	0.0	0.0	0.0
Stone	0.0	0.1	0.3	0.2	0.1	0.0	0.0	22.2
Sub tetal	0.7	2.0	4.1	6.4	5.0	3,7	12.7	22,5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The result of waste generation

1. High income residential area (Forqan)

Data	Item	1	2	3	4	5	6	7	8	9	10	Total
Number of int	abitants	5	6	5	4	5	3	4	3	2	4	41
Floor area (m		300	300	350	300	300	300	300	300	300	300	3,050
	Weight(kg)	4.50	7.00	1.50	1.80	4.60	2.20	2.90	1.60	0,75	5.10	31.95
Nov.22(Sat)	Volume(1)	15.00	13.00	10.00	9.00	19.00	8.00	6.00	25,00	9.00	19.00	133.00
	Bulk Density(-)		[0.24
	Weight(kg)	5.10	6.00	1.00	2.20	2.90	3.90	1.40	2.10	0.46	3.20	28.26
Nov.23(Sun)		29.00	10.00	6.00	13.00	24.00	18.00	6.00	16.00	8.00	18.00	148.00
	Bulk Density(-)											0.19
	Weight(kg)	2.50	12.00	1.00	1.30	3.10	4.20	2.10	2.00	2.40	2.30	32.90
Nov.24(Mon)	Volume(1)	9.00	19.00	8.00	5.00	12.00	14.00	4.00	5.00	15.00	7.00	98.00
	Bulk Density(-)		l									0.34
	Weight(kg)	2.30	3.50	2.10	1.50	4.60	2.10	4.90	1.80	3.00	6.20	32.00
Nov.25(Tue)	Volume(I)	14.00	10.00	11.00	16.00	18.00	15.00	20.00	12.00	18.00	17.00	151.00
	Bulk Density(-)											0.21
	Weight(kg)	0.90	5.10	3.50	3.00	1.00	1.50	2.50	1.00	0.50	1.50	20.50
Nov.26(Wed)	Volume(I)	13.00	8.00	6.00	13.00	10.00	8.00	14.00	13.00	3.00	6.00	94.00
	Bulk Density(-)											0.22
	Weight (kg)	1.80	4.30	3.50	1.90	3.50	3.50	2.70	2.40	0.30	7.00	30.90
Nov.27(Thu)	Volume(I)	9.00	9.00	14.00	11.00	18.00	33.00	5.00	10.00	2.00	15.00	126.00
	Bulk Density(-)											0.25
	Weight (kg)	1.20	6.20	1.20	4.60	0.40	3.50	2.60	0.45	0.60	2.40	23.15
Nov.28(Fri)	Volume(1)	10.00	10.00	11.00	15.00	3,00	15.00	12.00	2.00	6.00	9.00	93.00
	Bulk Density(-)											0.25
	Weight(kg)	1.50	2.00	4.20	1.20	6.80	2.80	1.70	0.60	0.33	3.50	24.63
Nov.29 (Sat)	Volume(I)	20.00	20.00	18.00	8.00	17.00	10.00	8.00	11.00	2.00	19.00	133.00
	Bulk Density(-)	<u> </u>										0.19
	Weight(kg)	19.80	46.10	18.00	17.50	26.90	23.70	20.80	11.95	8.34	31.20	224.29
合計	Volume(I)	119.00	99.00	84.00	90.00	121.00	121.00	75.00	94.00	63.00	110.00	
!	Bulk Density(-)					<u> </u>	L				<u> </u>	0.23

Unit Generation Average bulk density 0.68 kg/day.capita

2. Middle income residential area (Sef Al Dolah)

Data	Item	1	2	3	4	5	6	7	8	9	10	Total
Number of int	rabitants	5	5	7	5	. 6	7	5	4	5	5	54
Floor area(m)	58	58	65	65	65	65	65	65	65	65	636
	Weight(kg)	1.70	7.70	9.00	2.30	2.90	5.00	2.00	1.80	1.80	25.00	59.20
Nov.22(Sat)	Volume(I)	6.00	24.00	27.00	10.00	12.00	24.00	21.00	10.00	10.00	26.00	170.00
	Bulk Density(-)											0.35
	Weight (kg)	2.10	1.60	3.00	3.20	2.10	3.90	1.50	1.00	2.60	6.00	27.00
Nov.23(Sun)	Volume(1)	10.00	12.00	16.00	11.00	8.00	19.00	17.00	3.00	8.00	10.00	114.00
	Bulk Density(-)											0.24
1	Weight(kg)	0.60	1.10	1.50	1.50	2.70	2.50	0.80	2.00	0.90	0.80	14.40
Nov.24(Mon)	Volume(I)	4.00	10.00	16.00	8.00	15.00	11.00	7.00	5.00	4.00	7.00	87.00
	Bulk Density(-)											0.17
	Weight(kg)	1.00	2.20	4.40	0.46	1.00	2.60	1.60	1.20	1.80	1.40	17.66
Nov.25(Tue)	Volume(1)	5.00	8.00	20.00	4.00	4.00	17.00	11.00	12.00	12.00	10.00	103.00
	Bulk Density(-)											0.17
	Weight(kg)	0.95	1.50	4.20	1.50	2.50	4.30	1,50	4.00	3.10	5.50	29.05
Nov.26 (Wed)		7.00	8.00	13.00	6.00	7.00	12.00	8.00	6.00	9.00	10.00	86.00
	Bulk Density(-)											0.34
	Weight(kg)	1.40	0.65	5.30	0.80	2.30	2.10	0.50	1.30	2.80	2.70	19.85
Nov.27 (Thu)	Volume(1)	10.00	6.00	20.00	4.00	10.00	22.00	6.00	8.00	14.00	13.00	113.00
	Bulk Density(-)											0.18
	Weight(kg)	1.70	2.20	1.50	1.50	1.30	2.00	4.00	2.20	1.70	1.70	19.80
Nov.28(Fri)	Volume(1)	11.00	17.00	3.00	15,00	10.00	8.00	16.00	11.00	14.00	14.00	119.00
	Bulk Density(-)											0.17
	Weight(kg)	0.60	1.50	2.30	2.30	1.30	1.60	2.30	3.00	2.10	3.60	20.60
Nov.29(Sat)	Volume(I)	7.00	12.00	7.00	8.00	6.00	10.00	10.00	21.00	10.00	17.00	108.00
	Bulk Density(-)	L							+ :			0.19
	Weight(kg)	10.05	18.45	31.20	13,56	16.10	24.00	14.20	16.50	16.80	46.70	207.56
合計	Volume(1)	60.00	97.00	122.00	66.00	72.00	123.00	96.00	76,00	81.00	107.00	900.00
	Bulk Density(-)	<u> </u>	<u> </u>	<u> </u>	<u> </u>		L					0.23

Unit Generation Average bulk density 0.48 kg/day.capita 0.23

3. Middle income residential area (Serian)

Data	Item	1	2	3	4	5	6	7	8	9	10	Total
Number of in		6	2	2	5	2	6	5	3	3	3	37
Floor area (m	?)	145	145	100	160	200	200	200	200	200	200	1,750
	Weight(kg)	1.40	0.90	2.50	4.00	1.60	1.60	3.30	1.30	1.40	0.28	18.28
Nov.22(Sai)	Volume(1)	4.00	6.00	10.00	12.00	12.00	12.00	16.00	10.00	8.00	1.00	91.00
	Bulk Density(-)											0.20
	Weight(kg)	1.50	0.60	3.00	1.60	1.70	1.10	2.60	1.00	1.20	1.60	15.90
Nov.23(Sun)	Volume(1)	20.00	3.00	16.00	20.00	14.00	10.00	12.00	11.00	17.00	7.00	130.00
	Bulk Density(-)				I							0.12
	Weight (kg)	1.40	1.40	2.90	2.70	1.60	1.20	1.70	0.20	1.20	4.30	18.60
Nov.24(Mon)	Volume(1)	7.00	5.00	16.00	12.00	18.00	13.00	12.00	2.00	18.00	21.00	124.00
	Bulk Density(-)											0.15
	Weight(kg)	1.20	1.70	1.40	4.00	1.00	1.40	2.40	0.60	1.40	3.50	18.60
Nov.25(Tue)	Volume(I)	5.00	5.00	14.00	14.00	6.00	8.00	28.00	9.00	10.00	20.00	119.00
	Bulk Density(-)											0.16
	Weight(kg)	0.90	1.00	10.60	3.40	2.10	2.00	4.20	1.00	0.90	1.20	26.70
Nov.26(Wed)	Volume(1)	5.00	11.00	10.00	15.00	22.00	15.00	20.00	9.00	6.60	12.00	125.00
	Bulk Density(-)											0.21
	Weight(kg)	1.10	2.10	0.85	3.30	2.40	1.60	3.10	1.70	0.90	0.75	17.20
Nov.27 (Thu)	Volume(I)	5.00	10.00	4.00	12.00	11.00	6.00	15.00	10.00	8.00	4.00	85.00
<u> </u>	Bulk Density(-)											0.20
	Weight(kg)	1.80	1.10	1.20	7.70	1.40	0.80	4.10	0.72	1.10	1.18	21.10
Nov.28(Fri)	Volume(1)	10.00	3.00	7.00	20.00	9.00	2.00	14.00	7.00	9.00	6.00	87.00
	Bulk Density(-)	- 1				+ +						0.24
	Weight(kg)	1.50	0.60	0.70	3.10	1.20	1.10	4.60	0.90	0.80	2.50	17.00
Nov.29 (Sat)	Volume(I)	7.00	3.00	3.00	11.00	6.00	5.00	9.00	4.00	6.00	20.00	74.00
	Bulk Density(-)	1 1										0.23
	Weight(kg)	10.80	9.40	22.55	29.80	13.00	10.20	26.00	7.42	8.90	15.31	153.38
合計	Volume(1)	63.00	46.00	80.00	116.00	98.00	71.00	126.00	62.00	82.00	91.00	835.00
L	Bulk Density(-)											0.18

Unit Generation Average bulk density 0.52 kg/day.capita

4. Low Income residential area (Salah Al Din)

Data	Item	1	2	3	4	5	6	7	8	9	10	Total
Number of int	abitants	13	6	8	8	11	6	3	6	7	8	76
Floor area(m)	80	80	80	80	80	80	80	80	80	80	800
	Weight (kg)	2,60	4.00	4.20	2.60	3.30	6.00	2.00	8,90	8.50	2.80	44.90
Nov.22(Sat)	Volume(I)	6.00	16.00	12,00	14.00	9.00	22.00	10.00	23.00	13.00	12.00	137,00
	Bulk Density(-)											0.33
	Weight(kg)	1.00	2.60	2.40	3.10	2.50	3.20	2.40	1.50	3.00	5.70	27.40
Nov.23(Sun)	Volume(1)	4.00	11.00	9.00	9.00	6.00	14.00	9.00	5.00	6.00	16.00	89.00
	Bulk Density(-)											0.31
	Weight(kg)	3.10	3.00	2.80	2.40	5.30	7.00	2.10	3.50	1.40	3.30	33.90
Nov.24(Mon)	Volume(I)	14.00	8.00	7.00	7.00	16.00	22.00	8.00	6.00	3.00	10.00	101.00
	Bulk Density(-)							<u> </u>				0.34
	Weight(kg)	2.60	3.10	1.60	3.00	4.20	2.00	2.20	3.10	2.90	0.80	25.50
Nov.25(Tue)		18.00	11.00	8.00	10.00	11.00	8.00	5.00	7.00	12.00	4.00	94.00
	Bulk Density(-)							L				0.27
	Weight(kg)	1.50	3.50	5.50	1.00	1.00	2.80	2.00	1,50	5.50	0.80	25.10
Nov.26(Wed)	Volume(I)	8.00	26.00	22.00	7.00	10.00	12.00	12.00	6.00	8.00	6.00	117.00
	Bulk Density(-)											0.21
	Weight(kg)	1.00	1.50	1.50	2.50	4.00	3.50	3.00	2.00	1.80	6.30	27.10
Nov.27 (Thu)	Volume(I)	5.00	10.00	6.00	15.00	12.00	12.00	12.00	5.00	3.00	20.00	100.00
	Bulk Density(-)											0.27
	Weight(kg)	2.30	0.90	0.60	1.50	1.80	1.70	4.50	3.70	3.00	7.80	27.80
Nov.28(Fri)	Volume(1)	7.00	6.00	3.00	10.00	8.00	8.00	14.00	9.00	6.00	34.00	105.00
	Bulk Density(-)											0.26
	Weight(kg)	1.90	1.00	2.20	1.60		12.00		2.00	4.80	6.00	36.30
Nov.29(Sat)	Volume(1)	7.00	3.00	16.00	4.00	7.00	28.00	14.00	13.00	12.00	12.00	116.00
	Bulk Density(-)				<u> </u>						ļ	0.31
	Weight(kg)	16.00	19.60	20.80	17.70		38.20	<u> </u>	26.20	30.90		
승 차	Volume(1)	69.00	91.00	83.00	76.00	79.00	126.00	84.00	74.00	63.00	114.00	}
	Bulk Density(-)			L	L	L	<u> </u>	<u></u>	<u> </u>	<u> </u>	L	0.29

Unit Generation Average bulk density 0.41 kg/day.capita 0.29

5. Low income residential area (Ashrafiah)

Data	ltem	1	2	3	4	5	6	7	8	9	10	Total
Number of int	abitants	6	5	5	3	5	10	3	6	5	9	57
Floor area (m)	60	70	70	60	60	60	60	60	70	60	630
	Weight(kg)	4.20	3.50	4.10	1.10	0.31	6.20	3.00	3.00	1.90	6.00	33.31
Nov.22(Sat)	Votume(1)	14.00	12.00	18.00	4.20	1.60	22.00	9.00	9.00	7.00	20.00	116.20
	Bulk Density(-)	l		i								0.29
	Weight(kg)	3.20	2.00	1.30	1.50	0.30	1.00	1.70	2.70	2.50	4.20	20.40
Nov.23(Sun)	Volume(I)	10.00	5.00	10.00	8.00	2.00	2.00	6.00	8.00	10.00	10.00	71.00
	Bulk Density(-)											0.29
	Weight(kg)	1.10	2.60	2.50	4.00	3.70	4.20	3.70	1.90	1.90	0.60	26.20
Nov.24(Mon)	Volume(1)	5.00	7.00	7.00	18.00	9.00	9.00	7.00	5.00	12.00	4.00	83.00
	Bulk Density(-)											0.32
	Weight (kg)	2.70	3.30	1.70	1.80	1.70	3.70	1.40	3,10	2.50	3.00	24.90
Nov.25(Tue)	Volume(I)	8.00	14.00	4.00	12.00	6.00	12.00	8.00	10.00	15.00	17.00	106.00
]	Bulk Density(-)											0.23
	Weight(kg)	4.00	0.35	2.40	0.95	1.30	1.10	1.90	3.60	2.50	2.90	21.00
Nov.26 (Wed)	Volume(1)	10.00	5.00	8.00	4.00	6.00	6.00	8.00	8.00	11.00	21.00	87.00
i	Bulk Density(-)											0.24
	Weight(kg)	6.50	0.70	1.60	1.30	1.40	2.70	2.20	2.50	1.70	1.50	22.10
Nov.27(Thu)	Volume(I)	16.00	5.00	4.00	2.00	2.00	14.00	6.00	7.00	8.00	8.00	72.00
	Bulk Density(-)			7 P						:		0.31
	Weight(kg)	6.60	1.70	2.30	1.20	0.55	3.90	2.80	3.00	4.10	3.50	29.65
Nov.28(Fri)	Volume(1)	28.00	3.00	7.00	5.00	1.00	13.00	9.00	6.00	15.00	16.00	103.00
	Bulk Density(-)			:								0.29
	Weight (kg)	2.40	1.00	3.10	1.70	1.40	2.80	I	2.60	1.10	1.60	20.60
Nov.29(Sat)	Volume(1)	10.00	4.00	11.00	7.00	4.00	13.00	8.00	6,00	5.00	6.00	
	Bulk Density(-)											0.28
	Weight(kg)	30.70	15.15	19.00	13.55	10.66	25.60	19.60	22.40	18.20	23.30	198.16
合計	Volume(1)	101.00	55.00	69.00	60.20	31.00	91.00	61.00	59.00	83.00	102.00	712.20
	Bulk Density(-)							<u> </u>	· .		1/	0.28

Unit Generation Average bulk density 0.43 kg/day.capita

6. Commercial area-1 (Teral and Bab Al faraj Street)

Data	Item	1	2	3	4	5	6	7	8	9	10	Total
Number of em	ployee	2	4	2	4					L		12
Floor area (m		20	20	20	30						<u></u>	90
	Weight(kg)	0.50	2.90	0.09	0.50]		3.99
	Volume(1)	16.00	12.00	2.00	11.00					l.,,		41.00
	Bulk Density(-)											0.10
	Weight(kg)	0.10	2.60	0.22	1.00				[l <u>.</u>	3.92
Nov.23(Sun)		4.00	22.00	6.00	36.00						l	68.00
	Bulk Density(-)								j		<u> </u>	0.06
	Weight(kg)	0.30	3.00	0.20	0.70					I		4.20
Nov.24(Mon)	Volume(I)	5.00	18.00	8.00	22.00			İ			L	53,00
Į	Bulk Density(-)										<u> </u>	0.08
	Weight(kg)	0.60	3.10	0.20	0.95				l			4.85
Nov.25(Tue)	Volume(1)	6.00	14.00	8.00	20.00						l	48.00
	Bulk Density(-)											0.10
	Weight(kg)	0.75	7.80	0.11	0.65							9.31
Nov.26(Wed)		8.00	26.00	3.00	30.00						 	67.00
	Bulk Density(-)										l	0.14
	Weight(kg)	0.65	3.30	0.17	0.90				[<u> </u>		5.02
Nov.27(Thu)	Volume(I)	6.00	14.00	4.00	18.00					<u> </u>		42.00
	Bulk Density (-)									<u> </u>		0.12
	Weight(kg)	0.55	1.50	0.50	1.20	l					I	3.75
Nov.28(Fri)	Volume(I)	8.00	12.00	3.00	26.00							49.00
	Bulk Density(-)						<u> </u>	L	<u> </u>			0.08
	Weight(kg)	1.80	2.80	1.50	1.10		l		T			7.20
Nov.29(Sat)	Volume(1)	8.00	14.00	6.00	15.00					l		43.00
	Bulk Density(-)							L	<u> </u>		<u> </u>	0.17
	Weight(kg)	5.25	27.00	2.99	7.00	}						42.24
合計	Volume(1)	61.00	132.00	40.00	178.00	L				1	l	411.00
	Bulk Density(-)									<u> </u>	L	0.10

Unit Generation Average bulk density 5.87 kg/100 m 0.10

7. Commercial area-2(Manshiah and Qoatli Street)

Data	Item	1	2	3	4	5	6	7	8	9	10	Total
Number of em	ployee	3	3	2	5							13
Floor area(m)	30	20	15	20							85
	Weight(kg)	0.90	0.62	0.35	4.80							6.67
Nov.22(Sat)	Volume(1)	16.00	9.00	13.00	18.00							56.00
	Bulk Density(-)						I .					0.12
	Weight(kg)	0.85	1.00	0.70	2.50							5.05
Nov.23(Sun)	Volume(I)	18.00	24.00	30.00	18.00			1	Ī		L	90.00
	Bulk Density(-)				}							0.06
	Weight(kg)	0.40	0.80	0.90	2.00							4.10
Nov.24 (Mon)	Volume(1)	35.00	16.00	28.00	16.00							95.00
	Bulk Density(-)										<u> </u>	0.04
	Weight(kg)	0.70	0.40	0.64	5.20					l		6.94
Nov.25(Tue)	Volume(I)	12.00	20.00	32.00	26.00		1			L		90.00
	Bulk Density(-)			1			<u></u>	İ				0.08
	Weight(kg)	0.95	0.17	0.35	6.00							7.47
Nov.26(Wed)	Volume(1)	19.00	8.00	24.00	28.00		I			<u> </u>		79.00
	Bulk Density(-)				:		L					0.09
	Weight(kg)	1.10	1.30	0.30	3.60							6.30
Nov.27(Thu)	Volume(I)	22.00	28.00	18.00	22.00						<u></u>	90.00
	Bulk Density(-)		100				<u></u>		L			0.07
	Weight(kg)	0.90	0.50	0.55	4.20		1					6.15
Nov.28(Fri)	Volume(1)	18.00	8.00	22.00	20.00							68.00
	Bulk Density(-)						L	1				0.09
	Weight(kg)	0.88	0.30	0.80	3.90							5.88
Nov.29 (Sat)	Volume(I)	16.00	4.00	18.00	18.00		I					56.00
	Bulk Density(-)		-						I			0.11
	Weight(kg)	6.68	5.09	4.59	32.20						I	48.56
合計	Volume(I)	156.00	117.00	185.00	166.00		<u></u>				I	624.00
<u></u>	Bulk Density(-)						T	T		I		0.08

Unit Generation Average bulk density 7.14 kg/100 m² 0.08

7'. Commercial area (Restaurant)

Data	Item	1	2	3	4	5	6	7	8	9	10	Total
Number of en	ployee	35	6					·	l			41
Floor area (m		250	50									300
	Weight(kg)	154.30	20,00									174.30
Nov.22(Sat)	Volume(1)	347.00	39.00				!					386.00
	Bulk Density(-)						<u> </u>		<u> </u>	<u> </u>		0.45
	Weight(kg)	96.50	9.70						 	l		106.20
Nov.23(Sun)		199.00	23.00		1	i	,					222.00
	Bulk Density(-)											0.48
	Weight (kg)	71.00	10.14			l]				81.14
Nov.24(Mon.	Volume(I)	100.00	60.00				<u> </u>		 			160.00
	Bulk Density(-)				<u> </u>				<u> </u>	<u> </u>		0.51
	Weight(kg)	63.00	8.00		L	i	,		<u> </u>	ļ		71.00
Nov.25(Tue)	Volume(1)	146.00	18.00			1				, ,		164.00
	Bulk Density(-)				<u> </u>		<u> </u>		<u> </u>			0.43
	Weight(kg)	56.50	10.50		l				ļ			67.00
Nov.26 (Wed)		125.00	10.00		L		I	I	ļ	<u></u>		135.00
	Bulk Density(-)					<u> </u>	<u> </u>		<u> </u>			0.50
	Weight(kg)	59.00	7.70		I	l			l			66.70
Nov.27(Thu)		121.00	20.00				I		ļ	<u></u>		141.00
	Bulk Density(-)				L .			<u> </u>	<u> </u>			0.47
	Weight(kg)	58.50	9.10				.]	1	L	 		67.60
Nov.28(Fri)	Volume(1)	112.00	26.00	l	<u> </u>	1				ļ <u>.</u>	l	138.00
	Bulk Density(-)					<u> </u>		<u></u>		<u> </u>		0.49
	Weight (kg)	68.50	13.00		l	<u> </u>						81.50
Nov.29 (Sat)		125.00	18.00	<u></u>			ļ	ļ				143.00
	Bulk Density(-)				<u>.</u>		1			<u> </u>		0.57
	Weight(kg)	627.30	88.14		L]		.l		1	ļ	715.44
合計	Volume(1)	1,275.00	214.00		<u> </u>	.]	ļ		.]	. <u>-</u> -		1,489.00
	Bulk Density(-)	l	<u> </u>	L	<u> 1</u>	<u> </u>		<u></u>		<u> </u>	L	0.48

Unit Generation Average bulk density 29.81 kg/100 m

8. Market area (Sef Al dolah)

Data	Item	1	2	3	4	5	6	7	8	9	10	Total
Number of stal	lis	40						L				40
Floor area(m))	400										400
	Weight(kg)	639.60										639.60
Nov.22(Sat)	Volume(1)	1,950										1,950
	Bulk Density(-)											0.33
	Weight(kg)	465.40		·		.				<u> </u>		465.40
Nov.23(Sun)	Volume(1)	1,600										1,600
	Bulk Density(-)					<u>L</u>	L.,		L			0.29
	Weight(kg)	507.00										507.00
Nov.24(Mon)	Volume(1)	1,600				l			l	l	l	1,600
	Bulk Density(-)			Ĺ	L		l		L		L	0.32
	Weight(kg)	405.60							l			405.60
Nov.25(Tue)	Volume(I)	1,600										1,600
	Bulk Density(-)					l						0.25
	Weight(kg)	531.70		[l			l		l	531.70
Nov.26(Wed)		1,600								L	l	1,600
	Bulk Density(-)			[1	<u> </u>	<u> </u>					0.33
	Weight(kg)	520.00			I	l						520.00
Nov.27(Thu)	Volume(1)	1,600		,			<u> </u>			<u> </u>		1,600
	Bulk Density(-)	<u> </u>				<u> </u>	l	<u> </u>	<u> </u>			0.33
	Weight(kg)	217.75		[L				<u>. </u>	ļ	217.75
Nov.28(Fri)	Volume(1)	650		l	.	ļ	J			1		650
	Bulk Density(-)			<u> </u>			<u> </u>	<u> </u>	<u> </u>	<u> </u>	L	0.34
	Weight(kg)	741.00				<u> </u>			I			741.00
Nov.29(Sat)	Volume(1)	1,950					.l		<u> </u>		l	1,950
	Bulk Density(-)			<u> </u>	<u> </u>	<u> </u>]		<u> </u>		L	0.38
	Weight (kg)	1,028.05			l	L	I		<u> </u>			4,028.05
승 화	Volume(1)	12,550			l	L	L			I		12,550
	Bulk Density(.)			<u> </u>		<u></u>				1	1	0.32
							Unit Go	eneration		125.9	kg/100	nt

9. Public facilities (The General Company for Roads)

Data	[tem	1	2	3	4	5	6	7	8	9	10	Total
Number of em	ployee	21		I								21
Floor area (m)	200										200
	Weight(kg)	2.13										2.13
Nov.22(Sat)	Volume(I)	51.00		l		i						51.00
	Bulk Density(-)						<u> </u>	<u> </u>				0.04
	Weight(kg)	1.85		1	l	<u> </u>						1.85
Nov.23(Sun)		25.00		<u> </u>	<u> </u>	İ	l	<u> </u>	İ	<u> </u>	<u></u>	25.00
	Bulk Density(-)				<u> </u>		<u> </u>	<u> </u>		<u> </u>		0.07
	Weight(kg)	1.00			1				l			1.00
Nov.24(Mon)		13.00		.l			l	.	l		l	13.00
	Bulk Density(-)			<u> </u>			ļ	<u> </u>				0.08
	Weight(kg)	1.05					.l		<u> </u>	l	<u></u>	1.05
Nov.25(Tue)		20.00			<u> </u>				ļ	ļ <u>.</u>	<u></u>	20.00
	Bulk Density(-)						<u> </u>			ļ		0.05
	Weight(kg)	1.10		1					l		L	1.10
Nov.26 (Wed)		23.00						. []	ļ		23.00
	Bulk Density(-)							<u> </u>		<u> </u>		0.05
	Weight(kg)	0.60		.		I	<u> </u>	<u> </u>	<u> </u>	l		0.60
Nov.27(Thu)		6.00					.			. .		6.00
	Bulk Density(-)	· .	<u></u>			1						0.10
	Weight(kg)		l	.	.L	<u> </u>	1	1	l	l		0.00
Nov.28(Fri)	Volume(I)		l	.				<u>.i</u>	<u> </u>	l	l	0.00
	Bulk Density(-)						<u> </u>	<u> </u>		<u> </u>		<u> </u>
	Weight(kg)	0.70		<u>. </u>	1	ļ	<u> </u>	<u> </u>	<u> </u>	<u> </u>	.l	0.70
Nov.29(Sat)	Volume(1)	7.00				.I	<u>.</u>			ļ		7.00
	Bulk Density (-)		<u> </u>			1	1			<u> </u>		0.10
	Weight(kg)	8.43				1		1	<u> </u>	1	ļ	8.43
合 計	Volume(1)	145.00			L	<u> </u>	1	1	<u> </u>	ļ. <u>.</u>		145.00
	Bulk Density(-)		<u> </u>	<u> </u>	<u> </u>	<u> </u>	1			<u> </u>	1	0.06

Unit Generation Average bulk density

Average bulk density

0.32

0.60 kg/100m 0.06

10. Office area (Al Azizart)

Data	Item	1	2	3	4	5	6	7	8	9	10	Total
Number of em	ployee	4	2	- 6	3			<u></u>				15
Floor area (m		40	25	60	25		<u> </u>		<u></u>			150
	Weight(kg)						l	l				0.00
Nov.22(Sat)	Volume(1)											0.00
	Bulk Density(-)								L	<u></u>		
	Weight(kg)	0.46	0.19	2.10	0.07		.					2.82
Nov.23(Sun)		7.00	10.00	10.00	1.00				1			28.00
	Bulk Density(-)						<u> </u>					0.10
	Weight(kg)	0.25	0.10	0.15	0.08		<u>]</u>					0.58
Nov.24(Mon)		5.00	2.00	8.00	1.00		ļ					16.00
	Bulk Density(-)						1	<u> </u>	ļ	ļ		0.04
	Weight(kg)	0.30	0.15	0.25	0.20		. j			} <i></i>		0.90
Nov.25(Tue)	Volume(I)	8.00	3.00	2.00	3.00							16.00
	Bulk Density(-)						<u> </u>	<u> </u>			ļ	0.06
	Weight(kg)	0.38	0.16	0.15	0.22							0.91
Nov.26 (Wed)	Volume(1)	6.00	6.00	2.00	4.00							18.00
	Bulk Density(-)								 		ļ	0.05
	Weight(kg)	0.40	0.25	0.20	0.16					l		1.01
Nov.27 (Thu)	Volume(1)	8.00	4.00	2.10	4.00							18.10
İ	Bulk Density(-)					L		<u> </u>		. 		0.06
	Weight(kg)		ll				.]			ļ		0.00
Nov.28(Fri)	Volume(1)		<u> </u>			 				ļ		0.00
	Bulk Density(-)		<u> </u>			1		 		-	 	
	Weight(kg)	0.20	0.26	0.20	0.50			.				1.16
Nov.29 (Sat)	Volume(I)	2.00	13.00	2.00	8.00	1		_				25.00
	Bulk Density(-)					↓		 _		- 	 	0.05
	Weight(kg)	1.99	4	3.05	1.23	.		_	_1		-]-	7.38
合 計	Volume(1)	36.00	38.00	26.10	21.00	l					.	121.10
1	Bulk Density(-)					L					1	0.06

Unit Generation Average bulk density 0.82 kg/100m 0.06

11. Street waste

Data	Item	1 1	2	3	4	5	6	1	8	9	10	Total
Road length (60										60
Swept length (1		60							L			60
Jacpt Rugant	Weight(kg)	1.30			Í							1,30
	Volume(1)	4.00			I	1	i — — — — —	1				4.00
	Bulk Density(-)				1	1	i		<u> </u>			0.33
	Weight(kg)	3.50						1				3.50
Nov.23(Sun)		24.00				I						24.00
	Bulk Density(-)								L			0.15
	Weight(kg)	10.80			1				I			10.80
Nov.24(Mon)		22.00				1						22.00
,,,,,,	Bulk Density(-)			···		1			l			0.49
	Weight(kg)	14.90			1		1	Ī				14.90
Nov.25(Tue)		34.00	·				1					34.00
	Buik Density(-)				1	1			L			0.44
	Weight(kg)	8.80			1	1	1		I			8.80
Nov.26(Wed)		23.00					<u> </u>		!	1		23.00
	Bulk Density(-)			[1	1	1		<u> </u>			0.38
	Weight(kg)	3.70				T						3.70
Nov.27(Thu)		26.00		{	1	<u> </u>	1		1	<u></u>	L	26.00
((0)_)(1)	Bulk Density(-)			t	-	1	i					0.14
	Weight(kg)	6.20		 	1					i		6.20
Nov.28(Fri)	Volume(I)	22.00		·			1		<u> </u>		l	22.00
1107120(1117	Bulk Density(-)					·ţ	T-:			<u> </u>		0.28
	Weight(kg)	2.50		<u> </u>	1	1	1			l	l	2.50
Nov.29(Sat)	Volume(1)	20.00	<u> </u>	t	· [· · · · · · · ·	T	1	_		1		20.00
	Bulk Density(-)	ļ — 	<u> </u>	† 	·	T	†					0.13
	13 th (1)	51.70	<u> </u>		T	1				<u> </u>	<u>L.</u>	51.70
	I Weight LKg /											
合計	Weight(kg) Volume(t)	175.00					1		1		L	175.00 0.30

Unit Generation Average bulk density 10,8 kg/100m 0.30

APPENDIX 7 REFERENCES

REFERENCES

1 STATISTICAL ABSTRACT 1996 A4 563 Original 1 OFFICE OF THE PRIME Purchase 2 SUMMARY OF FOREIGN TRADE / Jan-June, 1997 A4 99 Original 1 OFFICE OF THE PRIME Purchase 3 FOREIGN TRADE STATISTICS / 1996 A4 283 Original 1 OFFICE OF THE PRIME Purchase 4 PLAN OF ALEPPO CITY A0 4 Copy 2 ALEPPO CITY COUNCIL Complimenta 5 MAP OF CENTER PART OF ALEPPO CITY A0 1 Original 1 ALEPPO CITY COUNCIL Complimenta 6 PLAN FOR MODIFING ALEPPO CITY A0 1 Copy 1 ALEPPO CITY COUNCIL Complimenta 8 ROAD MAP OF ALEPPO CITY A0 3 Copy 1 ALEPPO CITY COUNCIL Complimenta 9 MAP FOR MASTER PLAN OF ALEPPO CITY A0 3 Copy 1 ALEPPO CITY COUNCIL Complimenta 10 REHABILITATION OF THE OLD CITY OF ALEPPO A0 1 Copy 1 AL	o Z	Name of reference	Size	Number of page	Original/ Copy	Number	Name of government office to be approached or Name of issuing government office	Complimentary/ Purchase (price)
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