

述べる必要がある。なお本節では、費用効果及び便益について言及しなければならない。

1) 計画

先ず、特定区域の2000年における人口を予想し、あわせて廃棄物の排出量とその質を推定するが、その際、廃棄物の排出と貯留、収集と輸送、処理と処分、有価物回収の方法を、前述の全体計画の中で行った比較設計より選り出して決定しなければならない。

2) 設計

上記の計画された内容から、廃棄物の収集・輸送を改善する案を立案し、それらを廃棄物の処理施設・有価物回収施設等の具体的な内容との関連において設計し、それらの費用投資が予算化にとって望ましい姿に総括しなければならない。

3) 社会機構

特定区域の具体的な廃棄物処理事業を構築するに当って必要な各種の対策、例えば教育、人的資源の開発と訓練、コミュニティの創造と清掃事業の教育などについて立案し、実行に当って予算化可能な施策を考慮しなければならない。

4) 行政機構

特定区域の具体的な廃棄物処理事業を構築するに当って必要な地区レベルの行政機構を、Phase- IIで述べたGovernorateレベルの機構との関連において考察し、地区レベルで考慮すべき監督者、作業長、作業員、運転手等の直営作業員の地位、資格、給与、社会保険等についての勧告を行い、委託業者に対しては契約の方法を明示する等の施策をあわせて勧告しなければならない。また、行政機構の構築に必要な法律・規則・労働協約の原案を作成しなければならない。

5) 費用効果及び便益

特定区域の具体的な廃棄物処理事業を実施に移す場合を予想し、必要な資金の額を算出し、そのうち州政府が自己資金で負担すべき部分と、外国援助あるいは融資でまかなう部分とを明らかにし、それらの資金を投じた場合の費用効果及び便益を推定し、もって資金投資の可否を検討しうる試算を作成しなければならない。

4-4 調査スケジュール

4-3 調査の範囲で述べた作業は、アレキサンドリアにおける現地調査と国内作業による現

状の解析と全体計画の立案とに大別される。

現地調査は、年間を通したごみ量及び質の推定が可能な時期を選んで行い、国内作業に備えなければならない。なお、6月はラマダン（断食月）が予定され、現地調査に若干支障を生ずることも予想されるので考慮に入れることが望ましい。

Phase- I:

(1) Inception Report の作成

本reportの中には、全作業の計画をスケジュールとして明確にし、作業にタッチする要員の姓名・資格・バックグラウンド等を述べると共に、作業に付随して持参する調査器具についても述べ、作業に着手する以前に20部提出しなければならない。第1回の現地調査は約4ヵ月を予定する。

(2) Progress Report の作成

第1回の現地調査を了した後、現状と問題点を述べた報告書を20部提出しなければならない。本reportの中には、先方より入手した資料、自ら調査した資料、あるいは他の事業所より引用した資料等を分類して整理し、解析に至る前に考えられる問題点を指摘し、要すれば第2回の現地調査の予定、それまでに先方に依頼する資料等についても述べなければならない。

Phase- II:

(3) Interim Report の作成と提出

Progress Reportの作成を終了した後、現地調査による資料と解析を行うが、それらはPhase- IIにおいて述べた内容について、4ヵ月にわたる国内作業を行い、中間報告書20部を提出した後、1ヵ月間の先方の下読み期間において、アレキサンドリアに赴き、先方に対して中間報告書の説明を行わなければならない。

中間報告書の中には、現況と分析、及びアレキサンドリア全体計画についての勧告を織り込むことになるが、これは、全体計画の中から選出される実施可能な特定区域の実施計画 (Phase- III) との関連があるので、現地における説明等を通して速やかに先方の意向を打診し、Phase- IIIに備えることが望ましい。

Phase- III:

(4) Progress Report の作成

実施可能な特定区域が設定された後、第1回の現地調査で入手し得なかった資料の調査及び特定区域における更に具体的な諸資料の入手のため、必要に応じて第2回の現地

地調査を行わなければならない。第2回の現地調査には約3ヵ月を予定する。第2回の progress report の提出は、前述に準ずる。

(5) Draft Final Report の作成と提出

実施可能な特定区域の実施計画について、約3ヵ月間国内作業を実施し、最終報告書のドラフト20部を提出する。しかる後、1ヵ月間の先方の下読み期間において、アレキサンドリアに赴き、先方に対して最終報告書ドラフトの説明を行わなければならない。

最終報告書ドラフトの説明に当っては、先方の希望を十分考慮に入れ、アレキサンドリアの実態に即したものとするため、十分な時間をかけて討議することが望ましい。

(6) Final Report の作成

上記の討議を了した後、1ヵ月以内に最終報告書として50部提出しなければならない。

(7) Counter Part の受入れ

本調査の適当な時期に、アレキサンドリア側 Counterpart 1名を3ヵ月間我国へ招ねいて、技術移転を行う予定であるので、その受入れについて考慮しなければならない。なお、Counterpart の日本への旅費及び日本における滞在費はJICA 負担とする。

4-5 要員配置計画

- (1) 本格調査に当っては、英語に秀れた要員を配置することは勿論であるが、作業の円滑を計るため、アラビヤ語を理解する要員を含ませることが望ましい。

(2) 全作業に必要な要員は、大概次の通りである。

	Phase- I	Phase- II	Phase- III	total
1. Actual Work				
Project Manager	1	1	1	3
Sanitary Engineer	2	2	2	6
Mechanical & Electric Engineer	0	1	1	2
Socio-Economist	0.5	0.5	1	2
Civil Engineer	1	1	1	3
Lawyer	0.5	0.5	0.5	1.5
Total (Man)	5	6	6.5	
Month	4	4	6	
Man-Month	20	24	39	83
2. Explanation				
Project Manager	1	1	1	3
Sanitary Engineer	1	1	1	3
Socio-Economist or Lawyer	0	1	1	2
Engineer (Mechanical & Electric or Civil)	0	1	1	2
Total (Man)	2	4	4	
Month	0.3	0.3	0.3	
Man-Month	0.6	1.2	1.2	3
Grand-Total				86

4-6 別紙

“アレキサンドリアにおけるごみの収集”

エジプトにおけるごみ収集を知るには、Zabbaleenといわれる集団を除いて語ることはできない。アラビア語で厨芥のことをZibalaというが、ごみを収集し、運搬し、有価物回収を行い、それによって生計をたてているところから、Zabbaleenなる言葉が生れたといわれる。

砂漠に住まず、僅かなグリーン・ベルトに住居を構えるエジプト人は、勢い高層アパートを利用することになり、家庭ごみは朝まで裏口に止め置かれる。朝5時すぎ、荷車をろばに引かせ、親子と思われるZabbaleen家族は、自分の定められた縄ばりのアパートの前にろば車をとめる。手作りと思われるごみ袋を背負って父親らしい男が裏階段を昇り、家庭の裏口に置かれたごみを収集し、ごみ袋が一杯になると、再び裏階段を降りてろば車にごみをあける。ろば車の上で待つ子供らしい男(女)は、車の中で、ごみにまみれて分別をはじめめる。ダンボール・プラスチック・紙・有価物は、きめ細かく手選別され、ろば車が動きはじめても、彼らの分別作業は続く。時刻は6時から7時を指す。

縄ばりの収集を終えたZabbaleen家族は、車で激しく混雑する街を、ろば車に乗って、自宅付近の分別場に戻る。ごみに汚れた身体をかまおうともせず、彼らはろば車の上で食物をほぼぼるのである。(写真参照)

分別場へ戻ると、ろばは他のやぎや馬、まれに豚と一緒に、街路に捨られた食物カスをあさる。やがて街路は動物の糞で悪臭を放つが、その糞も堆肥として農地へ還元されるまで、とどめ置かれる。人間と動物とが同居する街は、環境衛生を語る以前の状態にある。

ごみは分別場で細かく手選別され、有価物は箱に仕別けされ、堆肥可能物は傍の野積み場へ運ばれ、子供達は時折、切返しを行い、発酵を促進させる。分別が徹底して行われているためか、堆肥の質は決して悪くない。有価物(ガラス・ぼろ・紙・金属・骨等)は、立派に売却されている。

アレキサンドリアの委員会は、Zabbaleenによるごみ収集をillegalと述べた。これはlocal community development societyがVoluntaryで、Zabbaleenと契約し、1軒当たり1ポンド/月の収集料が支払われており、収集範囲は平均150軒といわれるから、Zabbaleenは約150ポンド/月の収入をあげており、ろば車の借料を10~30ポンド/月支払ったとしても、実収入はタクシー運転手のそれと勝るとも劣らない。

Zabbaleenにろば車を貸し、かつ縄ばりを独占するボスがいることは、この問題を更に複

雑にしている。街に新しい高層アパートが完成すると、何処からともなくボスが現われ、アパートのオーナーとごみ収集の権利取得について話し合い、再びZabbaleenの収集がはじめられる。Zabbaleen同士は、決して縄張りを侵害することはない。縄張り内のごみが残ったとしても、他のZabbaleenが収集するようなことはない。ボスは百万長者といわれるが、アレキサンドリアの委員会は、それが誰であるかは指摘しなかった。

アレキサンドリアでは、Zabbaleenと直営の労務者によりごみ収集が行われている。後者では、ドラム型トラックに積み込まれ(写真参照)、最大150エーカーの埋立地3ヵ所に運ばれ、投棄されている。投棄場では、有価物回収は行われておらず、覆土もなく、ハエや水鳥が舞い、BOD 30,000 mg/l をこえる浸出液が埋立地傍の塩水湖を汚染している(写真参照)。アレキサンドリアには、10t車45台、5t車35台、3t車43台の収集車があり、この中80%が常時2〜3レフトの稼働をしている。

直営収集は、全域を6地区に分け、これを更に37清掃区に分けて行われている。職員は、監督者377人、作業長115人、2,000人の作業員と区分されているが、更に2,000人の作業員が必要といわれる。人員の不足は低給与にあるといわれるが、石油産油国への出稼ぎ賃が高額であることも手伝って、これらの問題の解決は、ごみ収集の基本問題となりかねない。なお、ごみ収集をプラスチック袋で行うと、袋そのものが盗まれるような場合もあり、収集車の到着を待って、ホイッスルの合図で、住民がごみを運び出し、収集車に載せている。

委員会によるごみ量は、現在1,500t/日、将来1,800t/日といわれるが、実情はこれを下回るのではあるまいか。又ごみ質は次の通りである。

厨 芥	64%
紙	19%
ダ ス ト	3%
セ シ ャ	3%
木	2.5%
金 属	2%
ガ ラ ス	2%
パ ン ク ズ	2%
皮	1%
プラスチック	0.5%
骨	1%

なお、病院・大学・工場・港湾施設はすべて自らの責任でごみを収集し、埋立ている。

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محافظة الإسكندرية
مكتب وكيل وزارة الإسكان
12/2

Japan International Cooperation Agency
26, El Kods, El Sherif street
El Mohandesten, Doki, A.R.E.

February 20, 1984

Dear sir,

Referring to your telex dated February 4, 1984, it is convenient for us to receive your team scheduled to visit Alexandria from March 23 till April 4, 1984 for the purpose of feasibility study on our refuse composting plant project.

We enclose herewith the "Terms of Reference" of the project for your delegation.

We hope it will be helpful to your delegation for pre-study. If any data needed to be prepared before the arrival of the team please advise us.

We would like to stress that the governorate will not take any financial liabilities or obligations for this study.

With best regards,

Yours Sincerely,
Alexandria Governorate



Ghad Rophael
General Manager
Follow-Up Department.

**Terms of Reference
For Consulting Service of
Alexandria Governorate Refuse Composting Project**

I. Introduction

The increase of the population and the improvement of living standards in the city of Alexandria has resulted in a proportional voluminous increase in refuse production. As at present, the city of Alexandria alone produces refuse at approximately 1,250 to 1,500 tons/day or 456,250 to 547,500 tons a year.

The treatment used to this day is the landfill system. Recent findings, however, show that said system is now inadequate to meet with the increasing amount of refuse as well as the sanitation needs of the city. Landfilling sites or dumping areas which are adopted at present are now limited, in addition to having been reclaimed, and an open dumping has been causing environment sanitation problems. In addition, city must be cleaned because many visitors and tourists visit the city of Alexandria.

Because of limited landfilling sites near the city, proper dumping sites have been continuously moved to farther places from the city, pushing collection costs sky-high. Eventually, the financial burden on the city administration becomes heavier.

The Alexandria Governorate is intending a dynamic role towards upgrading the city environment and solving these nuisances by introducing a new technology such as a composting system. Alexandria Governorate possesses about ninety automatic collection cars and about fifty ordinary collecting cars. For undergoing waste disposal project, there are thirty hundred workers belonging to Alexandria Governorate and six hundred workers belonging to the private contractors.

But the problem of the waste disposal is a severe big burden of the city of Alexandria, it is necessary that the developed country will carry out a survey leading to a feasibility study of waste disposal project in the city of Alexandria.

According to above description, the Alexandria Governorate submits this "Term of Reference" and requests to carry out the survey for waste disposal project in the city of Alexandria to the Government of Japan.

II. Terms of reference for consulting services

1. General

In view of the magnitude and complexity of the proposed project works, consulting services shall be required in the preparation of the feasibility study.

2. Scope of Work

Alexandria Governorate requests that the team of consultants dispatched by the Government of Japan shall pursue the following activities:

- Carrying out the feasibility study
- Topographical and soil survey for planned area
- Fundamental design for the waste disposal system

2.1 Carrying out the feasibility study

The consultants shall carry out the feasibility study. The following aspects shall be carried out, but not limited thereto:

- Characteristics of the waste stream
- Quantity and quality of solid waste
- Solid waste collection and disposal system (including routing, transportation and distribution)
- Marketing for compost and other recovered materials
- The optimum location, type and number of the refuse disposal plant
- Fundamental design of the necessary civil, electrical and mechanical works for the city of Alexandria refuse disposal plant
- Financial plan and organizational structures
- Budgetary and instructional aspects of solid waste management system
- Development of the implementation strategies for the immediate, intermediate and long range solid waste management problem
- Transfer of Technology to the Alexandrian engineers related to the refuse disposal treatment work
- Establish institutional arrangements for the construction operation and maintenance of the project.

2.2 Environmental Impact Assessment

The consultants shall assess the physical impacts (including air, surface water, soil and groundwater quality effects), biological impacts (including aquatic

and terrestrial biota, and public health effects) and socio-economic impacts (including land use, employment, productivity, traffic, resource utilization and dry product marketing effects) of the disposal system.

2.3 Fundamental design of the municipal refuse disposal system

A. Investigation

The consultants shall undertake topographic survey for the site of the refuse disposal plant, including existing structures, vegetation, land use, streams, etc., and for the development of off-site public utilities.

The consultants shall also carry out geological and soil investigation including boring tests for the proposed structures and take samples for determining groundwater level, soil properties and bearing capacities to allow for planning of building foundations and the development of facility designs.

B. Construction Planning

Construction plans shall be prepared, including proposed construction methods, necessary construction equipment, materials and labour and construction schedule for the implementation of the project with due consideration to available local equipment, materials, spoil bank, borrow area, etc.

C. Cost Estimate

The preparation of cost estimate shall be done based on the above fundamental design and construction plan.

D. Tender documents for civil and mechanical works

The consultants shall prepare tender documents for the construction of the refuse disposal plant including general conditions, technical specifications and other related documents necessary for tendering.

E. Project Implementation Program

The consultants shall prepare the project implementation program which may be necessary for seeking appropriate project loan.

3. Out-Put required

3.1 General

The consultants shall, in accordance with the proposed time table, prepare the following reports, documents and drawings:

- Inception report: review of feasibility and supplemental studies
- Progress report
- Technical report
- Cost estimate and implementation schedule
- Drawings, specifications and tender documents

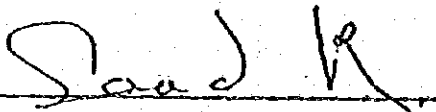
H. Ruedrich

SCOPE OF WORKS
FOR
THE FEASIBILITY STUDY
ON
THE PLAN FOR REFUSE COLLECTION, TREATMENT AND DISPOSAL
IN
THE CITY OF ALEXANDRIA
OF
THE ARAB REPUBLIC OF EGYPT

AGREED UPON BETWEEN
THE GOVERNORATE OF ALEXANDRIA
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

March 29, 1984

Alexandria, The Arab Republic of Egypt



Mr. Saad Rafael
General Manager of Follow-up Dept.,
The Governorate of Alexandria



Dr. Sachiho Naito, Leader
The Japanese Preliminary Survey
Team, Japan International
Cooperation Agency

Ministry of Investment & International Cooperation

I. INTRODUCTION

In response to the request of the Government of the Arab Republic of Egypt for the technical cooperation in conducting the feasibility study on refuse collection, treatment and disposal system in the City of Alexandria, the Government of Japan has agreed to provide the service of a team of Japanese experts to undertake the feasibility study (hereinafter referred to as Study) within the general framework of technical cooperation between Japan and Egypt which is set forth in the Agreement on Technical Cooperation between the Government of Japan and the Government of the Arab Republic of Egypt entered into force on the 31st of January, 1984.

The Japan International Cooperation Agency (hereinafter referred to as JICA), the official agency responsible for implementation of the technical cooperation programs of the Government of Japan, will undertake the Study in close cooperation with the concerned authorities of the Egyptian Government, and in particular with the Governorate of Alexandria.

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

II. OBJECTIVES

The general objective of the Study is to perform a comprehensive solid waste management for Alexandria. The Study will specify the appropriate technical, economic, administrative, and social programs needed to solve the present environmental problems in a manner compatible with conditions in Alexandria.

The Study will be composed of two sub-objectives, such as overall system objective and specific program objective.

1. Overall System Objective

The overall system objective is to eliminate the public health hazards created by existing solid waste practices in all problem districts, taking into account the recycling system under the practices of present communities, and to create a solid waste management organization at the Governorate level.

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2. Specific Program Objective

The specific program objective is to identify, define and evaluate all feasible options for managing solid wastes in a specific project district. This will include solid waste management facilities, human resources and community program to achieve a balance between resource recovery and the protection of public health, in addition to the recommendation for specific action programs and institutional structures.

III. OUTLINE OF THE STUDY

1. Study Area

The area to be covered by this Study is limited to the city area of Alexandria.

2. Content of the Study

In order to fulfill the objectives of the Study, following items are to be studied in the field programs (field surveys and data/information collection) in Alexandria in addition to the analysis works in Japan.

The Study is made to provide an intense and systematic exposure to the solid waste problems in Alexandria. This will lead to the establishment of a basic data/information and to an understanding of what problems need to be addressed in technical, economic and social terms. For each major source of solid wastes such as residential and commercial wastes excluding industrial wastes in Alexandria, the purpose is to formulate alternative programs of solid waste management and to analyze each alternative in economic, social and institutional terms for the purpose of improving present status.

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In addition, the purpose is to recommend a specific program of implementation of solid waste management for a specific project district of Alexandria. While a specific project district may provide only a solution of single problem area, it will be presented as a part of overall system objective, acting in concern with other specific program objective.

The tasks to be accomplished are as follows in consequence of report preparation and submission.

Phase-I

- (1) Investigations (by means of field program) regard to the present solid waste management system of Alexandria to identify the problems in the present operation.
 - a. to establish the quantity and characteristics of solid waste.
 - b. to diagnose the present discharge and storage procedure of solid wastes.
 - c. to diagnose the existing solid wastes collection method and haulage system.
 - d. to diagnose the existing solid wastes treatment and disposal system, including field investigation of existing landfill sites.
 - e. to diagnose the present resource recovery system and to identify markets for recovered materials.
 - f. to characterize the social and economic situation of communities involved in solid wastes handling.
 - g. to identify the present institutional, administrative and management system (organization, manpower, budget) involved in solid waste management.
 - h. to diagnose the existing land use and city and rural development plans.

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Phase-II

(2) Identification and evaluation of solid waste management to eliminate public health hazards in a way that takes into account the economic values associated with waste recycling in consequence of report preparation and submission.

- a. Improvement of conditions at the source of solid wastes in views of discharge and storage procedure, social customs and behavior and need for education.
- b. Collection and haulage requirements in views of containers, vehicles, supporting facilities and human resources;.
- c. Deposition, processing and final disposal taking into account the alternative studies of incinerator, composting, landfill, recycling and energy recovery and human resources, considering environmental impact.
- d. Institutional options in views of public ownership and operation, contracts to private organization and unions, informal enterprise without contracts, coordination with public health sector, role of the workers, and laws and customs.

Phase-III

(3) Design of a feasible implementation program for the specific project district, to present specific program of actions relating to overall system based upon the analysis of options in the previous Phase, in consequence of report preparation and submission.

- a. Planning programs:

Determination of future prediction of population through 2000 and characteristics of the specific project district to be served, quantity and characteristics of solid wastes to be discharged and stored in addition to the recommendation of suitable sites for treatment, disposal and recycling system.

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- b. Engineering programs:
Determination of collection, haulage, treatment and disposal system in views of technical innovation, establishment of solid waste treatment facilities, and establishment of recycling program,
- c. Social program:
Programs of social action such as public education, manpower development and training, community development and waste management training,
- d. Public administration program:
Recommendation for a specific organization or combination of organizations within the Governorate or municipal sector, including enforcement of regulation and labor relations.
- e. Overall evaluation of cost effectiveness and benefit.

IV. Schedule of the Study

The Study will be conducted in accordance with the tentative study schedule as shown in the appendix.

V. Reports

JICA will prepare and submit the following reports in English to the Governorate of Alexnadia in the course of the Study.

(1) Inception Report

Twenty (20) copies at the beginning of the Study

(2) Progress Report (1)

Twenty (20) copies at the end of the field survey(1)

(3) Interim Report

Twenty (20) copies within four (4) months after completion of the field survey(1)

(The Governorate is expected to submit their comments within one month after receipt of the Interim Report to JICA through the Japanese Embassy.)

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(4) Draft Final Report

Twenty (20) copies within three months after completion of the field survey (2)

(The Governorate is expected to submit their comments within one month after receipt of the Draft Final Report to JICA through the Japanese Embassy.)

(5) Final Report

Fifty (50) copies within two months after receipt of the comment on the Draft Final Report

VI. Undertakings of the Government of Egypt

The Government of the Arab Republic of Egypt shall accord privileges, immunities and other benefits to the Japanese study team, and through the authorities concerned, take necessary measures to facilitate the smooth implementation of the Study.

1. The Government of Egypt shall make necessary arrangements with the cooperation of other relevant organizations for the followings:

- (1) to secure the safety of the Japanese study team,
- (2) to permit the members of the Japanese study team to enter, leave and sojourn in Egypt for the duration of their assignment,
- (3) to exempt the members of the Japanese study team from taxes, duties and other charges on equipment, machinery and other materials brought into Egypt by the team for the implementation of the Study,
- (4) to exempt the members of the Japanese study team from income tax and other charges of any kind imposed on or in connection with any emolument or allowance paid to the members of the Japanese study team for their services in connection with the implementation of the Study,

Seane *LM*

- (5) to provide necessary facilities to the Japanese study team for remittance as well as utilization of the funds introduced into Egypt from Japan in connection with the implementation of the Study,
 - (6) to provide medical services as needed, its expenses will be chargeable on the members of the Japanese study team,
 - (7) to secure permission to take all data and documents including photographs, related to the Study out of Egypt to Japan by the study team,
2. The Governorate of Alexandria shall, at its own expense, provide the Japanese study team with the followings, in cooperation with other relevant organizations:
 - (1) available data and informations related to the Study,
 - (2) counterpart personnel,
 - (3) suitable office space in the City of Alexandria,
 - (4) 2 vehicles with drivers,
 - (5) credentials or identification cards.
 3. The Governorate of Alexandria shall take the responsibility of selection of the sites for construction of treatment facility and landfill, right in time as required in accordance with the Study schedule.
 4. The Government of Egypt shall bear claims, if any arise against the members of the Japanese study team resulting from, occurring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willfull misconduct on the part of the members of the Japanese study team.

سعيد
for

VII. Undertakings of JICA

For the implementation of the Study, JICA shall, in accordance with the relevant laws and regulations in force in Japan, take the following measures:

- (1) to dispatch, at its own expense, study teams to the Arab Republic of Egypt,
- (2) to perform technology transfer to the Egyptian counterpart personnel in the course of the Study.

VIII. Consultation

JICA and the Governorate of Alexandria will consult with each other in respect of any matter that is not agreed upon in this document and may arise from or in connection with the Study.

- IX. The Minutes of Meeting is herewith attached to this "Scope of Works" and is an integral part of the scope of works. *Said. fm*

Said fm

MINUTES OF MEETING
FOR
THE FEASIBILITY STUDY
ON
THE PLAN FOR REFUSE COLLECTION, TREATMENT AND DISPOSAL
IN
THE CITY OF ALEXANDRIA
OF
THE ARAB REPUBLIC OF EGYPT

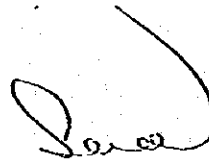
March 29, 1984
Alexandria, Egypt

For JAPAN INTERNATIONAL
COOPERATION AGENCY (JICA)

For GOVERNORATE OF ALEXANDRIA



DR. SACHIHO NAITO
TEAM LEADER
JICA PRELIMINARY STUDY TEAM



SAAD RAFAEL
General Manager of Follow-up Dep
for the Governor of Alexandria



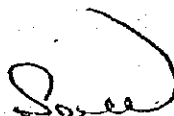
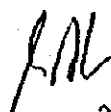
MINUTES OF MEETING

The Japanese Preliminary Study Team (Japanese Team) organized by the Japan International Cooperation Agency (JICA) visited Alexandria and had a series of discussions with the authorities concerned of the Governorate of Alexandria (the Governorate).

As a result of the meetings, which were held in a most friendly atmosphere, both sides agreed upon the Scope of Works for the Feasibility Study on the Plan for Refuse Collection, Treatment and Disposal in the City of Alexandria of the Arab Republic of Egypt.

The record of the meetings is as follows:

1. According to the agenda, at the beginning, Mr. Saad Rafael explained the background of the Project which was requested to the Government of Japan.
2. Following the explanation by Mr. Saad Rafael, Dr. S. Naito presented the outline of the "Scope of Works". In this presentation, Dr. S. Naito pointed out that the composting system might be decided among several options after careful comparative studies although the composting system is understood as an Egyptian preference for solid wastes treatment of Alexandria.
3. After questions & answers regarding both presentations, following items have been agreed by both parties.
 - a. The Governorate maintained that the undertakings specified in 1. and 4. of VI, are beyond the authority of the Governorate. And as for provision of a suitable office space in the City of Alexandria and 2 vehicles with drivers, mentioned in VI.-2, the Governorate stated that the Governorate would not be able to afford the requirement because of lack of sufficient budget available in the Governorate. After being discussed, both



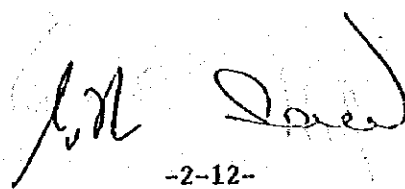
parties agreed that the matter would be written in a letter to the Ministry of Investment & International Cooperation from the Governorate. It is also agreed that the letter shall be attached to the "Scope of Works".

b. Regarding the interpretation whether the solid wastes include industrial wastes or not, it has been agreed as follows:

The industrial wastes to be excluded in the Study are liquid and sludge wastes and wastes which shall be treated by the industries themselves, such as wastes from port and ship, construction and demolition wastes and agricultural wastes.

4. For the data and information materials requested by Japanese Team, the Governorate promised to provide said materials for Japanese Team before they leave Alexandria.

The remainder, if any, will be sent to JICA Cairo Office at their earliest convenience.

Two handwritten signatures in black ink, one on the left and one on the right, appearing to be initials or names.

Appendix

LIST OF ATTNEEDANTS

Date : March 26 - March 29, 1984

The Governorate

Saad Rafael	General Manager Follow-up Department Director of composting plant
Eng. Mohamed Abd-Allah	Deputy of Mr. Saad Rafael
Hussein Hassan Roushdy	Director General of Electrical & Mechanical Department
Dr. Olfat Elsebaie	Professor of Environmental Chemistry High Institute of Public Health Environmental Health Dept., Alexandria University
Dr. Hassan Mitwally	Professor of Env. Health ex. Chairman of the Dept. Consulting Engineer
El Sayed El Badrashiny	General Manager of production and Economic affairs sector
Mohammed Mohammed Aly	Economist in production and Economic affairs sector
Dr. Ahmed Hussein	Assisstant Lecturer, Environmental Health Department, High Institute of Public Health, Alexandria University

JICA Preliminary Survey Team

Dr. Sachiho Naito (Team Leader)
Mr. Hideo Mori
Mr. Hirotoshi Nagano
Mr. Hiroki Hashizume
Mr. Mitsuo Kinjo

SM *Saad*

وكيل أول وزارة الاستثمار

تحية طيبة وبعد ..

أشرفنا على مشاركتكم بما تم أثناء زيارة الوفد الياباني الذي أرسل اليه في ٢٦/٣/٨٤ لاجراء دراسة جدوى اقتصاديه لجميع والتخلص من القمامة بناء على النسخه المخصصه لذلك

١- من سبق ان تم طلب المنحه واجراء الدراسة من قبل المحافظه بلا أى اعباء ماليه تتحملها المحافظه

٢- حضر الوفد ومعهم بيروتوكول يترشح من المحافظه ويعتمد من وزارة الاستثمار لاسلوب تنفيذ المنحه

تم يعود الى اليابان بعد توقيع البيروتوكول لارسال فريق آخر لاجراء الدراسة التي تلتها بالاقاير في مدى ١٩ شهر من تاريخ وصول ثاني وفد

٣- تم بحث البيروتوكول مع الجانب الياباني واتضح الاتي

١- المحافظه توافق على الهدى الرئيسيه للبيروتوكول ما عدا البند الرئيسى رقم ٦ بالتامم
ب- البند الرئيسى ٦ بالبيروتوكول تضمن

(١) تعهدات من الحكومه المصريه لهدى فى سلطنة المحافظه فى ١٩ ع

(٢) التزامات ماليه على محافظه الاسكندرية وخاصة البند الرئيسى ٦ رقم ٢

الفقرات (٣) و (٤) والتي الفقرات يسهل تنفيذها

ولا توافق المحافظه على أى اعباء ماليه تتحملها لاجراء هذه الدراسة

٤- لذلك قام رئيس واعضاء لجنة الجانب المصرى بالتوقيع حتى البند الرئيسى رقم ٥ بالبيروتوكول

تقديم جميع المحونات الفنيه والمعلومات والتعاون لاجراء الدراسة

٥- تم التهام الجانب الياباني الموقف

٦- مصرى على سعاد تكم الموقف للتكرم بالتوجيه للوفد الياباني مما يتيسر

واتمنى لاشكر سعاد تكم على صادق تعاونكم اذ نجدنى دائما

ارجو ان تتفضلوا بقبول فائق الاحترام

المكتوب العام الساعه

شاكوهيد السلام

面会者一覽表

Mr. Mohamed Salozy Noaaz	Governor, Alexandria Governorate
Mr. Shaker A. Salaam	Deputy Governor, "
Mr. Hassan Zahwy	Assistant Secretary, Ministry for Investment and International Cooperation, Govt. of Egypt
Mr. Saad Rafael	General Manager, Follow-up Dept. Director of Composting Plant, Alexandria Governorate
Mr. Mhamed Abd-Allah	Deputy of Mr. Saad Rafael
Mr. Hussein Hassan Roushdy	Director General of Electrical & Mechanical Dept., Alexandria Governorate
Dr. Olfat Elsebaie	Professor, Environmental Chemistry, High Institute of Public Health, Environmental Health Dept., Alexandria University
Dr. Hassan Mitwally	Professor, Environmental Health Dept., Alexandria University; ex. Chairman of the Follow-up Dept., Alexandria Governorate
Mr. El Sayed El Badrashiny	General Manager, Production & Economic Affairs Sector, Alexandria Governorate
Mr. Mohammed Aly	Economist, Production & Economic Affairs Sector, Alexandria Governorate
Dr. Ahmed Hussein	Assistant Lecturer, Environmental Health Dept., High Institute of Public Health, Alexandria University
Dr. Mounir Neamatalla	President, Environmental Quality International, Egypt

エジプト・ジャーナル

重要な日本代表团、アレキサンドリア訪問

重要な日本代表团が昨26日、1週間の公式訪問のためアレキサンドリアに到着した。代表团はごみの輸送計画を行う。この調査は今日アレキサンドリアが直面する観光と考古学との関係での訪問と理解される。代表团は27日大学を公式訪問し、本計画実現のための討議を行い、30日代表团は本計画の主題につきアレキサンドリア代表と討議を行い、31日及び1日と継続する予定である。なお、代表团は2日最後の討議を行い、日本国大使に3日報告のためカイロへ戻る予定である。

Importante délégation japonaise en visite à Alexandrie.

Une importante délégation japonaise est arrivée hier à Alexandrie pour une visite officielle et pour le projet de construction d'une usine à ciment.

Elle aura à examiner le projet de construction des débarras (déchets).

Son programme comprend une visite touristique et archéologique de cette ville qui sera terminée aujourd'hui.

MUSSEUR AMBASSADEUR
AMBASSADEUR A LA
REPRESENTATION DU
TOMBEAU
ALEXANDRIE A
ALEXANDRIE

Le gouverneur d'Alexandrie a adressé à une mission d'exploration archéologique dépendant de l'Institut de Recherches de l'Université un permis de circulation.

E.L.E. BOULAD.

Condensé des Feuilletons et Films étrangers de la Semaine à la T.V.

MARDI 27 MARS : 1 h 30 CHASSE

11 h 30 TAXI PILOT

MEHREDDI 28 MARS :

11 h 30 POLICE WOMAN

22 h 15 Les Mémoires (diffusion probable d'un feuilleton étranger)

MARDI 28 MARS :

11 h 30 THE BIONO WOMAN

22 h 15 Film diffusé dans le Club

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Tous les jours de 20 h à 22 h

Tous les jours de 22 h à 24 h

Tous les jours de 24 h à 26 h

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Tous les jours de 80 h à 82 h

Tous les jours de 82 h à 84 h

Tous les jours de 84 h à 86 h

Tous les jours de 86 h à 88 h

Tous les jours de 88 h à 90 h

Tous les jours de 90 h à 92 h

Tous les jours de 92 h à 94 h

Tous les jours de 94 h à 96 h

Tous les jours de 96 h à 98 h

Tous les jours de 98 h à 100 h

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収集資料リスト

1. 経済協力省宛アレキサンドリア州庁文書
2. FEASIBILITY STUDY FOR REFUSE DISPOSAL AND COMPOSTING IN
THE CITY OF ALEXANDRIA
3. COMPREHENSIVE PLAN ALEXANDRIA 2005 (アラビア語)
4. エジプトの関連法規例
 - 4-1. 清掃事業法
 - 4-2. 全施行規則
 - 4-3. ナイル河及び下水道汚染防止法
 - 4-4. 排水規制規程
 - 4-5. ばい煙排出基準

JICA