

資 料

1	総括表（Ⅳ～Ⅴ）	39
2	合同評価報告書	46
3	保健省組織図	59
4	投入実績一覧	60
	（1） 専門家派遣実績	60
	（2） 研修員受入実績	61
	（3） 供与機材実績	62
5	専門家・研修員、国内研修実績表（分野別）	67
6	イエメンにおけるDOTSの4類型	68
7	プロジェクト方式技術協力の延長要望書	70
8	イエメン結核対策の現状分析	73
9	関連新聞記事	79
10	討議議事録（R／D）	81

1 総括表 (Ⅳ～Ⅴ)

総括表Ⅳ 目標達成度 (1/3)

目標達成度	実施協議時	終了時評価時	達成/未達成の理由
1.上位目標との整合性	国家結核対策計画はイエメン国の公衆衛生の重点目標の一つとなっており、この上位目標との整合性に問題はない。	質のよい対策の活発な全国的展開がみられるようになり、目標に照らして整合性は満たされている。	かつては見られなかった国家結核対策計画に対するイエメン政府の非常に積極的な関与が達成の最も重要な要因と考えられる。またWHOの支援、世界的な結核対策への気運の盛り上がりもまた重要である。これらが内戦後のプロジェクト再開後に相前後して発生したことがとくに効果的であった。
2.案件目標の達成状況	過去のJICA技術協力によって国家結核対策の基礎が準備された。	次項3.に述べるように結核対策における患者発見・治療の状況は著しく向上され、国家結核対策計画の躍進の基礎を築いた。	プロジェクト開始後、順調に活動が展開されだしたときに内戦が勃発し、プロジェクトは中断に追い込まれた。しかし再開後の結核対策活動はめざましかった。上記のような上部構造の展開に並行し、それまでの基本的な技術の移転、人材の養成がDOTSという新しい戦略が効果的に結合して奏功した。

総括表Ⅳ 目標達成度（2／3）

目標達成度	実施協議時	終了時評価時	達成／未達成の理由
3.アウトプット 目標の達成状況	<p>①プライマリーヘルスケアのネットワークを通して国家結核対策の組織的側面を強化する。</p> <p>②国の結核対策計画における予防、診断、治療の技術を、とくに各州保健部の県結核担当官との協力を通じて改善する。</p> <p>③いくつかの新しいモデル地区に結核対策を拡大し、とくに郡レベルまでにこれらの地区を拡大する。</p>	<p>保健省結核対策課は課長以下少人数ながらもとまって業務に専念しており、その努力は上層部に支持され、かつ地方政府に対してもよく指導性を発揮しており、行政組織としての機能は確立されているといえる。地方でも県レベルまでの NTP 組織は確立された。</p> <p>NTP マニュアルが改訂され、実施に移された。ホデイダ、タイズ、アデン等の県結核担当官によって都市部を中心に DOTS 戦略が成功裏に展開され、治療成績の向上が果たされている。サナアにおいても部分的ながら新しい政策への取り組みが開始された。</p> <p>タイズ、アデンはモデル地区としての役割をほぼ果たし、その経験は他に拡大された。郡レベルの DOTS は準備状態にとどまった。</p>	<p>国立結核研究所 (NTI) の機能は未だに不十分である。</p> <p>内戦によるプロジェクトの中断は遺憾ではあったが、かえってバネになった面もある。薬剤の安定供給が曲がりなりにも確保されたこと、政府関与の強化により職員の動機付けが向上したことが重要である。</p> <p>カウンターパート研修員の帰国後の実地面で活躍がめざましい。DOTS の性格上、交通不便な郡部での実施が障害とされた。</p>

総括表Ⅳ 目標達成度（3／3）

目標達成度	実施協議時	終了時評価時	達成／未達成の理由
3.アウトプット 目標の達成状況 (続き)	④検査技師、PHC 要員、監督訓練要員、X線技師、医師等への研修を行う。 ⑤結核対策に関するイエメン側スタッフによる研究に対する援助を行う。	検査技師はじめこれらの職種の多くに対する研修は、教室内、職務内のいずれにおいても計画的に行われた。一部合同会議等もよい研修の場となったと考えられる。 NTI およびその支所、アデン等で様々なオペレーショナルな課題の研究が行われた。内戦後は長期専門家の不在、インセンティブの都合もあり行われていないが、DOTS の実施経験がなによりも研究的意欲を満たしているものと思われる。	NTP のなかの重要性に鑑みてX線技師に対する訓練はほとんど行われなかった。

総括表V プロジェクト運営の評価

効果の広がりと受益者	インパクトの内容
プロジェクトレベルのインパクトと受益者	<p>①各種研修を通じて、プロジェクト地域の結核担当官、各保健所の医師・医療助手・検査技師等の結核対策実施の能力や信頼性が向上した。</p> <p>②記録・報告の精度向上、中央監督チームや県結核担当官による適切な巡回指導の実施により全国均質な結核サービスが行われるようになった。</p>
セクターレベルのインパクトと受益者	<p>① DOTS 戦略の導入の結果、その実施可能性と有効性が実証され、保健省結核対策課により全国的普及計画が立案された。</p> <p>②結核対策のモデル地域が構築され、他地域の結核担当官が効率的な対策の在り方を学ぶことが可能となった。</p>
地域へのインパクトと受益者	<p>保健所レベルでの患者発見・治療の向上により、地域住民に有効な結核診療が提供されるようになり、公的サービスへの住民の信頼性が向上した。</p>
マクロレベルのインパクトと受益者	<p>①結核対策のような長期的・広域的インプットを要するプログラムはイエメンのような部族社会的国家では実施が困難とすら思われたが、DOTS 戦略への協力により、それがかなり効果的に実施できることが知られた意義は大きい。</p> <p>②少数の長期派遣専門家と多数の短期派遣専門家によるプロジェクト運営体制、WHO との協力の有効性が示唆されたことは、今後の日本の保健医療技術協力のモデルにもなりうる。</p>
効果発生及びその広がり の要因	<p>① WHO による DOTS 戦略をはじめとした結核対策の世界的な気運の盛り上がり。</p> <p>②イエメン政府の結核対策に対する積極的関与の高まり。</p> <p>③積年の JICA プロジェクトによる基礎的な技術の移転と機材等の供給。</p> <p>④内戦後の政治的安定。</p>

総括表Ⅴ 自立発展性の見通し（1／2）

1.組織的自立発展の見通し	
(1)実施機関存続への政策的支援の有無	結核対策は政府の重点施策の一つとして位置づけられ、地方の県保健部には結核担当官が配置されている。また、対策実施機関である保健所レベルでは、一般保健医療サービスに完全に統合されている。
(2)管理運営体制	保健省結核対策課は、発足後徐々に指導性を確立し、国家結核対策計画の名実共に中央管理チームとして機能している。
(3)組織の改廃	国家結核対策計画では当初は国立結核研究所が中央管理チームの役割を担っていたが、改組により結核対策課が本省内に設置され、一時二重支配の様相を呈していた。しかし近年は比較的良好に機能分担が行われている。
2.財務的自立発展の見通し	
(1)必要経費調達の見通し	従来全面的に對外依存にあった抗結核薬（かつてはサウジアラビアからの供与、後に日本の感染症対策特別機材供与）の購入に関して、一部自己購入、さらに今後は世界銀行の借款や必須薬剤プログラムなどを利用して安定供給の確保を図ることとなっており、自立化への努力はめざましい。また国営保健サービスに有償制が導入されたことは、施設のインセンティブとなり、その点でも財務的な自立化につながると期待される。
(2)公的補助及びその安定性の見通し	
(3)自主財源による費用回収状況	
(4)リカレントコスト負担の必要性及び妥当性	機器（顕微鏡など）購入、研修の費用は、現時点では全部をイエメンに負担させるのは無理であろう。その後の維持管理や小規模な再研修は、今後イエメン側でも経費負担が可能となろう。

総括表Ⅴ 自立発展の見通し（２／２）

3.物的・技術的自立発展の見通し	
(1)移転技術の内容及び技術レベルの適性度	国際的にも広く認められている DOTS 戦略が順調に普及してきており、そのための基本的な技術（菌検査、登録・報告、治療管理など）は移転されている。菌検査の精度管理や監督が十分とは言い難い。また薬剤の在庫管理・供給方式にまだ問題がある。
(2)要員配置状況	県のレベルでは結核担当官（医師）は配置されている。都レベルの担当官の任命は今後の課題である。
(3)技術の定着状況	比較的満足な水準で定着している。日本での研修を終えたカウンターパートは、帰国後も概ね同じ業務を継続し、プロジェクトの活動に寄与した。
(4)後継者の育成計画	日常の巡回指導や研修活動を通じて行われている。
4.その他管理運営上の制約要因	①一部公務員医師の臨床志向。 ②私的医療機関の国家結核対策への協力不足。

総括表Ⅴ フォローアップの必要性

1.協力期間延長の可否	必要 (理由) この成果をいっそう拡大し、イエメン全国のさらに広い部分に結核対策を拡大すべきである。
2.延長後の対応の内容と方法	
(1)内容	①都市中心のDOTSから郡部への拡大 ②私的医療施設のDOTS戦略への巻き込み ③結核菌検査の精度管理の導入と確立 ④医薬品供給体制の強化
(2)所要期間	少なくとも2年間は必要と思われる。
(3)期待される効果	結核患者の減少による国民の健康水準の向上

2 合同評価報告書

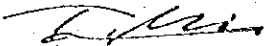
THE JOINT EVALUATION REPORT
ON THE TECHNICAL COOPERATION
FOR
THE PROJECT FOR THE TUBERCULOSIS CONTROL PROGRAM (II)
PREPARED BY
THE JAPANESE EVALUATION TEAM
AND
THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF
THE REPUBLIC OF YEMEN

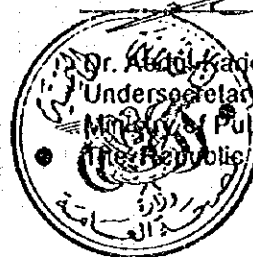
The Japanese Evaluation Team, organized by the Japan International Cooperation Agency (hereinafter referred to as "the JICA") and headed by Dr. Toru Mori, Director, The Research Institute of Tuberculosis, Japan Anti-tuberculosis Association, visited the Republic of Yemen from July 8th to July 18th, 1997 in order to evaluate the implementation and achievements of the Project for the Tuberculosis Control Program (II) (hereinafter referred to as "the Project").

The Evaluation Team had a series of discussions with the concerned Yemeni authorities regarding the technical cooperation for the Project.

The results of the discussion are attached hereto.

Sana'a, July 16th, 1997


Dr. Toru Mori
Leader,
Evaluation Team
Japan International Cooperation Agency
Japan

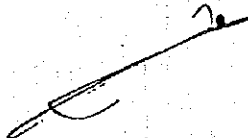


Dr. Abdul Kader Al Gunied
Underscretary for Health Development
Ministry of Public Health
The Republic of Yemen

CONTENTS

- I. List of Participants
 - 1. Yemeni Side
 - 2. Japanese Side
 - (1) Evaluation Team
 - (2) Japanese experts
 - (3) Embassy of Japan
- II. Background of the Project
- III. Objectives and Planned Activities
- IV. Implemented Activities
- V. Achievement of the Project
- VI. Conclusion
- VII. Recommendations

Annex I	List of Dispatched Japanese Experts
Annex II	List of Counterpart personnel who visited Japan
Annex III	List of Local Training
Annex IV	List of Main Equipment and Materials provided by JICA
Annex V	Suggestion from the Yemeni government



T. A.

I. List of Participants

1. Yemeni Side

(1) Ministry of Public Health

- | | |
|----------------------------------|--|
| 1)Dr. Abdullah Abdul Wali Nashir | Minister |
| 2)Dr. Ahmed Mohammed Makki | Undersecretary, Medical Services |
| 3)Dr. Mohammed Mohammed Hagar | Director General, Public Health |
| 4)Dr. Abdul Hakim Al-Kohlany | Director, Epidemic and Infectious Diseases |
| 5)Dr. Amin N. Saeed | Director, National TB Program |

(2) National Tuberculosis Institute

- | | |
|-----------------------------|-----------------|
| 1)Dr. Abdul Malik Al-Kibssi | Director |
| 2)Dr. Mohammed Al-Motwahee | Deputy Director |

(3) Hodeidah Governorate

- | | |
|---------------------------------|--|
| 1)Dr. Abdul Salam Mohammed | Deputy Director General, Health Office |
| 2)Dr. Mohammed A. Seif Khobati | GTC, Director, Hodeidah TB Center |
| 3)Dr. Fahad Ganad | Deputy Director, Hodeidah TB Center |
| 4)Dr. Abdulwahab Hasssan Othman | Technical Director, Hodeidah TB Center |

(5) Aden Governorate

- | | |
|-----------------------------|---|
| 1)Dr. Aklan Mohamed | Director General, Aden Health Office |
| 2)Dr. Hadi Alzobedi | Director, Republic Hospital |
| 3)Dr. Fahmi Kaid | Chief of Public Health Administration, Aden Health Office |
| 4)Dr. Munesr Mubarek | Chief of Epidemiological Department, Aden Health Office |
| 5)Dr. Osama Abdul R. Badeeb | GTC, Chief of Tuberculosis Section, Aden Health Office |

2. Japanese Side

(1) Evaluation Team

- | | |
|------------------------|--|
| 1)Dr.Toru Mori | Team Leader / Director, The Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association |
| 2)Dr.Koji Sato | Chief Doctor, Department of Internal Medicine, Tokyo National Chest Hospital |
| 3)Dr.Takashi Yoshiyama | Department of International Cooperation, The Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association |
| 4)Mr.Akira Nishimoto | Staff, Second Medical Cooperation Division, Medical Cooperation Department, JICA |


(2) Japanese Experts

- | | |
|----------------------|--|
| 1)Mr.Kenji Yokoi | Project Coordinator |
| 2)Dr.Akira Shimouchi | Tuberculosis Control (Short Term Expert) |
| 3)Ms.Mika Horie | Medical Technologist (Short Term Expert) |

(3) Embassy of Japan

- | | |
|---------------------------|-----------------------------|
| 1)Mr. Masataka Ishida | Charge'd Affairs ad interim |
| 2)Mr. Toshiyuki Sakaguchi | Second Secretary |

T.M.


V/C 7

II. Background of the Project

The Ministry of Public Health of the Republic of Yemen and JICA signed the Record of Discussions (R/D) on the technical cooperation for the Project for the Tuberculosis Control Program (II) on February 21, 1993 for the purpose of strengthening the activities of the National Tuberculosis Program through primary health care networks and thus contributing to the promotion of public health and welfare in the Republic of Yemen.

In accordance with the R/D, the Project had been implemented steadily for the improvement of tuberculosis control in Yemen. However, the Project had been interrupted by domestic problems in Yemen from May, 1994 till August, 1995.

After the interruption for more than one year, the Project had restarted the activities and had introduced DOTS (Directly Observed Treatment, Short Course) in certain areas for the improvement of tuberculosis control in Yemen.

About six months prior to the completion of the Project, the Japanese Evaluation Team was dispatched to the Republic of Yemen for the following purposes:

- (1) to analyze the tuberculosis epidemiological situation, technical policies and program structure
- (2) to evaluate program delivery activities, describe achievements and identify problems
- (3) to assess leading issues facing the program and their underlying causes
- (4) to make recommendations on policy changes and a plan of operations to improve program's effectiveness

III. Objectives and Planned Activities

According to the R/D, the objectives and activities of the Project are defined as follows:

1. The objectives of the Project are

- (1) To improve organizational aspects of the national tuberculosis control system through primary health care networks, emphasizing the integration of tuberculosis control in this network,
- (2) To improve techniques of prevention, diagnosis and treatment of tuberculosis in the National Tuberculosis Program, particularly in the National Tuberculosis Institute, Sub-Centers, and some model areas through collaboration with the governorate health offices, and
- (3) To expand the Tuberculosis Control Program to some new model areas of the country, and to reach district level in particular model areas.

2. The Project consists of the following activities:

- (1) To give advice on the organizational aspects of the National Tuberculosis Control System through primary health care networks
- (2) To conduct the training of the Yemeni counterpart personnel in the following fields:
 - 1) training of laboratory technicians, primary health care workers, and trainer supervisors including in-service training
 - 2) upgrading the technique of X-Ray examination
 - 3) training of physicians, medical assistants and nurses
- (3) To conduct researches in the Republic of Yemen in the following fields:
 - 1) Operational Researches to improve the cure rate of smear positive cases in certain model areas
 - 2) tuberculosis survey in model areas, and small scale prevalence surveys by X-Ray and sputum examination of a selected group
 - 3) investigation of initial and secondary resistance to anti-tuberculosis drugs
 - 4) other surveys and researches necessary for the improvement of the National Tuberculosis Control Program which are mutually agreed upon as necessary
- (4) To give special lectures for case-conference
- (5) To provide guidance and advice on the logistics of tuberculosis control activities

IV. Implemented Activities

1. Advice on the organizational aspect of the National Tuberculosis Control System

- (1) Dispatch of Japanese Experts

T.M.

Through the project, 4 long term experts and 17 short term experts were dispatched and transferred the technology in each field (see Annex I).

*Supervisory visits has been done by JICA experts in almost all Governorates, especially in Taiz and Aden.

2. Training of the Yemeni Counterparts

(1) Training in Japan

Through the project, 13 counterparts were trained by the Counterpart Training Program in Japan (see Annex II).

(2) Training in other countries

The following trainings were implemented.

*Overseas Training in 1993 (except Japan)

-IUATLD Training in Arusha : 2 persons 2 weeks

-WHO Training : 2 persons 1 week

(3) Local Training (Workshop, Seminar etc.)

Through the project, local trainings were implemented to improve the skill of health and medical workers in the governorates (see Annex III).

3. Supply of Equipment and Materials

Through the project, equipment and materials amount to 70,000,000 Yen was provided to support the tuberculosis control activities (see Annex IV).

4. Research

The following research activities were implemented through the project.

NTI :	Effectiveness of defaulter tracing Treatment results of smear positive new cases by place of patient's house Delay analysis Culture examination and Drug sustainability test
Taiz :	Treatment result of smear positive new cases by address Delay analysis Analysis of the duration between initiation of treatment and default Intensified supervision activities to the health facilities of Taiz governorate Culture examination and Drug sustainability test
Hodeidah :	Intensified supervision activities to the health facilities of Hodeidah Governorate
Aden :	Intensified supervision activities to the health facilities of Aden Governorate

5. Others

(1) GTC Meeting

The meeting of GTC (Governorate Tuberculosis Control Coordinator) was held once a year for the following purposes:

- 1) Supervision of activities of GTC and smear examination of laboratories
- 2) Training of GTC
- 3) Exchange of experience in TB control activities

(2) TB Workers Meeting in Taiz

The meeting of TB control workers was held quarterly for the following purposes:

- 1) Supervision of activities of workers and smear examination of laboratories
- 2) Training of workers
- 3) Exchange of experience in TB control activities

V. Achievement of the Project

1) Epidemiological change

No relevant data to show the epidemiological change in tuberculosis situation was obtained. However, as estimated from the characteristics of the newly detected cases during the project period

T.M.

and before, it is assumed that there has been no remarkable change in epidemiological tuberculosis problem, and that tuberculosis has remained at high prevalence level as before.

2) National Tuberculosis Program Implementation in general

The expansion and progress in the NTP activities have been achieved in various ways. First and the most important progress can be seen in the enhancement of the government commitment. Increased amount of budget has been allocated to the NTP, especially to the procurement of the anti-tuberculosis drugs.

The NTP network has been also strengthened; The Governorate Tuberculosis Co-ordinator meeting has been fairly regularly held, and offered a chance for mutual motivation among participants. The impact of this is reflected to the number of governorates and their facilities making regular and proper reports of their activities. Also, along with the expansion of the DOTS strategy as seen under 4) below, the related health facilities, governmental or non-governmental, have become more interested in NTP so that they would be actively involved in it. The cooperation of the Anti-Tuberculosis Association in Hodeldah which donated a TB ward to the TB Sub-center, and the participation of several Co-operative Clinics in Sana'a City in DOTS program, are its notable examples.

The workers, i.e., doctors and laboratory technicians, trained in Japan in the counterpart training scheme was remarkable; after the training, all of them continued their service in NTP as leaders with higher technical level and motivation.

As a result, NTP has stepped into the DOTS strategy which is currently the global slogan in tuberculosis control.

3) Case-finding activities

The number of newly detected smear positive tuberculosis patients has increased from 2,896 in 1992 to 4,371 in 1996. This may be due to the wider coverage of the case-finding service and improvement in its quality, as well as due to increased number of reporting facilities.

Studies on the relevance of X-ray diagnosis of pulmonary tuberculosis was done in NTI, and it was confirmed by the staff that it should be used considering its limitation in various points.

4) Treatment activities

As reported, the number of cured smear positive patients has increased from 1063 in 1992 cohort to 1616 in 1995 cohort. However, the improvement in the cure rate has been only marginal (from 37% to 43%). Defaulting from the treatment was still extensive, in spite of the partial use of the short course chemotherapy regimens.

The DOTS (Directly observed treatment, short course) strategy was first introduced during this project period, which is quite promising as a key to the breakthrough of the tuberculosis epidemiology in this country. Having been started in September, 1995, in Taiz, the DOTS has been used in Governorate of Aden, Hodeldah and Sana'a City and some surrounding areas. The treatment outcomes are generally very good; as a whole, treatment success rate is 70-75%. It covers 25% of the newly detected patients and being expanded, as of June, 1997, and it is planned to attain 100% coverage by the year 2000.

This important move in the NTP was possible with the provision of anti-tuberculosis drugs by the Project, as well as from some other sources, and its technical support. Also, the drugs from the program of equipment provision for infectious disease control parallelly done with the Project in the early period was also very valuable.

5) Drug management and logistics support

Although some confusion was observed during the Project period, the drug supply, as well as other logistics, was rather stable compared with the time before. This may be due to the establishment of the central store with its proper management.

6) Laboratory service

In the NTI laboratory culture examination was practised as before for selected cases, which will make a good basis for the drug sensitivity surveillance activity in the near future, as encouraged by WHO.

In the local microscopy centers, the equipment and the technical level of the examination have improved gradually. However, the quality control of the smear examination was not regularly done, nor its system has been established.

T.M.

Handwritten signature and date: 4/1/97

VI. Conclusion

In view of the findings as above, it could be concluded that the NTP performance of the Republic of Yemen has improved substantially during the Project, and that the contribution of the Project to it is clear. Moreover, the recent changes in the treatment program with the use of DOTS strategy will bring about the first breakthrough of tuberculosis situation of this country in near future, if current commitment of the government, together with the highly motivated personnel's enthusiasm, is maintained.

1. Effectiveness and Efficiency of the Cooperation

Judging from the achievement of the Project, it has been no doubt effective, not only as currently observed, but potentially in the future. The unhappy interruption of the Project inevitably reduced its inputs in terms of number of experts and others made consequently the Project performance more efficient. Also, because the effectiveness and efficiency of the DOTS strategy the Project is pursuing has been shown both effective and efficient worldwide, its wider application in this country will be more useful in its meaning.

2. Impact of the Project Achievement

The DOTS strategy, strongly supported by the government commitment, has a potential impact on the future and rapid improvement of the tuberculosis problem. Besides, the health personnel will become self-confident of their work, and it will have a certain impact on the people's confidence in the public service, not only in health sector, but more in general.

3. Relevance

The cooperation in improving NTP, with special emphasis on the case-finding and treatment through the primary health care network, has been globally endorsed as the most relevant policy in the light of humanitarianism and social and economic relevance. The Project's plan and implementation are seen as highly relevant.

4. Sustainability

The clear and strong commitment of the Yemeni government in NTP in recent years assures that the NTP currently supported by external bodies in various ways will be self-sustainable in the future. It is because of the increasing financial expense of the government on NTP, and also because of the expected reduction of the problem in the near future due to the effective program.

5. General View

The change in the NTP situation in terms of its performance and practical conditions that have occurred during the Project period was such remarkable one that has never been anticipated during the last 15 years' history of the technical cooperation of JICA. Now that the NTP of the Republic of Yemen has marked a big step forward, any appropriate support to it will be very efficient and rewarding. Needless to say, there are still many weaknesses and problems in it, but they could be overcome if there is a little and timely push.

In view of this, the Yemeni government strongly expressed the desire for extension of the cooperation in the future (see Annex V).

VII. Recommendations

1. The National Tuberculosis Program of the Republic of Yemen should continue its effort toward the target of 100% coverage of DOTS.
2. For the above purpose the NTP guidelines should be more thoroughly followed, in the treatment service as well as reporting and recording.
3. The DOTS should be expanded down to the district level by establishing quality training and supervision system.
4. Utilization of the existing health facilities and related organizations in the community should be pursued for the better DOTS implementation.
5. Appropriate use of tuberculosis hospital facility should be considered, so that it is integrated into the DOTS strategy.
6. Quality control system of the laboratory service should be established and implemented, especially in order to support the microscopy service at the district level.

T.M.

[Handwritten signature and initials]

7. The hierarchical supervision system should be established involving each step of the staff. Among others, the National Tuberculosis Institute should play its proper role for this purpose.
8. The government of the Republic of Yemen should continue to enhance its support to the NTP, financially and administratively.

Handwritten signature/initials

T.M.

Annex I List of Dispatched Japanese Experts

(Long Term Experts)

Name	Field	Duration
1.Dr.Takashi Yoshiyama	Chief Advisor	93.05.14-94.05.13
2.Mr.Masaru Iizuka	Coordinator	93.05.14-94.05.13
3.Ms.Midori Nakayama	Qualified Laboratory Technologist	93.06.01-94.05.31
4.Mr.Kenji Yokoi	Coordinator	96.09.10-97.09.09

(Short Term Experts)

Name	Field	Duration
1.Dr.Akihiro Seita	Tuberculosis Control	93.07.10-93.07.23
2.Dr.Nobukatsu Ishikawa	Tuberculosis Control	94.01.10-94.01.20
3.Ms.Miyuki Sugimori	Public Health Nurse	94.01.10-94.02.07
4.Mr.Kazuhiro Suzuki	Medical Equipment	94.03.23-94.04.07
5.Dr.Norio Yamada	Tuberculosis Control	95.12.16-96.01.04
6.Mr.Shigeo Kobayashi	Coordinator	95.12.16-96.01.10
7.Dr.Masashi Suchi	Tuberculosis Control	95.12.23-96.01.05
8.Dr.Akira Shimouchi	Tuberculosis Control	96.06.29-96.07.10
9.Mr.Shigeo Kobayashi	Coordinator	96.06.29-96.07.13
10.Dr.Khaled Reshad	Tuberculosis Control	96.08.10-96.08.18
11.Dr.Akira Shimouchi	Tuberculosis Control	96.12.03-96.12.21
12.Dr.Akihiro Okado	Tuberculosis Control	96.12.03-96.12.21
13.Mr.Hiroshi Salo	Social Research	96.12.07-96.12.21
14.Dr.Akira Shimouchi	Tuberculosis Control	97.04.08-97.04.23
15.Ms.Akiko Fujiki	Medical Technology	97.06.17-97.07.08
16.Ms.Mika Horie	Medical Technology	97.06.17-97.07.18
17.Dr.Akira Shimouchi	Tuberculosis Control	97.07.01-97.07.18

Handwritten signature and date 5/1/97

T.M.

Annex II List of Counterpart personnel who visited Japan

Name	Field	Duration	Type
1.Dr.Abdul Malik Al-Kibssi	TB Control for Administrative medical officers	93.05.10-93.06.27	Group
2.Dr.Osama Abdul Rhaman Badeeb	TB Control II	93.06.14-93.10.17	Group
3.Dr.Yassin Radman Thabet Al-Athwary	TB Control II	93.06.14-93.10.17	Group
4.Mr.Adnan Hamoud Haider	TB Control Laboratory Service	93.09.27-94.02.13	Group
5.Mr.Abdul Bari Abdoullah Al-Khobali	Medical Equipment	93.08.24-93.09.26	Group
6.Dr.Amin Noman Saeed	X-ray Reading	94.03.26-94.04.25	Individual
7.Mr.Al. Ahamed Al. Omer	TB Control Laboratory Service	95.10.08-96.02.15	Group
8.Mr.Ahwi A. Mackyash	TB Control for Administrative Medical officers	96.05.07-96.06.23	Group
9.Dr.Abdul Nasser Ayash	TB Control II	96.06.17-96.10.21	Group
10.Mr.Ahamed Hamoud A. Nagi	TB Control Laboratory Services	96.10.05-97.02.14	Group
11.Dr.Mohamed Saif Al-Kobati	TB Control for Administrative Medical Officer	97.05.06-97.06.21	Group
12.Dr.Ismacel A. Al-Abadi (Training was interrupted for the medical reason)	TB Control II	97.06.16-97.06.21	Group
13.Dr.Mohamed M. Al-Khawlani	TB Control II	97.06.16-97.10.19	Group

Annex III List of Local Training

No.	Category	Date	Place	Duration	No. of Participant	Sponsor
1	Laboratory	2/6/93	Sana'a	6	1	GDS
2	Doctor	7/3/93	Taiz	3	12	WHO, JICA
3	X-ray	7/6/93	Sana'a	6	1	JICA
4	Laboratory	7/10/93	Taiz	6	13	WHO, JICA
5	Registrar	7/24/93	Taiz	6	12	WHO, JICA
6	Doctor	7/31/93	Sana'a	6	1	GDS
7	Laboratory	7/31/93	Sana'a	6	1	GDS
8	Laboratory	8/7/93	Sana'a	6	2	JICA
9	Laboratory	8/7/93	Sana'a	12	1	JICA
10	Laboratory	8/14/93	Taiz	6	3	JICA
11	Registrar	8/14/93	Sana'a	6	4	JICA
12	X-ray	8/28/93	Sana'a	2	1	JICA
13	Laboratory	8/31/93	Sana'a	6	1	JICA
14	X-ray	8/31/93	Sana'a	3	2	JICA
15	Laboratory	9/4/93	Sana'a	6	2	JICA
16	X-ray	9/4/93	Sana'a	3	4	JICA
17	Registrar	9/11/93	Sana'a	6	3	JICA
18	Registrar	9/11/93	Taiz	6	3	JICA
19	Doctor	10/2/93	Hodeida	3	3	JICA
20	Laboratory	10/2/93	Sana'a	6	3	JICA
21	Laboratory	10/2/93	Hodeida	6	2	JICA
22	Registrar	10/2/93	Hodeida	6	4	JICA
23	Registrar	10/9/93	Sana'a	6	4	JICA
24	Laboratory	11/6/93	Sana'a	6	2	JICA
25	Registrar	11/6/93	Sana'a	6	1	JICA
26	Laboratory	12/4/93	Sana'a	6	2	JICA
27	Registrar	12/4/93	Sana'a	3	2	JICA
28	Registrar	12/28/93	Ghavra	3	4	JICA
29	Registrar	2/16/95	Hodeida	3	9	WHO
30	Laboratory	2/23/95	Hodeida	6	10	WHO
31	Doctor	5/2/95	Aden	6	5	WHO
32	Registrar	5/2/95	Aden	3	5	WHO
33	Doctor	8/14/95	Taiz	6	4	WHO
34	Registrar	8/14/95	Taiz	3	16	WHO
35	Laboratory	9/11/95	Sana'a	6	10	WHO
36	Doctor	9/18/95	Hodeida	3	12	WHO
37	Doctor	10/5/96	NTI	2	6	JICA
38	Registrar	10/5/96	NTI	2	7	JICA
39	Registrar	11/26/96	Aden	3	12	JICA
40	Doctor	1/4/97	Hodeida	6	5	JICA
41	Registrar	1/4/97	NTI	3	37	JICA
42	Registrar	1/4/97	Hodeida	3	28	JICA
43	Laboratory	1/4/97	Hodeida	6	2	JICA
44	Doctor	1/4/97	NTI	6	4	JICA
45	Registrar	3/4/97	Amran	3	9	JICA
46	Doctor	3/8/97	NTI	6	2	JICA
47	Registrar	3/8/97	NTI	3	12	JICA
48	Registrar	3/22/97	Lahj	3	36	JICA
49	Laboratory	3/26/97	Aden	4	5	JICA
50	Registrar	3/26/97	NTI	2	20	JICA
51	Registrar	4/10/97	Aden	3	13	JICA
52	Doctor	5/10/97	NTI	6	3	JICA
53	Laboratory	5/10/97	NTI	6	5	JICA
54	Registrar	5/10/97	NTI	3	10	JICA
55	Registrar	5/24/97	Hajja	6	8	JICA

T.M.

Annex IV List of Main Equipment and Materials provided by JICA

[J.F.Y.1993]

Total Amount : about 30,000,000 Yen

- Water Distilling Apparatus : 1
- Ultrasonic Pipette Washer : 1
- Microscope : 5
- Slide Glass : 850 boxes
- Sputum Container : 60,000 pcs
- High Pressure Autoclave : 2
- Laser Pointer : 1
- Incubator : 1
- Thermostatic : 1
- X-ray Film : 170
- Opaque Projector : 1
- Bed for Patients : 20
- ECG for 3 Channels : 1
- Alcohol Lamp : 40
- Instrument Cabinet : 16
- Interphone for Patients : 2
- Facsimile : 1
- Vehicles : 2 etc.

[J.F.Y.1994]

[J.F.Y.1995]

[J.F.Y.1996]

Total Amount : about 40,000,000 Yen

- Anti-Tuberculosis Drugs : 5,120,000 pcs
- Microscopes : 32
- Slide Glass : 2,000 cases
- Disposable Syringe : 600,000
- Sputum Container : 200,000 pcs
- Diamond Pen : 800
- Alcohol Lamp : 200
- X-ray Film : 2,300
- Computer : 12
- Printer : 12
- Fax Modem : 7
- Scanner : 1 etc.

(J.F.Y.: Japanese Fiscal Year)

T.M.

Annex V

Suggestion from Yemeni Government

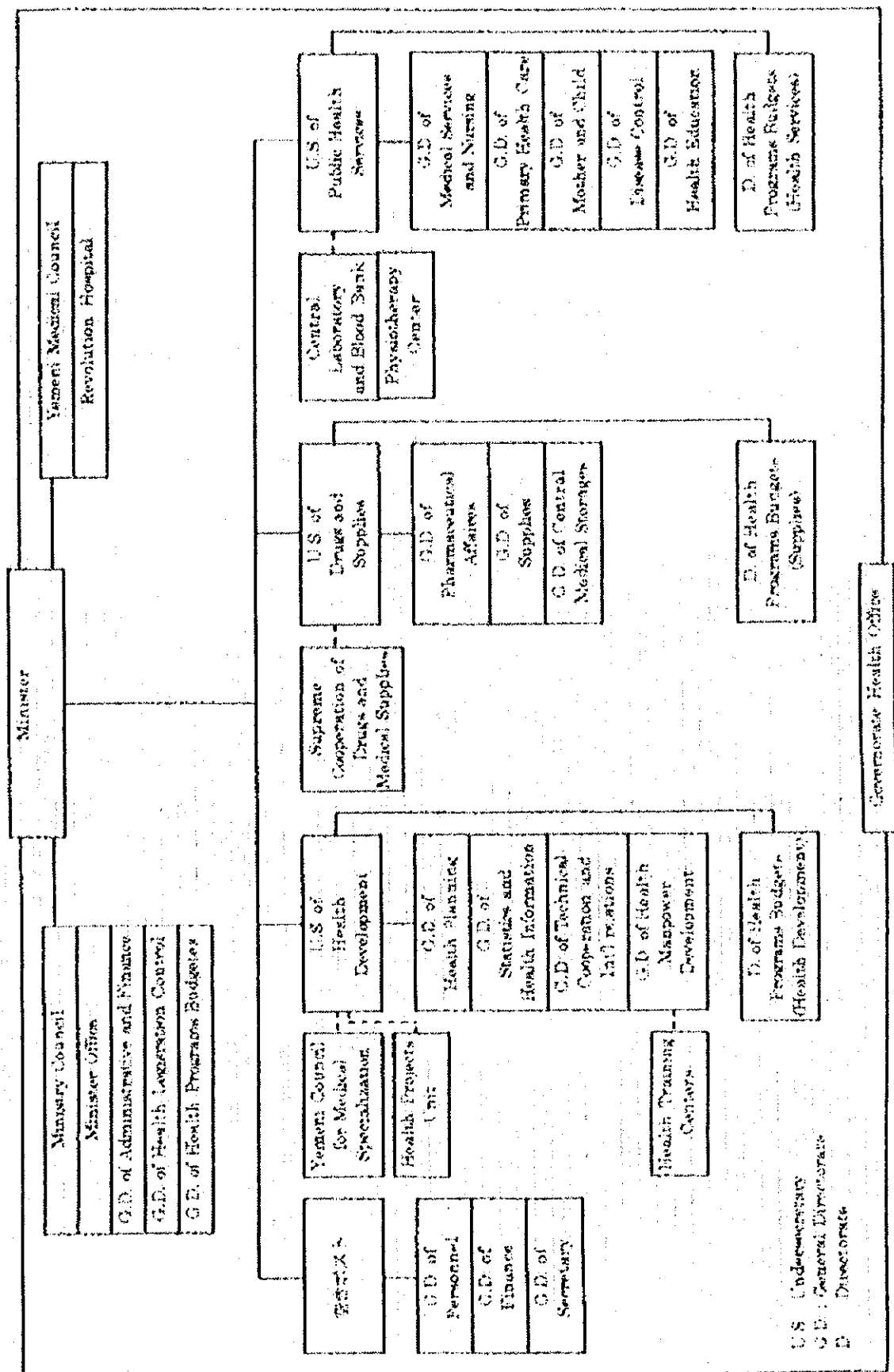
Due to the outstanding bilateral cooperation in the health sector between JICA and the Ministry of Public Health, the Republic of Yemen, the Government is seizing this opportunity to kindly forward to JICA the following suggestions in an attempt to further enhance our joint existing cooperation.

1. Renew the current agreement for TB control between JICA and MOPH.
2. Enhance and promote the existing TB control services.
3. Expand TB control services to cover new areas in Yemen applying the WHO new strategy (DOTS).
4. Integrate, where possible, TB control services with other primary health care network.
5. Construct TB control sub-centers in Aden and Al-Mukalla, which were requested by the Yemeni government in 1993.
6. Contribute in the provision of anti-TB drugs and other related materials in continuous bases.
7. Promote existing local and international training for TB control staff.

JICA

T.M.

Chart of the Organization of the Ministry of Public Health



4 投入実績一覧

(1) 専門家派遣実績

(長期専門家)

氏名	指導科目	派遣期間
1.吉山 崇	チーフアドバイザー	93.05.14-94.05.13
2.飯塚 昌	調整員	93.05.14-94.05.13
3.中山 緑	臨床検査	93.06.01-94.05.31
4.横井 健二	調整員	96.09.10-97.09.09

(短期専門家)

氏名	指導科目	派遣期間
1.清田 明宏	結核対策	93.07.10-93.07.23
2.石川 信克	結核対策	94.01.10-94.01.20
3.杉森 美幸	保健婦	94.01.10-94.02.07
4.鈴木 一代	機材保守管理	94.03.23-94.04.07
5.山田 紀男	結核対策	95.12.16-96.01.04
6.小林 繁郎	調整員	95.12.16-96.01.10
7.須知 雅史	結核対策	95.12.23-96.01.05
8.下内 昭	結核対策	96.06.29-96.07.10
9.小林 繁郎	調整員	96.06.29-96.07.13
10.レナード・カレッジ	結核対策	96.08.10-96.08.18
11.下内 昭	結核対策	96.12.03-96.12.21
12.大角 明	結核対策	96.12.03-96.12.21
13.佐藤 寛	社会調査	96.12.07-96.12.21
14.下内 昭	結核対策	97.04.08-97.04.23
15.藤木 明子	臨床検査	97.06.17-97.07.08
16.堀江 美香	臨床検査	97.06.17-97.07.18
17.下内 昭	結核対策	97.07.01-97.07.18

(2) 研修員受入実績

氏名	研修科目	派遣期間
1.Dr.Abdul Malik Al-Kibssi	結核対策管理者	93.05.10-93.06.27
2.Dr.Osama Abdul Rhaman Badeeb	結核対策Ⅱ	93.06.14-93.10.17
3.Dr.Yassin Radman Thabet Al-Athwary	結核対策Ⅱ	93.06.14-93.10.17
4.Mr.Adnan Hamoud Haider	結核対策細菌検査	93.09.27-94.02.13
5.Mr.Abdul Bari Abdoullah Al-Khobati	機材保守管理	93.08.24-93.09.26
6.Dr.Amin Noman Saeed	レントゲン技術	94.03.26-94.04.25
7.Mr.Al. Ahamed Al. Omer	結核対策細菌検査	95.10.08-96.02.15
8.Mr.Alwi A. Mackyash	結核対策管理者	96.05.07-96.06.23
9.Dr.Abdul Nasser Ayash	結核対策Ⅱ	96.06.17-96.10.21
10.Mr.Ahamed Hamoud A. Nagi	結核対策細菌検査	96.10.05-97.02.14
11.Dr.Mohamed Saif Al-Kobati	結核対策管理者	97.05.06-97.06.21
12.Dr.Ismacel A. Al-Abadi (健康上の理由により研修が中止された)	結核対策Ⅱ	97.06.16-97.06.21
13.Dr.Mohamed M. Al-Khawlani	結核対策Ⅱ	97.06.16-97.10.19

(3) 供与機材実績

[平成5年度]

(本邦調達)

番号	機 材 名	仕 様	数量
1	蒸留装置	ベックマン式蒸留装置、5L/HR	1
2	ピペット洗浄器	超音波洗浄装置、UT-55、変圧トランス付き	1
3	高圧滅菌器 (オートクレーブ)	ラボ用ガラス器の滅菌装置。HA-24, 金網籠2個付き	2
4	孵卵器	FIN-600Ⅱ	1
5	菜匙	検量用匙。No. 08-0156-01, ステンレス製	10
6	斜面台	培地試験管用。中型試験官16本用木製、21×38×3.8、木厚6mm	10
7	ピペット・ケース	ピペット収納ケース。片面引出式、8S塩ビ製、No. 405-22-92-01	1
8	乾熱滅菌籠	ステンレス製金網籠、45ⅴ×20H×25D	1
		ステンレス製金網籠、25ⅴ×18H×22D	1
		ステンレス製金網籠、18ⅴ×15H×18D	2
9	凝固器	結核菌卵培地凝固用、C-200型、200本入り	1
10	濾紙	角型定性一般用濾紙、60×60cm 100枚入り	3
11	メスピペット	培地分注用ピペット。先端目盛り、1mℓ	20
		先端目盛り、5mℓ	20
		先端目盛り、10mℓ	20
12	第一リン酸カリ	166-04255, 500g	10
13	グルタミン酸ナトリウム	198-02035, 500g	10
14	臭化シアン	039-08591, 5g	6
15	塩基性フクシン	534-00372, 25g	40
16	フェノール	500g	45
17	キシロール	500mℓ	100
18	イメルジョンオイル	標本作製用。Ordinary use nd=1.516 50mℓ	100
19	レンズ・ペーパー	標本作製用。Whatman, 324-073-01, 10×15mm, 25×25pcs	10
20	ニクロム線	菌移植用、750W, 2.5m長	10
21	白金線挟み	菌移植用。	40
22	ダイヤモンド・ペン	スライドガラスへの記入用。065-002-01	40
23	標本箱	スライドガラス100枚用、No. 096-001-01, 25.5×20.5×3.5cm	40
24	アルコール・ランプ	菌移植用、WY-8067, 90mℓ 金属蓋付き	40

番号	機 材 名	仕 様	数量
25	洗浄瓶	250ml、240-025-03、ポリエチレン製	120
26	染色壺	縦型10枚用、No. 249-002-02	40
27	顕微鏡	CHT型 倍率1000倍 (40×25)	5
28	コンピューター用ハード・ディスク	NEC9801 RX 用 40メガバイト容量	1
		NEC98NOTE 用 40メガバイト容量	1
29	コンピューター用拡張メモリー	NEC9801 RX 用 2メガバイト容量	1
		NEC98NOTE 用 2メガバイト容量	1
30	オベック・プロジェクター	プレゼンテーション用実物投影機。EP7000 200V仕様 ハロゲンランプ250W×6個使用	1
31	同上 ハロゲン・ランプ	予備ハロゲン・ランプ (24V・250W)	30
32	レーザー・ポインター	プレゼンテーション用レーザー・ポインター LP-3000	1

(現地調達)

番号	機 材 名	仕 様	数量
1	抗結核剤	Isonizaid+Rifampicin (tablets)100+150mg×1000錠	480
2	"	Isonizaid+Thiacetazone(tablets)300+150mg×1000錠	280
3	"	Pyrazinamide (tablets) 400mg×1000錠	550
4	"	Ethambutol (tablets) 400mg×1000錠	590
5	"	Streptomycin (vials) 1g×50 vials	220
6	"	Water for Injection (vials) 5mg×100 vials	110
7	アルミホイル	ニックパクホイル業務用50m	10
8	ビニール袋	27×39cm、100枚入り	5
9	エタノール	057-00451, 3 ℓ	30
10	硫酸	500mℓ	300
11	喀痰容器	サンプル採取用。1000個入り/箱	60
12	スライドグラス	標本作製用。No.100-001-01 76×26mm 1000個入り/箱	60
13	間接撮影用X線フィルム	コニカ・ロールフィルム GS 70mm、30.5m長	100
		コニカ・ロールフィルム GS100mm、30.5m長	30
14	間接撮影用X線フィルム	コニカ・医療用フィルム 大角 50/箱	10
		コニカ・医療用フィルム 四切り 50/箱	20
15	X線フィルム補充液	コニカドール補充液、10ℓ用粉末(DLX-R)	300
16	患者用ベッド		20
17	薬剤運搬用トレイ		3
18	食事運搬用トレイ		1
19	薬剤管理用棚	90W×40D×160H	4
		50W×60D×120H	12
20	痰壺		10
21	心電図計	三要素心電図	1
22	インターフォン	レントゲン撮影室での患者呼び出し用。	2
23	治療ボックス		40
24	プロジェクト支援車両	トヨタ ランドクルーザー・ステーションワゴン GX-1993 model	2
25	ファクシミリ	国内ファックス受発信用、UHQ 180	1

[平成8年度]

(現地調達)

番号	機 材 名	仕 様	数 量
1	抗結核剤	RFP 300mg/INH 150mg 1,000錠/箱	540 箱
2	同上	RFP 150mg/INH 100mg 1,000錠/箱	330 箱
3	同上	PZ 500mg 1,000錠/箱	1,000 箱
4	同上	EB 400mg 1,000錠/箱	400 箱
5	同上	INH 300mg/THI 150mg 1,000錠/箱	2,000 箱
6	同上	INH 100mg/THI 50mg 1,000錠/箱	450 箱
7	同上	SM 1mg 50vials/箱	8,000 箱
8	顕微鏡	オリンパスCHT-213E	32 台
9	ニクロム線	インド製 2.5mm, 750W	200 個
10	白金線挟み	ステンレス・スチール、英国製	200 本
11	イマージョン・オイル	オリンパス 50ml	200 本
12	レンズ・ペーパー	オリンパス 10×15mm, 100枚/箱	100 箱
13	ダイヤモンド・ペン	中国製 10本/箱	80 箱
14	スライド・グラス	塗抹検査用 72枚/箱、中国製	2,000 箱
15	喀痰容器	透明プラスチック、ネジ蓋付、韓国製 1,000/箱	200 箱
16	アルコール・ランプ	Spirit Lamp 中国、インド製	200 個
17	エタノール	1ℓ瓶、エジプト製	72 本
18	メチレン・ブルー	500mg瓶、独製	20 本
19	フェノール	1kg瓶、独製	18 本
20	硫酸	1ℓ瓶、スペイン製	400 本
21	注射用蒸留水	5ml 100vials/箱、英国製	6,000 箱
22	ディスポーザル注射器	5ml 100本/箱、インド製	6,000 箱
23	キシロール	1ℓ瓶、英国製	144 本
24	X-線撮影用ロール・フィルム	70mm(幅)×30.5m(長)Konika	250 個
25	X-線撮影用ロール・フィルム	100mm(幅)×23m(長)Konika	50 個
26	X-線フィルム現像液	US 5gallon Konika	30 本
27	X-線フィルム定着液	US 5gallon Konika	30 本
28	X-線フィルム自現機用現像液	XD-90 38ℓ Konika	30 本
29	X-線フィルム自現機用定着液	XF-C 38ℓ Konika	30 本

番号	機 材 名	仕 様	数 量
30	X-線直接撮影用フィルム	AX35×35 100/Box Konika	20 箱
31	同上	AX30×40 100/Box Konika	10 箱
32	同上	AX24×30 100/Box Konika	20 箱
33	同上	AX18×24 100/Box Konika	10 箱
34	デスクトップ・コンピューター	DELL Opti Plex GS5120	11 台
36	ラップトップ・コンピューター	Latitude P133 Note Book	1 台
36	インクジェット・プリンター	EPSON Stylus Colore 500	12 台
37	ファックス・モデム	33.6 kbps	6 台
38	ファックス・モデム	28.8 kbps	1 台
39	フロッピーディスク	Floppy Disk 3.5HD, IBM, 10/箱	200 箱
38	プリンターインク (黒)	EPSON Stylus Colore 500用	120 本
37	プリンターインク (カラー)	EPSON Stylus Colore 500用	60 本
38	プリンターケーブル	EPSON Stylus Colore 500用	12 本
37	スキャナー	EPSON GT-5000	1 台
38	停電用バッテリー、A P S	Tripplite	7 台
37	C D ロムドライブ	DELL External	4 台

5 専門家・研修員、国内研修実績表（分野別）

1. 専門家派遣実績表（分野別）

	1993 / 1994	1994 / 1995	1995 / 1996	1996 / 1997	1997 / 1998	合計人数
結核対策	長: 1, 短: 2	長: 0, 短: 0	長: 0, 短: 2	長: 0, 短: 4	長: 0, 短: 2	長: 1, 短: 10
臨床検査	長: 1, 短: 0	長: 0, 短: 0	長: 0, 短: 0	長: 0, 短: 0	長: 0, 短: 2	長: 1, 短: 2
機材保守	長: 0, 短: 1	長: 0, 短: 0	長: 0, 短: 0	長: 0, 短: 0	長: 0, 短: 0	長: 0, 短: 1
看護婦	長: 0, 短: 1	長: 0, 短: 0	長: 0, 短: 0	長: 0, 短: 0	長: 0, 短: 0	長: 0, 短: 1
社会調査	長: 0, 短: 0	長: 0, 短: 0	長: 0, 短: 0	長: 0, 短: 1	長: 0, 短: 0	長: 0, 短: 1
調整員	長: 1, 短: 0	長: 0, 短: 0	長: 0, 短: 1	長: 1, 短: 1	長: 0, 短: 0	長: 2, 短: 2
合計人数	長: 3, 短: 4	長: 0, 短: 0	長: 0, 短: 3	長: 1, 短: 6	長: 0, 短: 4	長: 4, 短: 17

* 1. 長: 長期専門家（派遣初年に記載）、短: 短期専門家

* 2. 結核対策には、リーダーが含まれる

* 3. 最終年度は、評価調査時点の人数を記載

* 4. 日本の予算年度にて区分

2. 研修員受入実績表（分野別）

	1993 / 1994	1994 / 1995	1995 / 1996	1996 / 1997	1997 / 1998	合計人数
結核対策II	2	0	0	1	1	4
結核対策 管理者	1	0	0	1	1	3
結核対策 検査技術	1	0	1	1	0	3
レントゲン	1	0	0	0	0	1
機材保守	1	0	0	0	0	1
合計人数	6	0	1	3	3	13

* 1. 1997年に早期帰国した研修員を除く

* 2. 研修開始時の日本予算年度に記載

3. 国内研修実績表（分野別）

	1993 / 1994	1994 / 1995	1995 / 1996	1996 / 1997	1997 / 1998	Total
Doctor	16	0	21	17	3	57
Laboratory	33	10	10	7	5	65
Registrar	37	9	21	161	31	259
X-ray	8	0	0	0	0	8
Total	94	19	52	185	39	389

* 1. 研修開始時の日本予算年度に記載

* 2. 最終年度は、評価調査時点の人数を記載

6 イエメンにおけるDOTSの4類型

イエメン社会の現状を考慮するとき、当国におけるDOTSには四つのアプローチを区別する事が可能であろう。（表参照）。

〔表〕 イエメンにおけるDOTSの4類型

DOTSの種類	距離障害	時間障害	患者支出	政府支出	社会障害	総合評価
入院DOTS	—	+++	—	+++	+	?
親類寄留DOTS	+(+++)	++ (+++)	+(+++)	+	++	○
都市住民DOTS	+	+	+	+	++	◎
農村展開DOTS	++	+	+	+	+++	◎

1. 入院DOTS

第一タイプは「入院DOTS」であり、これはタイズの共和国病院、トゥルバのカリーファ病院等で実施されている。スメア（+）の患者を最低二ヶ月間隔離病室に入院させ、この間毎日病院スタッフ（結核担当者）が投薬（注射も含む）を実施するものである。これはDOTSとしては最も確実な方法である。

2. 親類寄留型DOTS

第二タイプは「親類寄留型DOTS」である。これは、農村部の患者が様々な加療経緯（地方の民間診療所、伝統的治療者、公共医療施設、都市の病院など）を経て、最終的に都市（サナア、タイズ、ホデイダ、アデン）の結核治療施設にたどりつき、これら都市に居住している近親者（実家を含む）を頼ってここに寄留し、そこから二ヶ月間の間毎日通院するものである。現在実施されている「デイリーDOTS」の半数程度はこのパターンであると考えられる。

3. 都市住民DOTS

第三タイプは「都市住民DOTS」であり、現在タイズ等で実施されているデイリーDOTSの患者の典型的なタイプはこれである。これは、たまたま自分の居住している都市に結核治療施設があり、日常生活空間から切り離されることなく治療を受けることができる人々がこの方式を享受することになる。

4. 農村展開型DOTS

第四のタイプは「農村展開型DOTS」であり、現実にはまだイエメンで行われていない。結核患者の大半は農村部に居住しており、農村部では多くの場合適切な診断・治療が行われていないために病状の悪化、耐性菌の増加、結核の蔓延という状況が繰り返されているとされる。従って、国家結核対策としては今後いかにして農村部に結核治療を浸透していくかが重要な課題となっている。

〔出所：佐藤 寛専門家（社会調査）報告書〕

7 プロジェクト方式技術協力の延長要望書

Republic of Yemen
Ministry of Public Health (MOPH)
Planning & Development Sector

No. 3541
Date: June 26, 1997

To: Deputy Minister of Planning and Development for International and Technical Cooperation

Subject: A request to extend the Technical Cooperation between MOPH-Tuberculosis Control Project and JICA.

The MOPH presents its compliments and would like to inform you that the Tuberculosis Control Project in the Ministry has submitted a request to extend the Technical Cooperation of JICA which will end in February 1998. The Tuberculosis Control Project of the MOPH hopes for the continuation of support in order to spread the new strategy of treatment which is recommended by WHO and JICA. The first outcomes of the application of this strategy have shown encouraging and successful results. according to the points mentioned below, we intend, through the application of this strategy, to discover 70 percent of the contagious cases and to cure 85 percent of these cases by the year 2000:

1- Government Obligations: according to the five-years plan, MOPH has appropriated Yemeni Rials 15 million, subject to increase, for medicine and laboratory needs, has approved increase in the number of employees of the Central Unit for Tuberculosis Control Project and the employees at centers and units offering Tuberculosis Control Services and the appropriation of their salaries and has increased the operational cost of the program and of some of its branches in the governorates.

2- The results of using DOTS Program show increase in percent of cure through the Tuberculosis Control's workers' understanding of this new strategy that depends on follow up and continuous supervision. We will enclose herewith a general list, for all governorates, of the recorded cases and results reached (the change in saliva test result from positive to negative) and according to the form used and the follow up of the falling behind cases and those which are under the treatment program.

3- According to the recommendations of both MOPH, in the Five-Years Plan, and WHO that emphasize on the control of this deadly disease that lies on top of the list of dangerous diseases that need to be controlled.

4- Continuing the DOTS Program which started in the beginning of 1996 to spread this new strategy in all governorates by the year 2000.

5- According to the Five-Years Plan of the MOPH, the DOTS Program will be extended through the increase of the Primary Health Services.

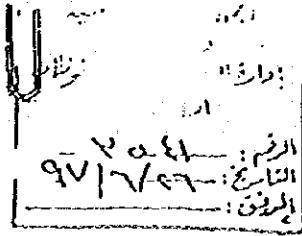
2...

Therefore, we kindly request you to contact the Japanese Authorities / JICA through the diplomatic channels and acknowledge them of the importance of extending the cooperation agreement signed by the MOPH and JICA for the third phase (after Feb. 1998).

Best regards.

cc: to the Minister

cc: to Deputy Minister for Services and Care



بسم الله الرحمن الرحيم

الجمهورية اليمنية

وزارة الصحة العامة

قطاع التخطيط والتنمية

بسم ١٤٧٨
تاريخ ١٩٩٧/٦/٢٧

المحترم

الأخ/ وكيل وزارة التخطيط لقطاع التعاون الدولي والفني

بعد النجيه

الموضوع : طلب تمديد التعاون الفني بين وزارة الصحة - مشروع مكافحة السل ووكالة التعاون الدولية اليابانية (جايبكا)
تهديكم وزارة الصحة أطيب التحيات وتحيطكم علما بان مشروع السل بالوزارة قد تقدم بطلب تمديد التعاون الفني الذي تقدمه وكالة جايبكا اليابانية للمشروع منذ سنوات علما بان المرحلة الثانية انتهت في فبراير ١٩٩٨م تأمل وزارة الصحة (مشروع السل) بتمديد الدعم لنشر الاستراتيجية الجديدة في المعالجة التي توصي بها منظمة الصحة العالمية ووكالة التعاون الدولية اليابانية جايبكا والتي أظهرت النتائج الأولية من خلال تطبيقها في بعض المحافظات . بانها مشجعة وناجحة كما تهدف من خلال تطبيقها بلوغ نسبة اكتشاف ٧٠٪ للحالات المعديّة وشفاء ٨٥٪ من هذه الحالات بحلول عام ٢٠٠٠ . وبناء على النقاط التالي ذكرها :

١- التزامات الحكومة : وفقا للخطة الخمسية فقد أقرت وزارة الصحة اعتماد ١٥ مليون (خمسة عشر مليون ريال) . خاصة ببند العلاجات والمستلزمات المخبرية قابلة للزيادة و زيادة عدد موظفين الوحدة المركزية لمشروع مكافحة السل والعاملين في المراكز والرحلات التي تقدم خدمات السل واعتماد رواتبهم ، زيادة المصاريف التشغيلية للبرنامج وبعض لروعه في المحافظات .

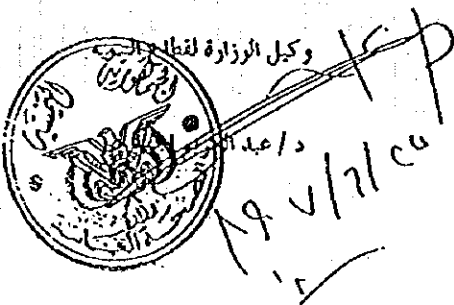
٢- تشير النتائج التي حققها برنامج المعالجة المباشرة قصيرة DOTS إلى ارتفاع نسبة الشفاء من خلال لهم العاملين في مجال السل للإستراتيجية الجديدة التي تعتمد على المتابعة والإشراف المستمر ، وسوف ترقى بهذه الرسالة كشف عام بالحالات المسجلة في كل المحافظات والنتائج المحققة (تحول عينات البصاق الإيجابي للعرضى إلى سلبى البصاق) بحسب الجدول المبيع وكذلك متابعة الحالات المتخلفة والتي تخضع للبرنامج العلاجي .

٣- بناء على توصيات وزارة الصحة . الخطة الخمسية وتوصيات منظمة الصحة العالمية بالالتزام بمكافحة هذا المرض الفتاك ووجوده على رأس سلم الأمراض الخطيرة المطاوع مدسحتها

٤- الاستمرار في برنامج DOTS الذي بدأ تطبيقه في بداية عام ١٩٩٦م بضرورة نشر هذه الإستراتيجية في كافة بلادنا والتوسع فيها حتى يشمل جميع محافظات الجمهورية اليمنية بنهاية عام ٢٠٠٠م .

٥- بناء على الخطة الخمسية للوزارة يتوسع خدمات الرعاية الصحية الأولية ومن خلاله سوف يتوسع برنامج المعالجة DOTS وعلى ماتقدم لوجوا التخاطب مع الجهات اليابانية / جايبكا عبر القنوات الدبلوماسية بأهمية تمديد اتفاقية التعاون الموقعة بين وزارة الصحة ووكالة التعاون الدولية جايبكا لمرحلة ثالثة بعد فبراير ١٩٩٨م

وتفقدوا خالص النجيه والتقدير



مدودة مع النجيه للأخ / الوزير

مدودة مع النجيه للأخ / وكيل لقطاع الخدمات والرعاية

8 イエメン結核対策の現状分析

** Situation Analysis of TB.C in R.O. Yemen **

DOTS implementation in R.O. Yemen

(1) Introduction.

(2) Country Background.

(3) Epidemiology of TB in Yemen.

(4) NTCP in Yemen.

(5) Achievements of TB.C Activities during the last few years.

(6) DOTS Project/Start, Implementation and Outcomes.

1) Introduction: R.O. Yemen is considered one of those countries with high incidence in TB. MOPH in my country is giving the TB problem the highest priority.

2) Country Background:-

R.O.Y. is sited in the Southern-West of Asia, occupying the Southern-West Corner of the Peninsula Arabia.

2.1.) Demography:- Total Population was around 15,604,654 (census 1994).

23% of them are living at the urban level and the rest at the rural level.

>75% of the total population are concentrated on the main Gvs. such as Taiz, Ibb, Hod., Sanaa, Dhahran, Sanaa City, Hajja, Aden, Hadram and Lahj.

Around 19-20% of the total population are in the Capitals of the Gvs.

2.2.) Country Size:- is a round 555,000 sq. Km. (excluding Al-Rouba Al-Khaly size).

3) Epidemiology of TB in Yemen:-

3.1.) Annual Risk of TB Infection:- According to the last Nation-Wide Survey by Tuberculin Testing among School-Children (6-12 Ys age) was calculated as (0.86%).

3.2.) Annual Incidence of New P.TB cases Sm.+ (Infectious Cases) was estimated as more than (71) than (7,000 cases). Total Incidence of all forms of TB

3.3.) Prevalence of TB cases:- > 30,000 cases.

4) NTCP in Yemen:- Both former parts of Yemen have initiated NTP since the middle of 1970s, with the technical assistance from WHO. Before, that only 2 Hps. in Aden and Taiz diagnosing and treating TB Patients since early 1950s.

Cooperation between Yemen and Japan in TB.C started in the former North part of Yemen since 1983 by JICA's TB.C Project/1st Phase/10 years, which was expanded/2nd Phase/5 years in March/1993.

During this period NTCP/CU could use adequately the very limited available resources to sustain the performances of the TB.C in general. Additionally NTCP adopted the national policy of DOTS new strategy of WHO by implementing of the 1st Pilot Project of DOTS in Taiz since Sept. 1995 in Taiz City using 2 Hps. TB Wards in Gh. Hp. and TB Subcentre by the technical support of WHO and the evident support of the MOPH.

1996/NTCP continued its activities to go on on DOTS implementation, by carrying-out of training on WHO Modules and finalizing of revision on TB.C Guidelines and expanding of DOTS demonstration sites to be 4, with 13 districts and more than 50 Hps. ensuring Supervision, Drugs and Lab. Materials in the regular basis. All of those activities were strongly supported by MOPH, JICA and WHO.

NTCP/CU has been established 1st time in the MOPH as a National (Central) Level with Organisation Structure, Jobs Description and appointment of GTCs for all Gvs. after Country Reunification in 1990.

By the great support and help of JICA and J. Grand Aids Programme.

R.O.Y. at present became one of the few Pioneer Countries which started successfully adopting of DOTS Strategy as a national Policy and it is very committed to go on in consolidation of already implemented demonstration sites and expanding of DOTS to cover at least 80% of the Country by Year 2000. Contributing in the achieving of the Global Targets. So, we still need support of JICA, WHO and other International and Domestic Organisations, to reach the Victory in our fighting against TB, which still considered as a major Public Health and Socio-Economic Problems in this Country.

5) Achievements of TB.C Activities during the last few Years:-

5.1.) Case Finding/C.D.R./Coverage.

5.2.) C.D. Coverage/Annex(2):-

5.3.) New P.Sm.+ TB cases, R.+ T./I.+ T./D. and O.+ /Annex(3).

5.4.) Treatment Results of New P.Sm.+ /1988-1995/Annex(2):-

**** Situation Analysis of TB.C in R.O. Yemen ****

6.) DOTS Implementation in R.O. Yemen:-

6.1.) Start:- I would like to mention that was not easy for us to think or to discuss with our managerial staff at the Gv. level about the New Strategy of DOTS (Directly Observed Treatment Short-Course), recommended by WHO, and all the answers at the beginning was in this sense. It is impossible to apply DOTS in this Country including me. What We did? We executed a lot of training for the GTCs, and other staff involved in TB.C using the WHO's Modules training on managing TB. at District level. The Training Program has been started during 1995 with full support of WHO, and continued up to Aug. 1996, and from Sep. 1996 when JICA reassumed its activities with us adding strong support. In July/1995, the NTCPs Managers met in Cairo, this meeting was organized by WHO/EMRO. Also in that meeting most of the Managers refusing this strategy. I came back home and I started to try to convince my colleagues to implement the 1st Pilot Project for DOTS. We succeeded in Taiz City using both Hfs. TB.Sc. and TB.Wards of Gh.Hp (with around 60 beds). The Project started from Sept. 1995. Then, from the beginning of 1996, DOT was expanded to Aden. Started in one Polyclinic (Crater) and TB.Wards in Gh.Hp (with around 50 beds). At the end of 1996 Aden DOTS covered all Hfs. and most of its Districts excluding Soqatra Island District (its Population = 70000).

Hodeida started DOTS in City in 7 Hfs. (6 Hcs. and TB.Sc.) from Sep. 1996 and now DOTS expanded to other Rural Districts (Bajel and Baft Faqih) involving a big number of Hfs.

Sanaa Capital City started DOTS from Oct. 1996 in 6 Hcs. and now is covering 8 Phfs. inside city and 10 Cooperative clinics. It was expanded to other 2 rural districts in Sanaa Gv. Amran and Dany Matar.

6.2.) Situation Analysis of DOTS:- For the first 2 projects which started early in the beginning of 1996, Taiz and Aden, We got unexpected results which if sustain will make a revolution in TB.C in this Country. Those results will bring us more near to achieve our national targets.

Obtaining of Conversion Rate of P.Sm. + TB. cases under DOTS of >80% to Negative at the end of the 2nd. month of SCC, while the same rate for cases under ordinary policy is still too low <50%.

Cured Rate for those cases under DOTS was >70%, while under Non-DOTS is still too low <45%.

Defaulted Rate among those cases under DOTS was dramatically decreased to 14% in Taiz and to 8% in Aden, while same rate for Non-DOTS is still too high >35%.

More details of the DOTS pilot Projects are attached in the Annex (4).

It is obviously that the serious commitment of the Government represented by the MOPH and for the first time played a substantial role in this Success and Progress. The MOPH allocated 15,000,000 Y.R. for Anti-TB Drugs and Lab. Materials in 1996. Also introduced Anti-TB Drugs within the essential programme of drugs in 1997, whereas already received (1,600,000 Tablets of RH) and (1,600,000 Tablets of E.) and NTCP's Running Budget allocated and increased the Budgets for main Gvs. Additionally most important roles in supporting the DOTS implementation were given by JICA and WHO.

However, it will be more important beside we reached very good results in our DOTS activities. There are so many difficulties and problems will face us throughout our way to expand DOTS in order to cover at least 80% of the Population by year 2000, and in the same time to sustain the existing Demonstration Sites consolidating, strengthening and improving their outcomes. So, for those reasons more local support from the MOPH, and from the Donors to achieve our targets.

Dr. Amin Noman Al-Absi, NTCP's Manager/MOPH/Sanaa.

CC: To The Minister of PH.

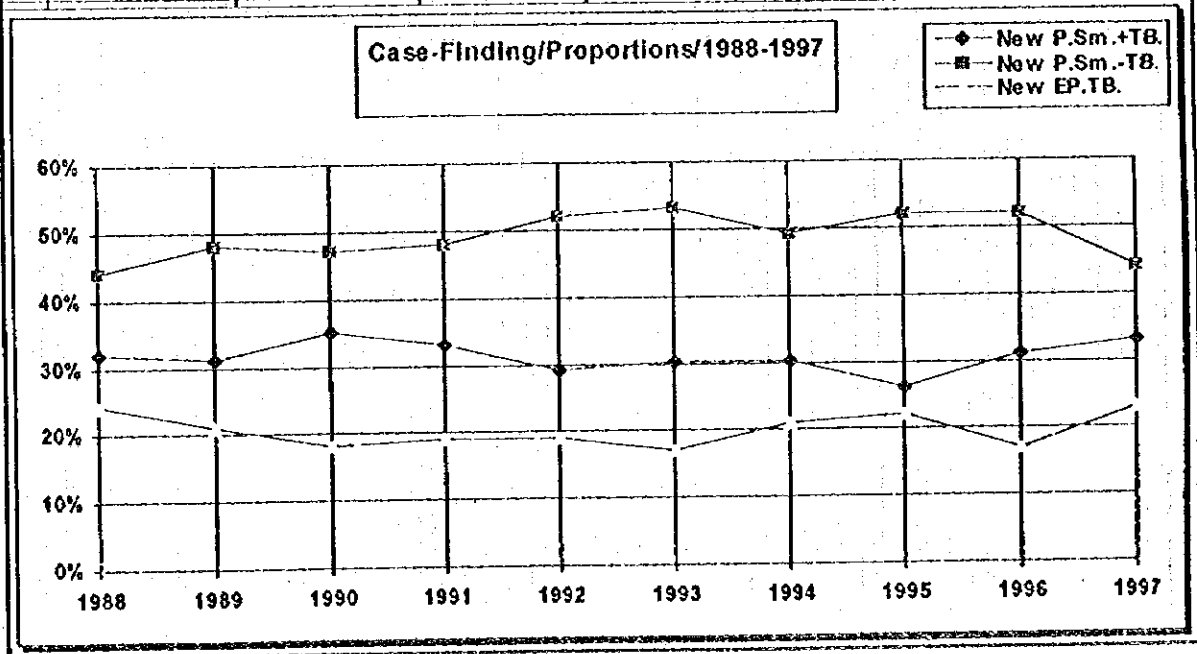
CC: To The Undersecretary of Med. Services & PHC Sector.

CC: To The DG. of PH.

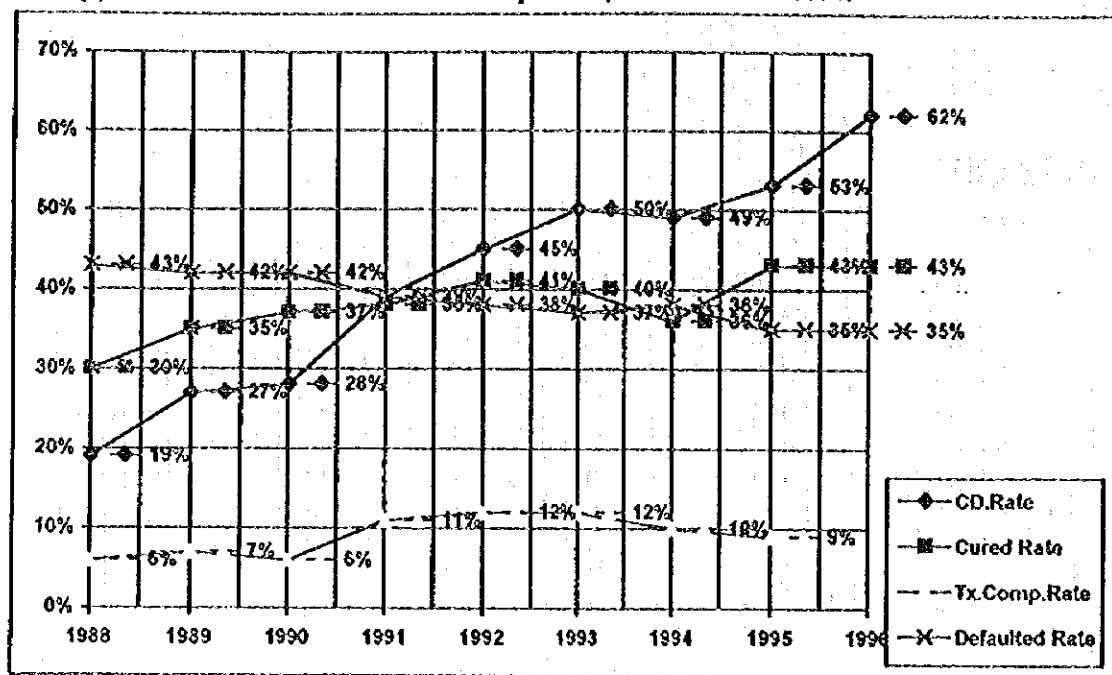
CC: To The Director of Epid. & Infectious Diseases.

****Situation Analysis of TB.C.In R.O.Yemen ****

Annex(1)Case-Finding Coverage/1990-96:-							Remarks
Sr.	Year/Items	N.P.Sm.+	N.P.Sm.-	N.EP.	Total	DC.Rate	
1	1988	1065	1457	779	3301	19%	
	Proportion%	32%	44%	24%	100%		
2	1989	1487	2276	965	4727	27%	
	Proportion%	31%	48%	21%	100%		
3	1990	1544	2111	802	4457	28%	
	Proportion%	35%	47%	18%	100%		
4	1991	2159	3194	1290	6643	39%	
	Proportion%	33%	48%	19%	100%		
5	1992	2896	5098	1905	9899	45%	
	Proportion%	29%	52%	19%	100%		
6	1993	3274	5729	1854	10857	50%	
	Proportion%	30%	53%	17%	100%		
7	1994	3351	5523	2382	11256	49%	
	Proportion%	30%	49%	21%	100%		
8	1995	3681	7390	3082	14153	53%	
	Proportion%	26%	52%	22%	100%		
9	1996	4371	7280	2415	14066	62%	
	Proportion%	31%	52%	17%	100%		
10	1997	1222	1637	838	3697	1st.Q.1997	
	Proportion%	33%	44%	23%	100%		



Annex(2)CD.Rate of New P.Sm.+TB.cases comparisons,Tx.Results/1988-1996:-



The above-mentioned Graph, showing comparisons in the Case-Detection Rate(Coverage)of New P.Sm.+TB., Treatment Results of those cases during the last few Years/1988-1996.

As follows Table number(2)showing the Treatment Results of New P.Sm.+TB.cases/1988-96:-

Years/Items	Cured	Tx.compl.	Died	Fail.+	Default.	T/O	Total	Remarks
1988	19%				43%			5 Hfs.
1989	27%				42%			6 Hfs.
1990	28%				42%			8 Hfs.
1991	37%				39%			12 Hfs.
1992	45%				38%			16 Hfs.
1993	1063	325	35	40	987	168	2618	21 Hfs.
1994	959	408	34	47	1038	213	2699	22 Hfs.
1995	1035	291	21	86	1092	313	2838	38 Hfs.
1996	1616	328	54	54	1316	426	3794	44 Hfs.

By reviewing, the above-mentioned data in Graph and Table, it can be said that, the NTCP. In Yemen has been achieved the following achievements during 1988-1995 before DOTS Strategy implementation(Sep.1995):-

- (1) Production of the 1st.NTCP.Manual.
- (2) Nomination of all Governorate Tuberculosis Coordinators(GTCs.).
- (3) Conducting of the Nation-Wide Tuberculin Survey(1st.time)1990-91.
- (4) Executing of the 2nd.National Symposium on TB.(1990).
- (5) Implementation of TB.C.Activities in all of the 18th.Gvs., few of them at least in their Capital Cities.

(6) Production of annual plan of action and report, and five years development plan(96-2000).

(7) Regarding the results of activities, I can say that in spite of so many difficulties and problems, our NTCP. could achieve to some extent an evident success and progress. From (15%) cured rate at the 1970s to 43% in 1995-96 and from >(than 40%) defaulted rate before 1980s to <(than 35%) in 1995-96. However, those rates are still so far from our targets and unsatisfactory.

Due to this MOPII, with NTCP./CU, seriously started to study thoughts and suggestions to revise and change the national policies in TB.C. immediately after the NTCPs Managers Meeting held in Cairo/July/1995. After that MOPH. and NTCP. adopted the new strategy of WHO, of DOTS, as a national policies in TB.C., which, MOPH. and the other donors supported it and still strongly. Evaluation of the firsts pilot projects of DOTS Implementation(Demonstration sites) showed very good results, which encouraged us to start planning for DOTS expansion to cover at least (80%) of the country by year 2000. The Situation Analysis of DOTS Data will be presented later within this documents..

Annex-3/shows the proportions among New P.Sm.+TB.cases and R.,T/I+,T/D+and O+/1992-97
In the following Table:-

Year/Items	New P.S+	Relapse+	T/I.+	T/D.+	O.+	Total	Remarks
1992	2896	214	321	254	32	3717	20 Hfs.
Proportions%	78%	6%	8%	7%	1%	100%	
1993	3274	219	349	260	36	4138	22 Hfs.
Proportions%	79%	5%	9%	6%	1%	100%	
1994	3351	254	322	219	124	4270	42 Hfs.
Proportions%	78%	6%	8%	5%	3%	100%	
1995	3681	275	336	229	130	4651	45 Hfs.
Proportion%	79%	6%	7%	5%	3%	100%	
1996	4371	298	403	186	43	5301	54 Hfs.
Proportion%	82%	6%	8%	3%	1%	100%	
1997/1 st .Q.	1222	53	73	24	16	1388	16 Gvs.
Proportions%	88%	4%	5%	2%	1%	100%	31 Hfs.

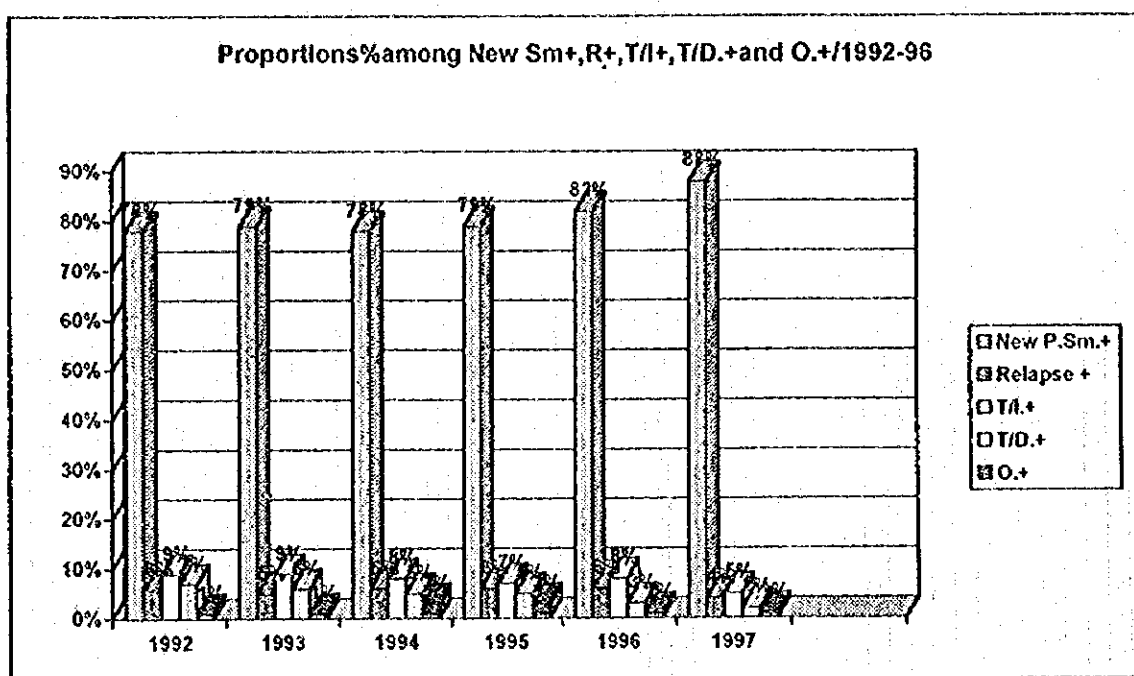


Figure 1

Annex(4) shows the total number of Smear-Positive TB.cases recorded under DOTS/1995-1997/ Gys./Compared with General Data:-

Gys./Items	DOTS	Non-DOTS	Total	%DOTS	No of Hfs.	Remarks
(1)Taiz	138	33	171	81%	2 Hfs.	Sp.-Dec/95
(1)Taiz	487	65	552	88%	4 Hfs.	1996
(2)Aden	259	120	379	68%	6 Hfs.	1996
(3)Hodeida	42	248	290	14%	6 Hfs.	1996
(4)Sanaa	62	203	265	23%	4 Hfs.	1996
G.Total/96	850	636	1486	67%	20 Hfs.	
(1)Taiz	193	45	238	81%	9 Hfs.	Jn.-Ma/97
(2)Aden	70	1	71	99%	6 Hfs.	1 st .Q./97
(3)Hodeida	144	258	402	36%	18 Hfs.	Jn.-Ma/97
(4)Lahj	40	4	44	91%	4 Hfs.	Jn.-Ma/97
(5)Dhamar	8	15	23	35%	2 Hfs.	Jn.-Ma/97
(6)Ibb	6	20	26	23%	1 Hfs.	Jn.-Ma/97
(7)Hajja	12	81	93	13%	1 Hfs.	Mrc./97
(8)Sanaa	137	270	407	34%	25 Hfs.	Jn.-Ma/97
G.Total/97	610	694	1304	47%	66 Hfs.	

****DOTS Achievements:-**

1.) Conversion Rate from Sm.+to Negative at the end of the 2nd. Month of SCC/DOTS:-

1.1.) Taiz:-1995/Sep.-Dec. Was=101/138=73%

1.2.) Taiz:-1996/ was=409/487=84%

1.3.) Aden:-1996/was=221/251=88%

1.4.) Hodeida:-1996 was=37/42=88%

1.5.) Sanaa:-1996/ was=46/62=74%

1.6.) In the first 2 Months of 1997/Conversion Rate was in general=263/310=85%

2.) Treatment Results of Sm.+cases recorded in Taiz and Aden/DOTS in the 1st.Q.1996 Was in Taiz=62%and in Aden=76%.

2.1.) Tx.Completed Rate:-Taiz=9%,Aden=6%

2.2.) Death Rate:-Taiz=7%,Aden=0

2.3.) Failure + Rate=1%,Aden=8%

2.4.) Defaulted Rate:-Taiz=14%,Aden=8%

2.5.) T/O Rate:-Taiz=7%,Aden=8%

(1997年7月21日付 イエメン・タイムズ)

Page 5



July 21st, 1997

Examples of Yemeni-Japanese Cooperation: The TB Program and Educational Activities

Dr. Toru Mori is the director of Research Institute of Tuberculosis in Japan. Last week, he visited Yemen to report on the Japanese-financed TB project in Yemen.

Dr. Salah Haddash, Managing Editor of Yemen Times, met him and filed the following interview.

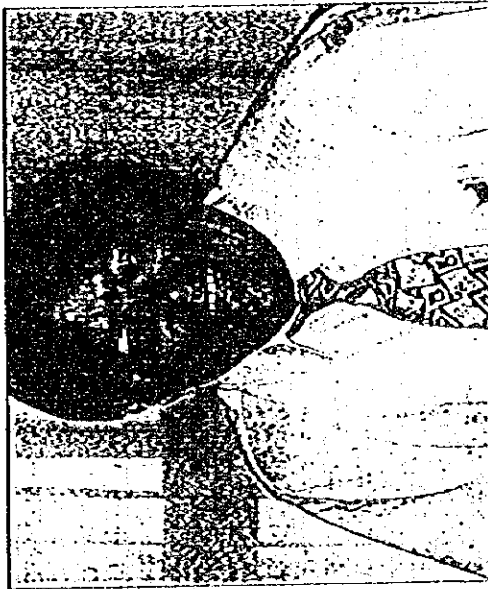
Q: What does the Research Institute on TB do?

A: This Institute is a Volunteer Association, interested with cases of TB globally, especially in the Third World. One of the activities of our association is to offer training courses for efforts to fight TB in developing countries. Another activity is the dispatch of experts to developing countries to work there in cooperation with the Japanese international donor agencies.

Q: What is the purpose of your visit here?

A: I am now visiting Yemen to study the viability of the ongoing project of fighting TB. The first phase of this project which is now in its second phase started 1982. That lasted for 10 years and was renewed under phase 2 of the project for five years. This second phase will end in February 1998.

Under the second phase, the construction of the International TB



help Yemen?

A: The initial drive was the good political relations between our two countries. But as a technical person, I think there is work for us in this country. The people here are very willing to work with us.

Q: Can you tell us a little bit about the TB disease?

A: TB is an infectious and chronic disease. Once infected with the disease, a person retains the possibility of developing TB lifelong. At the time our TB program started, many Yemenis

TB cases is 13,746. Does this number reflect the reality?

A: I think the number is far less than what it is. I think the true number is at least threefold the one you mentioned.

Q: Which areas in Yemen do you think are most affected by the disease?

A: I think the Tihama area is seriously affected by the disease. But in Hodeidah city, the new strategy is well-applied. In Hodeidah, the problem is under control.

Q: Much will depend on your report. Can you give us an indication of the direction of your report?

A: Of course, the final decision rests with the Ministry of Foreign Affairs. As far as our report is concerned, it is going to be very positive. I think the project is making a difference, and we will propose its continuation in one way or another.

At another level, a Japan-Yemen Friendship Association was established in Tokyo last December. It includes many Japanese persons who had worked in Yemen. The Association's executive director Mr. Shimizu Masayuki is a key



"Trees signify peace and friendship in our culture. We planted six Camelia trees - one each by the senior members of the delegation," Mr. Sato said. The JYFA chairman will visit Yemen in October for a similar purpose. The association, in conjunction with the authorities, promotes some cultural activities such as karate displays and Japanese folk songs and various cultural activities. JYFA now offers Japanese language classes. Each week, 15 Yemenis come for classes.

Taj Sheba Hotel GM Throws Farewell

Al-Thawra Newspaper dated July 16, 1997

An evaluation meeting of the Yemeni-Japanese Coordination Committee for Tuberculosis Control

The Concentration on evaluating project's activities in a number of Governorates

Sana'a / Saba /

The Yemeni-Japanese Coordination Committee for Tuberculosis Control Project held an evaluation meeting at the National Tuberculosis Control Institute in Sana'a. The meeting was headed by Dr. Mohammed Mohammed Hajar, Advisor to the Ministry of the Public Health and Director General of Health. The meeting was attended by the Japanese Delegation Headed by Dr. Tori Mori, president, Tuberculosis Research Institute, Tokyo. The meeting concentrated on project activities in a number of Governorates. Besides, it concentrated on the outcome achieved by these centers and the possible expansion of these strategies to include more areas that covers at least 80% by the end of the year 2000.

A number of working papers were reviewed and discussed in this meeting. These papers were prepared by the National Tuberculosis Control Program in the Ministry and in the Governorates in which this work started since September 1995. These papers included accomplishments achieved by these centers during past period. They also included methods and proposals to improve the working level at these centers and to make use of lessons learned.

A number of project's coordinators from Sana'a Capital, Aden, and other Governorates have participated in this meeting.

10 討議議事録 (R/D)

RECORD OF DISCUSSIONS
BETWEEN THE JAPANESE IMPLEMENTATION SURVEY TEAM
AND
THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF THE REPUBLIC OF YEMEN
ON THE TECHNICAL COOPERATION
FOR
THE PROJECT FOR THE TUBERCULOSIS CONTROL PROGRAM (II)

The Japanese Implementation Survey Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Dr. Masakazu Aoki, Director, the Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association, visited the Republic of Yemen from February 13 to February 21, 1993, for the purpose of working out the details of the technical cooperation program concerning the Project for the Tuberculosis Control Program (II) in the Republic of Yemen (hereinafter referred to as "the Project").

During their stay in the Republic of Yemen, the Team exchanged views and had a series of discussions with the Yemeni authorities concerned in respect of the desirable measures to be taken by both governments for the successful implementation of the Project.

As a result of the discussions, both parties agreed to recommend to their respective governments the matters referred to in the document attached hereto.

Sana'a, February 21, 1993

Masakazu Aoki

Dr. Masakazu Aoki
Leader,
Japanese Implementation Survey Team,
Japan International Cooperation Agency,
Japan

Dr. Abdulla Saleh Assaedi

Dr. Abdulla Saleh Assaedi
Undersecretary of Health Planning
and Development,
Ministry of Public Health,
the Republic of Yemen

THE ATTACHED DOCUMENT

I. COOPERATION BETWEEN BOTH GOVERNMENTS

1. The Government of Japan and the Government of the Republic of Yemen will cooperate with each other in implementing the Project in accordance with the Master Plan in Annex I.

II. DISPATCH OF JAPANESE EXPERTS

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take the necessary measures through JICA to provide, at its own expense, the services of Japanese experts as listed in Annex II through the normal procedures under the Technical Cooperation Scheme of Japan.
2. The Japanese experts referred to in 1 above and their families will be granted in the Republic of Yemen, the privileges, exemptions and benefits as listed in Annex III and will be granted privileges, exemptions and benefits no less favourable than those granted to experts of third countries or international organizations performing similar missions.

III. PROVISION OF MACHINERY AND EQUIPMENT

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take the necessary measures through JICA to provide, at its own expense, such machinery, equipment and other materials necessary for the implementation of the Project as listed in Annex IV, (hereinafter referred to as "the Equipment") through the normal procedures under the Technical Cooperation Scheme of Japan.
2. The Equipment referred to in 1 above will become the property of the Government of the Republic of Yemen upon being delivered C.I.F. (Cost, Insurance and Freight) to the Yemeni authorities concerned at the ports and/or airports of disembarkation, and will be utilized exclusively for the implementation of the Project in consultation with the Japanese experts referred to in Annex II.

M.A

IV. TRAINING OF THE YEMENI COUNTERPART PERSONNEL IN JAPAN

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take the necessary measures through JICA to receive, at its own expense, the Yemeni counterpart personnel connected with the Project for technical training in Japan through the normal procedures under the Technical Cooperation Scheme of Japan.
2. The Government of the Republic of Yemen will take necessary measures to ensure that the knowledge and experience acquired by the Yemeni counterpart personnel from technical training in Japan will be utilized effectively in the implementation of the Project.

V. MEASURES TO BE TAKEN BY THE GOVERNMENT OF THE REPUBLIC OF YEMEN

1. In accordance with the laws and regulations in force in the Republic of Yemen, the Government of the Republic of Yemen will take the necessary measures to provide at its own expense:
 - (1) Services of the Yemeni counterpart personnel and administrative personnel as listed in Annex V;
 - (2) Land, buildings and facilities as listed in Annex VI;
 - (3) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the Equipment provided through JICA under III-1 above;
 - (4) Transportation and other necessities for the Japanese experts for the official travel within the Republic of Yemen;
 - (5) Arrangement of suitably furnished accommodation for the Japanese experts and their families.
2. In accordance with the laws and regulations in force in the Republic of Yemen, the Government of the Republic of Yemen will take necessary measures to meet:
 - (1) Expenses necessary for the transportation within the Republic of Yemen of the Equipment referred to in III-1 above as well as for the installation, operation and maintenance thereof;
 - (2) Customs duties, internal taxes and any other charges imposed in the Republic of Yemen on the Equipment referred to in III-1 above;
 - (3) All running expenses necessary for the implementation of the Project.

VI. ADMINISTRATION OF THE PROJECT

1. The Undersecretary of Medical Services and Primary Health Care, Ministry of Public Health (MOPH) will bear overall responsibility for the successful implementation of the Project.
2. The Director General, General Directorate of Public Health, Ministry of Public Health, will be responsible for the administrative and managerial matters of the Project.
3. Official correspondence should be done through the General Directorate of Technical Cooperation, MOPH.
4. Contribution of Japanese Experts
 - (1) The Japanese Chief Advisor will provide necessary recommendations and advice on technical and administrative matters concerning the implementation of the Project.
 - (2) The Japanese experts will give necessary technical guidance and advice to the Yemeni counterpart personnel on matters pertaining to the implementation of the Project.
5. For the effective and successful implementation of the Project, a Joint Coordinating Committee will be established whose function and composition is described in Annex VII.

VII. CLAIMS AGAINST JAPANESE EXPERTS

The Government of the Republic of Yemen undertakes to bear claims, if any arise, against the Japanese experts engaged in the Project resulting from, occurring in the course of, or otherwise connected with, the discharge of their official functions in the Republic of Yemen, except for those arising from willful misconduct or gross negligence on the part of the Japanese experts.

VIII. MUTUAL CONSULTATION

There will be mutual consultation between the two governments on any major issues arising from, or in connection with, this Attached Document.

IX. TERMS OF COOPERATION

The duration of the technical cooperation for the Project under this Attached Document will be five (5) years from February 21, 1993.

MA

ANNEX

I. MASTER PLAN

1. Purpose of the Project

The purpose of the Project is to strengthen the activities of the National Tuberculosis Control Program through primary health care networks and thus contribute to the promotion of public health and welfare in the Republic of Yemen.

2. The objectives of the Project are as follows:

- (1) To improve organizational aspects of the national tuberculosis control system through primary health care networks, emphasizing the integration of Tuberculosis Control in this network.
- (2) To improve techniques of prevention, diagnosis and treatment of tuberculosis in the National Tuberculosis Program, particularly in the National Tuberculosis Institute, Sub-centers, and some model areas through collaboration with the Governorate Tuberculosis Coordinators; and public health directors of the governorate health offices.
- (3) To expand the Tuberculosis Control Program to some new model areas of the country, and to reach district level in particular model areas.

3. The activities of the Project are as follows:

- (1) To give advice on the organizational aspect of the National Tuberculosis Control System through primary health care networks.
- (2) To conduct the training of the Yemeni counterpart personnel in the following fields:
 - 1) Training of laboratory technicians, primary health care workers and trainer supervisors including in-service training.
 - 2) Upgrading the technique of X-Ray examination.
 - 3) Training of physicians, medical assistants and nurses.
- (3) To conduct researches in the Republic of Yemen in the following fields:
 - 1) Operational researches in order to improve the cure rate of smear positive cases in certain model areas.

MA

- 2) Tuberculin survey in model areas, and small scale prevalence surveys by X-Ray and sputum examination of a selected group.
- 3) Investigation of initial and secondary resistance to anti-tuberculosis drugs.
- 4) Other surveys and researches necessary for the improvement of the National Tuberculosis Control Program which are mutually agreed upon as necessary.
- (4) Special lectures for case-conference.
- (5) To provide guidance and advice on the logistics of Tuberculosis Control activities.

MA

II . JAPANESE EXPERTS

1. Chief Advisor
2. Coordinator
3. Experts in the following fields:
 - (1) Tuberculosis control specialist
 - (2) Radiology specialist
 - (3) Qualified laboratory technologist
4. Other related fields mutually agreed upon as necessary.

M.A

III. PRIVILEGES, EXEMPTIONS AND BENEFITS

1. Exemptions from income tax and charges of any kind imposed on or in connection with the living allowances remitted from abroad.
2. Exemption from import and export duties and any other charges imposed on personal and household effects, including food and beverage, which may be brought in from abroad or taken out of the Republic of Yemen.
3. In case of an accident or emergency, the Government of the Republic of Yemen will use all its available means to provide medical and other necessary assistance to the Japanese experts and their families.

MA

me

IV. LIST OF MACHINERY AND EQUIPMENT

Machinery, equipment and materials pertaining to:

1. Tuberculosis control
2. Other related fields mutually agreed upon as necessary

The request for machinery, equipment and materials will be done through Application (A-4) form by MOPH annually.

MA

V. LIST OF YEMENI COUNTERPART AND ADMINISTRATIVE PERSONNEL

1. Chief of the Project
2. Counterpart personnel in the fields of:
 - (1) Tuberculosis control
 - (2) X-Ray examinations
 - (3) Laboratory Technology
 - (4) Others mutually agreed upon as necessary
3. Administrative personnel:
 - (1) Secretary
 - (2) Clerks
 - (3) Typists
 - (4) Drivers
 - (5) Other supporting staff mutually agreed upon as necessary

MA

no

VI. LAND, BUILDINGS AND FACILITIES

1. Land

2. Buildings and facilities

- (1) Sufficient space for the implementation of the Project
- (2) An office for the Japanese Chief Advisor
- (3) Offices and necessary facilities for Japanese experts
- (4) Facilities such as electricity, gas and water supply, sewerage system, telephone and furniture necessary for Project activities
- (5) Other facilities mutually agreed upon as necessary

VII. JOINT COORDINATING COMMITTEE

1. Functions

The Joint Coordinating Committee will meet at least twice a year and whenever the need arises, and work;

- (1) To review the overall progress of the Project as well as the achievements of the annual work plan
- (2) To review and exchange views on major issues arising from or in connection with the Project

2. Composition

(1) Chairperson:

Director General, General Directorate of Public Health, Ministry of Public Health (MOPH)

(2) Members: Yemeni side:

- (a) General Director of Public Health, Aden MOPH Branch Office
- (b) Director, Dept. of Communicable Diseases, MOPH
- (c) Director, National Tuberculosis Control Program Office, MOPH
- (d) Director, National Tuberculosis Institute
- (e) Director, Taiz Sub-Center
- (f) Director, Hodeida Sub-Center
- (g) Governorate Tuberculosis Coordinators (GTC) of the other Governorates

(3) Members: Japanese side:

- (a) Chief Advisor
- (b) Coordinator
- (c) Japanese experts

(4) Observers:

- (a) Representative(s) of the Embassy of Japan in the Republic of Yemen
- (b) Representative(s) of the Ministry of Public Health
- (c) Representative(s) of the Ministry of Planning and Development

- (5) The Joint Coordinating Committee can invite any related person to discuss the specific issues.

MA

TENTATIVE SCHEDULE OF IMPLEMENTATION
OF
THE PROJECT FOR THE TUBERCULOSIS CONTROL PROGRAM (II)

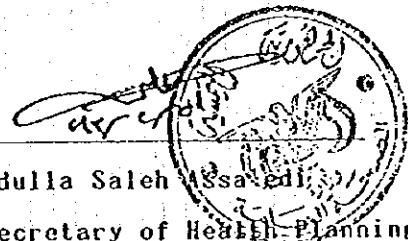
The Japanese Implementation Survey Team (hereinafter referred to as "the Team") and the Yemeni authorities concerned have jointly formulated the Tentative Schedule of Implementation of the Project for the Tuberculosis Control Program (II) (hereinafter referred to as "the Project") as attached hereto.

This Schedule has been formulated in connection with the Attached Document of the Record of Discussions signed between the Team and the Yemeni authorities concerned for the Project, on condition that the necessary budget be allocated for the implementation of the Project, and that the schedule is subject to change within the framework of the Record of Discussions when the necessity arises in the course of implementation of the Project.

Sana'a, February 21, 1993

Masakazu Aoki

Dr. Masakazu Aoki
Leader,
Japanese Implementation Survey Team,
Japan International Cooperation
Agency,
Japan



Dr. Abdulla Saleh Assaedi
Undersecretary of Health Planning
and Development,
Ministry of Public Health,
the Republic of Yemen

MA

The both sides take notes on the following:

1. Although the draft of the five year plan of Action for the National Tuberculosis Control Program has been prepared under the coordination of Ministry of Public Health (MOPH) and Japanese experts, this plan will become effective on condition that the priorities of the activities would be clearly given by MOPH.

2. The objective of the Project is to improve the National Tuberculosis Control Program as mentioned in Chapter 2 of ANNEX I, with special emphasis on:

1) Strengthening the activities of National Tuberculosis Control Program Office (NTP) in MOPH.

2) Strengthening the activities of National Tuberculosis Institute (NTI) and Sub-Centers.

3) Operational Researches in certain model areas.

3. The operational researches mentioned at above 2.3) are to be implemented in an area which will be newly involved in the Project; and an area where the Tuberculosis Control Program has reached several districts and high cure rate is expected. Concerning the above conditions, the areas in Aden and Taiz Governorates seem to be the suitable model areas in the first year of the Project.

MD

TENTATIVE SCHEDULE OF IMPLEMENTATION
THE PROJECT FOR THE TUBERCULOSIS CONTROL PROGRAM (II)

Japanese Fiscal Year (April-March)	1992/93 4 5 6 7 8 9 10 11 12 1 2 3	1993/94 4 5 6 7 8 9 10 11 12 1 2 3	1994/95 4 5 6 7 8 9 10 11 12 1 2 3	1995/96 4 5 6 7 8 9 10 11 12 1 2 3	1996/97 4 5 6 7 8 9 10 11 12 1 2 3	1997/98 4 5 6 7 8 9 10 11 12 1 2 3
1. Dispatch of Japanese Experts to the Republic of Yemen	Chief Advisor Coordinator Experts in other related fields					
2. Training of Yemeni counterpart in Japan						
3. Provision of Machinery and Equipment						
4. Dispatch of Japanese Mission to the Republic of Yemen			Planning and consultation	Advisory		Evaluation

Note : This schedule is formulated tentatively on the assumption that the necessary budget be acquired by both sides.

This schedule is subject to change within the framework of the Record of Discussions when the need arises in the course of the Project implementation.

JICA

