# ザンビア共和国
# エイズおよび結核対策プロジェクト
# 中間評価報告書

平成16年1月
(2004年)

独立行政法人　国際協力機構
医療協力部

# 序　　文

ザンビア共和国エイズおよび結核対策プロジェクトは、2001年３月31日から５年間の協力期間で、ザンビア大学教育病院のウイルス検査室、結核検査室を拠点としてザンビア共和国におけるエイズ対策、結核対策を主には検査室の強化を通じて支援しているものです。

国際協力機構（JICA）は、５年間の本件プロジェクトが実施期間の中間地点を迎えるにあたり、これまでの協力内容の評価、計画の調整、今後の活動への提言をザンビア側と共同で行うため、2003年11月３日から同年11月29日まで、東京医科歯科大学 山本 直樹教授を団長とする中間評価調査団を派遣しました。本報告書は、同調査団が実施した調査および協議の内容と結果を取りまとめたものです。

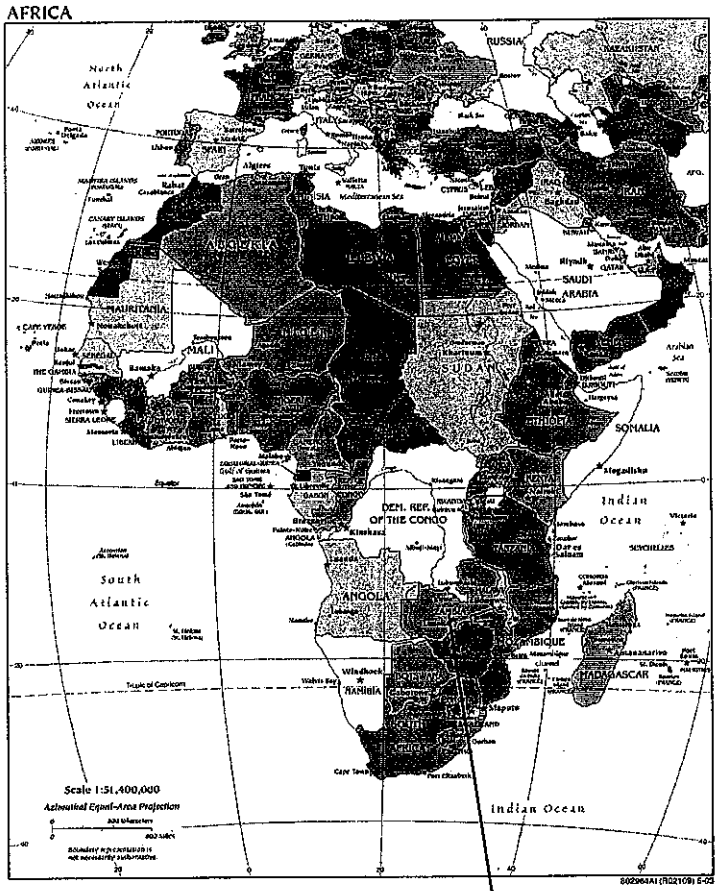
ここに本調査にあたりご協力を賜りました関係各位に対しまして、深甚なる謝意を表しますとともに、今後の本件プロジェクトの実施・運営に際し、一層のご協力をお願い申し上げます。

平成16年１月

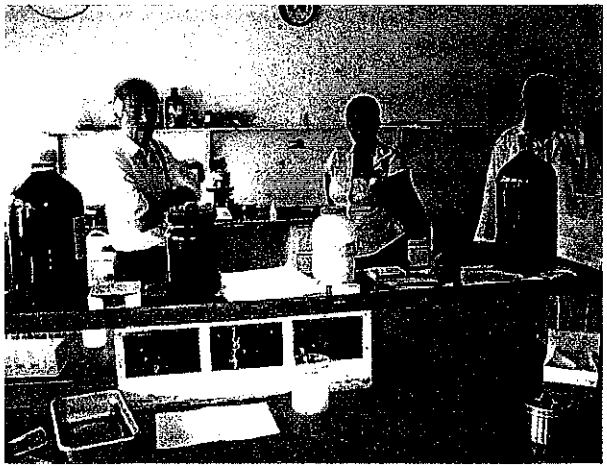
独立行政法人国際協力機構
医療協力部
部長　橋爪　章

# 目　　次

# 調査対象位置図


AFRICA
North Atlantic Ocean
South Atlantic Ocean
Indian Ocean
Scale 1:51,400,000
Azimuthal Equal-Area Projection
LIBYA
SUDAN
SAUDI ARABIA
SOMALIA
DEM. REP. OF THE CONGO
ANGOLA
MADAGASCAR
NAMIBIA
MALI
MAURITANIA

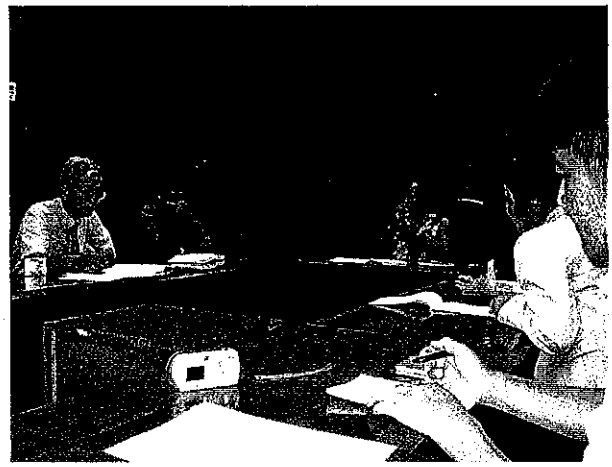

Lake Tanganyika
TANZANIA
DEMOCRATIC REPUBLIC OF THE CONGO
Lake Mweru
Mpulungu
Kasama
Mafinga Hills
Lake Bangweulu
Luapula
ANGOLA
Solwezi
Mufulira
Kitwe
Ndola
Chipata
MAL.
Kapiri Mposhi
Kabwe
Mongu
LUSAKA
Zambezi
Lake Kariba
MOZ.
NAMIBIA
Livingstone
ZIMBABWE
BOTSWANA
0 100 200 km
0 100 200 mi



カブウェジェネラルホスピタル検査室の様子

カブウェジェネラルホスピタル薬局

評価ワークショップの様子



CBOHムトンガ企画部長表敬
（左から、石川団員、カヘーニャ技官、ムトンガ企画部長、若杉団員、高橋専門家）

# 第１章　中間評価調査団派遣の概要

## １－１　調査団派遣の目的と経緯

JICAは、過去ザンビア大学教育病院（UTH）におけるウイルスおよび結核検査室の整備に支援を行ってきたが、ザンビアにおける深刻なHIV感染の蔓延および日和見感染症である結核の急増等への対策として、ザンビア政府は両検査室のさらなる機能強化および地方レベルの検査能力の向上につき、日本政府に技術協力を要請した。かかる要請に基づき、JICAは、ザンビア国内の検査システムの強化とその有効な活用をプロジェクト目標として、2001年３月30日より、５年間の計画でプロジェクト方式技術協力を開始した。2002年１月の運営指導調査団によりプロジェクト・デザイン・マトリックス（PDM）の内容が若干見直され、付属資料１：Annex２．Mid－term Joint EvaluationのAppendix２．PDM ver２（PDM$_2$）に基づいて活動を行ってきている。

今般調査団は、プロジェクトの前半２年半が経過したのに伴い、これまでのプロジェクト活動実績、目標達成に向けた活動の進捗についてプロジェクト・サイクル・マネージメント（PCM）手法を用いて中間評価を行ったうえで、①計画内容の起動修正の必要性について検討すること、②今後のプロジェクトの方向性についてザンビア側と協議し、協力期間後半の活動に関する助言を行うこと、また、③プロジェクト後半のモニタリングが適切に行われるよう、モニタリングの徹底および指標の整備を図ることを目的に派遣された。

具体的には、派遣前の時点で以下のようなPDM修正が予想された。

(1) ARV治療の本格的開始に伴うARV治療モニタリングへの協力を一成果として明確に示すこと。

(2) 上記に伴い、プロジェクトの全体的な規模が限られるなかで、緊急性の低い活動、投入見込みの薄い活動を縮小すること。

## １－２　調査団構成

| 氏　名 | 担当分野 | 所　属 | 派遣期間 |
|---|---|---|---|
| 山本　直樹 | 団長・総括 | 東京医科歯科大学 | 2003.11.３～11.16 |
| 石川　信克 | 結核 | (財)結核予防会 結核研究所 副所長 | 2003.11.３～11.16 |
| 若杉　なおみ | HIV/AIDS（検査室強化） | 国立国際医療センター 研究所疫学部長 | 2003.11.３～11.15 |
| 奥本　恵世 | 協力計画 | JICA医療協力部医療協力第二課 職員 | 2003.11.３～11.16 |
| 薄田　栄光 | 評価分析 | アイシーネット(株) コンサルタント | 2003.10.11～11.29 |

## 1－3　調査日程

| 日順 | 月日 | 曜日 | 調査内容 |
|---|---|---|---|
| 1 | 10月11日 | 土 | 【薄田団員のみ】成田発 |
| 2 | 10月12日 | 日 | ルサカ着 |
| 3 | 10月13日 | 月 | ＜実績取りまとめ＞<br>・専門家、カウンターパートインタビュー<br>・資料収集、読み込み<br>・活動実績取りまとめ<br>・進捗遅延理由の考察<br><br>＜関連事業最新動向調査＞<br>・プロジェクト専門家、カウンターパート、JICAザンビア事務所、保健省、中央保健総局、国家エイズ委員会等へのインタビュー<br>・資料収集<br>・レポート作成<br><br>＜評価準備作業＞<br>・関係者への評価手法、手順説明<br>・評価デザイン確定（PCMワークショップの実施方法等）<br>・活動プロセスの取りまとめ<br>・指標の収集 |
| 4 | 10月14日 | 火 | |
| 5 | 10月15日 | 水 | |
| 6 | 10月16日 | 木 | |
| 7 | 10月17日 | 金 | |
| 8 | 10月18日 | 土 | |
| 9 | 10月19日 | 日 | |
| 10 | 10月20日 | 月 | |
| 11 | 10月21日 | 火 | |
| 12 | 10月22日 | 水 | |
| 13 | 10月23日 | 木 | |
| 14 | 10月24日 | 金 | |
| 15 | 10月25日 | 土 | |
| 16 | 10月26日 | 日 | |
| 17 | 10月27日 | 月 | |
| 18 | 10月28日 | 火 | |
| 19 | 10月29日 | 水 | |
| 20 | 10月30日 | 木 | |
| 21 | 10月31日 | 金 | |
| 22 | 11月１日 | 土 | |
| 23 | 11月２日 | 日 | |
| 24 | 11月３日 | 月 | 【本団】日本発 |
| 25 | 11月４日 | 火 | ルサカ着、在ザンビア日本大使館表敬、調査団/専門家打ち合わせ |
| 26 | 11月５日 | 水 | NAC訪問、JICAザンビア事務所打ち合わせ、カウンターパートによる活動実績プレゼンテーション、UTH院長表敬 |
| 27 | 11月６日 | 木 | 午前：ワークショップ（実績・成果確認）<br>午後：＜HIV＞カブウェセントラル病院訪問<br>＜TB＞カマンガコンパウンドCBTO訪問 |
| 28 | 11月７日 | 金 | ＜HIV＞ンドラセントラル病院訪問<br>＜TB＞CBOH、CDL、チェルストンヘルスセンター訪問 |
| 29 | 11月８日 | 土 | ミニッツ案準備等 |
| 30 | 11月９日 | 日 | 書類整理 |
| 31 | 11月10日 | 月 | ワークショップ（PDM変更、指標変更） |
| 32 | 11月11日 | 火 | ワークショップ（役割分担）、調査団/専門家打ち合わせ |
| 33 | 11月12日 | 水 | 関係機関協議（CDC、CBOH、LDHMT）、ジョージコンパウンド視察、プロジェクトマネージャーとの打ち合わせ |
| 34 | 11月13日 | 木 | 合同調整委員会、国内委員３名によるセミナー開催 |
| 35 | 11月14日 | 金 | ミニッツ（合同評価報告書）署名、保健セクター会議参加、JICAザンビア事務所報告、在ザンビア日本大使館報告 |
| 36 | 11月15日 | 土 | 本団ルサカ発 |
| 37 | 11月16日 | 日 | 本団日本着（19:55 JL732） |

| | | | |
|---|---|---|---|
| 38 | 11月17日 | 月 | 【薄田団員のみ】<br>・新PDMに基づく指標の明確化<br>・モニタリングに関するプロジェクト関係者への技術移転<br>・調査結果取りまとめおよび不足情報の収集<br>・ARVセンター訪問、調査必要事項の整理 |
| 39 | 11月18日 | 火 | |
| 40 | 11月19日 | 水 | |
| 41 | 11月20日 | 木 | |
| 42 | 11月21日 | 金 | |
| 43 | 11月22日 | 土 | |
| 44 | 11月23日 | 日 | |
| 45 | 11月24日 | 月 | |
| 46 | 11月25日 | 火 | |
| 47 | 11月26日 | 水 | |
| 48 | 11月27日 | 木 | JICAザンビア事務所報告 |
| 49 | 11月28日 | 金 | ルサカ発 |
| 50 | 11月29日 | 土 | 日本着 |

## 1－4　主要面談者

(1) ザンビア保健省（MOH）

| | |
|---|---|
| Dr. Simon K Miti | Permanent Secretary |

(2) 中央保健庁（CBoH）

| | |
|---|---|
| Mr. D. M. Chimfwembe | Director, |
| Dr. Mtonda | Director, Planning and Development |
| Dr. Kafwabulula | TB/Leprosy Specialist |
| Ms. Kahenya | Laboratory Specialist |

(3) ザンビア国家エイズ委員会

| | |
|---|---|
| Dr. Musonda | Acting Director General |

(4) ザンビア大学

| | |
|---|---|
| Prof. G. Lungwangwa | Deputy Vice Chancellor |

(5) ザンビア大学教育病院（University Teaching Hospital：UTH）

| | |
|---|---|
| Dr. Lambart | Managing Director |
| Dr. V. Mudenda | Director of Laboratory Services |
| Dr. F. Kasolo | Head of Virology Lab |

(6) 米国厚生省疾病管理・予防センター（CDC）

| | |
|---|---|
| Mr. Nelson | Director, Global AIDS Program, Zambia |
| Dr. Shields | |

(7) ンドラ中央病院

| | |
|---|---|
| Dr. J. L. Mulwanda | Executive Director |

(8) カブエ中央病院

| | |
|---|---|
| Dr. Mulenda | Executive Director |

(9) ルサカ地区保健管理局（Lusaka District Health Management Team：LDHMT）

| | |
|---|---|
| Dr. M.Sinkala | District Director of Health |

(10) チェルストンヘルスセンター

| | |
|---|---|
| Mr. Muduli | Scientific Officer |

(11) カマンガ住民結核組織（Community Based Tuberculosis Organization）

| | |
|---|---|
| Mr. Mwape | Representative |

(12) 日本人専門家

| | |
|---|---|
| 広田　真美 | 長期専門家（公衆衛生/疫学） |
| 高橋　良明 | 長期専門家（HIV/AIDS） |
| 関野　良一 | 長期専門家（業務調整） |

(13) 在ザンビア日本大使館

| | |
|---|---|
| 石　　弘之 | 特命全権大使 |
| 古賀　達朗 | 一等書記官 |

(14) JICAザンビア事務所

| | |
|---|---|
| 乾　　英二 | 所　長 |
| 境　　勝一郎 | 次　長 |
| 北澤　志郎 | 所　員 |

## １－５　評価の方法

### １－５－１　評価の枠組み－評価用プロジェクト・デザイン・マトリックス

プロジェクトの中間評価は、PCM手法の概念を取り込んだJICA事業評価ガイドラインに基づいて実施する。PCM手法では、PDMというプロジェクトの目標、成果、活動と実施期間中に起こりうるリスクを簡潔にまとめた計画表をプロジェクトの実施前に作成する。この計画立案の作業は、広く関係者が議論に参加するワークショップ形式で行われ、「エイズおよび結核対策プロジェクト短期調査報告書（平成12年12月）」として、そのプロジェクト計画概要とともにまとめられた。

その後、平成13年３月の実施協議調査において、このPDMとプロジェクトの内容が確定され、プロジェクトは実施へと移された。本来、このPDMには、達成目標を示す指標が組み込まれ、プロジェクトの計画の規模のみならず、プロジェクトの実際の変化を示すモニタリング・評価の枠組みも示されていなければならないが、指標についての検討が不十分であったことや、またその後の外部条件の変化、プロジェクト運営管理に対する課題に対応するために、平成14年１月に運営指導調査団が派遣され、$PDM_2$へと計画の修正が行われた（付属資料１：Annex２．Mid-term Joint Evaluation ReportのAppendix１．$PDM_2$）。

中間評価では、$PDM_2$を基に評価用プロジェクト・デザイン・マトリックス（PDMe）を評価関係者と協議しながら作成した（付属資料１：Annex２．Mid-term Joint Evaluation ReportのAppendix２．PDM for Mid-term Evaluation）。$PDM_2$ではすべての活動について指標を設定し、それらを成果指標としていたが、具体的なデータ・情報に関する定義は不十分であった。またエイズと結核の活動がそれぞれ実施されているにも関わらず、同一の成果の中に活動が混在していることで、分かりづらい面があった。したがって、指標が調査可能であるかどうかを含め、調査過程の中で指標の有効性や目標値、ベースライン等を把握する必要があったため、PDMeについてはとりあえず$PDM_2$とほぼ同じものを適用することとし、より明確なPDMの作成が中間評価後の課題となった。

### １－５－２　基本的な評価設問と情報・データの収集方法

中間評価では、評価時点までの実績をもとに目標・成果の達成度や投入内容をPDMeに示された指標にそって確認する。このプロジェクトの目標達成度や投入内容、実施プロセスを把握するための基本的な評価設問[1]や情報・データの収集方法は「達成度とプロセスの評価調査表」（付属資料１：Annex２．Mid-term Joint Evaluation ReportのAppendix３．Evaluation Grid for Achievement and Process）に示した。

---

[1] 評価設問とは、評価５項目から視点に沿った結論を導くために用意する質問。

この調査表を用い実績・達成度を把握したうえで、次に評価５項目の視点からプロジェクトの評価を行う。この評価５項目の視点に基づいた評価を行うための基本的設問や情報・データの収集方法を「評価５項目のための評価調査表」(付属資料１：Annex２. Mid-term Joint Evaluation ReportのAppendix４. Grid for Five Evaluation Criteria) に示した。また、以下に評価５項目の視点を示した。ただし、中間評価の目的は必要に応じてプロジェクトの軌道修正を行うことに主眼があるので、妥当性と効率性により重点が置かれている。

(1) 妥当性 (Relevance)

妥当性は、プロジェクトの上位目標やプロジェクト目標が、ザンビアの保健政策や日本の政府開発援助の方針、プロジェクトが関係する保健医療提供者や受益者のニーズに合致しているかどうかを判断する評価の視点である。

(2) 有効性 (Effectiveness)

有効性は、プロジェクトによって産出された成果により、どの程度プロジェクト目標が達成されたのか、あるいは達成が見込まれるのかという視点に立脚する。

(3) 効率性 (Efficiency)

効率性は実施過程の中で、様々な投入がいかに効率的に成果に結びつけられたかを判断する評価の視点である。

(4) インパクト (Impact)

インパクトとはプロジェクト実施の結果、起こる影響や変化である。インパクトは直接的・間接的な望ましい、あるいは望ましくない影響・変化を把握し、評価する視点である。

(5) 自立発展性 (Sustainability)

自立発展性は、外部からの支援がなくなった場合においてもプロジェクトの便益が持続するかどうかという視点に立脚する。

情報の信頼性を高めるために、同じ評価設問について複数の情報収集方法（または、異なる情報源のクロスチェック）を適用した。情報・データ収集の方法は次のとおり。

1) 資料のレビュー：プロジェクトの資料、進捗報告書、関連印刷物、統計等をレビューした。

2) 直接観察：施設や機材、技術、記録等の適性について現地で直接的に観察した。

3) 質問票・インタビュー（グループインタビュー）：プロジェクトの情報を持つ主たる外部関係者に予め質問票を配布し、インタビューを行った。ザンビア側からの回答は、10人中５人であった（付属資料２．List of Stakeholders)。すでにプロジェクトを離れた日本人長期専門家への質問票については１人の回答があった。ザンビア側のカウンターパートと現日本人専門家へはグループインタビューを実施した。これには７人のカウンターパートと３人の日本人専門家が参加した（付属資料３．Example of Question Guide)。

4) プレワークショップ：指標に関する具体的な情報・データが不十分な場合について、プロジェクトの実施者に集まってもらい、PDMを展開した目的系図を基に活動の内容と実績を確認してもらった（付属資料４．The result of pre-workshop)。これには、プレゼンテーションによるモニタリング・評価の説明だけでは不十分と考え、ワークショップ形式によりモニタリング・評価のプロセスを理解してもらうという意図もあった（付属資料５．Monitoring and Evaluation Procedure)。

5) プレゼンテーションとワークショップ：プロジェクトの成果に関係するカウンターパート７人に研究を含む活動内容を発表してもらい、質疑応答を通じて実績の把握を行った。また、必要に応じて指標を含むPDM改訂に関する検討を行った。

### １－５－３　評価方法上の課題と制約

今回の中間評価調査において、評価結果に影響を及ぼしうる課題となった事項を掲げておく。

(1) PDMの指標に沿ったモニタリング活動が不十分であったため、活動が実施されたにもかかわらず成果の達成度が十分表現されていない可能性がある。

(2) ベースラインと最終的な成果の到達指標が示されていない、また、実際には測定することが困難な指標があったため、成果の達成度が十分表現されていない可能性がある。あるいは、どのようにも説明できる余地を与えている（客観性にかける）可能性がある。

(3) プロジェクトの成果にラボラトリー内の限られた空間で行われる活動と、ラボラトリー外で他者と調整等などを含む広範囲な活動が含まれている。前者は、例えば成果１のように技術移転や技術向上の対象が明確なものの、成果の内容は外からは分かりにくく、かつ質的に表現される性質のもので、高い専門性と経験を備えた専門家によってその成果の達成度は審査されるべき部分が大きい。後者は、成果２の研修活動のように純粋なプロジェクトによる活動なのか、他ドナーによる研究活動や日常業務に関する活動なのか境界が明確でない場合もあった。

# 第２章　プロジェクトの実績と現状

## ２－１　進捗状況総括

プロジェクトでは、18人のカウンターパートとともに、これまで７人の長期専門家、14人の短期専門家が活動を行い、事業費用として216,556,000円が投入されている。

検査技術、データ管理および全般的な検査室のマネージメント能力向上（プロジェクトの成果１）を目指す活動として、プロジェクトによって新たに導入された検査の実施数はそのニーズが高いことから急激に伸びており、プライベートの保健施設などからも利用されている。また、全国およびプロビンスレベルのVCTや結核検査の精度管理のためのトレーニングをプロジェクトとして行い、ザンビア側実施機関（UTH検査室）の求められるべき役割の強化を行ってきている。

一方で、UTHの外部の関係者による検査室の利用（成果３、４）に関しては、プロジェクトの目標・成果がプロジェクト当事者にとって明確でなかったこと（役割分担がなされていなかったこと)、これまで定期的な実績の把握･情報共有が十分に行われてこなかったこと等の理由により、これまでの達成度を示すことが困難であった。しかしながら実際にはこの成果に資する様々な活動が行われているようであり、今後は意識的に活動の記録を残すなどモニタリングを行っていく必要がある。

## ２－２　投入実績

### ２－２－１　日本側からの投入

プロジェクト開始以来、７人の日本人長期専門家と14人の短期専門家がプロジェクトに派遣された。2003年10月末での専門家の人月数は、139人／月に達している。プロジェクトに参加した専門家の名前と専門分野のリストは、付属資料１：Annex２．Mid-term Joint Evaluation ReportのAppendix５．List of long term and short term experts dispatched from Japanに記載されている。

プロジェクト開始以来、８人のザンビアカウンターパートが日本で研修を受けた。2003年10月末でのザンビアカウンターパートの日本滞在人月数は、累計で30人／月であった。カウンターパートの名前と専門分野のリストは、付属資料１：Annex２．Mid-term Joint Evaluation ReportのAppendix６．List of participants for training in Japanに記載されている。

日本から提供された主な機材のリストは、付属資料１：Annex２．Mid-term Joint Evaluation ReportのAppendix７．List of Equipment and Their Usage and Functional Conditionに記載されている。なお、このリストには供与機材に関する現況も示されている。

日本側は事業費用として216,556,000円を支援した。なお、事業費には運営費、専門家派遣費用、研修員の受入れ費用、供与機材費用、新しい結核検査棟（床面積300㎡）の建設費が含まれる。年度別の経費は、付属資料１：Annex２．Mid-term Joint Evaluation ReportのAppendix８．

Expensed of JICAに示されている。

2－2－2　ザンビア側からの投入

全体で18人がプロジェクトのカウンターパートとして任命され、活動に従事した。カウンターパートの名前とリストは、付属資料1：Annex 2．Mid-term Joint Evaluation ReportのAppendix 9．Organizational structure and staff related the Projectに示されている。

ザンビア側はザンビア大学教育病院のラボラトリー棟内にプロジェクト事務所を準備し、新しい結核棟建設のための土地を提供した。また、プロジェクト活動に従事したカウンターパート支援スタッフの人件費に加え、電気、水道費用を負担した。さらに、検査にかかる試薬や物品も一部支出された。

## 2－3　活動実績

達成度とプロセスの評価調査表に基づいて収集したプロジェクトの活動実績は「実績とプロセスの結果表」にまとめた（付属資料1：Annex 2．Mid-term Joint Evaluation ReportのAppendix 10. Results for Achievements and Process)。以下に、成果ごとの活動内容の要点を示す。

(1) 成果1：検査技術、データ管理および全般的な検査室のマネージメント能力が向上する。

1) ウイルスラボラトリー

ウイルスラボラトリーは、これまでのJICA支援によりすでにポリオやインフルエンザ、麻疹ウイルス検査を実施する施設と能力を備えている。このプロジェクトでは、それまで行っていなかった抗HIV薬のモニタリング評価や抗HIV薬の耐性分析、HIV株サーベイランス、HIV免疫反応の分析技術を導入し、HIVエイズ対策に必要な科学的な根拠を支える情報の分析のみならず、予防や治療に必要なラボラトリーサービスをも提供する。

これまで、プロジェクトを通じて無菌技術のような基本的な技術からPCRやCD 4 /CD 8 カウント、ウイルス量の測定、HIV薬剤耐性の解析など、HIV関連の新技術の移転が15人のカウンターパートによって行われた。新技術の導入目的や応用の範囲はそれぞれ異なるが、いくつかの応用例を以下にあげた。

・新技術を使っての応用と疫学研究（ザンビアでのHIV-1ウイルス株の分布）
・新技術を使っての診断サービス（CD 4 /CD 8 カウント）
・新技術による精度管理とモニタリング—レファレル機能（ARV耐性モニタリング）
・新技術の普及検討（ダイナビーズ法によるCD 4 カウント）

2) 結核ラボラトリー

プロジェクトでは結核の個別専門家の後を引きついで、多剤耐性の薬剤耐性試験のサーベイランスやMIGT方法の導入、フィンガープリント法、DDH方法などの新しい技術の研修が行われた。多剤耐性の薬剤試験のサーベイランスは継続されているものの、技術を修得したカウンターパートの異動などで、その他の新技術の移植とその応用は滞っている。

3) ラボラトリーのデータ管理と機材保守管理

ウイルスラボラトリー内の疫学・データ管理室を中心にデータベースの構築と整備が行われた。機材保守管理の専門家は、UTHのほか、抗レトロウイルス薬剤耐性のモニタリング体制を構築するためにンドラの中央病院でも活動を行った。

PDMに記載されている成果1に関する活動ごとの進捗度は以下のとおり。評価時点での主な活動の進捗状況について、プレワークショップと報告書のレビュー等から判断した結果を「進捗度」に示した。詳細は、「Results for Achievements and Process」(付属資料1のAppendix10)を参照のこと。

| | 活　動 | 進捗度* |
|---|---|---|
| 1-1 | 中央ラボラトリーで診断・サーベイランスに関する技術と方法の研修・訓練を実施する。 | 3 |
| 1-2 | ラボラトリー機器の予防的な維持管理について、技術者を研修・訓練する | 2 |
| 1-3 | モニタリング、サーベイランス、診断について次のような技術を中央ラボで確立、または向上させる。 | 2 |
| | 1-3(a) 抗HIV薬のモニタリング評価について技術的な支援 | 3 |
| | 1-3(b) 抗HIV薬の耐性分析 | 3 |
| | 1-3(c) HIV1-2 株サーベイランス | 3 |
| | 1-3(d) HIV免疫反応の分析 | 2 |
| | 1-3(e) 結核薬剤耐性サーベイランスと感受性試験の向上 | 3 |
| | 1-3(f) TBの診断的な価値（向上） | 2 |
| 1-4 | エイズ・結核ラボラトリーに対する標準検査実施法（SOPs）について見直し、CBoHへ提言を行う | 1 |
| 1-5 | ウイルスラボと結核ラボのデータ管理、情報、総合的な管理 | 2.5 |

*1：未着手、2：遅れている、3：計画どおり、4：完了

(2) 成果2：HIV/AIDSおよび結核検査、サーベイランスに関する地方の検査室の実施能力と質が向上する。

1) HIV/AIDS検査

HIV簡易キットの評価やHIV検査データの管理、HIVテストの品質管理について、マニュ

アルや研修教材の開発が行われた。また、全国を対象とした地方病院やヘルスセンターの検査員、VCT/MTCTの検査員やカウンセラーへのHIV検査方法の指導研修を行った。これらの研修では、検査室で得られた情報のみならず、様々なエイズ関連情報も提供された。プロジェクト開始以来、17回実施され、延べ460人あまりが参加した。VCT/MTCTの地方でのデータベースの構築と管理、HIV検査の精度管理は、研修後のフォローアップ体制とともに今後の課題になっている。

2) 結核検査

CDCとの役割分担と連携が進められた結果、UTHのTBラボはルサカ州を対象とした多剤耐性結核菌のサーベイランスと地方結核検査センターの精度管理（外部者による品質管理）の構築を行うことになった。ルサカ州の22の地方結核検査センターの資源・施設アセスメントに加え、パイロット的な精度管理の導入をDOTS戦略が実施されているChelstoneとChilengeを対象に行っている。また、結核検査の基本的な技術の再教育としてこれまで6回の研修を実施し、81人の検査技師がこれに参加した。

PDMに記載されている成果2に関する活動の進捗は以下のとおり。評価時点での主な活動の進捗状況について、プレワークショップと報告書のレビュー等から判断した結果を「進捗度」に示した。詳細は、「Results for Achievements and Process」（付属資料1のAppendix10）を参照のこと。

| | 活　動 | 進捗度* |
|---|---|---|
| 2-1 | 技術ワーキンググループの協力のもと、エイズ・結核診断に関連する検査員を対象とした指導者研修ワークショップを行う | 2.5 |
| 2-2 | VCT, MTCT, TBプログラムを支援するために保健医療従事者を対象としたラボラトリー研修を実施する | 2.5 |
| 2-3 | 末端ラボスタッフのために、HIV/AIDSと結核に関する研修訓練マニュアルの開発に参加する | 3 |
| 2-4 | VCTとMTCTの現場活動を支援するための計画、実施、モニタリングを支援する | 1 |
| 2-5 | HIV/AIDSと結核の精度管理を確立する | 2.5 |
| | 2-5(a) VCTとMTCTのサイトすべてを対象としたHIV検査の精度管理を実行する | 1 |
| | 2-5(b) ルサカ市のTB検査の精度管理を定着させる | 3 |

*1：未着手、2：遅れている、3：計画どおり、4：完了

(3) 成果3：保健医療従事者（民間、公職、NGO）による検査サービスの利用度が向上する。

成果1で導入されたCD4カウントなどの新しい検査サービスについては、UTH病院内での会議やUTH内のARV治療グループ会議等での情報提供により、利用が著しく増加した。例え

ば、それまでまったく実施されていなかったCD4カウントは調査時点で3,500検体を越えていた。また、ウイルス量の計測は500に上っている。しかし、総合的な検査の見方や検体の採取法などを記載したラボラトリーハンドブックやタイムリーなラボラトリーの分析結果等を載せたニューズレターは、慢性的なスタッフの不足により目立った活動は行われていない。

PDMに記載されている成果３に関する活動の進捗は以下のとおり。評価時点での主な活動の進捗状況を、プレワークショップと報告書等から判断した結果を「進捗度」として示した。詳細は、「Results for Achievements and Process」（付属資料１のAppendix10）を参照のこと。

| 活　動 | 進捗度* |
|---|---|
| 3-1　ニューズレターを通じてエイズ・結核の検査結果の重要性を臨床に周知させる | 1 |
| 3-2　ラボラトリーハンドブックを改訂し、臨床に配布する | 1 |
| 3-3　臨床に検査結果を間に合うよう返す | 1 |

*１：未着手、２：遅れている、３：計画どおり、４：完了

(4) 成果４：本プロジェクトで得られたHIV、結核に関する情報が関連機関（政府機関、他ドナー、保健従事者、NGO、学校、若年層およびコミュニティー）のプログラム計画や実施において広く利用される。

1) ラボから発信されたHIV/AIDS関連情報の活用

ラボラトリーの分析結果が集団の情報として、HIV/AIDS対策の政策面や集団そのものへの介入に重要な意味を持つ。会議や報告書を通じてのCBoHへの報告やNACのワーキンググループを通じた技術的支援が活動内容である。特に、ARV治療の進展が目覚ましく、プロジェクトのラボ技術もARV治療の導入を支える重要な役割を担っている。これらはCBoHにも伝わり、プロジェクトへの期待が寄せられている。

検査情報の上流への伝達の一方で、集団の介入の是非や評価のために、検査情報が重要な指標となることがある。コミュニティーの若者の啓発活動をVCTプログラムと連携して実施する提案書が作成された。

2) ラボから発信された結核関連情報の活用

ルサカ州を対象とした結核検査の外部精度管理の導入に際して、外部精度管理導入ガイドラインを作成した。ルサカ州以外でも外部精度管理の導入を計画しているCDLやCBoHとの協議を経て、この外部精度管理のガイドラインの内容が関係者で共有されている。

PDMに記載されている成果３に関する活動の進捗は次のとおり。評価時点での主な活動の進捗状況を、プレワークショップと報告書のレビュー等から判断した結果を「進捗度」とし

て示した。詳細は、「Results for Achievements and Process」（付属資料１のAppendix10）を参照のこと。

| | 活　動 | 進捗度* |
|---|---|---|
| 4-1 | ザンビアのエイズ・結核において関連ある人々に技術的な情報と資料を提供する | 3 |
| 4-2 | インターネットにプロジェクトのホームページをつくる | 1 |
| 4-3 | 関連活動について保健省/CBoHと定期的な周知会議を少なくとも年２回は持つ | 2.5 |
| 4-4 | VCTプログラムに関してコミュニティの若者グループに情報提供の会合を持つ** | 1.5 |

*１：未着手、２：遅れている、３：計画どおり、４：完了
** 末端ラボの利用者を対象としている成果２の活動としたほうが合理的。

(5) 成果５：HIV/AIDSおよび結核ワーキンググループとの協力関係が構築される。

ザンビアカウンターパートと日本人専門家は、国家エイズ協議会のVCTとケアワーキンググループやPMTCワーキンググループ、結核ワーキンググループ、ワクチンと研究グループに参加してきた。しかし、国家エイズ協議会の組織再編成で、2003年に入ってから約６カ月の間活動が停止した。2003年９月より、新しく編成されたワーキンググループにもプロジェクトから参加していく予定である。刷新されたワーキンググループは以下のとおり。

1) 治療とケア、支援のワーキンググループ
2) PMTCTワーキンググループ
3) IEC/STIワーキンググループ
4) OVCワーキンググループ
5) モニタリングと評価ワーキンググループ
6) 伝統と代替、研究と倫理ワーキンググループ
7) 職場でのHIV/AIDSの社会主流化ワーキンググループ
8) ワクチンと研究ワーキンググループ
9) VCTワーキンググループ
10) 安全な血液、血液製剤、感染コントロールワーキンググループ

PDMに記載されている成果１に関する活動の進捗は次のとおり。評価時点での主な活動の進捗状況を、プレワークショップと報告書等から判断した結果を「進捗度」として示した。詳細は、「Results for Achievements and Process」（付属資料１のAppendix10）を参照のこと。

| | 活　動 | 進捗度* |
|---|---|---|
| 5 | 日本とザンビアカウンターパートは活発にVCT、MTCT、TB、ワクチンと治療の技術会議グループに参加する。 | 2.5 |

*１：未着手、２：遅れている、３：計画どおり、４：完了

## 2－4　成果達成状況

(1) 成果１：検査技術、データ管理および全般的な検査室のマネージメント能力が向上する。

成果１で示されている内容の60～70%程度が達成されたと思われる。この達成率は、プレワークショップによるカウンターパートの認識と、その他の情報源から得られた情報の分析結果とほぼ一致する。

当初予定していたウイルスラボラトリーと結核ラボラトリーの23人を対象に、日常業務を通じて何らかの技術訓練が行われ、そのうち11人が正式な研修を通じて必要な技術を習得した。ウイルスラボラトリーに導入された新技術によって、ザンビアのウイルス株の型が明らかにされ、今後ARV治療を広く展開していくなかで必要な薬剤耐性やウイルス変化のモニタリング方法のラボ技術が確立された。この中にはCD４カウントの地方展開のための適性技術としてのダイナビーズ法も含む。

日本側の投入量は機材のみならず、人員でも成果１に最も多く注がれてきた。機材の多くは汎用性の機械なので、HIV/AIDSのみならず、他の検査にも応用可能である。ウイルスラボ全体の診断サービスとして実施される検査総数は、2001年では約7,300件であったが、2002年には13,800件、2003年には10月の時点で17,300件と著しい延びを示した。このうち、新しく導入されたCD４とCD８、ウイルス量、妊産婦と新生児のPCR法によるHIV検査総数は、2001年には1,189、2002年には5,115、2003年の10月時点で4,715と検査総数の伸びを上回る勢いで増加傾向にある。このほか、集団の分析や研究薬剤感受性と薬剤耐性の分析、ウイルス株分析のために新技術が使われている。ウイルスラボでは、2001/2002年のセンチネルサーベイランス（15,000）件の検査を実施した。

結核ラボの検鏡テスト数は、約２万件前後で診断サービスの能力に変化はない。プロジェクトでいくつかの新しい技術が導入されたが、まだそれらを活用した分析や診断サービスが行われていない。また、多剤薬剤耐性結核菌のサーベイランスの準備が進められているものの、まだ結果がでていない。日本側は短期専門家のみの派遣であり、投入が小さいことも考慮に入れておくべきだろう。投入が確保されれば、解決されるレベルの課題である。

ラボラトリーのデータ管理は、日常の検査についてほぼ必要な項目を網羅したコンピューターデータベースが構築された。これらのデータを使ってどう情報を分析し、発信していくかは残されている課題である。

(2) 成果２：HIV/AIDSおよび結核検査、サーベイランス[2]に関する地方の検査室の実施能力と質が向上する。

HIV検査については全国のHIV検査所を対象とした簡易テストの精度管理の構築とモニタリング、検査データの集約、結核についてはルサカ州にある22カ所の結核検査所を対象とした外部精度管理の構築とモニタリング、検査データの集約とした場合、40％程度の達成度と見られる。新しく導入されたCD４等の検査・診断の地方病院での実施は、ここには入っていない。

地方病院や保健センター、VCTCの検査員、MTCTの助産婦に対するHIV簡易検査法の指導と関連情報を17回の集団研修を通じて行った。個人的な指導を含めると、2003年10月までに延べ461人が研修・指導を受けたと推定される[3]。このJICAプロジェクトによるHIV検査研修やほかのドナーが提供する研修を通じてVCT/MTCTのみでも約年間６万～７万件のHIV簡易テストについて検査技術支援を行っている。プロジェクト当初は30カ所にすぎなかったVCT/MTCTセンターが、現時点で106カ所までになった背景には、検査技術が普及したことがあると考えられる。これらのセンターでは、これまで約38万件のHIV検査が実施された。今後は、すべてのHIV検査サイトについて精度管理が行われ、得られたデータが意味を持つように体制を構築することが必要である。

結核については６回の研修が行われ、2003年10月までに延べ80人が参加した。外部精度管理のルサカ州での構築にむけて、外部精度管理の試用が行われている。品質を維持した確実な診断能力が構築されることにより、診断サービスのみならず、集団を対象としたより正確な結核患者の感染率が得られることになる。

(3) 成果３：保健医療従事者（民間、公職、NGO）による検査サービスの利用度が向上する。

成果についての系統だった記録の集積がなく、達成度は不明である。活動も実績も少ない。

ウイルスラボの活動やサービス内容はUTHの部門会議やセミナー、テレビや新聞等によって広報されている。しかし、プロジェクトの主体的な活動となっていないため、またモニタリングの実践されていないためこれらの情報は記録されていない。日本語によるニューズレターが一回発行されたにすぎない。成果１の指標を見ると、新しい診断サービスに関する利用度は急激に上昇している。ウイルス量の診断サービスを見ると、民間の利用度が2002年には50％であったが、2003年10月現在では70％と民間の需要が高まっていると見られる。

---

[2] モニタリングと解釈したほうが合理的である。

[3] 記録されていなかった場合もある。

(4) 成果４：本プロジェクトで得られたHIV、結核に関する情報が関連機関（政府機関、他ドナー、保健従事者、NGO、学校、若年層およびコミュニティー）のプログラム計画や実施において広く利用される。

成果について系統だった記録の集積がなく、各報告書に記録された内容が成果３と重なる部分も少なくない。ラボラトリーで得られた分析結果や研究結果、技術面からの助言が活用されている場合であっても必ずしも記録に残っているとは限らない。実際すべてのJICA専門家はプロジェクトを通じて有形・無形の技術的な提言・助言を行っている。ただ、関係者へのインタビューや報告書の記録から、ワーキンググループへの出席やCBoHとの会議を通じて、広く認識されているとみられるのは次の事項である。

1) ARV治療の地方展開に対するプロジェクトで確立されたラボ技術の活用
2) プロジェクトで導入された新技術による診断サービスの活用
3) HIV簡易検査の普及と精度管理に関する助言と開発支援
4) TB精度管理に関する助言と開発支援
5) MTCTに関する助言と計画支援

(5) 成果５：HIV/AIDSおよび結核ワーキンググループとの協力関係が構築される。

ワーキンググループへの参加により、各成果の政策面への取り込みや他プログラムとの連携・調整が可能となった。

## ２－５　プロジェクト実施体制

UTHのウイルスラボに対するそれまでのJICA技術協力と比較して、このプロジェクトでは計画の方向性に関して２つの大きな変化があった。その第一は、JICAがすべての技術プロジェクトを対象にPCM手法を取り入れ、プロジェクトの計画立案から評価に至るまでの管理の透明性を強めたことであった。第二は、プロジェクトがUTHの実験検査室の強化のみならず、そこから得られる情報の利用者や地方検査室の支援により目を向けたことだった。

報告書や関係者へのインタビューによると、プロジェクト開始当初は、PDMやPOへの理解が不十分であった。プロジェクト開始から６カ月後に専門家らによるPDMと活動計画の見直しが行われたものの、具体的なベースと目標値に関する指標の設定はその後もなされることはなかった。つまり、プロジェクトの実績を踏まえて、計画を見直すモニタリングへの理解と作業が抜け落ちていた。このことが、指標に沿って系統だった活動の実績を把握するうえで障害となった。

カウンターパート側も慢性的なスタッフの不足に加え、研究・研修のための休職や病気休暇、他ドナーや大学との協同研究活動、政府公務員として兼務する会議への出席などで多忙を極めており、またプロジェクトの活動面のみならず、プロジェクトの管理運営の面でも常に人材の確保

が問題であった。財政緊縮により政府が人員補充に対して、ウイルスラボを含めUTHの職員配置を凍結していることも短期的な要因としてあげておかねばならない。日本側についてもプロジェクトリーダーの空白期間が生じるなど、プロジェクトの運営に阻害的な要因があった。活動内容がUTHラボラトリーの外にも広がり、調整業務が増加したにも関わらず、プロジェクト運営が特定の専門家とカウンターパートに集中したこともモニタリングがおろそかになった一因であった。

運営面の改善について、JICA専門家とカウンターパートとの間の制度的なコミュニケーションが形成されたのは、2003年の4月に入って、プロジェクト・ステアリング・コミッティ[4]で話し合いを開始してからであった。このステアリング・コミッティの導入によって、互いの動向やプロジェクトの問題解決の装置ができあがったものの、プロジェクトの全体像を把握し、プロジェクトに必要な長期的な計画とモニタリングを実施する体制にはまだなっていない。

現在は、プロジェクト・ステアリング・コミッティ等を通じて、JICA専門家とカウンターパートの関係は良好であるものの、ザンビア側の人材確保の問題は未解決である（日本人専門家に関しては、本調査の実施と前後して、空席となっていたチーフアドバイザーおよびHIVウイルス学・免疫学、結核の3名の長期専門家の派遣が決定した）。

[4] プロジェクト運営のための日本人専門家とカウンターパートの月例会議を呼んでいるのでそのまま用いる。

# 第３章　評価結果

## ３－１　評価結果総括

後半期の重要点として、第一に強調されたのが“プロジェクトから社会へ”という言葉に代表される点である。それは、すべてザンビアのHIV/TB制圧の要請に即した形で行われるべきであることは論を待たない。そのため、特に今後のプロジェクトに求められるものはCBoHやNAC、さらにはその他のパートナーとの関係強化であろう。人材不足の問題などもあり、この点は明らかにこれまでのプロジェクトの弱点として捉えられ、改善が期待される点である。さらに、プロジェクトを通じて得られた情報、結果、設備、能力などは、CBoHなどの管轄下にある広範な受益者に広く利用されるべきである。例えば、ダイナビーズ法に代表されるような、今後のモニタリングに広く利用される可能性のある方法や研究は活発に行われるよう奨励されるべきである。もちろんこれのみにとらわれずFilter Paper法など、他の可能性についても検討し、現場の状況に即したものを早急に見出す努力が必要である。

プロジェクトから生み出される技術や能力をフルに活用することは、将来の全国プログラムにつながるモデルの開発という観点からも国家的な要請に合致する。そのために、UTH TBラボでは地方での喀痰顕微鏡検査システムの立ち上げの援助と、それらのQuality Control/Assuranceシステムを確立する必要がある。同様にHIVについても、さらに多くのVCTサイトやARVセンターでの制度管理システムを確立することが、今後一層の拡大が確実視されるザンビアでのARV治療にとって重要である。また今回のPDMで成果２、３をHIV/AIDS、結核と明確に分けたが、一方ではHIVとTBの活動をさらに緊密に行っていく必要がある。今回、結核DOTSを切り口に、ARV治療を考えていくというOperational Researchが大きな提案のひとつとなったが、両者の連携はそのためにもより強力に推進されるべきである。

ますますその要請が増しているARV治療については、MOH/CBoH/NACがそのモニタリングを行うための人的、設備的予算を早急に組むべきである。同様に我が国政府も短期専門家などを有効に活用することが求められる。そうでないと、UTHでの人材不足とそれに起因する問題が、さらに大きく困難なものになると考えられる。

プロジェクトのある活動についてはせっかく行ったことでも、適切な評価を受けていない部分も見られたが、その最大原因はいわゆる宣伝不足であろう。その背景に、個々の活動に対する責任の所在が不明確であったことも一因としてある。適切な情報交換を通じたカウンターパートと専門家の間の緊密なチームプレーが期待されるのは当然であるが、プロジェクトそのものの進行状況についても定期的にモニターし、関係者の間で確認しあうことが重要である。

プロジェクトのSustainabilityに関しては、UTHの将来構想を見据えたビジョンを関係者が共有することが求められる。これについても前述のように個々の活動について責任の所在を確定することが重要であり、それとともに活動の記録を明らかにすることが求められる。もちろん、ラボのルーチンの仕事といわゆる研究活動とのバランスについても考慮すべきであろう。

## 3－2　評価結果

(1) HIV/AIDS分野

本プロジェクトの前半期はおりしも下記のような、国際社会が本格的に開発途上国のHIV/AIDS対策に動き始めた時期に一致しており、それに伴いザンビアをめぐるHIVエイズの状況も非常にドラスティックに変化している。

2000年７月：沖縄サミット/沖縄感染症対策イニシアティブ（日本30億ドル/５年を約束)。
2001年４月：アフリカOAU/Abujaアピール（国家予算の15％をエイズに)。
2002年１月：「世界エイズ・結核・マラリア基金」＝Global Fund発足。
2002年４月：GF40プロジェクト/31カ国（3.8億ドル）決定。
2002年５月：WHO途上国でのARV治療ガイドライン発表、11ARV（10ジェネリック薬）をエッセンシャルドラッグのリストに入れる。
2002年７月：バルセロナ国際エイズ学会にて、WHOの３by５イニシアティブ（Public Health Based HAART for 3 million PLHA until 2005)、MTCT-plusイニシアティブが発表される。
2002年９月：ザンビアが申請したGlobal Fund合格（HIVに19millionドル)。
１万人治療が宣言される。
2002年10月：ザンビア政府の資金によるコストシエアリング型1,000人ARV治療パイロット（ルサカ、ンドラ）開始。９つの全国ARV治療センター構想。
2003年　　：WHO本部の重要国へのカントリーミッション、ザンビアにくる。

このような時期に遭遇して本プロジェクトも的確に対応していくべきであるが、プロジェクトの第２目的である、「ザンビアのHIV/TB対策に有効に活用される」という点を後半でどのくらい実現できるかが、鍵であろう。

今回の中間評価期間全体をとおして、カウンターパートのJICAプロジェクトへの参加意識は高くなっていると思われた。また、戻ってきたシニアの能力が高く、層が厚くなり、プロジェクトマネージャー（Dr. Kasolo）の孤軍奮闘ではない状況が今後期待できる。PCM/PDMによるプロジェクト運営の方法がやっと理解されはじめ、JICAプロジェクトは単なる技術移

転や（他の外国研究グループと同様な）単なる研究パートナーなのではなく、目的を持ったプロジェクトとしてそれを実現していくプロセスであるというコンセンサスが得られ始めているように思われる。

旧PDMのOutputにそって、HIV/AIDS分野に関するコメントと提言を以下に述べる。

1）Output Ⅰ．ラボの技術、データおよび全般のマネジメントが向上する。

これまで総額216,000,000円のインプットの多くがこれに投入されたと思われる。それは139人／月の日本人専門家と、30人/月のザンビアカウンターパートの人件費と機材である。したがって、成果が60～70％達成と評価されたのも頷ける。

特に、前プロジェクトでの努力に引き続き、HIVのレファラルラボであれば持っているべきHIV関連技術がほぼ導入されたことは大きく評価される。すなわち①HIV抗体検査（1875）、HIV－1 RNAレベル/Viral load（420）、②HIV－1 DNAPCR（587）、③CD4カウント（2673）、④ARV耐性アッセイ（28）、⑤Strain検査（19）のすべてが、技術的に可能になったことである。またそれだけでなく、これらの技術はすべてHIV感染者の診断・治療・フォローアップに欠かせない検査サービスであり、実際（　）内に示すような検査数を2002年にはUTHラボでの処理している。そして、2003年の10月時点で、①～④のルーチンに近いHIV関連検査は確実に増加していた。⑤は2003年には増加していないことの理由は不明であるが、これらもこれまでのように研究的にのみ行われるのではなく、ザンビアのARV治療に貢献するかたちで、そのモニタリング項目のなかに、ルーチンとまではいかないまでも、Systematicに組み込まれるべきであろう。WHOの3 by 5で規定しているLevel 3のラボの条件とはARV耐性ができることであり、JICAとしてその機能の活用をサポートしていくことは有意義である。そのためには必要資材の提供のほかに、それに従事できる人的ワーク体制をとることが考えられよう（具体的にはラボテクニシャンのプロジェクトでの確保）。

また、上記HIV諸検査はまだ利用者にとって高価であり、利用するのは支払い可能な富裕層のHIV感染者に限定されている傾向がある。この数が増えることだけにプロジェクトは集中すべきではない。ザンビア政府による全国的Public-Health BasedのARV治療計画に沿った形の、安価で地方でも可能な、診断、ARV治療開始基準とモニタリング方法をいかにして可能にするのかに、今後は力を注ぐことも必要である。

その一例がダイナビーズ法によるCD4カウントであり、これは初期投資が約500,000円、1検体約2ドルでできること、地方7つのARV治療センターの技術者にでも移転可能な簡易な技術であり、FACScanのようなハイコスト、メンテナンスの難しさがない。現在ほぼ技術的に確立しているため、今後他の安価な検査方法との検討は行いつつも、

① 全国９ARVセンターへの技術移転トレーニング、巡回スーパーバイズ
② 現場でのDaily useの定着（各スタッフがそれに実際に従事できるようにすること）
③ CBoHとの交渉（全国Public Health-BasedのARV治療の開始クライテリアと経過モニタリングにこれを使うようにさせること）
④ コスト・パーフォーマンス・ワークタイム（１検体いくらでできる、何人の何時間の労働が必要なのか）を他の方法（FACScan, Filter法、リンパ球数）と比較した結果を出し示す

ことが必要である。

さらに、各治療センターでARV治療経過のRegistration, Reportingを可能とするフォローアップシートが必要で、そのモデルフォームをJICAとUTHで作っているが、果たしてそれが現実の使用に適しているかどうかを見ていく必要がある。WHOからの情報によると、これは世界中で試行錯誤中であり、DOTSのReporting Systemに匹敵する持続可能な方法が求められる。世界中で300万人を治療に入れる目標を打ち出しているWHOは、最低限治療後のSurvivalの延長、生死転帰を記録することにより、Global Healthに対するHAARTの効果を正確につかみたいとしている。

2) OutputⅡ．末端のラボのHIVと結核の検査やサーベイランスの質とパーフォーマンスが向上する。

このプロジェクト前半期にザンビアでは、VCTサイトが20数カ所から現在の106カ所へと順調に伸びた。VCTで年間HIV検査を受ける人の数（約15万人）は、成人（15～49歳）人口約400万人の約４％にあたり、推定感染者数100万人のうちの６％の陽性を検出する検査システムへと拡大してきた。このVCTアクセスの増加に見合ってプロジェクトからもそのVCTサポートができていることは評価できるし、プロジェクトにとってラボが有効活用されるべきチャンスである。2002年以降そのサポートは次第に形をとってきており、全国のVCTとMTCTのサイトのラボスタッフやカウンセラー・助産婦の総数460名に対し、17回にわたってJICAのサポートで行われた。

今後気をつけるべき点として、

① Quality assurance/Quality Controlが不十分であり、もっと計画され組織的に行われる必要があること
② VCTサイトへのスーパーバイズによりサイトごとへのモニタリング（計画はよいか、ロジとスタッフの問題はないか、弱さ・強さ）サポートが必要であること
③ データマネジメント・データの活用がまだ弱いことがあげられる。ただし、このようなVCT Activityはラボ内におかれたVCTグループが行っており、USAIDの協力も入ってい

るため、後半はどこまで、どれだけJICAはかかわっていくことができるのかを明確にしていくべきである

3) Output Ⅲ．保健スタッフによるラボラトリーサービスの活用が向上する。

非常に成果が少なく、また何を示しているのか、どのような活動があてはまるのか、いまだにザンビア側、日本側双方にとってクリアでなかった。またARVのケア・治療時代に入って、ラボの検査をUTHの医師が迅速に使えるかどうかという問題は焦点がずれてきている。

改訂PDMでは、HIV対策にかかわることすべてをまとめたOutput Ⅱの中に現実にあった形で、Health Providerとの接点として書きかえられている。

4) Output Ⅳ．プロジェクトによってできた情報が、プログラムの計画や実施のためにStakeholderによって広く活用される。

これはOutput Ⅲのように内容が不明確だったというよりは、アクターやイニシアティブの不在によって達成が少なかったと言える。プロジェクトマネージャーには、この領域の活動が重要であるという強い認識があり、ジョイセフ/IPPFとの連携が期待されたものの、具体的に計画され実行されるに至らなかった。ひとつには関係者の認識が弱く、短期専門家の行った活動の成果を、現地で次の活動につなげなかった面は指摘できるであろう。

コミュニティーやYouthとプロジェクトの接点は、新PDMではCommunity-BasedのDOTS&HAARTのオペレーショナルリサーチを行う際に非常に重要になる。

5) Output Ⅴ．HIV/AIDSと結核のワーキンググループとの協調を組織化する。

プロジェクトが対策に有効活用されるという目的から、このアウトプットは変わらず重要であるが、達成は十分ではない。NACに限らずCBoHにも、日本人専門家（チーフアドバイザーに限らない）がもっと積極的に出かけていき、話をして緊密な連携をとり、情報交換していくことは、このプロジェクトの成否を決めるといっても過言ではない。日本人専門家のさらなる努力を期待する。

6) 新PDMについて

以上の旧PDMの評価を通して、プロジェクト開始時から大きく変化している現実にあわせ、強化すべきところ、明確にすべきところなどを変更し、使いやすい、よりよいPDMになったと考える。すなわち、成果１のUTHラボで必要なことは残し、かつ対策への必要度を考慮した。その上で成果２には、プロジェクトとしてできるHIV対策への貢献、をすべてまとめ、同様に成果３は結核対策への貢献、をすべてまとめた。成果４はラボからの情

報、を中心にした。そして成果５はそのまま維持された。

さらに今回、どのActivityは誰がいつまでやるのか、というプロジェクト参加者の実践の責任体制もこれまでより明確にした。

7) Community-Based HAART integrated to TB-DOTSのオペレーショナルリサーチ

本プロジェクトはHIVとTBを対象にしながら、またザンビアの現実ではTB患者の70%がHIV陽性であるという重なりを持ちながら、プロジェクトとしては、またラボとしてもこの両者は関連がほとんどなく、縦割りであるのは問題である。

アフリカの特徴であり、重要課題でもあるHIVとTBのCo-Infection対策には、TBを入口とする場合と、HIVを入り口にする場合（PROTESTイニシアティブ）がある。前者を行うのがこのオペレーショナルリサーチであり、後者はCDCなどが関わっている。つまりTBが発見されDOTSが開始され、そのなかでHIVも陽性かどうかをいずれかの時点でVCTをやって明らかにし、DOTS終了後必要ならHAARTに入る方法である。しかし、DOTSの実施中にAIDSが進行し死亡してしまう人が、今回調査したカマンガ地区では27%もあり（マラウイでは50%と聞いた)、CD４カウント上あるいはAIDS症状のステージによってはDOTS中にHAARTを重ねていく必要がある。これらをTB-DOTSがコミュニティーベースで展開されており、服薬サポート、Drug Management、患者サポートの体制がある程度できている地区を選び、それを活用しながらHAARTを導入しようとするのが、今回もりこまれた本プロジェクトによるオペレーショナルリサーチである。HAART開始基準CD４、フォローアップのCD４、ARV耐性、TB耐性など、ラボがDOTSやHAARTをどのようにして支えていけるかのモデル提示ができる試みであるといえる。また、Community＆Home-BasedでのARV副作用調査、アドヘレンスチェックなどエイズ臨床医や公衆衛生専門家を投入を検討する必要があろう。また、プロジェクト内のTBグループとHIVグループが一緒になって、現場とラボがつながって活動していくよい機会となるはずである。

(2) 結核分野

プロジェクトの詳細な評価結果は次項のとおりであるが、それに加え、保健省をはじめとする関係者への面談、WHO等関係機関からの情報等により、以下に概略的なまとめを行った。

1) ザンビアの結核事情

ザンビアの結核罹患率は他のアフリカ諸国と同様、この20年間に増加傾向にあり、2001年は人口10万対434（患者数５万人強）という高値を示した。これは実際に登録された患者なので実際はさらに大きいと推定され、世界的にも最も結核罹患率が高い地域のひとつである（図３－１)。地域別には、ルサカ州が全患者の44%を占めている。

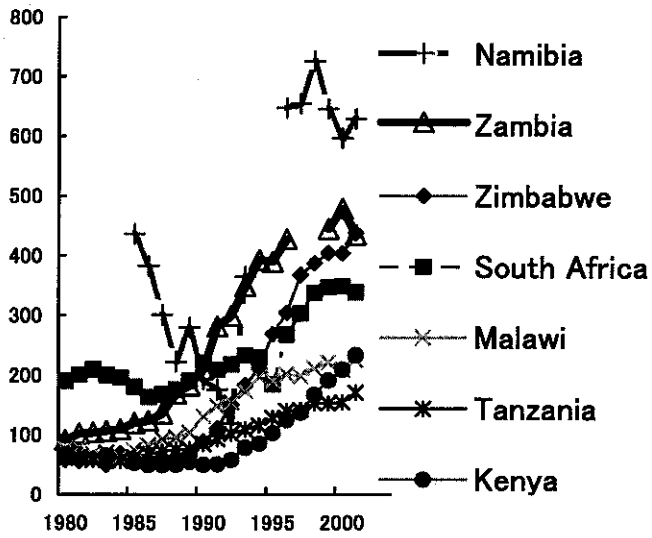



図３－１　アフリカ諸国の結核罹患率（十万対率）の推移（資料：WHO）

ザンビアの国家結核対策（NTP）はかつてオランダ政府等の支援下で、かなりの成果を上げてきたが、1991年来の保健機構改革の流れのなかで、個別の対策が廃止され、一般の保健サービスのなかに統合された。ひとつの疾病対策の中心を担う結核対策課や専属の担当官が存在せず、エイズ・性病・結核をまとめた中央組織（National AIDS/STD/TB Council）が、分権化され責任委譲された地方保健管理チーム（District Health Management Team）に対して技術的指示を行い、専門ではないTB Focal Personが調整を行っている。このため、国家結核対策という縦割りのプログラムというものは存在していない、またはかなり弱いものといえる。

DOTSは、1990年以降WHOが各国に対して提唱してきた戦略的方式であるが、ザンビアではそれを推進する母体が弱いため、全国展開というより、いくつかの地区で実施されているという状況である。2002年にGlobal Fundが支援することになり、22郡のDOTS実施の計画がなされ、政府主導、NGO主導、ミッション病院主導などの地区ごとのユニークなDOTS展開が開始されだしている。その他各地域でドナー支援による小規模の展開もされている。WHOはザンビアをDOTS非実施国としているが、それは国家的な標榜やWHOに対する窓口が弱いための評価で、実際には各地で実施されており、旧来の経験もあって基礎的な基盤はあるといえよう。

HIV感染のまん延は、結核患者の増加をもたらすことは多くの国で観察され、サハラ砂漠以南のアフリカ諸国に共通した深刻な問題である（図３－１）。ザンビアのHIV流行は、生産年齢人口の20％が陽性と高率であり、結核患者の７割がHIV陽性と推定されるように、この２つの疾患は切っても切り離すことができない。さらに、この国ではDOTSの展開が弱体のため問題性は大きい。しかし、Global Fundの支援や日本を含めた様々な国からの支

援もあり、今後の取り組みには大きな期待が寄せられている。

2) 国際的支援

上記の結核問題の背景、ニーズに対して、様々な国際支援がなされている。主なものは、米国CDCによる中央胸部疾患ラボ（CDL）への援助、CIDA（カナダ）、オランダによる中央政府への対策技術支援等のほか、WHO、英国政府等からの支援もある。これらに対して日本からの支援としては、本プロジェクトの結核分野技術協力の特色は、後述のように従来、大学病院検査室への設備、技術協力であった。最近は、検査棟の建設、ルサカ州における結核菌検査業務の精度管理システムの構築に主要分野が移行してきている。また、無償資金協力として抗結核薬、細菌検査試薬の供与（ルサカを含む3州34,000人分を1年分）がある。ただし、本プロジェクトとしては、国家結核対策への参画や他組織との関係調整に関しては、まだ十分なされているとはいえない。

3) 本プロジェクトの成果と課題

① 診断技術の向上としては、本プロジェクトを通してこれまでにいくつかの技術に関し、ラボスタッフの技術研修がなされてきた。また、MGIT法や分子学的早期診断に関する設備や技術移転がなされてきた。高度技術に関しては、研修を受けたカウンターパートの保健省への異動などで、大学病院としての継続性は低いが、ザンビアとしては、人材育成がされていると考えられ、国内での技術移転が課題である。

② 多剤耐性サーベイランスの機能に関しては、ほぼ満足いく技術が移転されていると考えられ、現在定期的・自主的にその実施がなされている。最近までの結核は表3－1のとおりで、最近まで薬剤耐性患者の増加は見られない。しかし、DOTSの拡大に伴い増加の危険性があるので注意深く見守る必要がある。しかし、これは医療関係者に広く知らされているとは限らない。

表3－1　耐性検査結果

| | 調査期間 | | |
|---|---|---|---|
| | 1998～2001 | 2001～2002 | 2003.7～ |
| 2剤耐性 | 29(5.8) | 27(4.8) | 1 |
| INH3剤耐性 | 8(1.6) | 7(1.3) | 0 |
| 4剤耐性 | 4(0.8) | 6(1.1) | 1 |
| いずれかに耐性 | 110(22.0) | 112(20) | 9 |
| 多剤耐性 | 22(4.4) | 22(3.9) | 1 |

③ ただし、これらの結果は必ずしも広く関係者に共有されているとは考えられないため、それ以外のプロジェクト成果も含めた広報活動が期待される。

④ 検査室の精度管理としては、本プロジェクトの一環で、喀痰塗沫検査の外部精度管理（EQA）の技術向上がなされつつあり、その一環として、ルサカ州におけるEQAシステム構築のモデル試行、および研修マニュアルの開発がなされつつある。これは保健省下の中央レファレンスラボが、米国CDCの支援下で全国規模の精度管理を行っているのと一部重複するが、逆にそれに先行している要素もあり、良い協力関係を作りつつ行う意義があると思われる。

実際には、末端の検査室に対する管理指導体制が始められた、46人の検査技師が訓練された。さらに、研修及びそのフォローアップがなされるようになり、ルサカ州の22の検鏡センターの巡回指導も始められた。巡回時にスライド・サンプルを回収し、UTHで検査し、その結果をフィードバックする試行がなされている。２つの検痰センター（チェルストン、チレンゲ）で、モデル地域として特別な試行が行われているが、スライドグラスの再検査結果は良好である、研修マニュアルが作成されつつある。

⑤ 保健省内の意見では、本プロジェクトの機能の印象が大学病院内検査や研究に限られているため、より広域の結核対策への寄与が望まれている。それに対して、上記EQA部分はそのための研修も含め、大学病院から国家対策へのブレイクスルーを起こしていると考えられる。

⑥ さらに後述のように、いくつかの地域を選んで、DOTSのモデルを構築し、さらに結核患者の中で多数を占めるHIV感染者への対策モデルが試行研究（オペレーショナルリサーチ:OR）として開発できれば、結核とHIVとの良い統合モデルを本プロジェクトが提示できると期待される。ここでは本プロジェクトが、従来培ってきたラボや人材が十分に活用され、正しい検査に基づく対策への提言がなされると考えられる。

このORに関しては早期に企画書、プロトコルを作成する必要がある。

⑦ 他ドナー、ザンビア政府への調整連携をさらに強化し、本プロジェクトの成果を積極的にアピールしていく必要がある。

### ３－３　評価５項目による分析

中間評価に関する分析結果を以下に示した。これらの根拠については、評価５項目に対する評価調査表（付属資料１：Annex２．Mid-term Joint Evaluation ReportのAppendix 11. Results for Five Evaluation Criteria）にまとめてある。

(1) 妥当性（Relevance）

プロジェクト開始以来、エイズと結核がザンビア国民にとって重要な問題であることは変

わりない。HIV感染率が、1998～1999年の19.95％から2001～2002年には15.6％に減少したものの、エイズ発症者は85,000人以上と推定され依然と高い。エイズ対策の予防面の充実はもとより、エイズ発症者の治療面やケアの課題も大きくなった。結核の罹患率は10年前と比較して５倍になったとされる。また、UTHの報告では結核患者の70％はHIV感染者としている。HIVと結核に関連する検査能力の強化は診断的価値のほか、HIV/AIDSと結核対策の有効性を占めすための科学的な根拠を与えるものである。

ザンビア政府、中央保健局にとってエイズと結核対策がもっとも優先されるべき課題であることに変わりはない。国家HIV/AIDS/STD/TB協議会による「国家戦略2002～2005年」もVCTやMTCT、エイズ患者への薬剤供給にハイライトを当てている。特に、感染者への抗HIV薬の供給が拡大される方向にあり、ラボラトリーによる診断の向上と抗HIV薬のモニタリング体制の整備が早急に求められている。

日本政府においても、2000年の九州・沖縄サミットの際の沖縄感染症対策イニシアティブ以来、感染症の研究とワクチン開発の国際協力の推進を支援してきた。ザンビアの「政府開発援助プログラム2002～2007年」でもエイズをはじめ有効な保健サービスへの支援を明記している。

以上のことから、プロジェクトはザンビア政府のHIV/AIDSと結核対策や日本の政府開発援助の方針、ザンビア国民のニーズと整合性があり、中間評価時点でも妥当性が確保されていると判断する。

(2) 有効性（Effectiveness）

UTHのウイルス検査室と結核検査室で行われる診断検査サービスは、2002年の35,000件に上り、2003年９月の時点では27,000件になる。このうちプロジェクトで新しく導入された技術による診断検査数は、プロジェクト開始時はゼロであったが、現在は年間5,000件になっている。

プロジェクトでは、VCTやMTCT、地方の検査室を対象とした研修の中で、HIVテストの訓練指導とすべての検査センターについて精度管理システムの構築を目指している。これらの対象となる検査数は年間10万件程度である。また、結核の検鏡検査の外部精度管理システムを、ルサカ州すべての結核検査室を対象として構築する。現在は、外部精度管理システムの試用段階にある。

これらの診断サービスをまとめ分析したデータはもとより、ウイルス検査室と結核検査室内で行われる様々なデータ分析や研究は、ワーキンググループやCBoHの関連部署に報告された。

全国規模の検査システムの強化という観点から、UTH検査室内での研究データの解析や対象となっている地方検査室の精度管理システム構築などは、まだ課題があり、プロジェクト

目標－ザンビアの検査システムが強化され、HIV/AIDSと結核対策に効果的に活用される－は、約中間時点にあると推察される。

(3) 効率性（Efficiency）

ザンビア側の慢性的な人材不足は、やはりプロジェクトに必要な投入量に影響を及ぼしていると思われる。また、日本側のプロジェクトリーダーの空白期間など、投入のタイミングの問題があり、総じて効率性に問題があった。日本での研修を受けて、プロジェクトでの技術的な展開を期待されながら、異動によりその技術が普及しないことなども効率性のうえで問題であった。

人員の異動によりあまり使われていない結核の機材を除き、このプロジェクトで供与された機材の多くは、現時点では適性に使われている。ただ、ザンビア側から指摘された家具などの購入物品に不適切なものがあった。また、中間業者の存在やザンビアではあまり扱われない仕様に対する手続きの煩雑さから時間がかかり、常に機材や薬品の調達が遅れがちであることが指摘された。

(4) インパクト（Impact）

プロジェクトは実施の中間地点であることから、インパクトは限られている。しかしながら、次のような現象はプロジェクトの実施によって生じた正の変化と思われる。

HIV検査の導入によってVCT/MCTCプログラムが展開してきたことを考慮すると、HIV検査指導等の研修は、インパクトがあったといえるだろう。VCT/MTCTプログラムの実施は、NORADの支援により、ザンビアボランタイリー・カウセリンングテスティングが実施し、年間約20万件のHIV検査を実施するまでに拡張した。プロジェクトでは、VCT/MTCTのスタッフに対するHIV検査方法の研修を実施し、VCT/MTCTが2000年には30カ所だったのに対し2003年には106カ所に増加させることに寄与した。

また、プロジェクトの中で導入された新しい技術により、現在はUTH内に限定されているものの、HIV患者のARV投与とモニタリングおよび新生児のHIV検査が可能となった。

このような単独の検査技術のほか、ルサカ市での結核の外部制度管理の確立や州病院でのARVの検査モニタリング体制の構築は、将来のHIV予防とケアプログラムの展開に大きなインパクトを与える可能性がある。

(5) 自立発展性（Sustainability）

HIV簡易検査のようにVCT/MTCTプログラムの中で普及展開されたものもあるが、ほとんどの技術はウイルスラボと結核ラボラトリーに留まっている。技術そのものが高度なことや

コストが高いこと、ニーズが限られていること、修得する人材が限られていることが技術的な普及展開を留めている理由である。一方、ルサカ市での結核の外部精度管理や８つの州病院検査室へのARV検査モニタリングなどの技術的な普及展開は、今後の活動に委ねられている。

UTHで行われる診断サービスは、受益者負担によって実施されている。プロジェクトで導入された診断サービスも研究目的を除いて受益者負担が原則となっており、試薬や物品の費用回収にあてられている。これらは通常の血液検査とは別料金で、UTH内に設けられた料金委員会によって定期的に見直される。診断サービス以外の活動、例えば精度管理や研修、情報の提供などの活動は人件費を除いてプロジェクト経費で運営されている。UTH側は人件費を捻出することにも限界があり、少なくともプロジェクト期間中は、プロジェクト運営に関する継続的な投入が望まれる。プロジェクト終了後にどのような財政的な継続性が望ましいのか、例えばグローバル基金との連携なども視野に入れるべきだろう。なお、研究に関しては、施設や技術力のある人材が確保されていることもあり、国外の大学など様々な研究機関が特にHIV/AIDS分野で協力している。ただし、ここにおいても国外への流出を含め、人材の確保が自立発展性の足かせとなっている。

# 第４章　今後の計画

## ４－１　今後の方向性（PDM3）

評価結果に基づき、PDMが変更され、PDM3（付属資料１のAnnex１）が作成された。主な点は以下のとおりである。

(1) 成果２、３をHIV/AIDS、結核それぞれに分け、ラボの強化・活用を目指す具体的な活動を記載した。

(2) 特に、ARV治療のモニタリングに必要なCD４測定技術に関して、全国９つのARVセンターへ検査技術の移転を行う活動が加えられた。

(3) HIVとTBの診断・治療に関して小規模な地域を対象にしたモデルを作るためのオペレーショナルリサーチを活動に加えた。

(4) 成果４については「あらゆる関係者に対する情報提供」とし、これまで不足していたプロジェクトからの情報発信を行っていくこととした。

また、変更されたPDMに基づき、役割分担がなされ、今後はこの役割分担に基づいて活動を行っていくことが決定された。

## ４－２　今後のプロジェクト実施の留意点（提言）

今般の調査結果より、調査団からプロジェクトに対して以下の提言がなされた（詳細は付属資料１参照）。

(1) プロジェクト後半に向けては、プロジェクトがいかにnationwideな貢献をできるか、という点に目を向ける必要がある。

(2) プロジェクトの中で培われた技術・キャパシティーを用いて、将来的にはナショナルプログラムに貢献できるような小規模なモデルを作ることに焦点が当てられるべきである。

(3) ザンビア側、日本側とも人材の確保のための努力が必要である。

(4) プロジェクトのモニタリングを定期的に行っていくべきである。

(5) UTH検査室の将来像を視野に入れ、現在の活動を行っていく必要がある（特にカウンターパートが他のカウンターパートへ技術移転を行う姿勢など)。

また、今後以下の事項を実施することで合意した。

1) 四半期ごとのモニタリングを実施する。

2) HIV/TBオペレーショナルリサーチに関しては、広田専門家を中心にプロジェクトで計画案を作成のうえ、CBOH、LDHMT等と実施に向けて協議を行う。VCTから結核の予防に入ることを目的としたZAMBARTによるプロジェクトの調査も必要。

3) CD４カウンティングに関しては、現在プロジェクトで検討しているダイナビーズ法のほか、UNZAにおいてFilter-Paper Methodが検討されていることから、高橋専門家を中心にCD４カウントの拡大に適切な方法のコスト・タイム・パフォーマンスの比較を行い、CBoHに提言する。

# 第5章　提　言

## 5－1　フォローアップ事項

中間評価の結果を踏まえ、中間評価分析の団員が2003年11月18日～11月27日までザンビアに引き続き滞在し、次の事項についてフォローアップを行った。

(1) 今後のモニタリングの確実な実施のための計画策定

(2) 改訂されたPDM3の指標冠する、指標のベースと目標値の明確化

(3) ラボ発信情報の提供と利用度を把握するためにその具体化のデザインとツール・質問票の提案

(4) 政府ARV治療センターの現況調査のデザインとサンプルサイトでの調査実施および、今後の展開促進

(5) 保健に関する政府・ドナー会議への広報としてプロジェクトプロファイル（案）の作成

## 5－2　現地フォローアップの結果

以下の内容は、平成15年11月20日のステアリング・コミッティで、専門家とカウンターパートから概ね承認された。また、JICAザンビア事務所へ報告を行った。

(1) モニタリングの計画策定

中間評価の結果から、プロジェクトがモニタリングをほとんど実施していなかったことが明らかになった。課題はモニタリングの実施主体が明確になっていなかったこと、プロジェクトの実状にあったモニタリングのための方法やツールがなかったこと、PDMとモニタリングの関係やプロジェクト全体を見渡すことの重要性が十分理解されていなかったことがあげられる。

フォローアップでは、モニタリングの主体を既存のステアリング・コミッティが担うことを前提として継続的にモニタリングが実施されるようステアリング・コミッティを強化することを提案した。具体的には、プロジェクトの運営のために専門家とカウンターパートで月1回行われている月例会議を四半期ごとにモニタリング会議に置き換え、計画と実績の比較を通じて、プロジェクトの抱える問題や課題をプロジェクト運営に反映することである。す

なわち、ステアリング・コミッティによる月例会議と四半期モニタリング会議の内容を明文化した月例会議・四半期モニタリング会議実施要項案を作成した。この内容の詳細は、付属資料７．Operation Guide for Project Steering Committee Meetings and Quarterly Monitoring Meetingsに記載されている。この月例会議・四半期モニタリング会議実施要項案では、モニタリング会議の１週間前に、各責任者がモニタリング指標を収集することと計画に対する実績を記入することが義務づけられている。

これまでは、プロジェクトの計画はOP（Operation of Plan）として、日本人専門家で計画が見直されていたようだが、計画にそった実績が把握できていなかった。フォローアップでは、OPに替えて新たにPlan, Operation, Monitoring Sheet（POMS）の活用を提案した（付属資料７．Plan, Operation and Monitoring Sheetを参照のこと）。これは、計画に対して、実際の活動はどう実施されたのか（あるいは新たな活動が追加された等）、誰が実際担当したのか、いつからいつまで実際は行ったのか、実際の投入はいつどのくらい行われたのかを計画と対応する形式で書き込むものである。また、この過程がコンピューターの中の電子ファイルとして放置されないよう専門家とカウンターパートが協働で行い、手書で作成することとした。プロジェクトでは専門家とカウンターパートが協同でまずは計画を作成し、３カ月後に実績を記述しモニタリングと再計画を同時に行う。記入例を含めた具体的なプロセスや使い方については、付属資料８．Monitoring Procedureを用意した。

(2) 指標の明確化

中間評価のワークショップで明確にできなかった一部指標のベースラインと、期待される結果について追記した。ただし、それまでまったく収集されてなかったラボ活動の情報活用や新たに派遣される専門家との話し合いが必要な指標は、埋まっていない。

(3) ラボ発信情報の受信・利用度を把握するためのデザインと質問票の作成

ラボラトリーからの情報活用が成果として挙げられながらも、その実績がほとんど表現されていなかった。実績をモニターするために、ラボラトリーからの発信情報を記録するためのフォーマットを作成した（付属資料９．Recording Sheet for the indicator４-A：List of information type, category of beneficiaries, and estimated number of beneficiaries at each event）。これは、会議ごとにそれぞれが、いつ、どのような手段で何を誰に伝えたかを記録するための書式にすぎないが、意識的に記録することによって活動の成果が外部に伝える手段・根拠としても有効である。

また、ラボ情報やプロジェクトからの情報を受け取る側の実態を把握するためのアンケートの例や方法を提案した（付属資料10．Questionnaire for the Project/Laboratory Generated

Information)。これは、プロジェクトの活動によって産出された情報がもっとも活用されるべきグループをNACのテクニカルワーキンググループのメンバー、中央保健局の関連部署のチーフ、結核とHIV/AIDS NGO、市街地の民間の医療従事者、政府病院の医師と検査スタッフと想定し、7問の質問に答える形式をとっている。NACや中央保健局、州病院の医師と検査スタッフのようにプロジェクト活動に関連する重要な政府機関は全員を対象に、また、NGOや民間の医療従事者は電話長やディレクトリーから無差別に抽出するものとした。

ベースラインの情報は、今後の広報手段や情報提供先、内容について貴重な情報を提供することになる。

終了時評価の直前に同様の方法で、ラボ情報やプロジェクトからの情報を受け取る側の調査を実施する。

(4) 政府ARV治療センターの現況調査のデザインとサンプルサイトでの調査実施

ARV治療センターへのラボ技術支援が今後の活動の重要な柱となる。各センターの現況を包括的に把握しておくことは、ベースラインのみならず、今後の活動計画や予想される課題、外部条件の予測等を可能にする。フォローアップでは、包括的な情報を得るために、それまでまったくUTHと連絡が取れなかったチパタ総合病院をサンプルとし、調査票を用いて実際の調査を行った。調査票は同行した高橋専門家とジーナムルンドカウンターパートによってまとめられるが、ほか9つも同様のプロファイルがまとめられることが望ましい。CBoHほか関係機関にとっても、これらのまとまった情報は、動きの著しいARV治療プログラムにとっても有用である（付属資料11. Profile of Government ARV Center)。

(5) プロジェクトプロファイル（案）の作成

毎金曜日に保健に関する政府・ドナー会議が開かれ、JICAザンビア事務所がスタッフを送っている。2003年11月14日の保健に関する政府・ドナー会議で、中間評価調査団から中間評価に関する簡単な報告を行った。その内容を補うために、また今後のプロジェクト情報の発信の一貫として、中間評価のまとめをパブリッシャーで作成した（付属資料12. Mid-term Evaluation of the Project)。

# 付 属 資 料

1．ミニッツ

2．List of Stakeholders

3．Example of Question Guide

4．The result of Pre-workshop

5．Monitoring and Evaluation Procedure

6．Operation Guide for Project Steering Committee Meetings and Quarterly Monitoring Meetings

7．Plan, Operation and Monitoring Sheet

8．Monitoring Procedure

9．Recording Sheet for the indicator 4-A : List of information type, category of beneficiaries, and estimated number of beneficiaries at each event

10. Questionnaire for the Project/Laboratory Generated Information

11. Profile of Government ARV Center

12. Mid-term Evaluation of the Project

# MINUTES OF MEETINGS
# BETWEEN
# THE JAPANESE MID-TERM EVALUATION TEAM
# AND
# THE AUTHORITIES CONCERNED OF
# THE GOVERNMENT OF THE REPUBLIC OF ZAMBIA
# ON JAPANESE TECHNICAL COOPERATION FOR
# THE HIV/AIDS AND TUBERCULOSIS CONTROL PROJECT

The Japanese Project Consultation Team (hereinafter referred to as "the Team"), organized by the Japan International Cooperation Agency and headed by Prof. Naoki Yamamoto, visited the Republic of Zambia from 4 to 15 November, 2003 for the purpose of reviewing and monitoring the activities concerning the HIV/AIDS and TB Control Project (hereinafter referred to as "the Project") based on the Project Design Matrix (hereinafter referred to as "PDM") signed on 23 January, 2002, and discuss the future implementation plan of the Project.

During its stay in the Republic of Zambia, the Team and the authorities concerned of the government of Zambia exchanged views on the Project, jointly monitored the activities based on the PDM and had a series of discussions about the activities and implementation of the Project.

As a result of the discussions, both sides agreed upon the matters referred to in the document attached hereto.

Lusaka, Zambia,
14 November, 2003

山本直樹

Prof. Naoki Yamamoto
Leader,
Project Consultation Team,
Japan International Cooperation Agency,
Japan

Dr. Simon Miti
Permanent Secretary,
Ministry of Health,
The Republic of Zambia

Prof. Serpell
Vice Chancellor,
The University of Zambia

THE ATTACHED DOCUMENT

## I. INTRODUCTION

The Project started on 30th March, 2001, with cooperation period of five (5) years. The University Teaching Hospital, with other relevant organizations, implements the Project in cooperation with JICA. The purpose of the Project is to strengthen and effectively utilize laboratory systems for HIV/AIDS and TB control in the Republic of Zambia.

In accordance with PDM dated 23 January 2002, the both sides reviewed the achievement of the activities and plan with respect to the future implementation of the Project.

Based upon the common recognition of the present status of the Project, both sides confirmed the continuous cooperation between the Japanese and Zambian governments for further progress of the Project

## II. MID-TERM EVALUATION

Mid-term evaluation was carried out by means of analysis of Project records, interviewing with the personnel concerned with the Project, presentation of the activities and discussions. The result of the evaluation was described in the Mid-term Joint-Evaluation Report attached as Annex 1. This report was initially prepared by the Team and approved at the Joint Coordinating Committee held on 13 November 2003.

## III. PLAN FOR THE REMAINING PERIOD OF THE PROJECT

Through discussions, revised PDM was elaborated as Annex 2. The both sides agreed that the PDM would be the basis for management and evaluation of the Project. The team emphasized the importance of regular progress monitoring.

Major points changed from PDM2 to PDM3 are described as follows:

(1)The outputs II, III and IV were changed to make objectives clear to all who are involved in this project. Objectives related to utilization of laboratory services in HIV/AIDS control and TB control were separately described in Output II and III. The new outputs are as follows;

- Output II: Performance and quality of laboratory services with laboratory monitoring system at VCT sites and ARV centers are improved to be replicable for nation wide program
- Output III: Quality Tuberculosis diagnostic system is developed as a model for national TB laboratory network
- Output IV: Utilization of laboratory information obtained from the Project activities is improved

(2)New activities related to ARV monitoring were added under Output II to meet the changing situation of HIV/AIDS control in Zambia, where ARV treatment was officially introduced from 2002.

## IV. RECOMMENDATION

Based on the results of the mid-term evaluation, the Team recommends the following:

(1) Nationwide contribution from the Project to public health topics should be more considered in the latter half period of the Project in a way being adapted to the needs in the area of HIV/TB control in Zambia. For this,

- The relationship and communication with CBoH/NAC and other partners should be strengthened. Further sharing of the information, the outcome, the facility and the capacity developed through the project should be made with wider stakeholders of the related services under CBoH and other agencies.
- Affordable, feasible, and applicable techniques and researches should be developed and expanded. As an example, simple CD4 counting technique by dynabeads method.

(2)To meet the enormous needs in the country, the focus is to be put more on developing a model for national programme utilizing the technology and capacity developed in the project. For this,

- External quality assurance(EQA) system of the TB laboratory with main focus on sputum microscopy needs to be established in the province as a model for national programme
- Closer collaboration of both TB and HIV/ AIDS activities needs to be strengthened. As a step, an operational research can be initiated by the project in some selected areas to demonstrate the integrated services including the diagnosis, treatment and monitoring. An urgent need is to develop a feasible model for integrating the currently available ART in the DOTS system at community level.

(3)Both sides need to make further efforts to secure personnel timely.

- To meet the increasing needs for ARV treatment, MOH/CBoH and NAC should secure health workers to conduct ARV monitoring activities.
- Sufficient and timely input of Japanese experts should be ensured to achieve project objective.

(4)Project monitoring process should be more valued to achieve the Project objective. For this,

- Activities and outputs should be monitored quarterly with in the framework of PDM
- Responsible person to each activity should be clarified
- Information related to the Project should be shared more smoothly between Zambian counterparts and Japanese experts

(5)In order to ensure the sustainability of the activities, a scope for the future figure of UTH laboratory should be shared. For this,

- Responsible person to each activity should be clarified
- Annual laboratory report on its activities and budget should be made
- The routine laboratory work and research activities should be balanced.

Some parts of the above recommendation were reflected in the revised PDM.

Annex 1: revised PDM (PDM3)
Annex 2: Mid-term Joint-Evaluation Report

Annex 1 PDM ver.3

Mid-term Evaluation , 14 November 2003

Project Name: HIV/AIDS and Tuberculosis Control Project

Duration: 30 March 2001 – 29 March 2006

Project Area: Zambia

Target Group: People affected/infected by HIV/TB, Health Care Providers, Health Care Educational Institutions,Youth and NGOs)

Date: 12 November, 2003, Ver.3

| Narrative Summary | Verifiable Indicators | Means of Verification | Important Assumptions |
|---|---|---|---|
| Overall Goal:<br>Status of HIV/AIDS and TB in the Republic of Zambia is improved | 1 Prevalence of HIV infected people<br>2 Cure rate of TB cases<br>3 TB case detection rate | Cure rate of TB cases<br>HIV Population survey reports | Sufficient human and financial resources for prevention and treatment t for HIV/AIDS and TB are provided<br>HIV/AIDS and TB infection remain priority in Zambia |
| Project Purpose:<br>Laboratory systems are strengthened and are effectively utilized for HIV/AIDS and TB control in the Republic of Zambia | 1 No. and quality of results produced by laboratory system<br>2 No. of laboratory staff trained on HIV/AIDS and TB<br>3 Performance of peripheral labs on quality assurance tests<br>4 No. of information disseminated to stakeholders | Epidemiology and Data Management Unit of UTH lab and the Project Monitoring File<br>Epidemiology and Data Management Unit of UTH lab and the Project Monitoring File<br>Epidemiology and Data Management Unit of UTH lab and the Project Monitoring File<br>The Project Monitoring File, Minutes of HIV/AIDS and TB Technical Working Groups | Overall National Health Policy remains the same<br>Administrative Structure of UTH remains the same<br>Communities continue participation in activities of HIV/AIDS and TB |
| Output:<br>1 Performance of Laboratory techniques, data management and overall laboratory management are improved. | 1-A Total number of laboratory tests in Virology Laboratory and TB Laboratory in UTH<br>1-B Total number of newly introduced laboratory tests in Virology Laboratory and TB Laboratory in UTH<br>1-C Percentage of establishment positions filled<br>1-D Combined indicators on HIV/AIDS related laboratory technique<br>1-E Combined indicators on TB laboratory technique<br>1-F Score of equipment assessment used for a JICA regular report | Epidemiology and Data Management Unit of UTH lab<br>Epidemiology and Data Management Unit of UTH lab<br>UTH human resource department<br>The Project Monitoring File<br>The Project Monitoring File<br>The Project Monitoring File | The position of UTH HIV/AIDS and TB labs in National Program remain the same<br>MTCT, VCT and TB activities remain stable |
| 2 Performace and quality of laboratory services with laboratory monitoring system at VCT sites and ARV centers are improved to be replicable for nation wide program | 2-A Coverage of VCT centers sending samples of HIV test for QA<br>2-B Average score of QA test results for CD counting<br>2-C Total number of laboratory tests identified with laboratory monitoring sheet of Government's ARV centers | Epidemiology and Data Management Unit of UTH lab<br>The Project Monitoring File<br>Serology and immunology unit | |

| | | | |
|---|---|---|---|
| 3 Quality Tuberclosis diagnostic sytem is developed as a model for national TB laboratory network | 2-D Number of trainings and trainees for VCT/MTCT sites | Epidemiology and Data Management Unit of UTH lab | |
| | 3-A Standardized guideline for EQA is made | EQA file, TB Laboratory | |
| | 3-B Number of TB microscopic centers participating in quality checking | EQA file, TB Laboratory | |
| | 3-C Agreement rate between TB microscopic centers and the EQA | EQA file, TB Laboratory | |
| | 3-D Number of TB microscopy centers covered with on-site evaluation visits | EQA file, TB Laboratory | |
| 4 Utilization of laboratory information obtained from the Project activities is improved. | 4-A List of information type, category of beneficiaries, and estimated number of beneficiaries at each event | The Project Monitoring File | |
| | 4-B Assessment of utilization of the information generated by the Project among stakeholders with baseline and exit questionnaires | Epidemiology and Data Management Unit of UTH lab | |
| 5 Collaboration with HIV/AIDS and TB Working Groups is institutionalized. | 5 Percentage of meeting attendance and reporting to the steering committee of the Project by the Project staff who are officially appointed | Minutes of HIV/AIDS and TB working group meeting | |

| Activities: | | | |
|---|---|---|---|
| 1-1 To train counterparts on surveillance and diagnosis techniques / methods at the central laboratories | Japan | Zambia | Trained health staff continues to work on the project |
| 1-2 To train lab staff locally to acquire preventive maintenance skills of lab equipment | Long-term Expert | Counterpart peronnel (implementation body) | Economic performance remain stable |
| 1-3 To establish or improve the following technologies in the central laboratories on monitoring, surveillance, and diagnosis | Project chief advisor | Project Director | Equipment continues work optimally |
| 1-3(a)Provide technical support for monitoring Anti-retro | Project coordinator | Project Manager | |
| 1-3(b)Anti-HIV drug assay and ARV drug resistance | Long /short term HIV expert | Medical doctors | |
| 1-3(c)HIV strain surveillance and sero-sentinel surveillance | Long/short term TB expert | Medical officers | |
| 1-3(d)HIV immunological response | Long /short term Public health/Epidemiology expert | Medical technologist in immunology | |
| 1-3(e)TB drug resistance surveillance and Anti-TB drug susceptibility(improvement) | Long/short term Equipment Maintenance | Medical technologist in virology | |
| 1-3(f) Diagnostic value of TB(improvement) | Long /short Immunology expert | Medical technologist in bacteriology<br>Medical scientist in immunology | |
| 1-4 To make recommendation in reviewing SOPs for HIV/AIDS and TB labs to CBoH as part of Technical Working Group | | Medical scientist in bacteriology | |
| 1-5 To improve data management, information and overall management of Virology and TB laboratories. | Equipment | Medical scientist in virology | |
| 2-1 To formulate a strategic plan for establishing CD4 counting service for 9 ARV treatment centers | Operation cost | | |
| 2-2 To conduct trainings of CD4 counting for laboratory technologists/technitians at 9 ARV centers. | | Data management personnel | |
| 2-3 To develop and revise protocol for CD4 counting | | Epidemiologist | |

| | | | |
|---|---|---|---|
| 2-4 | To improve follow-up sheet of ARV treatment. | Medical equipment engineer | |
| 2-5 | To compile and analyze CD4 counting data and follow-up sheet developed at the 9 ARV treatment centers. | Utility cost and salaries for Zambian staff | |
| 2-6 | To apply technique for ARV drug resistance as part of laboratory monitoring | | |
| 2-7 | To conduct training of trainer workshops for health workers in HIV/AIDS diagnosis in collaboration with technical working group | | |
| 2-8 | To conduct laboratory training for health workers to support VCT and MTCT programmes. | | |
| 2-9 | To ensure quality assurances at every VCT and MTCT sites. | | |
| 2-10 | To conduct operational reserch for a model DOTS integrateed with ARV trreatment (same as3-4) | | |
| 3-1 | To conduct training of trainer workshops for health workers in TB diagnosis in collaboration with technical working group | | |
| 3-2 | To conduct laboratory training for laboratory technologists/technitians at peripheral laboratories to support TB programmes. | | |
| 3-3 | To participate in development of training manuals for TB for staff of peripheral laboratories | | |
| 3-4 | To ensure quality assuarance for TB testing at all TB diagnosis sites in Lusaka Province. | | Pre-condition |
| 3-5 | To conduct operational reserch for a model DOTS integrateed with ARV trreatment(same as 2-10) | | |
| 4-1 | To sensitize health workers on the importance of lab diagnosis for HIV/AIDS and distribution of project news | | |
| 4-2 | To update and distribute laboratory handbook for health workers. | | |
| 4-3 | To provide results of HIV/AIDS and TB lab tests timely to health providers. | | |
| 4-4 | To produce and distribute technical information and materials on HIV/AIDS and TB to stakeholders. | | |
| 4-5 | To produce project homepage on the internet. | | |
| 4-6 | To hold dissemination meetings with MOH/CBoH on the activities of project at least twice a year. | | |
| 4-7 | To record a type of infromation, category of beneficiaries, and number of beneficiaries who access the infromation | | |
| 5-1 | Project staff both Japanese and Zambian get officially appointed and actively involved in various Technical Working Groups(VCT, MTCT, TB and Vaccine and Research) | | |
| 5-2 | To present to Technical Working Group relevant research information from the Project activities | | |
| 5-3 | To coordinate the Project objectivies with relevant GRZ's organizations in HIV/AIDS and TB control | | |

List of Verifiable Indicators

| Output | Activities | Indicators | 2000 | 2001 | 2002 | 2003 (▼October 2003) | Expected Result |
|---|---|---|---|---|---|---|---|
| | 1-A | Total number of laboratory tests in Virology Laboratory and TB Laboratory in UTH | | 22,805 | 45,358 | 37,738 | 40000 (year 2005) |
| | 1-B | Total number of newly introduced laboratory tests in Virology Laboratory and TB Laboratory in UTH | | 1,189 | 5,115 | 4,715 | 7000 (year 2005) |
| | 1-C | Percentage of establishment positions filled | | to be filled | | | 90% |
| 1 | 1-D | Combined indicators on HIV/AIDS related laboratory technique<br>The categorical criteria were set up as follows. 1: Staff trained; 2: Availability of technique and summarized data profile, 3: Manual or series of protocol available, 4: Technique transferred outside of the UTH laboratory with quality assurance. The final degree of achievement for Indicators 1-3 (a)-(d) can be assessed based on a comparison between the actual achievement and the original expectation. | | | | | |
| | | HIV test | 2 | 3.5 | 3.5 | 3.5 | 4: QA control all |
| | | HIV viral load technique | - | 2 | 3 | 3 | 3 |
| | | Monitoring of ARV drug treatment | - | 1 | 2 | 2 | 3: CD4 data set with an approved follow-up sheet become available and ARV sites monitoring |
| | | PCR standard technique | 3 | 3 | 3 | 3 | 3 |
| | | Tissue culture | 2 | 3 | 3 | 3 | 3 |
| | | CD4 count test (FACCallibur) | - | - | 2 | 2 | 3: Available for quality control for dbynabeads method |
| | | CD8 count test | - | - | 2 | 2.5 | 3: Available for quality control |
| | | Alternative CD4 count including Dynabeads method | - | - | - | 2 | 4: Available at the all 9 ARV center |
| | | Base = (Status in 2000) / (Expected Status) = (2+3+2) / (4+3+3+3+3+3+3+4) = 7/26---A<br>Current status=(2003 oct) / (Expected Status) = (3.5+3+2+3+3+2+2.5+2) / (4+3+3+3+3+3+3+4)=21/26---B<br>(B-A)*100/B=67% Completed | | | | | |
| | 1-E | Combined indicators on TB laboratory technique<br>The categorical criteria were set up as follows.(1: Staff trained; 2: Availability of technique and summarized data profile, 3: Manual or series of protocol available, 4: Technique transferred outside of the UTH laboratory with quality control) | | | | | |
| | | Review of routine screening at UTH | | 2001 | 2002 | 2003(Oct) | Expected Status |
| | | TB drug surveillance | | | 3 | 3.5 | 4 |
| | | Rapid detection (MIGT) | | - | - | 2 | to be set up |
| | | Finger print method | | - | 2 | 2 | to be set up |
| | | DDH method | | - | 2 | 2 | to be set up |
| | 1-F | Score of equipment assessment used for a JICA regular report | | - | 2 | 2 | to be set up |
| | 2-A | Coverage of VCT centers sending samples of HIV test for QA | | to be filled | | | to be set up |
| | 2-B | Average score of QA test results for CD counting | | to be filled | | | to be set up |
| 2 | 2-C | Total number of laboratory tests identified with laboratory monitoring sheet of Government's ARV centers | | to be filled | | | to be set up |
| | 2-D | Number of trainings and trainees for VCT/MTCT | | to be filled | | | to be set up |
| | 3-A | Standardized guideline for EQA is made | | - | - | Draft available | 30 copies available |
| 3 | 3-B | Number of TB microscopic centers participating in quality checking | | - | - | 2 | 22 centers |
| | 3-C | Agreement rate between TB microscopic centers and the EQA center in UTH | | to be filld | | | 70-80% |
| | 3-D | Number of TB microscopy centers covered with on-site evaluation visits | | to be filld | | | 22 centers |
| 4 | 4-A | List of information type, category of beneficiaries, and estimated number of beneficiaries at each event | | to be filld | | | to be set up |
| | 4-B | Assessment of utilization of the information generated by the Project among stakeholders with baseline and exit questionnaires | | to be filld | | | to be set up |
| 5 | 5 | Percentage of meeting attendance and reporting to the steering committee of the Project by the Project staff who are officially appointed | | to be filld | | | 100% |

MID-TERM JOINT-EVALUATION REPORT
ON HIV/AIDS AND TB CONTROL PROJECT

1. Introduction

1-1. Preface

Japan International Cooperation Agency(JICA) has collaborated with the government of the Republic of Zambia in implementing HIV/AIDS and Tuberculosis Control Project(hereinarter referred to as "the Project") in line with national policies. The objective of the Project is "Laboratory systems are strengthened and are effectively utilized for HIV/AIDS and TB control in the Republic of Zambia". The project was initiated in March 2001 and will be completed by the end of March 2006.

This time, since the first half of the cooperation period has passed, the Japanese Mid-term Evaluation Team dispatched by JICA has been visiting Zambia from 4 to 15, 2003 for the purpose of evaluating the achievements of the Project. The evaluation has been jointly undertaken by Zambian and Japanese participants.

1-2. Objective of the evaluation

Objectives of the evaluation are as follows;

(1) To grasp the inputs of Zambian and Japanese sides to the Project

(2) To assess progress of the activities

(3) To carry out a comprehensive evaluation on the Project from the viewpoints of five criteria.

(4) To revise the second half of the implementation plan of the Project

1-3. Evaluation participants

Japanese side;

| | |
|---|---|
| Prof.Naoki Yamamoto | Team Leader, Professor of Tokyo Medical and Dental University |
| Dr. Nobukatsu Ishikawa | Director, Department of International Cooperation, Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association |
| Dr.Naomi Wakasugi | Director, Department of Epidemiology, Research Institute, International Medical Center of Japan |
| Ms.Yasuyo Okumoto | Staff, Medical Cooperation Department, JICA |
| Mr.Eimitsu Usuda | Consultant, IC-Net |

| | |
|---|---|
| Mr.Eiji Inui | Resident Representative, JICA |
| Dr.Mami Hirota | Long-term Expert(Public Health, epidemiology) |
| Dr.Yoshiaki Takahashi | Long-term Expert(HIV/AIDS) |
| Mr.Yoshikazu Sekino | Administrative Coordinator |

Zambian side;

| | |
|---|---|
| Mr.Davies M.Chimfwembe | Director of Health, Ministry of Health |
| Prof. Y.Mulla | School of Medicine, University of Zambia |
| Dr.Lambart | Managing Director,UTH |
| Dr.Victor Mudenda | Director of the Laboratory Services,UTH<br>Deputy Director of the Project |
| Dr.Francis Kasolo | Head of Virology Laboratory,UTH<br>Project Manager of the Project |
| Dr.Mwaka Monze | UTH Virology Laboratory(Virus Culture and Outbreak Investigation Unit)<br>Senior member of the Project |
| Dr.Ray Handema | UTH Virology Laboratory(Molecular Biology Unit)<br>Senior member of the Project |
| Mrs. Gina Mulundu | UTH Virology Laboratory(Serology / Immunology Unit)<br>Senior member of the Project |
| Mrs.Idah Ndumba | UTH Virology Laboratory(Virus culture and outbreak investigation Unit)<br>Senior member of the Project |
| Mr.B Chembo | UTH Virology Laboratory(Epidemiology and Data Management Unit) |
| Mr.Clement Mulenga | UTH Virology Laboratory(Epidemiology and Data Management Unit) |
| Dr.W.Zulu | UTH Tuberculosis laboratory<br>Senior member of the Project |
| Mrs.C.Habeenzu | UTH Tuberculosis laboratory<br>Senior member of the Project |

1-4. Methodology of Evaluation

1-4-1 Evaluation Framework - Project Design Matrix for Evaluation (PDM-E)

The Mid-term Evaluation of the Project is performed based on the JICA's Project Evaluation

Guideline which adopts a concept of Project Design Matrix (PDM) and Project Cycle Management (PCM). The PDM, which was formulated before the Project implementation, outlines the essential project elements such as Project Purpose, major activities, verifiable indicators for the achievements of the objectives and risks[1] in the course of project implementation (Appendix 1: PDM ver2). The Project is implemented, monitored, and evaluated based on the PDM.

Based on this PDM, the PDM-E (Appendix 2: PDM for Evaluation) was prepared by the evaluation team members. This PDM-E serves as the framework and the basis to design evaluation grids shown in 1-4-2 Principal Study Items and Collection Methods of Information and Data.

1-4-2 Principal Study Items and Collection Methods of Information and Data

In the process of the Mid-term Evaluation, the evaluation team assesses the achievements for Objectives and Inputs, as well as performance for implementation process with the indicators shown in the PDM. This work is basically done based on monitoring information, which those involved in the Project implementation collected.

The Grid for Achievement and Process indicates principal study items and collection methods of information and data to assess the performance of the Project including its management and implementation process (See Appendix 3: Grid for Achievement and Process).

The Grid for Five Evaluation Criteria describes principal study items and collection methods of information to evaluate the Project based on the following five evaluation criteria (Appendix 4: Grid for Five Evaluation Criteria). The mid-term evaluation is particularly focused on Relevance and Efficiency among five evaluation criteria, as the aim of mid-term evaluation is to adjust the Project to an expected direction.

(1) Relevance:

Relevance examines whether overall goal and project purpose are in accordance with the Zambia health policy and aid policy of Japanese Government as well as the needs of health providers and the beneficiaries.

(2) Effectiveness:

Effectiveness involves the question of the extent to which the project purpose has been

[1] Negative aspects of external conditions in the PDM

achieved, or is expected to be achieved, in relation to the outputs produced by a project.

(3) Efficiency:

Efficiency refers to the productivity of the implementation process: how efficiently the various inputs are converted into outputs.

(4) Impact:

Impact refers to intended or unintended, direct or indirect, positive or negative changes that occur as a result of a project.

(5) Sustainability:

Sustainability involves the question of as to whether or not the project benefits are likely to continue after the external aid comes to an end.

In order to increase the creditability of information, different collection methods of information (or cross check on different sources of information) were applied to the same study item. Methods used for collecting information and data are as follows.

(1) Documents review: to review the Project documents, monitoring records, relevant literatures and statistics.
(2) Direct observation: to observe appropriateness of facilities, equipment, techniques, service provided and recordings.
(3) Questionnaire / Interview (group interview): to conduct interviews to key informants with the general questions which are informed in advance but necessary questions are added while conducting these interviews.
(4) Pre-workshop: to conduct a participatory workshop to review the activities and assess the achievements based on the Objective Tree[2], which was used for specifying the Project design i.e., PDM. This approach helps to clarify how the Project in question was planned. It is also useful for the Project implementers to understand monitoring and the Mid-term Evaluation process.
(5) Presentation: to assess the performance and achievements of the Project through presentations by 6 counterparts related to Outputs of the Project. These presentations as well as questions and answers provide valuable information for evaluation based on five

[2] Objectives are arranged with means and end

evaluation criteria, and from technical perspectives

1-4-3 Challenge and Limitation on the evaluation

Each project has its own inherent circumstances and agenda. The following may influence the result of the evaluation of the Project.

(1) As the information for each Output of the Project has not been clearly accumulated based on indicators of the PDM, the achievement of the Outputs might be expressed insufficiently.

(2) Neither baseline indicators nor goal of indicators was clearly set in the course of the Project implementation. This made difficult to judge the degree of achievement for each Output and could provide a room for many different interpretations to the evaluators.

The Outputs consist of the laboratory-based activities and the non-laboratory-based activities. The difference between these two activities is that the former focus on the specific experiment and studies inside the laboratories, and the latter include the comprehensive activities outside the laboratories. Since the characteristics of those activities are completely different from each other, it is necessary to assess the degree of achievement with different approaches The Output I of the Project related to experimental laboratory activities is particularly qualitative in nature and can be understood as qualitative statements with highly specialized terms. Therefore, the degree of accomplishment of Output I needs to be assessed and complied with the qualitative statement made by highly experienced and qualified specialists.

2. Brief Summary of the Project

According to the R/D, the Overall Goal of the Project is "Status of HIV/AIDS and TB in the Republic of Zambia is improved".The Project Purpose is "Laboratory systems are strengthened and are affectively utilized for HIV/AIDS and TB control in the Republic of Zambia".The following outputs are expected.

(1) Performance of Laboratory techniques, data management and overall laboratory management are improved.

(2) Performance and quality of peripheral labs for HIV/AIDS and TB testing and surveillance is improved.

(3) Utilization of laboratory services by health workers(private,public and NGOs)is improved.

(4) Information on HIV/TB generated by the Project is utilised widely by majority of stakeholders in planning and implementing programmes(i.e. GRZ,other donors, health workers, NGOs schools, youth and communities)

(5) Collaboration with HIV/AIDS and TB working group is institutionalised.

3. Record of Mid-term Achievement

3-1.Inputs

**Japanese Side;**

The Japanese side dispatched 7 long-term experts and 14 short-term experts in various fields since the commencement of the Project. The man-month of the experts has reached 139 by the end of October 2003. Their names and specialties are listed in Appendix 5.

Eight Zambian counterparts were trained at various institutes in Japan. The man-month of Zambian training was 30 at the end of October 2003. Their names and specialties are listed in Appendix 6.

Major equipment provided by the Japanese side is listed in Appendix 7.

The Japanese side partially supported the operational expense of JP¥ 216,556,000. This includes the dispatch of Japanese experts, the training of counterparts in Japan, the provision of equipment, the construction of TB laboratory and other expenses. The expense for each fiscal year is listed in Appendix 8.

**Zambian Side;**

A total of 18 counterparts have been assigned, and engaged in the Project activities. List of designated counterpart personnel is shown in Appendix 9.

During the Project period, the Republic of Zambia provided project office and facilities, utility cost, and human resources other than the counterparts. The Zambia side expensed reagents and consumable for routine laboratory services.

3-2.Achievement of Activities

The actual activities of the Project were summarized below, and the complementary grounds for the degree of accomplishments are shown in Appendix 10: Results for Achievement and Process

Output 1 : Performance of laboratory techniques, data management and overall laboratory management are improved

(1) Virology Laboratory

UTH Virology Laboratory had been capable for conducting Polio, Measles, and Hepatitis B virus examinations. In the course of the Project, new techniques such as Anti-HIV drug assay, ARV drug resistance, HIV strain surveillance, and CD4/8 counting have been introduced to the laboratory through on-the-job training and trainings in Japan.

Introduced techniques were utilized not only for experimental or research purpose to support various aspects of HIV/AIDS program but also diagnostic purpose to support treatment and care for individual patients. As the experimental and research activities, the Project brought CD4 counting method of both FAC Callibur and dynabeads method including development of an ARV laboratory monitoring form to support monitoring ARV drug treatment program. The Project also evaluated HIV test kits and quality assurance method to support sero-sentinel surveillance program. As the activities for laboratory service, CD4/CD8 counting, virus load, and HIV-1 test using PCR for baby were introduced..

(2) TB Laboratory

TB Laboratory under the Project took over the activities of JICA individual expert who had been dispatched before. In the course of the Project, Mycobacterium Incubation Growth Tube (MIGT), finger printing method, and DDT were introduced as new techniques. However, the counterpart acquired these new techniques was transferred to higher position, which suspends the technical transfer of new techniques. On the other hand, preparatory work for Multiple Drug Resistance surveillance is on-going. In order to support External Quality Assurance system of TB microscopic test in all TB test centers of Lusaka Province, TB Laboratory carried out preparatory works (see 2-3-2(2)).

The Project supported the construction of new TB Laboratory in order to support establishing EQA center as well as undertaking increased activities in the Laboratory.

(3) Laboratory data management and preventive maintenance of equipment

The database was established in epidemiology and data management unit of UTH Virology Laboratory. The JICA expert of biomedical engineering conducted fixing equipment in Virology Laboratory and provided training targeting 8 staff in UTH Biomedical Engineering Department.

The progress on Output I described in PDM is as follows. The status of progress for each

activity which was identified through undertaking pre-workshop and reviewing document is put in column "Progress" of the table below. The details are recorded in "Result of Achievement and Progress".

| | Activities | Progress* |
|---|---|---|
| 1-1 | To train counterparts on surveillance and diagnosis techniques / methods at the central laboratories | 3 |
| 1-2 | To train lab staff locally to acquire preventive maintenance skills of lab equipment | 2 |
| 1-3 | To establish or improve the following technologies in the central laboratories on monitoring, surveillance, and diagnosis | |
| | 1-3(a) Provide technical support for monitoring Anti-retro viral (ARV) drug treatment | 3 |
| | 1-3(b) Anti- HIV drug assay and ARV drug resistance | 3 |
| | 1-3(c)HIV strain surveillance and sero-sentinel surveillance | 3 |
| | 1-3(d) HIV immunological response | 2 |
| | 1-3(e) TB drug resistance surveillance and Anti-TB drug susceptibility (improvement) | 3 |
| | 1-3(f) Diagnostic value of TB (improvement) | 2 |
| 1-4 | To make recommendation on reviewing SOPs for HIV/AIDS and TB labs to CBoH | 1 |
| 1-5 | To improve data management, information and over all management of Virology and TB laboratories | 2.5 |

*1:Not yet started, 2: behind plan, 3: as planned, 4:complete

Output II. Performance and quality of peripheral labs for HIV/AIDS and TB testing and surveillance is improved

(1) HIV testing at peripheral labs

In the Project, evaluation of HIV test kits (Rapid Assessment of Distribution of HIV Test Kits), HIV test data management for MTCT), and quality assurance of HIV test were carried out including development of manuals and training materials. Training of HIV test was provided for technicians and counselors in hospitals, heath centers and VCT/MTCT centers. These training courses provided not only laboratory-based information but also related information about HIV/AIDS. Since the commencement of the Project, the training courses were carried out 17 times, in which a total 460 trainees participated. The wider coverage of quality assurance through supervisory monitoring and the establishment of quality data management are the challenge for VCT/MTCT program.

(2) TB microscopic test

As a result of clarification of the division of roles and collaboration between CDL and UTH TB laboratory, UHT TB laboratory has engaged in continuing MDR surveillance and setting up EQA center and system targeting 22 TB microscopic sites in Lusaka Province.

The assessments of resources and facilities in all 22 TB microscopic sites have been completed and the EQA trial is being tested at Chelstone and Chilenge where Directly Observed Therapy Short Course (DOTS) is adopted. Six re-training courses for basic TB microscopic test have been conducted and 81 technicians participated in these courses.

The progress on Output II described in PDM is as follows. The status of progress for each activity which was identified through undertaking pre-work shop and reviewing document is put in column "Progress" of the table below. The details are recorded in "Result of Achievement and Progress".

| | Activities | Progress* |
|---|---|---|
| 2-1 | To conduct training of trainer workshops for health workers in HIV/AIDS and TB diagnosis in collaboration with Technical Working Group | 2.5 |
| 2-2 | To conduct laboratory training for health workers to support VCT, MTCT and TB control program | 2.5 |
| 2-3 | To participate in development of training manuals for HIV/AIDS and TB for staff of peripheral laboratories | 3 |
| 2-4 | To support planning, distribution and monitoring of activities of VCT and MTCT sites | 1 |
| 2-5 | To ensure quality assurance for HIV/AIDS and TB testing | |
| | 2-5(a) To ensure quality assurance of HIV testing at all VCT and MTCT sites | 1 |
| | 2-5(b) To ensure quality assurance of TB diagnostic sites in Lusaka Province | 3 |

*1:Not yet started, 2: behind plan, 3: as planned, 4:complete

Output III. Utilization of lab service by health workers (Private, public and NGOs) is improved

As indicated in the Output I, the information on newly introduced laboratory services by the Project such as CD4 count was widely disseminated at the inter-department meetings within UTH as well as the ARV treatment group in UTH. As a result, the usage of laboratory services has been tremendously increasing. For example, the number of CD4/CD8 exceeded approximately 3,500 by the end of October 2003.

Laboratory handbook, which describes the reading of tests, collection of samples, and selection of containers has not been prepared yet. Newsletter which provides timely

information on the results of activities at the Laboratory is not constantly issued due to the shortage of staff.

The progress on Output III described in PDM is as follows. The status of progress for each activity which is identified through undertaking pre-work shop and reviewing document is put in column "Progress" of the table below. The details are recorded in "Result of Achievement and Progress".

| | Activities | Progress* |
|---|---|---|
| 3-1 | To sensitize health workers on the importance of lab diagnosis for HIV/AIDS and distribution of project newsletters | 1 |
| 3-2 | To update and distribute laboratory handbook for health workers | 1 |
| 3-3 | To provide results of HIV/AIDS and TB lab tests timely to UTH clinicians | 1 |

*1:Not yet started, 2: behind plan, 3: as planned, 4:complete

Output IV Information on HIV/TB generated by the project is utilized widely by majority of stakeholders in planning and implementing programes (i.e. GRZ, other donors, health workers, NGOs, schools, youth and communities)

(1) Utilization of laboratory-based information for HIV/AIDS program

The laboratory-based information on population serves as a critical basis for implications on policy direction as well as interventions of HIV/AIDS control program. The activities under this Output are to disseminate laboratory implication or exchange the information through meetings and reporting to CBoH or Working Groups.

Since there is a remarkable progress in ARV treatment under the Government HIV/AIDS program in accordance with the lively discussions on related policy, the laboratory–based technical support for monitoring ARV treatment plays an important role in this regard.

The laboratory-based information is used for planning, monitoring and evaluation of certain groups or population. In the course of the Project, a proposal for community-based reproductive health promotion program targeting youth in community was formulated through close linkage with VCT program.

(2) Utilization of laboratory-based information for HIV/AIDS program

As indicated in the activities under the Output III, an EQA manual was formulated

to introduce EQA to 22 TB microscopic sites in Lusaka Province. Through the consecutive dialogue with CDL, CDC and CBoH, who also aim to introduce EQA system in the areas other than Lusaka, the content of EQA manual has been shared with relevant stakeholders.

The progress on Output IV described in PDM is as follows. The status of progress for each activity which was identified through undertaking pre-work shop and reviewing document is put in column "Progress" of the table below. The details are recorded in "Result of Achievement and Progress".

| | Activities | Progress* |
|---|---|---|
| 4-1 | To provide and distribute technical information and materials on HIV/AIDS and TB to stakeholders | 3 |
| 4-2 | To produce project homepage on the Internet | 1 |
| 4-3 | To hold dissemination meeting with MOH/CBoH on the activities of project at least twice a year | 2.5 |
| 4-4 | To organize sensitizing meetings for youth in community on VCT program | 1.5 |

*1:Not yet started, 2: behind plan, 3: as planned, 4:complete

Output V: Collaboration with HIV/AIDS and TB working groups is institutionalized

Both Zambian counterparts and JICA experts of the Project have participated in VCT and Care Technical Working Group, PMTCT technical Working Group, TB technical Working Group and Vaccine and Research Technical Working Group. However, Technical Working Groups stopped the activities since March 2003 due to organizational restructuring of National HIV/AIDS/STI/TB council. Currently, new Technical Working Groups were set up. The members of the Project will participate in those relevant groups. List of the Technical Working Groups is indicated as follows.

(1) Treatment Care and Support Technical Working Group
(2) PMTCT Technical Working Group
(3) IEC/STI Technical Working Group
(4) Orphans and Vulnerable Children Technical Working Group
(5) Monitoring and Evaluation Technical Working Group
(6) Traditional and Alternative Remedies; Research and Ethics Technical Working Group
(7) HIV/AIDS mainstreaming at Workplace Technical Working Group
(8) Vaccine and Research Technical Working Group
(9) VCT Technical Working Group

(10)Safe Blood, Blood Products and Infection Control Technical Working Group

The progress on Output V described in PDM is as follows. The status of progress for each activity which was identified through undertaking pre-work shop and reviewing document is put in column "Progress" of the table below. The details are recorded in "Result of Achievement and Progress".

| | Activities | Progress* |
|---|---|---|
| 5 | Project staff both Japanese and Zambian get officially appointed and actively involved in various Technical Working Groups (VCT, MTCT, TB and Vaccine and Treatment) | 2.5 |

*1:Not yet started, 2: behind plan, 3: as planned, 4:complete

3-3.Achievement of Outputs

Output I: Performance of laboratory techniques, data management and overall laboratory management are improved

It is perceived that 60-70% of the Output I was achieved. This ratio corresponds with the results from the document review and the group interview from the counterparts. The grounds for the achievement are as follows.

A total of 23 counterparts received training on various technique and project management. Particularly, 11 out of 18 planned counterparts acquired the necessary techniques for Virology and TB Laboratory through formal training.

Newly introduced techniques refers the analysis of Zambian HIV strain Alternative method of CD counting, planning laboratory monitoring for ARV therapy program, local drug assay, and drug resistance etc A number of technical manuals were also prepared in this context.

The majority of Inputs from Japanese side were intensively provided to the Output I up to the middle of the Project period. In other words, it can be said that Inputs into both Virology Laboratory and TB Laboratory in terms of human resource and equipment were required to realize other Outputs. Most of equipment provided by the Project is versatile and can be used not only for HIV/AIDS and TB test and experiments but also for other Virology tests.

In fact, the total number of laboratory tests in the Virology Laboratory reached approximately 7300 in 2002. It has rapidly increased from 13,800 in 2002 to 17,300 as of

October, 2003.

The total number of newly introduced CD4/CD8, viral load, and HIV diagnostic test by PCR for newborn baby has dramatically increased from zero in 2000 to 1,189 in 2001, 5,115 in 2002 and 4,715 in the end of October 2003. It has exceeded the growth of the total number of tests done in the Virology Laboratory.

Furthermore, a number of samples were tested for experiments and surveillance by applying newly introduced techniques such as drug resistance assay, drug assay and analysis of HIV strains. The Virology Laboratory conducted HIV tests of 15,000 samples for 2001/2002 sentinel surveillance.

The diagnostic capacity of TB Laboratory remains the same as the number of microscopic tests (AFB microscopy) hovered around average of 20,000 over the Project period. Although a few of new techniques were introduced they are still at the experimental stage, but not applied to diagnostic services. Some preparatory work for multi drug resistance surveillance is being carried out.

Epidemiology and data management unit of UTH Virology Laboratory was equipped with a computer database which contains all necessary records for routine work. The current issue is how to analyze the information and to disseminate to users by means of this database.

Output II: Performance and quality of peripheral labs for HIV/AIDS and TB testing and surveillance is improved

Output II can be meant as the following three points in the proper sense of the word. The first is to monitor quality assurance for HIV testing at all VCT/MTCT sites and health facilities. The second is to set up laboratory monitoring system for planned ARV centers. The third is to establish external quality assurance system targeting 22 TB microscopic centers in Lusaka Province. In this regard, it is perceived that less than 30-40% of the Output II was achieved. The grounds for the achievement are as follows.

The training on HIV testing technique including data recording was conducted for technicians and midwives at health facilities, VCT/MTCT centers. Up to date, it has been undertaken through 17 group training program. The number of trainee including those individual trainees has reached 461 as of October 2003. These training helped HIV testing

sites to serve 60-70 thousand of HIV rapid testing per year. Since then, 380 thousand of HIV testing has been conducted in total. The number of VCT/MTCT centers has increased from 30 in the beginning of the Project to 106 at the time of mid-term evaluation. The future issue is to monitor the quality assurance of all HIV testing sites so that the collected data will be effectively utilized

TB related group training has been conducted six times and a total of 80 health workers have participated in these courses. Experimental external quality assurance (EQA) was introduced to the limited areas where DOTS strategy was adopted. The aim is to establish the EQA system in Lusaka Province. The establishment of EQA brings about not only provision of accurate diagnostic service but also identification of accurate TB case rate.

Output III: Utilization of lab service by health workers (Private, public and NGOs) is improved

As no related information has been systematically recorded and compiled, the degree of achievement for the Output III is hardly understood. The actual activities were observed less than expected.

Laboratory activities and relevant information seem to be shared with clinicians of UTH through inter-department meeting, and to be released to the public through TV and newspaper. Based on the indicators for the Output III, the ratio of utilization of newly introduced diagnostic tests has been dramatically increased. Regarding quantity of viral load, the proportion of test requested by private changed from 50% in 2002 to 70% as of October 2003. Thus, it is likely that the demand for the diagnostic service has been increased. However, these activities have not been recorded nor compiled in the Project to verify the outcome. The related activity is no better than production of one Japanese newsletter.

Output IV: Information on HIV/TB generated by the project is utilized widely by majority of stakeholders in planning and implementing programes (i.e. GRZ, other donors, health workers, NGOs, schools, youth and communities)

As the related information has not been systematically recorded nor compiled, the degree of achievement for the Output IV is hardly understood. Although the result of experiment and research in the laboratory is likely to be utilized by someone or some institutions, it can not be always recorded well.

It is assumed that all JICA experts and counterparts provided tangible and intangible findings produced by laboratory to various stakeholders respectively although they are not properly recorded. However, at least it is recognized that the following laboratory issues are widely shared with relevant stakeholders through attending Technical Working Group and undertaking meetings with CBoH.

- Application of newly introduced laboratory technique to ARV treatment program
- Utilization of newly introduce laboratory techniques to diagnostic laboratory service
- Evaluation of HIV rapid testing and quality assurance method for HIV testing sites
- External Quality Assurance of TB microscopic test and system development
- Laboratory support to MTCT program

Output V: Collaboration with HIV/AIDS and TB working groups is institutionalized

The Project has actively participated in relevant Technical Working Groups. As a result, some of laboratory findings can be incorporated into policy formulation. Further, the participation in these Working Groups enabled the Project to coordinate and collaborate with other programs.

3-4.Project implementation process

There were significant changes from the previous JICA's technical cooperation for Virology Laboratory of UTH to the current Project in terms of its management and framework. The first change was that JICA adopted Project Design Matrix as logical framework for all project-type of technical cooperation including the current Project. This contributed to enhancing the accountability of project management from planning to evaluation. The second change was that the current Project has focused on not only strengthening the capacity of laboratories but also the way of utilization as well as the users of information and findings obtained from laboratory activities.

Based on the relevant reports and the results of interview, the stakeholders could not fully understand PDM and PO in the beginning of the Project. Although PDM and PO were revised after the six months of the implementation, the indicators were not revised at that time, and consequently have not revised by the time of mid-term evaluation. In other words, little attention was paid to monitoring based on the indicators of PDM in the Project. There was likely little understanding of the concept of monitoring within the Project, by which the actual achievement could be grasped and the plan could be adjusted.

The shortage of human resources, particularly Zambian counterparts has posed the serious problems to the Project in terms of management. Not only the chronic shortage of human

resources but also other factors such as the suspension of work for research and training, sick leave and participation in several meeting have hindered the involvement of the counterparts into the Project.

The establishment of the Steering Committee functioned well in terms of grasping the progress of each activity and resolving the problems under the Project. However, there is a room for improvement for grasping the whole picture of the Project and deciding the necessary actions for better implementation of the Project on the long term.

There was a hindering factor that the dispatch of team leader was delayed, which brought about the inefficiency of the Project management. The relationship between Japanese experts and counterparts has been improved by working together as the Steering Committee. The problem of lack of human resource has yet to be resolved.

4.Evaluation by Five Criteria

4-1 Relevance

HIV/AIDS and TB has remained the critical problem for the people in Zambia since the commencement of the Project. Although the HIV infection rate decreased from 19.95% in 1998/99 to 15.5% in 2001/02, the cumulative number of AIDS cases is estimated to be more than 85,000. This has required not only sufficient HIV/AIDS prevention but also more treatment and care of AIDS patients. The TB case rate has increased nearly five-fold for this decade. According to the report of UTH, HIV positive clients among the TB patients account for 70 %. The strengthening of laboratory capacity regarding HIV and TB can contribute to improvement of diagnosis and provision of scientific justification for effective measures to HIV/AIDS and TB control.

The measures to AIDS and TB control are definitely the priority agenda for the Government of Zambia and MOH. "Strategic Framework 2001-2003" developed by HIV/AIDS/STD/TB Council also highlights interventions for VCT, MTCT and improved drug supply for the HIV positive clients.

Since "Japan's Initiative in the Fight against Infectious and Parasitic Diseases on the occasion of the Kyushu-Okinawa G8 Summit ("Okinawa Infectious diseases) Initiative" was held in July 2000, the Government of Japan has put substantial fund on infectious and parasitic diseases as a central issue in Development. Japan's ODA Country Assistance Program for Zambia (2002-2007) also put priority on combating HIV/AIDS and TB and providing cost-effective

health services.

Therefore, it is perceived that the Project is consistent with the Government policy of HIV/AIDS and TB control in Zambia and Japanese ODA policy and program as well as needs of the people in Zambia. At the time of mid-term evaluation, it was assessed that the validity of the Project was ensured.

4-2 Efficiency

The number of laboratory services carried out in UTH Virology Laboratory and TB Laboratory reached 35,000 in 2002, and 27,000 as of September 2003. Among these services, the number of diagnostic laboratory by means of newly introduced techniques has dramatically increased zero in the beginning of the Project to 5000 on the annual basis at the present.

The Project plans to provide technical instruction on HIV tests during the training targeting VCT, MTCT and peripheral laboratories and to establish the Quality Assurance system in all laboratory centers. It is expected that a total of 100,000 tests concerned would be carried out per year. External Quality Assurance system of TB microscopic test will be established in all TB test centers of Lusaka Province. The Project is now in a pilot phase of utilizing External Quality Assurance system.

The accumulated data deprived on the analysis of laboratory services and various data-analysis and research work conduced in Virology Laboratory and TB Laboratory were reported to Working Groups and relevant departments of CBoH.

There is a room for improvement of both research data analysis in the laboratories and establishment of Quality Assurance system. It is assumed that the Project has achieved the half mark to the Project Purpose-Laboratory systems are strengthened and are effectively utilized for HIV/AIDS and TB control in the Republic of Zambia.

4-3 Effectiveness

Due to the chronic shortage of human resources, the limited inputs from the Zambian side were likely far from the required level of the implementation of the Project. The problem of inputs from the Japanese side in terms of timing was also identified. The absence of team leader for certain time is such an example of hindering efficiency of the implementation of the Project. Furthermore, the trained counterpart who received the training in Japan and was supposed to utilize what he learned there was transferred.

Most of equipment was appropriately utilized at the time of mid-term evaluation. However, as the counterparts pointed out, some purchased items such as furniture were not necessary for the activities in the Project.

4-4 Impact

Given that the introduction of HIV tests could accelerate implementation of VCT/MCTC programs, it should be noted that training of HIV tests has brought about impacts. The newly introduced laboratory techniques enabled ARV drug monitoring as well as the HIV test for newborn infants.

In addition to such a laboratory technique, a series of operational research including laboratory analyses may have a potential policy impact when those findings and practices will be integrated into future HIV/AIDS/STI/TB strategic plan.

4-5 Sustainability

The laboratory services are being provided at client's expense. This is charged extra of a blood test, and is regularly revised by the Financing Committee within UTH. Since this committee was newly established, it is necessary to monitor its future activities.

The Project has borne the costs for research work and analysis of laboratory data.

Appendix:

1. PDM ver 2
2. PDM for Evaluation
3. Grid for Achievement and Process
4. Grid for Five Evaluation Criteria
5. List of Long-term and short term experts dispatched from Japanese
6. List of participants for trainings in Japan
7. List of equipments provided (incl. Usage and Functional Condition)
8. Expenses of Japan
9. Organizational structure and staff related to the Project
10. Results of Achievement and process
11. Results of Analysis with Five Evaluation Criteria

Appendix 1: PDM ver 2

January 2002

Project Name: HIV/AIDS and Tuberculosis Control Project

Duration: 30 March 2001 – 29 March 2006

Project Area: Zambia

Target Group: People affected/infected by HIV/TB, Health Care Providers, Health Care Educational Institutions,Youth and NGOs)

Date: 23 January, 2002, Ver.2

| Narrative Summary | Verifiable Indicators | Means of Verification | Important Assumptions |
|---|---|---|---|
| Overall Goal:<br>Status of HIV/AIDS and TB in the Republic of Zambia is improved | 1 Prevalence of HIV infected people<br>2 Newly infected cases of HIV<br>3 Cure rate of TB cases<br>4 TB case detection rate | Cure rate of TB cases<br>Annual TB Report<br>HIV Population survey reports | Sufficient human and financial resources for prevention and treatment t for HIV/AIDS and TB are provided<br>HIV/AIDS and TB infection remain priority in Zambia |
| Project Purpose:<br>Laboratory systems are strengthened and are effectively utilized for HIV/AIDS and TB control in the Republic of Zambia | 1 No. and quality of results produced by laboratory system<br>2 No. of laboratory staff trained on HIV/AIDS and TB<br>3 Performance of peripheral labs on quality assurance tests<br>4 No. of information disseminated to stakeholders | Performance of peripheral laboratories on yearly HIV/AIDS and TB QA testing<br>Annual report of UTH, CDL, CBoH, UNAIDS and WHO HIV/AIDS<br>Annual report of Virology and TB Laboratories<br>Minutes of HIV/AIDS and TB Technical Working Groups | Overall National Health Policy remains the same<br>Administrative Structure of UTH remains the same<br>Communities continue participation in activities of HIV/AIDS and TB |
| Output:<br>1 Performance of laboratory techniques, data management and overall laboratory management are<br>2 Performance and quality of peripheral labs for HIV/AIDS and TB testing and surveillance is improved<br>3 Utilization of lab service by health workers (Private, public and NGOs) is improved<br>4 Information on HIV/TB generated by the project is utilized widely by majority of stakeholders in planning and implementing programmes (i.e. GRZ, other donors, health workers, NGOs, schools, youth and<br>5 Collaboration with HIV/AIDS and TB working groups is institutionalized | see attached verifiable indicators list | Annual report of UTH, CDL, CBoH, UNAIDS, WHO and HIV/AIDS<br>Annual report of Virology and TB Laboratories<br>Minutes of HIV/AIDS and TB Technical Working Groups<br>Regular quality surveillance report<br>Pre-and post project evaluation study (KIP) on technician<br>Laboratory annual report<br>Annual reports<br>CBoH<br>Minutes of HIV/AIDS and TB working group meeting | The position of UTH HIV/AIDS and TB labs in National Program remain the same<br>MTCT, VCT and TB activities remain stable |

Appendix 1: PDM ver 2 January 2002

| Activities: | Inputs: | | |
|---|---|---|---|
| 1-1 To train counterparts on surveillance and diagnosis techniques / methods at the central laboratories | Japan | Zambia | Trained health staff continues to work on the project |
| 1-2 To train lab staff locally to acquire preventive maintenance skills of lab equipment | Long-term Expert | Counterpart peronnel (implementation body) | Economic performance remain stable |
| 1-3 To establish or improve the following technologies in the central laboratories on monitoring, surveillance, and diagnosis | Project chief advisor | Project Director | Equipment continues work optimally |
| 1-3(a) Provide technical support for monitoring Anti-retro viral (ARV) drug treatment | Project coordinator | Project Manager | |
| 1-3(b) Anti- HIV drug assay and ARV drug resistance | Long /short term HIV expert | Medical doctors | |
| 1-3(c)HIV strain surveillance and sero-sentinel surveillance | Long/short term TB expert | Medical officers | |
| 1-3(d) HIV immunological response | Long /short term Pubic health/Epidemiology expert | Medical technologist in immunology | |
| 1-3(e) TB drug resistance surveillance and Anti-TB drug susceptibility (improvement) | Long/short term Equipment Maintenance | Medical technologist in virology | |
| 1-3(f) Diagnostic value of TB (improvement) | Long /short Immunology expert | Medical technologist in bacteriology<br>Medical scientist in immunology<br>Medical scientist in bacteriology | |
| 1-4 To make recommendation on reviewing SOPs for HIV/AIDS and TB labs to CBoH | | | |
| 1-5 To improve data management, information and over all management of Virology and TB laboratories | Equipment | Medical scientist in virology | |
| 2-1 To conduct training of trainer workshops for health workers in HIV/AIDS and TB diagnosis in collaboration with Technical Working Group | Operation cost | | |
| 2-2 To conduct laboratory training for health workers to support VCT, MTCT and TB control program | | Data management personnel | |
| 2-3 To participate in development of training manuals for HIV/AIDS and TB for staff of peripheral laboratories | | Epidemiologist | |
| 2-4 To support planning, distribution and monitoring of activities of VCT and MTCT sites | | Medical equipment engineer | |
| 2-5 To ensure quality assurance for HIV/AIDS and TB | | Utility cost and salaries for Zambian | |
| 2-5(a) To ensure quality assurance of HIV testing at all VCT and MTCT sites | | | |
| 2-5(b) To ensure quality assurance of TB diagnostic sites in Lusaka Province | | | |
| 3-1 To sensitize health workers on the importance of lab diagnosis for HIV/AIDS and distribution of project newsletters | | | |
| 3-2 To update and distribute laboratory handbook for health workers | | | |
| 3-3 To provide results of HIV/AIDS and TB lab tests timely to UTH clinicians | | | |

| | | |
|---|---|---|
| 4-1 To provide and distribute technical information and materials on HIV/AIDS and TB to stakeholders<br>4-2 To produce project homepage on the Internet<br>4-3 To hold dissemination meeting with MOH/CBoH on the activities of project at least twice a year<br>4-4 To organize sensitizing meetings for youth in community on VCT program<br>5 Project staff both Japanese and Zambian get officially appointed and actively involved in various Technical Working Groups (VCT, MTCT, TB and Vaccine and Treatment) | | Pre-condition |

Appendix 2 : PDM for Evaluation

November 2003

Project Name: HIV/AIDS and Tuberculosis Control Project

Duration: 30 March 2001 – 29 March 2006

Project Area: Zambia

Target Group: People affected/infected by HIV/TB, Health Care Providers, Health Care Educational Institutions,Youth and NGOs)

Date: 10 October, 2003, Ver.3 (PDM-E)

| Narrative Summary | Verifiable Indicators | Means of Verification | Important Assumptions |
|---|---|---|---|
| **Overall Goal:**<br>Majority of the people in the Republic of Zambia can receive the benefit of laboratory based services and information on HIV/AIDS and TB. | 1 Prevalence of HIV infected people<br>2 Newly infected cases of HIV<br>3 Cure rate of TB cases<br>4 TB case detection rate | Cure rate of TB cases<br>Annual TB Report<br>HIV Population survey reports | Sufficient human and financial resources for prevention and treatment t for HIV/AIDS and TB are provided<br>HIV/AIDS and TB infection remain priority in Zambia |
| **Project Purpose:**<br>Laboratory systems are strengthened and are effectively utilized for HIV/AIDS and TB control in the Republic of Zambia | 1 No. and quality of results produced by laboratory system<br>2 No. of laboratory staff trained on HIV/AIDS and TB<br>3 Performance of peripheral labs on quality assurance tests<br>4 No. of information disseminated to stakeholders | Performance of peripheral laboratories on yearly HIV/AIDS and TB QA testing<br>Annual report of UTH, CDL, CBoH, UNAIDS and WHO HIV/AIDS<br>Annual report of Virology and TB Laboratories<br>Minutes of HIV/AIDS and TB Technical Working Groups | Overall National Health Policy remains the same<br>HIV/AIDS and TB remains high priority issue in Zambia<br>Measures to HIV/AIDS and TB in programs and projects are continued to be taken as the same level as before.<br>Sector wide approach has little influence on the Project. |
| **Output:**<br>1 Performance of laboratory techniques, data management and overall laboratory management are<br>2 Performance and quality of peripheral labs for HIV/AIDS and TB testing and surveillance is<br>3 Utilization of lab service by health workers (Private, public and NGOs) is improved<br>4 Information on HIV/TB generated by the project is utilized widely by majority of stakeholders in planning and implementing programmes (i.e. GRZ, other donors, health workers, NGOs, schools, youth and<br>5 Collaboration with HIV/AIDS and TB working groups is institutionalized | see attached verifiable indicators list | Annual report of UTH, CDL, CBoH, UNAIDS, WHO and HIV/AIDS<br>Annual report of Virology and TB Laboratories<br>Minutes of HIV/AIDS and TB Technical Working Groups<br>Regular quality surveillance report<br>Pre-and post project evaluation study (KIP) on technician<br>Laboratory annual report<br>Annual reports<br>CBoH<br>Minutes of HIV/AIDS and TB working group meeting | The focus on HIV/AIDS and TB measures (including the ARV therapy )is not changed.<br>The position of UTH HIV/AIDS and TB labs in National Program remain the same<br>MTCT, VCT and TB activities remain stable<br>Administrative Structure of UTH remains the same<br>Overlapping or competing activities on HIV/AIDS and TB are not carried by other donor agencies and NGOs |

| Inputs/Activities: | | | |
|---|---|---|---|
| 1-1 To train counterparts on surveillance and diagnosis techniques / methods at the central laboratories<br>1-2 To train lab staff locally to acquire preventive maintenance skills of lab equipment<br>1-3 To establish or improve the following technologies in the central laboratories on monitoring, surveillance, and diagnosis<br>1-3(a) Provide technical support for monitoring Anti-retro viral (ARV) drug treatment<br>1-3(b) Anti- HIV drug assay and ARV drug resistance<br>1-3(c)HIV strain surveillance and sero-sentinel surveillance<br>1-3(d) HIV immunological response<br>1-3(e) TB drug resistance surveillance and Anti-TB drug susceptibility (improvement)<br>1-3(f) Diagnostic value of TB (improvement)<br>1-4 To make recommendation on reviewing SOPs for HIV/AIDS and TB labs to CBoH<br>1-5 To improve data management, information and over all management of Virology and TB laboratories<br>2-1 To conduct training of trainer workshops for health workers in HIV/AIDS and TB diagnosis in collaboration with Technical Working Group<br>2-2 To conduct laboratory training for health workers to support VCT, MTCT and TB control program<br>2-3 To participate in development of training manuals for HIV/AIDS and TB for staff of peripheral laboratories<br>2-4 To support planning, distribution and monitoring of activities of VCT and MTCT sites<br>2-5 To ensure quality assurance for HIV/AIDS and TB<br>2-5(a) To ensure quality assurance of HIV testing at all VCT and MTCT sites<br>2-5(b) To ensure quality assurance of TB diagnostic sites in Lusaka Province<br>3-1 To sensitize health workers on the importance of lab diagnosis for HIV/AIDS and distribution of project newsletters<br>3-2 To update and distribute laboratory handbook for health workers<br>3-3 To provide results of HIV/AIDS and TB lab tests timely to UTH clinicians<br>4-1 To provide and distribute technical information and materials on HIV/AIDS and TB to stakeholders<br>4-2 To produce project homepage on the Internet<br>4-3 To hold dissemination meeting with MOH/CBoH on the activities of project at least twice a year<br>4-4 To organize sensitizing meetings for youth in community on VCT program<br>5 Project staff both Japanese and Zambian get officially appointed and actively involved in various Technical Working Groups (VCT, MTCT, TB and Vaccine and Treatment) | Japan<br>Long-term Expert<br>Project chief advisor<br>Project coordinator<br>Long /short term HIV expert<br>Long/short term TB expert<br>Long /short term Pubic health/Epidemiology expert<br>Long/short term Equipment Maintenance<br>Long /short Immunology expert<br>Equipment<br>Operation cost | Zambia<br>Counterpart personnel (implementation body)<br>Project Director<br>Project Manager<br>Medical doctors<br>Medical officers<br>Medical technologist in immunology<br>Medical technologist in virology<br>Medical technologist in bacteriology<br>Medical scientist in immunology<br>Medical scientist in bacteriology<br>Medical scientist in virology<br>Data management personnel<br>Epidemiologist<br>Medical equipment engineer<br>Utility cost and salaries for Zambian | Trained health staff continues to work on the project<br>Economic performance remain stable<br>Equipment continues work optimally |
| | | | Pre-condition |

## Appendix 3: Evaluation Grid for Achievements and Process

| Evaluation criteria | Study item | Required Information or data | Source of information | Method for collecting information and data |
|---|---|---|---|---|
| Achievement | Degree of achievement of the Overall Goal: (projected) | 1. Prevalence of HIV infected people (quantity)<br>2. Newly infected cases of HIV<br>3. Cure rate of TB cases<br>4. TB case detection rate | - Cure rate of TB cases<br>- Annual TB Report<br>- HIV survey reports | 1-4. Review of relevant literature and project documents<br>1-4. CBoH |
| Achievement | Degree of achievement of the Project Purpose | 1. Total number of reliable results regarding HIV/AIDS and TB produced by laboratory system (quantity)<br>2. Total person-days of laboratory staff trained on HIV/AIDS and TB (in the case of the technical assistance, time and number of target persons are converted using person-day)<br>3. Coverage of peripheral labs on quality assurance tests<br>4. No. of programs and activities which disseminated laboratory services and information to the relevant projects and programs | 1. Performance of peripheral laboratories on yearly HIV/AIDS and TB QA testing / Laboratory Records<br>2. Annual report of UTH, CDL, CBoH, UNAIDS and WHO HIV/AIDS Secretariat<br>3. Annual report of Virology and TB Laboratories<br>4. Minutes of HIV/AIDS and TB Technical Working Groups / Expert's document | 1. Literature survey of laboratory records and annual reports<br>2. Review of annual reports<br>3. Laboratory records and annual reports<br>4. Review of minutes of Working Groups / Review of Expert's report |

## Appendix 3: Evaluation Grid for Achievements and Process

| Evaluation criteria | Study item | Required Information or data | Source of information | Method for collecting information and data |
|---|---|---|---|---|
| Achievement | Degree of achievement of the Output I | 1. 1-1 Eighteen (18) Zambian counterparts health workers in various HIV/TB technologies<br>2. 1-2 Identified laboratory staff and maintenance engineers trained in preventive maintenance<br>3. 1-3(a) Number of tests (CD4 CD8 counting, Viral load, PCR and antibody testing established and maintained in the lab<br>4. 1-3(b) Drug assay and ARV resistance monitoring system established in the lab<br>5. 1-3© Strain and sentinel surveillance of HIV in Zambia conducted<br>6. 1-3(d) Immunological techniques set up in the lab<br>7. 1-3(e) Improved TB drug surveillance and anti-TB drug susceptibility<br>8. 1-3 (f) Improved utilization of TB laboratory diagnosis, Improvement of increasing Number of request of Lab tests from UATH and private clinics<br>9. 1-4 SOP, Number of recommendation, Number of participation<br>10. 1-5 Established system of over all data management, Annual reports and number of research project managed, records of routine activities | 1. Project manager<br>2. Project manager<br>3. Molecular Biology unit<br>4. Molecular Biology unit<br>5. Molecular Biology unit<br>6. Serology /Immunology unit<br>7. TB laboratory<br>8. TB laboratory<br>9. TB laboratory<br>10. VCT coordinator / Project manager<br>11. Actual performance of activities under each Output<br>12. Relevant documents | 1-10. Review of laboratory record<br>11. Assessment of activities through pre-workshop<br>12. Review of documents |

## Appendix 3: Evaluation Grid for Achievements and Process

| Evaluation criteria | Study item | Required Information or data | Source of information | Method for collecting information and data |
|---|---|---|---|---|
| Achievement | Degree of achievement of the Output II | 1. 2-1 Number of training,<br>2. 2-2 Number of trainees and number of training courses<br>3. 2-3 Training manuals of HIV/AIDS and TB<br>4. 2-4 Number of supplies utilized by reporting inventory system, Number of persons utilizing MTCT/VCT<br>5. 2-5(a) Quality assurance system at all sites<br>6. 2-5(b) Number of facilities where HIV testing was introduced as a result of the training provided by the Project (quantity) | 1. VCT coordinator / Project manager<br>2. VCT coordinator / Project manager<br>3. VCT coordinator / Project manager<br>4. Clinical Research unit<br>5. Actual performance of activities under each Output<br>6. Relevant documents | 1-4 Person in charge for the project<br>4. Assessment of activities through pre-workshop<br>5. Review of documents |
| | Degree of achievement of the Output III | 1. 3-1 Number of workshop and meeting, Number of participant and number of newsletter distributed<br>2. 3-2 1000 copies of laboratory handbook are printed and circulated<br>3. 3-3 90% of HIV and initial TB microscopy test results provided by UTH return with in 48 hours (quantity) | 1. VCT coordinator / Project manager<br>2. VCT coordinator / Project manager<br>3. TB laboratory<br>4. Actual performance of activities under each Output<br>5. Relevant documents | 1-3 .Person in charge for the project<br>4. Assessment of activities through pre-workshop<br>5. Review of documents |

## Appendix 3: Evaluation Grid for Achievements and Process

| Evaluation criteria | Study item | Required Information or data | Source of information | Method for collecting information and data |
|---|---|---|---|---|
| Achievement | Degree of achievement of the Output IV | 1. 4-1 Total number of participants receiving HIV/AIDS TB information, A number of request for information, feed back from participant, Establishment of homepage<br>2. 4-2 Number of homepage updated, Number of person accessing web site<br>3. 4-3 Number of participants, minutes produced and project information used in planning National Policy<br>4. 4-4 Number of participants, Number of meetings in various area, % of youth who go through VCT among meeting participant<br>5. 4-5 Number of relevant stakeholders such as government, other donor agencies, NGOs and schools received information from laboratories under the Project (quantity) | 1. VCT coordinator / Project manager<br>2. Project manager<br>3. Project manager<br>4. VCT coordinator / Project manager<br>5. Actual performance of activities under each Output<br>6. Relevant documents | 1-4 .Person in charge for the project<br>4. Assessment of activities through pre-workshop<br>5. Review of documents |
| | Degree of achievement of the Output V | 1. Number of meeting attended minutes, report and minutes form technical working group | - VCT coordinator / Project manager | Person in charge for the project |

## Appendix 3: Evaluation Grid for Achievements and Process

| Evaluation criteria | Study item | Required Information or data | Source of information | Method for collecting information and data |
|---|---|---|---|---|
| | Actual Inputs (Japan) | 1. Number of long-term experts and specialized field<br>2. Number of short-term experts and specialized field<br>3. Facilities, equipment and supplies provided<br>4. Number and specialized field of trainee received | 1-4 Project documents | 1-4 Review of project documents<br>1-4 Collecting information from Japanese experts and conducting interview |
| | Actual Output (Zambia) | 1. Office space and facilities provided for the Project<br>2. Number of counterpart appointed for the Project<br>3. Operation cost for the Project | 1-3 Counterparts<br>1-3 Project documents<br>1-3 Pre-workshop | 1-3 Collecting information from counterparts and conducting interview<br>1-3 Collecting information from Japanese experts and conducting interview<br>1-3 Assessment of activities and Inputs through pre-workshop |

## Appendix 3: Evaluation Grid for Achievements and Process

| Evaluation criteria | Study item | Required Information or data | Source of information | Method for collecting information and data |
|---|---|---|---|---|
| Change of external condition | External condition that indicated on the PDM | 1. Overall National Health Policy remains the same<br>2. HIV/AIDS and TB remains high priority issue in Zambia<br>3. Measures to HIV/AIDS and TB in programs and projects are continued to be taken as the same level as before.<br>4. Sector wide approach has little influence on the Project.<br>5. The focus on HIV/AIDS and TB measures (including the ARV therapy) is not changed.<br>6. The position of UTH HIV/AIDS and TB labs in National Program remain the same<br>7. MTCT, VCT and TB activities remain stable<br>8. Administrative Structure of UTH remains the same<br>9. Overlapping or competing activities on HIV/AIDS and TB are not carried by other donor agencies and NGOs<br>10. Trained health staff continues to work on the project<br>11. Economic performance remain stable | 1. CBoH<br>2. UTH director<br>3. HIV/AIDS Technical Working Groups<br>4. CBoH<br>5. Each MTCT/VCT centers (or MCTC/VCT Working Groups)<br>6. Counterparts<br>7. JICA Zambia Office | 1-7 Review of relevant reports and monitoring records<br>1-7 Interview with the relevant organizations |
| Implementation Process | Progress of activities | Were the Activities implemented as planned? | 1. Project documents and monitoring records<br>2. The project staff (experts and counterparts) | 1. Review of project documents and monitoring records<br>2. Producing Monitoring sheet and analyzing<br>3. Pre-workshop and group interview |

## Appendix 3: Evaluation Grid for Achievements and Process

| Evaluation criteria | Study item | Required Information or data | Source of information | Method for collecting information and data |
|---|---|---|---|---|
| | Conduct of monitoring activities | 1. Did the Project Coordinating Committee function as expected?<br>2. Mechanism of monitoring<br>3. Revisions of PDM<br>4. Responses to the changes in the Important Assumptions and inclusion of the Important Assumptions into the project scope | 1-4 Project documents and monitoring records<br>1-4 The project stakeholders (experts and counterparts) | 1-4 Review of project documents and monitoring records<br>1-4. Individual interview or group interview, and review workshop among project stakeholders<br>1-4. Pre-workshop and group interview |
| | Relationship between the experts and counterparts | 1. About the condition of communication between the experts and counterparts<br>2. About the reviewing process of problem solving method through joint work<br>3. Changes in the counterparts (ownership and activeness) | 1. Project stakeholders (experts and counterparts)<br>2. Project documents and monitoring reports | 1-3. Review of project documents and monitoring records<br>1-3. Interview to relevant stakeholders |
| | Involvement of beneficiaries in the Project | Change in knowledge and awareness | 1. Users of laboratory services (health workers of UTH)<br>2. Stakeholders (VCT, MCTC and other relevant organizations)<br>3. VCT coordinator | 1-3 Interview |
| | Ownership by the executing institution of the recipient country | 1. Degree of participation by the executing institution<br>2. Allocation of budget<br>3. Appropriate dispatch of counterparts | 1-3 Project stakeholders (experts and counterparts) | 1-3 Review of project documents and monitoring records<br>1-3 Pre-workshop and group interview |

## Appendix 4: Grid for Five Evaluation Criteria

| Evaluation criteria | Investigation item | Required information or data | | Source of information | Method of collecting information |
|---|---|---|---|---|---|
| | | Study item | Question guide | | |
| Relevance | Are outputs, project purpose, and overall goal still meaningful as objectives at the time of evaluation? | Are the Overall Goal and the Project Purpose consistent with the needs of target group? | 1. Proportion of target population who will potentially get benefits directly and indirectly from the strengthened laboratory services of HIV/AIDS and TB<br>2. Urgent necessity and importance, and expansion of HIV/AIDS and TB | 1. Project reports and relevant documents<br>2. CBoH, HIV/AIDS council | 1. Review of project documents<br>2. Interview |
| | | Are the Overall Goal and the Project Purpose consistent with Japan's official development aid policy (measures for HIV/AIDS and TB control) and JICA's country program for Zambia? | 1. Are the overall goal and the project purpose relevant to the Japan's official development aid policy for Zambia?<br>2. Are the overall goal and the project purpose consistent with JICA's country program for Zambia? | 1. ODA country program<br>2. JICA's country program | Review of the documents |
| | | Are the Project Purpose and Outputs consistent with Zambia's Health Program and HIV/AIDS and TB Control Program? | 1. Are the overall goal and the project purpose relevant to the Health Program (Policy) in Zambia?<br>2. Are the overall goal and the project purpose consistent with HIV/AIDS and TB Control Program in Zambia? | 1. Current Health program<br>2. Current policy on measures for HIV/AIDS and TB control | 1. Review of project documents<br>2. Interview with CBoH |

## Appendix 4: Grid for Five Evaluation Criteria

| | | Required information or data | | | |
|---|---|---|---|---|---|
| Effectiveness (projected) | Was the effect produced by the project? | To what extent the project purpose - Laboratory systems are strengthened and are effectively utilized for HIV/AIDS and TB control in the Republic of Zambia- has achieved? | To what extent the project purpose - Laboratory systems are strengthened and are effectively utilized for HIV/AIDS and TB control in the Republic of Zambia- has achieved? | Grid for Achieement and Process-Extent of the achievement of project purpose | - Analysis of Grid for Achieement and Process<br>- Presentation at the Mid-term evaluation workshop |
| | | Was an effect produced by the achievement of each output? | 1. To what extent each Output has achieved?<br>2. To what extent each Output has contributed to realize the Project Purpose? | Grid for Achieement and Process- Output I～V | - Analysis of Grid for Achieement and Process<br>- Presentation at the Mid-term evaluation workshop |
| | | Were there any influences of external conditions that affected the achievement of the project purpose? | Were there any influences of external conditions that affected the achievement of the project purpose? | Grid for Achieement and Process- External conditions | - Analysis of Grid for Achieement and Process<br>- Presentation at the Mid-term evaluation workshop |
| | What were the contributing / inhibiting factors which affected the effectiveness of the project? | | | 1. Project documents and monitoring records<br>2. Project stakeholders | - Project documents and monitoring records<br>- Presentation at the Mid-term evaluation workshop |

## Appendix 4: Grid for Five Evaluation Criteria

| | | Required information or data | | | |
|---|---|---|---|---|---|
| Efficiency | Is the Output corresponding to the supplied amount of resource, or can it be said that the project was efficient? | Were the Inputs appropriate in terms of quality and quantity? | 1. Were the capacity, the technical specialty, the number of the assigned counterparts and period of activities of the counterparts appropriate?<br>2. Were the supplied equipment and materials for each Output appropriate?<br>3. Were the capacity and technical specialty of the experts appropriate? | 1-3 Project documents and monitoring records<br>1-3 Project stakeholders (Japanese experts and counterparts)<br>2. Direct observation | 1-3 Review of project documents and monitoring records<br>2. Direct observation (equipment)<br>1-3 Interview with project stakeholders<br>1-3 Producing and analyzing retrospective monitoring sheet<br>1-3. Questionnaire to Experts |
| | | Were the Inputs delivered in timely manner? | 1. Were the relevant materials and equipment delivered to the counterparts in timely manner?<br>2. Were the staff and counterparts assigned in timely manner?<br>3. Were the experts dispatched in timely manner? | 1-3 Project documents and monitoring records<br>1-3 Project stakeholders (Japanese experts and counterparts) | 1-3 Review of project documents and monitoring records<br>1-3 Group Interview with project stakeholders<br>1-3 Producing and analyzing retrospective monitoring sheet<br>1-3. Questionnaire to Experts |
| | | Was there alternative means for achieving each Output efficiently? | 1. Were there any activities overlapped with other institution?<br>2. Were there any other alternative means and methods for the efficient implementation of the | 1-2 Project documents and monitoring records<br>1-2 Project stakeholders (Japanese experts and counterparts) | 1-2 Review of project documents and monitoring records<br>1-2 Group interview with project stakeholders<br>1-2 Producing and analyzing retrospective monitoring sheet |

Appendix 4: Grid for Five Evaluation Criteria

| | | | | |
|---|---|---|---|---|
| | | Required information or data | | |
| | | | implementation of the Output? | retrospective monitoring sheet<br>1-2 Questionnaire to Experts |
| | | Was there any influence of external conditions that affected the achievement of the Outputs? | Grid for Achieement and Process- External conditions | - Analysis of Grid for Achieement and Process<br>- Interview with the project stakeholders<br>- Producing and analyzing retrospective monitoring sheet |
| | | Was there any influence of preconditions? | Grid for Achieement and Process- Pre-conditions | - Analysis of Grid for Achieement and Process<br>- Group interview with the project stakeholders |
| | What was contributing / inhibiting factor which affected the efficiency of the project? | | Project stakeholders, other relevant stakeholders related to inputs | 1-2 Review of project documents and monitoring records<br>1-2 Interview with project stakeholders |

## Appendix 4: Grid for Five Evaluation Criteria

| | | Required information or data | | | |
|---|---|---|---|---|---|
| Impact (projected) | Are there any prospects of the indirect and ripple effects produced by the implementation of the project? | Prospect of the achievement of the Overall Goal – Majority of the people in the Republic of Zambia can receive the benefit of laboratory based services and information on HIV/AIDS and TB. | 1. To what extent the Overall Goal has achieved?<br>2. To what extent the Project Purpose has contributed to realize the Overall Goal? | Grid for Achieement and Process- Prospect of achievement of Overall Goal | 1. Analysis of Grid for Achieement and Process |
| | | Possible influence of external conditions to the Overall Goal | 1. Are there any prospects of external conditions that may affect the achievement of the Overall Goal?<br>2. What types of external conditions can be recognized? | Grid for Achieement and Process- External conditions | 1. Analysis of Grid for Achieement and Process |
| | | Unexpected Positive/ Negative impact at the time of mid-term evaluation | 1. Is there any unexpected and positive impact?<br>2. Is there any unexpected and negative impact? | 1. Project stakeholders (Japanese experts and counterparts)<br>2. Project documents and monitoring records | 1. Questionnaire or Interview<br>2. Review of project documents and monitoring records |
| | What were contributing / inhibiting factors which affected the achievement of the Overall Goal or what will be expected contributing / inhibiting factors which may affect the achievement of the Overall Goal? | | | 1. Project stakeholders (Japanese experts and counterparts)<br>2. Project documents and monitoring records | 1. Questionnaire or Interview<br>2. Review of project documents and monitoring records |

## Appendix 4: Grid for Five Evaluation Criteria

| | | Required information or data | | | |
|---|---|---|---|---|---|
| | What were contributing and inhibiting factors, which brought unexpected positive or negative impacts? | | | 1. Project stakeholders (Japanese experts and counterparts)<br>2. Project documents and monitoring records | 1. Questionnaire or Interview<br>2. Review of project documents and monitoring records |
| Sustainability | Will the effect of the project maintained after the completion of the project | Are there any possibilities that the activities carried out by the Project can be continuously implemented? | 1. Performance of laboratory techniques on HIV/AIDS and TB, data management and overall laboratory management at UTH are improved<br>2. Performance and quality of peripheral labs for HIV/AIDS and TB testing and surveillance at the provincial level is improved<br>3. Utilization of lab service by health workers (of UTH, other private, public organizations and NGOs) is improved<br>4. Information on HIV/TB generated by the project is utilized widely by majority of stakeholders in planning and implementing programmes (i.e. GRZ, other donors, health workers, NGOs, schools, youth and communities)<br>5. Collaboration with HIV/AIDS and TB working groups is institutionalized | 1. Director of laboratory department<br>2. Director of laboratory department<br>3. Private, Public organizations and NGOs<br>4. Technical Working Groups of HIV/AIDS and TB<br>5. Technical Working Groups of HIV/AIDS and TB | 1-5: Interview and review of project documents and monitoring records |

## Appendix 4: Grid for Five Evaluation Criteria

| | | Required information or data | | | |
|---|---|---|---|---|---|
| | | Are there any prospects that equipments provided by the Project and trained counterpart personnel can be effectively utilized? | 1. Relevance of staffing<br>2. Proportion of staff who were trained by the Project and left a job | 1. Project stakeholders (Japanese experts and counterparts)<br>2. Project documents and monitoring records | 1. Questionnaire or Interview<br>2. Review of project documents and monitoring records |
| | | Are there any prospects that the implementing agencies can secure human resources, finance, and system in order to continue the outcome of the Project? | 1. Technology, operation and maintenance<br>2. Securing the budget and financial support<br>3. Monitoring mechanism<br>4. Opportunity and mechanism of technician transfer to others<br>5. Maintenance of supplied equipment and materials | 1-5 Project stakeholders | 1. Questionnaire or Interview<br>2. Review of project documents and monitoring records |
| | | How will the stakeholders such as MoH, UTH, each Working Group and partner | 1. Output I -improved performance of laboratory techniques on | 1. Director of laboratory department<br>2. Director of laboratory | 1-5: Interview and review of project documents and monitoring records |

Appendix 4: Grid for Five Evaluation Criteria

| | | Required information or data | | | |
|---|---|---|---|---|---|
| | | NGOs be able to apply the Outputs of the project into their program? | HIV/AIDS and TB, data management and overall laboratory management upper programs?<br>2. Output II –improved performance and quality of peripheral labs for HIV/AIDS and TB testing and surveillance<br>3. Output III –improved utilization of lab service by health workers (of UTH, other private, public organizations and NGOs)<br>4. Output IV –utilized information on HIV/TB generated by the project among majority of stakeholders (i.e. GRZ, other donors, health workers, NGOs, schools, youth and communities)in planning and implementing programmes<br>5. Output V –institutionalized collaboration with HIV/AIDS and TB working groups | department<br>3. Private, Public organizations and NGOs<br>4. Technical Working Groups of HIV/AIDS and TB<br>5. Technical Working Groups of HIV/AIDS and TB | |
| | What were contributing / inhibiting factors affected the sustainability of the project' outcome. Or what will the contributing / prevention factors which will affect the sustainability after the project? | | | 1. CBoH<br>2. UTH<br>3. peripheral labs, UTH, and laboratory staff, staff of measures for VCT, MTCT, TB control | 1-3 Interview and review of project documents and monitoring records |

Appendix 5: Logng term and short term experts dipatched from Japan

| | name | from | to | days | M/M | field |
|---|---|---|---|---|---|---|
| Logn-term | KENJI YOKOI | 2001/4/22 | 2003/4/21 | 730 | 24.3 | Coordinator |
| | KOTARO OIZUMI | 2001/5/14 | 2003/5/13 | 730 | 24.3 | Chief Advisor |
| | TOMOYUKI YOKOTA | 2001/8/27 | 2003/1/11 | 503 | 16.8 | HIV virology and immunology |
| | MAMI HIROTA | 2002/5/18 | 2003/10/31 | 532 | 17.7 | Public Health/Epidemiology |
| | KOJI ICHIYAMA | 2001/3/30 | 2003/5/27 | 789 | 26.3 | HIV/AIDS |
| | YOSHIKAZU SEKINO | 2003/4/7 | 2003/10/31 | 208 | 6.9 | Coodinator |
| | YOSHIAKI TAKAHASHI | 2003/5/1 | 2003/10/31 | 184 | 6.1 | HIV/AIDS |
| Short-term | SATOSHI MITARAI | 2001/3/30 | 2001/5/31 | 63 | 2.1 | Tuberculosis |
| | NAOMI WAKASUGI | 2001/7/21 | 2001/8/17 | 28 | 0.9 | HIV mother to child transmission control |
| | HIROSHI TERUNUMA | 2001/7/21 | 2001/8/18 | 29 | 1.0 | HIV immunological technique |
| | KIYOKO IKEGAMI | 2001/7/30 | 2001/8/17 | 19 | 0.6 | HIV/AIDS VCT |
| | AKIKO FUJIKI | 2002/5/2 | 2002/5/25 | 24 | 0.8 | Tuberculosis |
| | YOSHIMITSU SASAKI | 2002/6/5 | 2002/7/1 | 27 | 0.9 | Medical Equipment Maintenance |
| | NOBUHIRO KADOI | 2002/6/16 | 2002/7/13 | 28 | 0.9 | Youth Education |
| | KIYOKO IKEGAMI | 2002/8/8 | 2002/8/19 | 12 | 0.4 | HIV/AIDS VCT |
| | NAOMI WAKASUGI | 2003/1/8 | 2003/1/29 | 22 | 0.7 | HIV/AIDS(MTCT) |
| | HIROSHI TERUNUMA | 2003/2/11 | 2003/2/22 | 12 | 0.4 | Anti Retorviral drug monitoring |
| | TSUKASA ASAGI | 2003/2/11 | 2003/2/22 | 12 | 0.4 | DNA Sequencer Installation |
| | TOMOKO KUDO | 2003/4/5 | 2003/9/13 | 162 | 5.4 | Tuberculosis |
| | SHINICHI OKA | 2003/8/16 | 2003/8/23 | 8 | 0.3 | HIV/AIDS CARE |
| | KUNIKO YOSHIDA | 2003/8/16 | 2003/10/6 | 52 | 1.7 | ARV Treatment |
| | | | total M/M | | 139.1 | |

Appedix 6: List of participants for trainng in Japan

| name | from | to | days | M/M | field |
|---|---|---|---|---|---|
| SOLO Eddie | 2003/9/23 | 2003/10/31 | 39 | 1.3 | TUBERCULOSIS CONTROL LABORATORY MANAGEMENT |
| Lyndon Mwape KAFWABULULA | 2002/3/3 | 2002/3/23 | 21 | 0.7 | Molecular Epidemiology |
| LIWEWE Mazyanga Lucy Mazaba | 2002/1/7 | 2002/5/14 | 128 | 4.3 | Genetical Analysis of HIV |
| Brighden KAKONKANYA | 2002/1/28 | 2003/1/26 | 364 | 12.1 | Training for technique of virological diagnosts |
| ZULU Wamemba | 2002/9/26 | 2003/3/2 | 158 | 5.3 | Tuberculosis Control Laboratory Services and National Program Management |
| Victor MUDENDA | 2002/3/25 | 2002/4/7 | 14 | 0.5 | Management of Laboratory and Department |
| Francis Chisaka KASOLO | 2002/3/25 | 2002/4/7 | 14 | 0.5 | HIV Laboratory Diagnosis |
| Florence Maoma MWALE | 2002/10/23 | 2003/4/22 | 182 | 6.1 | Medical Microbiology |
| | | total M/M | | 30.7 | |

30 Oct. 2003

Appendix 7: List of Equipment and Their Usage and Functional Condition

機材利用・管理状況表

HIV/AIDS and Tuberculosis Control Project

| 供与年度 Year | 番号 No. | 機材名 Equipment | 価格 (US$) Amount | 数量 Qty | 利用（保管）場所 Location | 利用状況 Usage | 管理状況 Function | 備考（特記事項） Remarks |
|---|---|---|---|---|---|---|---|---|
| 平成13 2001 | 1 | フローサイトメーター FACSCaliber & FACStation | 69,250 | 1 | ウイルスラボ検査室1（同） Virology-Laboratory 1 | A | B | |
| | 2 | 抗酸菌発育検出装置 MGIT 960 | 53,800 | 1 | TBラボMGIT室（同） TB-MGIT room | A | B | Calibration expired |
| | 3 | 蛍光顕微鏡 Fluorescent Microscope | 6,948 | 1 | TBラボ試験室（同） TB-Examination room | A | A | |
| | 4 | 安全キャビネット（C Safety Cabinet Class II | 6,038 | 1 | TBラボMGIT室（同） TB-MGIT room | A | A | |
| | 5 | 電子天秤 Electronic Balance | 3,105 | 1 | TBラボMGIT室（同） TB-MGIT room | A | A | |
| | 6 | ELISA プレート・ウォ ELISA Plate Washer | 4,554 | 1 | ウイルスラボPCR室（同） Virology-PCR room | D | C | マニュアル紛失 Manual missing |
| | 7 | pH メーター pH Meter | 1,647 | 1 | ウイルスラボ研修室（同） Virology-Training room | C | A | |
| | 8 | フラン器 Incubator | 3,780 | 1 | TBラボMGIT室（同） TB-MGIT room | A | A | |
| | 9 | 光学顕微鏡 Optical Microscope | 2,198 | 2 | TBラボ試験室（同） TB-Examination room | B | A | |
| | 10 | DNA シーケンサー DNA Sequencer | 99,350 | 1 | ウイルスラボPCR室（同） Virology-PCR room | C | B | |
| | 11 | 車輌 Vehicle | 25,760 | 1 | 主にルサカ市内（パモジホテル） Lusaka (Pamodzi Hotel) | A | A | |
| | 12 | コピー機 Copier | 3,563 | 1 | ウイルスラボ・ライブラリー（同） Virology-Library | A | B | |
| | 13 | スライド・プロジェク Slide Projector | 895 | 1 | UTH（ウイルスラボ専門家室） Virology-Expert room | C | A | |
| | 14 | LCD プロジェクター LCD Projector | 3,495 | 1 | UTH（ウイルスラボ専門家室） Virology-Expert room | B | A | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 15 | OHP<br>OHP | 695 | 1 | UTH（ウイルスラボ専門家室）<br>Virology-Expert room | C | A | |
| | 16 | コンピュータ<br>Computer | 5,328 | 2 | TBラボ事務所（同）<br>TB-Lab Office | A | A | |
| | | | | 1 | ウイルスラボ管理室（同）<br>Virology-Administration room | A | A | |
| | 17 | エアコン 22500BTU<br>Air Conditioner | 2,670 | 1 | ウイルスラボ培養室①<br>Virology-Tissue Culture room① | B | A | |
| | | | | 1 | ウイルスラボ培養室②<br>Virology-Tissue Culture room② | B | A | |
| | 18 | エアコン 18000BTU<br>Air Conditioner | 1,350 | 1 | ウイルスラボ・データ室<br>Virology-Data room | B | A | |

| 供与年度<br>Year | 番号<br>No. | 機材名<br>Equipment | 価格（US$）<br>Amount | 数量<br>Qty | 利用（保管）場所<br>Location | 利用状況<br>Usage | 管理状況<br>Function | 備考（特記事項）<br>Remarks |
|---|---|---|---|---|---|---|---|---|
| 平成14<br>2002 | 1 | 遠心器<br>Centrifuge | 9,554 | 1 | ウイルスラボ免疫検査室（同）<br>Virology-Immunology room | | | 改修工事終了後設置する<br>Installed after renovation |
| | | | | 1 | TBラボ塗抹標本作成室（同）<br>TB-Smear Preparation room | A | A | |
| | | | | 1 | ンドラ・セントラル・ホスピタル（同）<br>Ndola Central Hospital | A | A | |
| | 2 | 安全キャビネット（ク<br>Safety Cabinet Class II | 11,294 | 1 | ウイルスラボ免疫検査室（同）<br>Virology-Immunology room | | | 改修工事終了後設置する<br>Installed after renovation |
| | | | | 1 | ウイルスラボ分子ウイルス検査室（同）<br>Virology-Molecular room | | | 改修工事終了後設置する<br>Installed after renovation |
| | 3 | 炭酸ガスフラン器<br>CO2 Incubator | 7,560 | 1 | ウイルスラボ免疫検査室（同）<br>Virology-Immunology room | | | 改修工事終了後設置する<br>Installed after renovation |
| | | | | 1 | ウイルスラボ培養室③（同）<br>Virology-Tissue Culture room | | | 改修工事終了後設置する<br>Installed after renovation |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 4 | オートクレーブ | 10,784 | 1 | ウイルスラボ免疫検査室（同）<br>Virology-Immunology room | | | 改修工事終了後設置する<br>Installed after renovation |
| | | | | 1 | ウイルスラボ分子ウイルス検査室（同）<br>Virology-Molecular room | | | 改修工事終了後設置する<br>Installed after renovation |
| | 5 | 冷凍庫 -80℃<br>Freezer -80℃ | 10,902 | 1 | ウイルスラボ分子ウイルス検査室（同）<br>Virology-Molecular room | | | 改修工事終了後設置する<br>Installed after renovation |
| | 6 | 冷凍庫 -40℃<br>Freezer -40℃ | 5,868 | 1 | ウイルスラボ研修室（同）<br>Virology-Training room | A | A | |
| | 7 | 倒立顕微鏡<br>Microscope | 3,714 | 1 | ウイルスラボ免疫検査室（同）<br>Virology-Immunology room | | | 改修工事終了後設置する<br>Installed after renovation |
| | 8 | テルモミキサー<br>Sample Mixer | 3,852 | 1 | TBラボ孵化室（同）<br>TB-Incubation room | B | A | |
| | 9 | 培地作成用孵卵器<br>Incubator | 995 | 1 | 新TBラボ（同）<br>New TB Laboratory | | | 最終工事終了後設置する<br>Installed after final work |
| | 10 | 乾熱滅菌器<br>Dry Oven | 1,820 | 1 | 洗浄室（同）<br>Virology-Sterilising room | | | 改修工事終了後設置する<br>Installed after renovation |
| | 11 | 孵卵器<br>Incubator | 1,456 | 1 | TBラボMGIT室（同）<br>TB-MGIT room | A | A | |
| | 12 | ブロッティング装置<br>Blotting system | 1,329 | 1 | 新TBラボ（同）<br>New TB Laboratory | | | 最終工事終了後設置する<br>Installed after final work |
| | 13 | ハイブリダイゼーショ<br>Hybridization system | 3,069 | 1 | 新TBラボ（同）<br>New TB Laboratory | | | 最終工事終了後設置する<br>Installed after final work |
| | 14 | ミニポンプ<br>Mini Pump | 1,580 | 1 | 新TBラボ（同）<br>New TB Laboratory | | | 最終工事終了後設置する<br>Installed after final work |
| | 15 | 発電機<br>Generator | 23,616 | 1 | 発電機室（同）<br>Generator House | C | A | |
| | 16 | 蒸留水製造装置<br>Distiller | 9,870 | 1 | ウイルスラボ免疫検査室（同）<br>Virology- Immunology room | | | 改修工事終了後設置する<br>Installed after renovation |
| | 17 | 自動組織染色装置<br>Automatic Tissue Staining system | 21,880 | 1 | 新TBラボ（同）<br>New TB Laboratory | | | 最終工事終了後設置する<br>Installed after final work |

＊利用状況　A：ほぼ毎日利用　　＊Usage Condition　A: Almost every day
B：週数回利用　B: Several times a week
C：月数回あるいは必要に　C: As the need arises
D：ほとんど利用されてい　D: Not in use

＊管理状況　A：良好　＊Functional Condition　A: Good
B：定期的なメインテナン　B: Regular maintenance needed
C：修理をすれば使用可能　C: Repaire needed
D：修理不可能　D: Cannot be repaired

Appendix 8: Expenses of JICA

**Annual expenses by category**

Japanese Yen: thousand

| Category | 2000 | 2001 | 2002 |
|---|---|---|---|
| C/P training in Japan | | 6,185 | 4,753 |
| Dispatch of Experts | 11,269 | 96,923 | 169,400 |
| Dispatch of Mission for Consulting and Management | 8,599 | 5,364 | |
| Equipment | 50 | 49,387 | 42,266 |
| Others | 83 | 2,594 | 137 |
| Total | 20,001 | 160,453 | 216,556 |

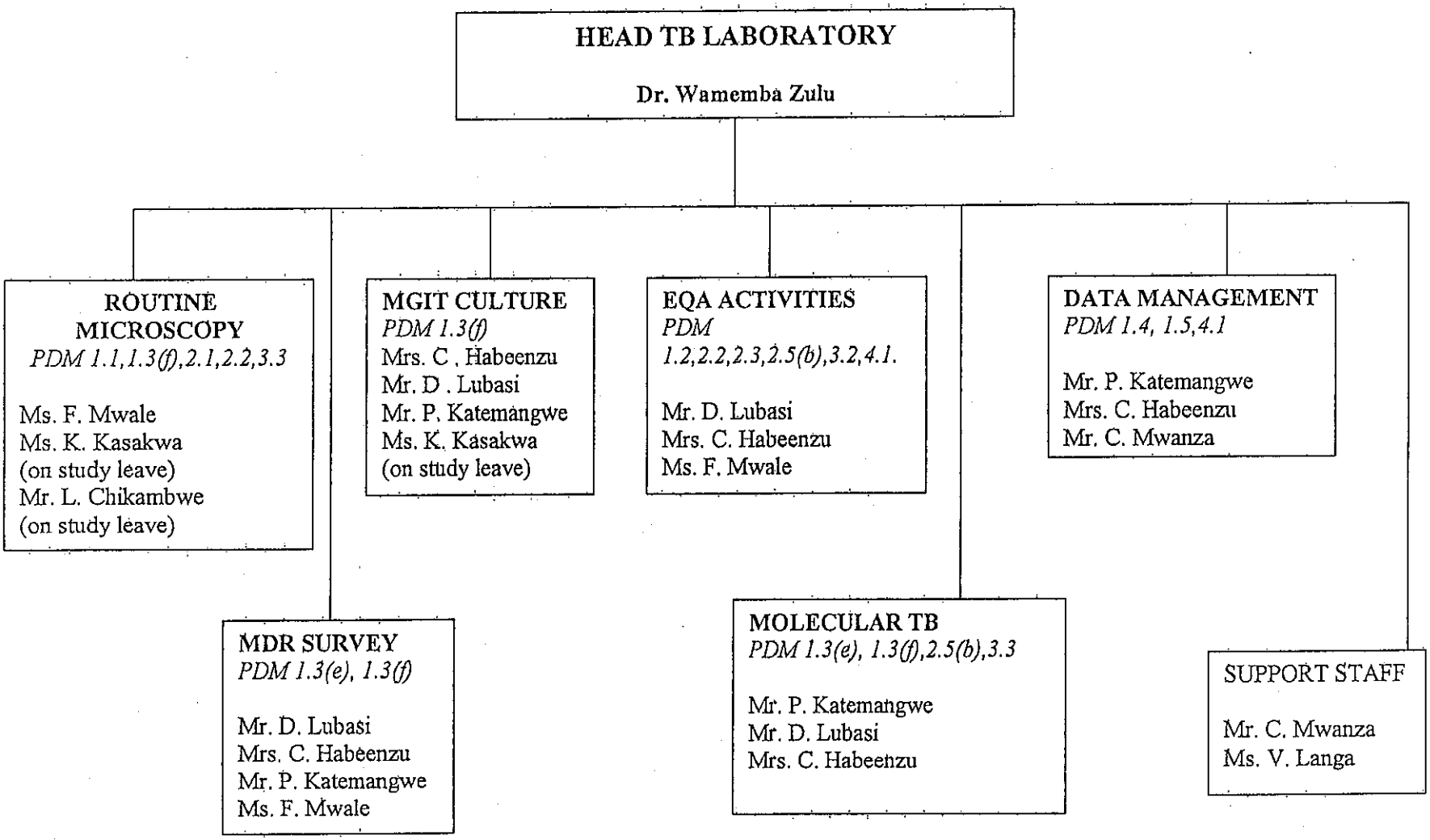
Annex 9: Organizational stucture and staff related the Project (Virology)

**Head of Virology Laboratory**

Dr F Kasolo

| Clinical Research Unit<br>Responsible for activities in PDM 1-1, 1-3, 1-4, 2-1, 2-3, 3-1, 3-2, 3-3, 4-1, 4-2 | Serology/Immunology Unit<br>Responsible for activities in PDM 1-1, 1-2, 1-3a/d, 1-4, 2-1, 2-2, 2-3, 2-4, 2-5, 3-2, 3-3, 4-1, 4-2 | Molecular Biology Unit<br>Responsible for activities in PDM 1-1, 1-2, 1-3a/b/c, 1-4, 2-1, 2-2, 2-3, 2-4, 2-5, 3-1, 3-2, 3-3, 4-1, 4-2 | Virus Culture and Outbreak Investigation Unit<br>Responsible for activities in PDM | Epidemiology and Data Management Unit<br>Responsible for activities in PDM 1-5, 2-1, 2-2, 2-4, 2-5a, 3-3, 4-2, 4-4 | Support Unit<br>Responsible for activities in PDM all |
|---|---|---|---|---|---|
| Dr F Kasolo | Dr L Ndhlovu<br>(study leave 1997-?) | Dr R Handema | Dr M Monze<br>(study leave May 2001-July 2003) | Dr M Mwale<br>(Sept. 2003 - ) | Mr E Banda |
| Dr M Monze<br>(study leave May 2001-July 2003) | Mrs G Mulundu | Dr J Muyanga<br>(transferred Feb 2001) | Dr J Banda<br>(study leave 1996-?) | Mr S Phiri<br>(Aug 2000-?) | Mr R Banda<br>(Jun. 2003 - ) |
| Dr M Mwale<br>(Sept. 2003 - ) | Ms M Munkanta<br>(study leave Aug 2001-Mar 2005) | Dr C Gondwe<br>(study leave Mar 2003-Mar 2005) | Mrs I Ndumba | Mr B Chembo | Mr T Bwalya<br>(Jun. 2003 - ) |
| | Mr A Theo | Mr H Bima | Mrs M Liwewe | Mr J Banda | Mr B Musonda<br>(deceased Jun 2003) |
| | Mr B Kakonkanya | Mrs M Liwewe | Bish T Msiska | Mr C Mulenga | Mr N Mublana<br>(dismissed Apr 2003) |
| | Mr P Munjunga<br>(dismissed 2003) | | Mrs J Simwaka-Chibumbya<br>(study leave Feb 2003-Apr 2005) | Ms T Mukelabai<br>(Jan. 2003 - ) | |
| | Mrs I Ndumba | | | Mrs J Simwaka-Chibumbya<br>(study leave Feb 2003-Apr 2005) | |
| | Bish T Msiska | | | | |

Appendix 9: Organizational structure and staff related to the Project



## Appendix 10: Results for Achievements and Process(1/4)

<table>
<tr><th>Evaluation criteria</th><th>Study item</th><th>Findings and results</th></tr>
<tr><td rowspan="2">Achievement</td><td>Degree of achievement of the Overall Goal: (projected)</td><td>
A. DOCUMENT REVIEW<br><br>
Indicator 1. Prevalence of HIV infected people(>15 years )
<table>
<tr><td>year</td><td>1999*</td><td>2001/2002**</td><td></td><td></td></tr>
<tr><td></td><td>19.95%</td><td>15.6%</td><td></td><td></td></tr>
</table>
* UNAIDS; ** ZDHS<br>
Indicator 2. Newly infected cases of HIV<br>
Incidence rate is not available at present<br><br>
Indicator 3. Cure rate of TB cases<br>
Not available but the figure of success rate for 2000/2001may available (quarterly report)<br><br>
Indicator 4. TB case detection rate →Incident rate
<table>
<tr><td>year</td><td>1984</td><td>1996.</td><td>2000</td><td></td></tr>
<tr><td></td><td>100 per 100,000</td><td>500 per 100,000</td><td>504 per 100,000</td><td></td></tr>
</table>
</td></tr>
<tr><td>Degree of achievement of the Project Purpose</td><td>
Indicator 1. No. and quality of results produced by laboratory system (Expected status of indicator: not available)
<table>
<tr><td></td><td>2001</td><td>2002</td><td>2003</td><td></td></tr>
<tr><td>Diagnostic lab service at Virology Lab and TB lab (TB only)</td><td>22,805 (19,643)</td><td>45,358 (21,276)</td><td>37,738 (9,865)</td><td></td></tr>
<tr><td>Diagnostic lab services that introduced by the Project (CD4/8 and Viral Load, HIV-1 diagnosis for babies</td><td>1,189</td><td>5,115</td><td>4,715</td><td></td></tr>
</table>
</td></tr>
</table>

## Appendix 10: Results for Achievements and Process(1/4)

<table>
<tr><th>Evaluation criteria</th><th>Study item</th><th>Findings and results</th></tr>
<tr><td></td><td></td><td>
Indicator 2. No. of laboratory staff trained on HIV/AIDS and TB (Expected status of indicator: not available)
<table>
<tr><td></td><td>2001</td><td>2002</td><td>2003</td><td></td></tr>
<tr><td>No of HIV and TB related trainee (TB only)</td><td>78 (18)</td><td>288 (17)</td><td>176(46)</td><td></td></tr>
</table>
Indicator 3. Performance of peripheral labs on quality assurance tests (Expected status of indicator: not available)<br>
HIV information System being developed and transferred to District level. It is perceived that 30% of 100,000 HIV tests are covered with quality assurance monitoring.<br>
Indicator 4. No. of information disseminated to stakeholders (Expected status of indicator: not available)<br>
It is perceived that dissemination or exchange of information occurred at difference place with many occasions. However, the information on the activities have not been accumulated properly.
</td></tr>
</table>

## Appendix 10: Results for Achievements and Process (2/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|
| | | A. REVIEW OF DOCMUMENTS, RECORD AND INTERVIEWS<br><br>**Indicator 1-1 18 Zambian counterparts (C/P health workers in various HIV/TB technologies (Expected Result:18 Zambian counterparts health workers in various HIV/ TB technologies)**<br>A total of 11 C/P have been trained in various technologies up to now. 6 staff in the Virology Laboratory acquired such technologies as detection of HIV antigen and HIV antibody, CD4/CD8 counting, DNA extraction, Viral load, Tissue culture. 5 staff in the TB Laboratory were trained in the areas of staining, microscopy, identification, culture and sensitivity test. As indicated in "Appendix 6: List of Zambian Counterparts Trained in Japan", 7 C/P out of 1 staff including 11 C/P have been trained with various areas in 2001/2002 and one C/P in 2002/2003. Therefore, the degree of achievement for this indicator is almost 65%.<br><br>The following techniques were transferred up to date.<br>(1) HIV/AIDS laboratory techniques<br>- aseptic manipulation, tissue culture, isolation of monocyte from peripheral blood, HIV screening, Virus isolation, ARV drug assay, HIV resistance assay(phenotypic assay and genotypic assay), HIV strain mapping, HIV immunoresponse (planned)<br>(2) HIV/AIDS quality control and data management<br>- VCT/MTCT data management and reporting, evaluation of HIV screening kits<br>(3) TB laboratory techniques<br>- Quality Assurance System, MGIT method, Finger print method and DDH – trained C/P was transferred to CBoH. |

## Appendix 10: Results for Achievements and Process (2/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|
| | Degree of achievement of the Output I : Performance of laboratory techniques on HIV/AIDS and TB, data management and overall laboratory management at UTH are improved | **Indicator 1-2 Identified laboratory staff and maintenance engineers trained in preventive maintenance (Expected Result: Identified Lab. Staff and maintenance engineers trained in preventive maintenance)** Technical training was given to technicians in the maintenance department of UTH as well as TDRC.<br><br>**Combined Indicator 1-3(a),1-3(b),1-3(c),1-3(d)**<br>- **Indicator 1-3(a) Number of tests (CD4 CD8 counting, Viral load, PCR and antibody testing established and maintained in the lab (Expected Result: Techniques of PCR, Cellular anti-body, CD4, CD8, Viral load are established)**<br>- **Indicator 1-3(b) Drug assay and ARV resistance monitoring system established in the lab (Expected Result: Drug assay and ARV resistance monitoring system established in the Lab)**<br>- **Indicator 1-3 (c) Strain and sentinel surveillance of HIV in Zambia conducted(Expected Result: Strain and sentinel surveillance of HIV in Zambia conducted)**<br>- **Indicator 1-3(d) Immunological techniques set up in the lab(Expected Result: Immunological techniques set up in the lab)** e.g. dynabeads technology |

## Appendix 10: Results for Achievements and Process (2/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|

Neither the baseline data nor the expected level for technical transfer of HIV related laboratory techniques were not clarified by the Project at the time of Mid-term Evaluation. In order to measure such technical transfer, the categorical criteria were set up as follows. 1: Staff trained; 2: Availability of technique and summarized data profile, 3: Manual or series of protocol available, 4: Technique transferred outside of the UTH laboratory with quality assurance. The final degree of achievement for Indicators 1-3 (a)-(d) can be assessed based on a comparison between the actual achievement and the original expectation.

| | 2000 | 2001 | 2002 | 2003(Oct) | Expected Status |
|---|---|---|---|---|---|
| HIV test | 2 | 3.5 | 3.5 | 3.5 | 4: QA control all sites |
| HIV viral load technique | - | 2 | 3 | 3 | 3 |
| Monitoring of ARV drug treatment | - | 1 | 2 | 2 | 3: CD4 data set with an approved follow-up sheet become available and ARV sites monitoring system installed |
| PCR standard technique | 3 | 3 | 3 | 3 | 3 |
| Tissue culture | 2 | 3 | 3 | 3 | 3 |
| CD4 count test (FACCallibur) | - | - | 2 | 2 | 3: Available for quality control for dhynabeads method |
| CD8 count test | - | - | 2 | 2.5 | 3: Available for quality control system |
| Alternative CD4 count including Dynabeads method | - | - | - | 2 | 4: Available at the all 9 ARV center |

Base = (Status in 2000) / (Expected Status) = (2+3+2) / (4+3+3+3+3+3+3+4) = 7/26---A

Current status=(2003 oct) / (Expected Status) = (3.5+3+2+3+3+2+2.5+2) / (4+3+3+3+3+3+3+4)=21/26---B

(B-A)*100/B=67% Completed

## Appendix 10: Results for Achievements and Process (2/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|

The Virology Laboratory trained own staff and staff in Ndola central hospital on Dynabiead method for CD count. Some of the newly introduced techniques in the Virology Laboratory were utilized not only for surveillance / research purpose but also for laboratory service that directly bring benefit to clinician and patient. Those statistics are shown below.

Number of virology laboratory services for UTH

| year | 2000*data lost due to virus infection | 2001 | 2002 | 2003(Oct) | Expected Result |
|---|---|---|---|---|---|
| No. HIV tests* | 746 | 746 | 1,875 | 2,371 | |
| No. CD4 count tests (FACCallibur) | - | 1,129 | 2,643 | 2,504 | |
| No. CD8 count tests | - | 60 | 918 | 481(Sept) | |
| No. CD4+CD8 | - | 1,189 | 2,949 | 3,559(Sept.) | |
| No. CD4 (dynabeads method) | - | - | - | 250 (9/15-10/23) | |
| PCR HIV-1 diagnostic for new born babies | - | - | 587 | 402 | |
| No. Viral Load | - | - | 420 | 504 | |
| No. HBV tests* | 698 | 33 | 733 | 1,049 | |
| No. RPR tests (STD)* | 2145 | 1,112 | 2,912 | 2,5,20 | |
| No. RF tests* | 201 | 78 | 189 | 222 | |
| No. Measles | - | - | 131 | | |
| No. Polio Zambia | - | - | 182 | | |
| No. test from Tanzania | - | - | 234 | | |

Note: HIV test, CD4, CD4 and Viral Load are currently being done for both research and service purpose. The others are being done for research.

* Numbers are "Examination Requested" taken from Data Management Unit

## Appendix 10: Results for Achievements and Process (2/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|

The following examinations are purely conducted for surveillance and research purpose at the Virology Laboratory.

| | 2001 | 2002 | 2003(Oct.) | Expected Status |
|---|---|---|---|---|
| No.of Drug Assay | 1 | 5 | 1 | 10 samples /year |
| No. of Anti-HIV drug resistance analysis | - | 28 | - | 120 sample / year |
| HIV strain analysis* | 103 | 19 | - | 100 sample/ year |
| Sentinel surveillance | 15,000 at JHIV sentinel surveillance sites** | | | |

*HIV strains surveillance was published as well as extra results available from 7 provinces. Provision of HIV testing and Quality Control

**Combined Indicator 1-3(e) Improved TB drug surveillance and anti-TB drug susceptibility (Expected Result: Improved TB drug surveillance and anti-TB drug susceptibility)**

Neither the baseline data nor the expected level for technical transfer of TB related laboratory techniques was not clarified by the Project at the time of Mid-term Evaluation. In order to measure such technical transfer, the categorical criteria were set up as follows.(1: Staff trained; 2: Availability of technique and summarized data profile, 3: Manual or series of protocol available, 4: Technique transferred outside of the UTH laboratory with quality control)

| | 2001 | 2002 | 2003(Oct) | Expected Status |
|---|---|---|---|---|
| Review of routine screening | | 3 | 3.5 | 4 |
| TB drug surveillance | - | - | 2 | 3 |
| Rapid detection (MIGT) | - | 2 | 2 | ? |
| Finger print method | - | 2 | 2 | ? |
| DDH method | - | 2 | 2 | ? |

- 179 samples for multi-drug resistance survey have been collected. The result of the survey will be reported to CRC and CBoH.
- The trained C/P for finger print method and DDH was transferred to CBoH.

## Appendix 10: Results for Achievements and Process (2/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|

**Indicator 1-3(f) Improved utilization of TB laboratory diagnosis, Improvement of increasing Number of request of Lab tests from UTH and private clinics (Expected Result: Improved utilisation of TB laboratory diagnosis, Improvement of increasing No. of request of Lab tests from UTH and private clinics)**

Improved utilization of TB diagnostic tests and drug sensitivity tests within UTH and other private clinics.

| | 1999 | 2000 | 2001 | 2002 | 2003(June) | Expected Status |
|---|---|---|---|---|---|---|
| No. TB diagnostic test (smear/suspects) | 26,476/15,467 | 24,483/12,865 | 19,643/9,232 | 21,276/9,383 | 9,865 | |
| No. of TB drug sensitivity test* | - | - | 500 | | 1000 | 8,000 |

*Culture and sensitivity tests are not done for regular laboratory services.

**Indicator 1-4 SOP, Number of recommendation, Number of participation (Expected Result: SOP,No. of recommendation, No. of participation)**

None of the above indicators was found in the documents.

## Appendix 10: Results for Achievements and Process (2/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|

**Indicator 1-5 Established system of over all data management, Annual reports and number of research project managed, records of routine activities (Expected Result: System of over all data management is established, Annual reports, No. of research project managed, Record of routine activities)**

Neither the baseline nor the expected level of laboratory management information system, equipment maintenance and safety precaousion was not clarified by the Project at the time of Mid-term Evaluation. In order to measure such technical transfer, the categorical criteria were set up as follows. (1: Staff trained; 2: Availability of management tools and summarized report/records, 3:Maintenance and management practiced, 4: Management transferred outside of the UTH laboratory with monitoring)

| | 2000 | 2001 | 2002 | 2003(Oct) | Expected Status |
|---|---|---|---|---|---|
| Laboratory database / data analysis and summarized profile | No structured data and information management system present | - | 1 | 2.5 | 3: Integrated data system maintained at UTH Virology |
| Equipment Maintenance | - | - | - | | ?: |

The status is described as follows.

- Computer data management course was held in 2002.
- MIS and database for MTCT/VCT being developed for 72 districts.

## Appendix 10: Results for Achievements and Process (2/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|
| | | B. PRE-WORKSHOP AND GROUP DISCUSSION<br>- It is perceived that most of laboratory techniques such as sequencing, drug assays, advanced flow-cytometry, and dynabeads were not available in the beginning of the Project, but gradually they were introduced in the second and third year of the Project. In this context, approximately two of thirds of the activities for these Output One and Three have been just completed,<br>- There were 106 VCT sites with trained laboratory technicians who practiced some kind of Quality Control at the time of the Project commencement. The Project introduced laboratory-based and comprehensive training courses for counselors in VCT and midwives in MTCT centers. It is perceived that 6/7 of the activities for Output Two and Output Three have been completed. |

Appendix 10: Results for Achievements and Process (3/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|
| | Degree of achievement of the Output Ⅱ: Performance and quality of peripheral labs for HIV/AIDS and TB testing and surveillance is improved | A. REVIEW OF DOCMUMENTS, RECORD AND INTERVIEWS<br>**Indicator 2-1 Number of training of trainers (TOT), seminar and workshop (Expected Result: 100 health workers (trainers) are trained, No. of training, No. of trainees, Number of training course and training person-days)**<br>In fact, the number of trainees and training courses under the Indicator 2-1 overlapped with the Indicator 2-2. The TOT given by the UTH Virology and TB Laboratory is illustrated below. Or does this indicator target purely health workers in UTH and government health workers not the staff who engaged in VCT/MTCT program? If the above indicator targets the health workers in UTH and government health workers, the activity is not yet started.<br>- Orientation Workshop for External Quality Assessment of TB was held in 2003.<br>- TOT workshop in HIV testing was held targeting 115 midwives for PMTCT in Lusaka District Management Team and UTH in 2003. Since then, no TOT for PMTCT has been conduced. It was expected that the midwives who attended TOT training will have trained 400 midwives in HIV testing by the end of the Project.<br><br>**Indicator 2-2 Number of trainees and number of training courses (Expected Result: (Expected Result: 100 health worker(trainer) are trained, No. of training, No. of trainees, Number of training course and training person-days)** The following training courses were found in the document. |

| | 2001 | 2002 | 2003(Oct) | Expected Result |
|---|---|---|---|---|
| No. of HIV training course | 3 | 10(2 days x 5 course planned) | 4 | |
| No.of HIV test trainees | 60 | 271(90 planned) | 130 | |
| HIV training Person-days | | ? (900 planned) | | |
| No. of TB training course | 1 | 1 | 4 * | |
| No. of TB test trainees | 18 | 17 | 46 | 46 staff in total at 22 TB diagnostic enters in Lusaka |
| TB training person-days | 90 | 85 | 920 | |

* Managing Tuberclosis at Diagnostic Center in Zambia (22 copies)

Appendix 10: Results for Achievements and Process (3/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|
| | | The courses in the above table are described as follows.<br>- Four individual trainee were accepted to the Virology Laboratory in 2001.<br>- TB Laboratory conducted one week Anti-TB drug course for 18 participants in 2001.<br>- The Virology laboratory sent lecturers of HIV testing to one and two-week MTCT training course and they had about more than 20 participants respectively.<br>- The Virology Laboratory sent lectures of Anti-HIV drug to technicians and counselors of hospital and health centers at Chainama College in 2001.<br>- The Virology Laboratory had been conducted HIV testing courses to support VCT program before. However, they were not implemented systematically. No properly recorded is available.<br>- The Virology Laboratory accepts 20 medical students, 3 technicians and a research fellow.<br>- The Virology Laboratory took part in training of 117 trainees of 6 VCT/ PMTCT counseling group course.<br>- TB lab conducted technical evaluation of all TB lab technicians and training together with CDC 2002.<br>- The Virology Laboratory conducted 3 times of training for counselors of ARV center in 2002.<br>- TB lab conducted 4 times of AFB microscopy training in 2003.<br>- The Virology laboratory conducted 2-week training for 2 technician from UTH Virology Laboratory and 2 technicians from TDRC in September 2003.<br>**Indicator 2-3 Training manuals of HIV/AIDS and TB (Expected Result: Training manuals of HIV/AIDS and TB are developed and circulated)**<br>Training manuals prepared in the Virology Laboratory are as follows.<br>1) Diagnostic Procedures for HIV Infection – HIV isolation<br>2) Diagnostic Procedures for HIV Infection- Anti-HIV Drug Assay<br>3) Detection of Point Mutations Associated with HIV-1 Drug Resistant<br>4) HIV Laboratory Manual<br>5) Standard Operation Procedure (SOP)<br>6) Immunology Bench CD4 and CD Preparation<br>7) DNA Extraction from Blood<br>8) HIV PCR<br>9) Sequence of HIV RT<br>10) HIV Laboratory Manual for the Processing Sample Use of HIV Test Kits<br>Training manuals prepared in the TB laboratory are as follows.<br>11) TB External Quality Assurance Manual<br>12) TB Training Manual was revised |

Appendix 10: Results for Achievements and Process (3/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|

**Indicator 2-4 Number of supplies utilized by reporting inventory system, Number of persons utilizing MTCT/VCT (Expected Result: No. of supplies utilized by reporting inventory system, No. of persons utilizing MTCT/VCT services)**

Number of institutions/ program and tests done under the MTCT/VCT and sentinel surveillance

VCT utilization and service

| year | 2000 | 2001 | 2002 | 2003 | Expected Result |
|---|---|---|---|---|---|
| No. MTCT/VCT and others* | 30(24+6) | 43 | | 106 | |
| No. Test | | 70,915 | 65,000 | | |

* In fact, establishment of VCT centers has been supported by NORAD,SIDA,CDC, and USAID.

Some descriptions of the training courses were identified in the relevant documents.

- As a member of subcommittee of PMTCT working group the Virology Laboratory participated in formulating PMTCT Expansion Guideline 2002 (Zambia Care Package Manual). In particular, the recommendation on laboratory part of ARV drug monitoring was submitted to CBoH and MOH.
- Training of testing staff was conducted not only for VCT but also midwives through TOT training as indicated 2-1.
- New system of HIV information management now being prepared in place at the Provinces.
- A total of about 383,900 tests for VCT/MTCT have been reported (but still a lots of under reporting).

**2-5(a) Quality assurance system on HIV test at local sites (Expected Result: QA systems established at all sites)**

| 2000 | 2002 | Current (2003) | Expected Status |
|---|---|---|---|
| QA is not practiced at all sites | Compiling QC panels in conjunction with Blood Bank for internal QC | QA system has been established at Provincial Level and roughly 30% of VCT/MTCT centers covered | QA systems established at all sites |

-

Appendix 10: Results for Achievements and Process (3/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|
| | | **2-5 (a) Quality assurance system on TB test at local sites (Expected Result: EQA systems established at all sites)** |

| 2000 | 2002 | Current (2003) | Expected Status |
|---|---|---|---|
| QA is not practiced at all sites | Need Assessment was done for TB laboratories in Lusaka Province " Report on Site Evaluation for Tuberculosis Quality Control in Lusaka Urban and Kafue Dsitrict, Chongwe and Luagngwa Dsitrict TB Diagnostic Centers, Sept.2002" | Operational research was conducted for 22 TB laboratories in Lusaka Province. Feasibility test for External Quality Assurance is being carried out. | External Quality Assurance is practiced at all TB laboratories in Lusaka Province |

- Trained UTH staff on AFB microscopy testing and guideline for External Quality Assurance(EQA)
- Guideline for EQA was drafted and discussed with CDL, CBoH and PMO.
- Feasibility Test for EQA is being carried out at Chelstone and Chilenge where DOTS has been adopted as a model area. The test is expected to finish January 2003.

Appendix 10: Results for Achievements and Process (3/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|
| | | B. PRE-WORKSHOP AND GROUP DISCUSSION<br>It is perceived that the activities under the Output II were carried out as expected.<br>The followings have been produced as the results of the HIV/AIDS activities under the Output Two.<br>- 7 training report<br>- 1 manual (190 distributed)<br>- 1 annual report on CBoH and donors<br>- Feedback to VCT centers<br>- Survey report<br>- Lab records in data management system<br>- Training report<br>- QC records in data management system<br>- Reports on training – C/P gave to JICA<br>- Test records – PCR, Viral load, Dynabeads, Drug Assay<br>- Drug assay results record<br>- Publication – Strain surveillance of HIV, Drug resistance mutation<br>- Dynabeads training report<br>- Training manual – HIV<br>- Annual Report – VCT/MTCT<br>- Records of distribution of manual on HIV testing<br>- Reports on meeting attended – CBoH, UTH management<br>- Appointment letters – Technical Working Groups |

Appendix 10: Results for Achievements and Process (3/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|
| | Degree of achievement of the Output Ⅲ: Utilization of lab service by health workers (of UTH, other private, public organizations and NGOs) is improved | A. REVIEW OF DOCMUMENTS, RECORD AND INTERVIEWS<br>**Indicator 3-1 Number of workshop and meeting, Number of participant and number of newsletter distributed (Expected Result: No. of request from clinical sites to Laboratory, No. of workshop and meeting, No. of participant, No. of newsletter distributed)**<br>The following description found in documents and interviews can be relevant.<br>- The Japanese newsletter was published once in March 2003.<br>- The comparison study between AZT treatment group and non-treatment group on HIV transmission from mother to child was reported to PMTCT relevant stakeholders.<br>- Grand round / workshop with clinicians on TB diagnosis using MGIZT instrument<br>- The efficacy of AZT including advantageous effect on delivery was disseminated to three pediatrician in UTH.<br><br>**Indicator 3-2 1000 copies of laboratory handbook are printed and circulated (Expected Result: 1000 copies of laboratory hand book are printed and circulated)**<br>Handbooks for clinician's use have been available before the Project. Copies are not yet done.<br><br>**Indicator 3-3 90% of HIV and initial TB microscopy test results provided by UTH return with in 48 hours (Expected Result: 90% of HIV and initial TB microscopy test result return with in 48 hours)**<br>Situation analysis conducted May –Aug 2003 and findings presented at a hospital management meeting.<br><br>B. PRE-WORKSHOP AND GROUP DISCUSSION<br>It is perceived that the activities under Output Ⅲ were ongoing. |

Appendix 10: Results for Achievements and Process (3/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|
| | Degree of achievement of the Output Ⅳ: Information on HIV/TB generated by the project is utilized widely by majority of stakeholders in planning and implementing programmes (i.e. GRZ, other donors, health workers, NGOs, schools, youth and communities) | A. REVIEW OF DOCMUMENTS, RECORD AND INTERVIEWS<br>The following activities are very much related to the Output Ⅳ but can not categorized none of indicators below.<br><br>- To support quality of HIV testing in VCT program, evaluation on HIV screening kits, plan of training course for technician, effective information management were planned and implemented.<br>- To support MTCT program, potential laboratory produced information for HIV screening of pregnant women, HIV drug sensitivity, HIV infection by PCR diagnosis were planned.<br><br>**Indicator 4-1 Total number of participants receiving HIV/AIDS TB information, A number of request for information, feed back from participant, Establishment of homepage(Expected Result: Total number of participants receiving , HIV/TB information, A number of request for information, Feed back from participant)**<br>The following description found in documents can be relevant.<br>- C/P presented HIV related laboratory information through TV and newspaper in 2002.<br>- The importance of laboratory diagnostic information on ARV therapy was explained by the Project member using presentation tools such as "Initiation of Therapy", " HAART", "Monitoring", "Adherence", and "Side Effect" to relevant health care staff<br>- Participation in formulation of national plan for the ART program particularly laboratory monitoring section.<br>- The Project member became member of the UTH ARV committee.<br>- Participation in managing patients on ART at UTH clinic.<br>- Presentation of retreat on emerging issues in the public ART program to CBoH.<br>- Presentation on emergency implementation of ART through the 3 by 5 initiative to WHO missio.<br>- The Project collaborated in supporting Zambian Scouts Association in publishing "Red Ribbon Leaders Handbook" in 2002.<br>- Technical benefit of External Quality Assurance was shared CDC, CDL, and CBoH in 2003.<br>- Assessment of HIV kits on information system was reported to CBoH and relevant stakeholders in 2003.<br>- The technical advantage and cost effectiveness of Dynabeads method / FAC Callibur for CD4 count was reported to CBoH 2003.<br>- Dr. Oka: "Current HIV treatment and problems in Japan – Application of the expertise into treatment in Zambia<br>- Dr. Wakasugi: "Perinatal Immune system and prevention of HIV transmission from mother to child", 30 participants (paramedical students, nurses, UTH clinicians) |

Appendix 10: Results for Achievements and Process (3/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|
| | | **Indicator 4-2 Number of homepage updated, Number of person accessing web site (Establishment of Homepage Number of homepage updated, No. of person accessing web site)**<br><br>- One Japanese expert participated in training of Web Site Design and Maintenance course to master basic theory and techniques on making a homepage. C/P was assigned for this task but delayed.<br><br>**Indicator 4-3 Number of participants, minutes produced and project information used in planning National Policy (Number of participants, minutes produced and project information used in planning National policy)**<br><br>- The first JCC was held in January 2002.<br>- The second JCC was held in January 2003.<br>- The Project member discussed about guideline of External Quality Assurance of TB with CDL, CBoH and Lusaka Provincial Office.<br>- Opening of isolation hospital based on MDR survey to CBoH |

Appendix 10: Results for Achievements and Process (3/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|
| | | **Indicator 4-4 Number of participants, Number of meetings in various area, % of youth who go through VCT among meeting participant (No. of participants, No. of meetings in various area, % of youth who go through VCT among meeting participant)**<br><br>Community based approach targeting youth was seeked in collaboration with VCT program. A proposal was formulated through discussion with three NGO: Planned Parenthood Association of Zambia, Zambian Scout Association & Girl Guides Association of Zambia) in 2003.<br><br>*** The following were laboratory-generated information on HIV/AIDS and TB as research paper or data file, but those cannot be categorized under the above indicators.**<br><br>- "The impact of Tuberculosis and the levels of initial and acquired Anti-Tuberculosis Drug Resistance in Zambian prison" at International Union Against Tuberculosis and Lung Disease in 2002.<br>- "TB incident of street children in Lusaka Urban", at International Union Against Tuberculosis and Lung Disease in 2002.<br>- A research paper: "Evaluation of PCR-based methods for the diagnosis of Tuberculosis by identification of mycobacterial DNA in urine sample" was accepted by the International Journal of Tuberculosis and Lang Diseases in 2002.<br>- To support MTCT program, "MTCT Support Action Plan" was formulated by Virology laboratory<br>- The project was introduced at the Regional workshop on HIV/AIDS in Southern Africa.<br>- The project provided the information to " Red Ribbon Leaders Handbook" published by the Zambian Scouts Association in 2002.<br>- Laboratory data profile on "CD4 count by dynabeads method" was provided to CBoH.<br><br>**B. PRE-WORKSHOP AND GROUP DISCUSSION**<br>It is perceived that most of activities under the Output are carried out as expected. |

Appendix 10: Results for Achievements and Process (3/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|
| | Degree of achievement of the Output V: Collaboration with HIV/AIDS and TB working groups is institutionalized | A. REVIEW OF DOCMUMENTS, RECORD AND INTERVIEWS<br><br>**Indicator 5: Project staff are officially appointed, Number of meeting attended minutes, report and minutes form technical working group (Project staff are officially appointed, Number of meeting attended, minutes, report and minutes form technical working group)**<br><br>The followings were appointed as technical working groups.<br>- Ms. Hirota and Mr. Chembo participated in VCT and Care working group.<br>- Dr. Ooizumi and Dr. Zulu participated in TB working group.<br>- Dr. Yokota and Dr. Kasolo participated in PMTCT working group.<br>- Dr. Yokota and Dr. Kasolo participated in Vaccine and Treatment working group.<br><br>National AIDS Council suspended its activity for more than 6 months in order to review its organizational structure and function. Currently the 10 technical working groups have been again constituted and structured. See "Proposed Technical Working Groups, Chairpersons and Vice Chairpersons, National AIDS Council". Some members from the Project are appointed for the following technical working group.<br><br>- Dr. Monze, Dr. Kasolo (chair), and Dr. Handema as well as Dr. Takahashi as Technical Advisor in Vaccine and Research working group.Ms. Mulundu – Blood safety and infection control working group<br>- Dr. Hirota as Technical Advisor in PMTCT Technical Working group<br>- Dr. Kasolo – a member of all working groups<br><br>B. B. PRE-WORKSHOP AND GROUP DISCUSSION<br>Not available. |

## Appendix 10: Results for Achievements and Process(4/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|
| Change of external condition | External condition that indicated on the PDM | **1. Overall National Health Policy remains the same**<br>No significant change has been recognized.<br>**2. HIV/AIDS and TB remains high priority issue in Zambia**<br>No significant change has been recognized.<br>**3. Measures to HIV/AIDS and TB in programs and projects are continued to be taken as the same level as before.**<br>No significant change was recognized.<br>**4. Sector wide approach has little influence on the Project.**<br>No direct influence was recognized.<br>**5. The focus on HIV/AIDS and TB measures (including the ARV therapy) is not changed.**<br>According to "National HIV/AIDS/STI/TB Intervention Strategic Plan", provision of appropriate care, support and treatment to HIV/AIDS and TB was more emphasized.<br>**6. The position of UTH's HIV/AIDS and TB labs in National Program remain the same**<br>The roles and functions of Virology Laboratory and TB Laboratory include research work, provision of teaching / training, referral function and services associated laboratory. Those roles and functions have remained the same since the Project commenced.<br>**7. Administrative Structure of UTH remains the same**<br>Administrative Structure of UTH including the Virology Laboratory and TB Laboratory remains the same. Meanwhile, a managerial mechanism on cost sharing of laboratory service was reviewed in August 2003. The finance Committee which consists of laboratory and hospital distractive sections was created for revising laboratory charge to patients in order to recover the cost of laboratory test. Currently, the laboratory receives 15-20 million kwacha per month as support (budget) for low cost laboratory service from the hospital. At the same time every patient is supposed to pay 5,000 kwacha as contribution. The fee for high cost laboratory service is set by the Committee.<br>**8. Overlapping or competing activities on HIV/AIDS and TB are not carried by other donor agencies and NGOs**<br>Neither overlapping nor competing activities were recognized<br>**9. Trained health staff continues to work on the project**<br>UTH as a whole, is suffering from the chronic shortage of staff. Retaining staff is the critical issue. However, qualified staff continuously flows into private sector such as private hospital or neighboring countries, as the salaries of those places are higher than the ones of UTH.<br>**10. Economic performance remain stable**<br>No significant change was recognized. |

## Appendix 10: Results for Achievements and Process(4/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|
| Implementation Process | Progress of managerial activities | 1. According to the Project activity report and the response to questionnaire from JICA experts and coordinator, the followings were identified.<br>- Initially the objective and the activities of the Project were not shared among C/P as well as JICA experts. It was not well understood that JICA would conduct monitoring and evaluation of projects with PCM method.<br>- The project member started participating in MTCT, VCT, TB, and Vaccine & Treatment Working Group in order to advocate the use of laboratory information to related groups in August 2001.<br>- Review of PDM and PO were discussed and draft PDM ver.2 was formulated by the member of the Project in August 2001.<br>- Outreach activities, which aims to support health promotion targeting adolescent through Boy Scout in Chipata town in 2001.<br>- The Project members had a consultation with UTH head about chronic shortage of staff and requested the increase of staff to sustain the Project activities in 2001.<br>- The project management issues were adjusted when the JICA management mission was dispatched in January 2002.There was substantial progress to respond the recommendation.<br>  - Insufficient number of C/P (6 requested → 4 assigned)<br>  - PDM, PO and the project document were revised as version 2.<br>  - Member of the JCC were reviewed (Parenthood Association of Zambia: PPAZ was included)<br>- Regular laboratory meeting was introduced in March 2002?<br>- Time-management training was introduced to C/P.<br>- Chronic problems:<br>  - Laboratory facilities are still in bad shape<br>  - Procurement route is not secured and as a result activities were delayed.<br>- Outreach activities other than laboratory-based activities came under review in July 2002.<br>- Monthly steering committee meeting for the Project was introduced to experts and C/P of the Project in April,2003. The meeting provided the opportunities for discussing necessary issues for operating the Project. The meeting is usually chaired by Zambian side and meeting records are circulated and kept in the file.<br>2. According to C/P group discussion, the activities are managed by the following method.<br>- Weekly supervisory checks by heads of sections<br>- Monthly Steering Committee Meetings<br>- Counter Checking Results on daily basis by senior staff<br>- Training assessment tests – feedback questionnaire |

## Appendix 10: Results for Achievements and Process(4/4)

| Evaluation criteria | Study item | Findings and results |
|---|---|---|
| | Conduct of monitoring activities | 1. According to the group discussion among existing JICA experts and coordinator, monitoring of the Project, in particular collection of information and data along with the indicators of PDM, have not been clearly understood among the Project stakeholders nor taken into practice in the course of the Project implementation. The current JICA experts and coordinator have not taken over such issues as the Project monitoring including the detailed explanation of PDM and PO in project cycle from former experts and coordinator. |
| | Relationship between the experts and counterparts | 1. According to the group discussion among the C/P, the followings were identified.<br>- Currently they have good communication with JICA experts and coordinator. The current Steering Committee works well in terms of problem-solving and communication.<br>- Initially they were not very much involved in planning and implementation of the Project. However, they perceived that the situation has been improved in particular since a new coordinator and experts were assigned.<br>2. According to the group discussion and response to the questionnaire from ex- long-term experts, the followings were identified.<br>- As the nature of researchers, C/P might hesitate sharing data with JICA expert at initial stage. But this obstacle was ceased when a sense of trust was established between the both sides. |
| | Involvement of beneficiaries in the Project | 1. According to the group discussion among the C/P, the followings are mentioned as part of involvement of beneficiaries.<br>- The Project is now much more open and undertakes some training courses close to beneficiaries such as midwives and counselors.<br>- TB laboratory technicians of diagnostic centers in Lusaka Province could keep certain level of moral as the Project supports the centers where the support from the Government flow back and forth. |
| | Ownership by the executing institution of the recipient country | 1. Despite the C/P's willingness of commitment on the Project implementation, shortage of staff as a result of training leave, sick leave, maternity leave and extra responsibilities such as lecturing in UNZA and involvement of other government and collaborative projects increased the burden on the further involvement in the HIV/AIDS and TB Project. |

## Appendix 11: Results for Five Evaluation Criteria

| Evaluation criteria | Investigation item | Study item | Results |
|---|---|---|---|
| Relevance | Are outputs, project purpose, and overall goal still meaningful as objectives at the time of evaluation? | Are the Overall Goal and the Project Purpose consistent with the needs of target group? | 1. The current HIV/AIDS epidemic in Zambia is alarming. UNAIDS/WHO has reported that 19.95 percent of adults (15-49) are HIV positive in 1999. Although a cumulative total of 44,942 AIDS cases had been officially reported as of 1997, National AIDS Control Program estimated that in the year 1999 alone, 85,000 Zambians developed AIDS.<br>2. The primary modes of HIV infection are through heterosexual contact and mother-to-child transmission. According to National HIV/AIDS/STD/TB Council, the mother to child HIV transmission risk is estimated to be 39.5 percent. Every year 30,000 infants are estimated to have become HIV infected during pregnancy, at the time of birth, or while breast-feeding.<br>3. HIV is accelerating the spread of TB in Zambia. Since the advent of the HIV/AIDS epidemic, the TB case rate has increased nearly five-fold from 100 per 100,000 in 1984 to over 500 per 100,000 in 1996. It is reported that HIV positive patients among the UTH's TB patients account for 70%.<br>4. Since the HIV epidemic and TB have negatively affected not only health of general population but also national development, the technical assistance for both anti-HIV/AIDS measures and TB control meets the needs of Zambian government and people in Zambia.<br>5. Improvement of laboratory capacity for HIV and TB are not only the diagnostic need of individuals but also the need of the population to seek and adopt effective control program |
| | | | 1. Since "Japan's Initiative in the Fight against Infectious and Parasitic Diseases on the occasion of the Kyushu-Okinawa G8 Summit ("Okinawa Infectious diseases) Initiative" was held in July 2000, the Government of Japan has put substantial fund on infectious and parasitic diseases as a central issue in Development. Promotion of research activities such as – "Support for the development of global network of research institutions on infectious and parasitic diseases", "Promotion of research on infectious and parasitic diseases in impoverished countries with a focus on benefiting the poor", and "Promotion of international cooperation in vaccine research and development" are cited as the area of relevant cooperation. |

Appendix 11: Results for Five Evaluation Criteria

| Evaluation criteria | Investigation item | Study item | Results |
|---|---|---|---|
| | | Are the Overall Goal and the Project Purpose consistent with Japan's official development aid policy (measures for HIV/AIDS and TB control) and JICA's country program for Zambia? | 2. In addition, Japan's ODA Country Assistance Program for Zambia (2002-2007) put priority on combating HIV/AIDS and TB and providing cost-effective health services.<br>3. JICA has strengthened its support through various aid schemes for combating HIV/AIDS and TB in Zambia. For instance, JICA provided technical cooperation for improvement of HIV testing and diagnostic techniques by Infectious Disease Project (1989-1995) and Infectious Disease Control Project (1995-2000). In other words, JICA has much experience in such research cooperation.<br>Therefore, the Project Purpose and Overall Goal are still consistent with Japanese ODA policy and program. |
| | | Are the Project Purpose and Outputs consistent with Zambia's Health Program and HIV/AIDS and TB Control Program? | 1. National HIV/AIDS/STD/TB Council developed "Strategic Framework 2001-2003" in 2000. The framework highlights the eleven priorities for HIV/AIDS interventions. They include "Increased voluntary counseling and testing", "Reduced mother to child transmission of HIV", and "Improved drug supply for the treatment of STD, TB, and HIV positive clients"<br>2. In 2002, "National HIV/AIDS/STI/TB Intervention Strategic Plan 2002-2005 was developed. Specific supporting objectives include the promotion of responsible sexual behavior, the reduction of mother-to-child transmission, ensuring safe blood transfusion, improving the quality of life of people living with HIV/AIDS and promoting positive living, providing appropriate care, support and treatment and providing improved care and support services to orphans and vulnerable children. Direct laboratory services and laboratory-produced information are required to support most of those specific areas.<br>3. ARV therapy was officially introduced to Lusaka and Ndola targeting 10,000 PWHA. Establishing laboratory capability for monitoring ARV drug resistance became an urgent issue. |

## Appendix 11: Results for Five Evaluation Criteria

| Evaluation criteria | Investigation item | Study item | Results |
|---|---|---|---|
| Effectiveness | Was the effect produced by the project? | To what extent the project purpose - Laboratory systems are strengthened and are effectively utilized for HIV/AIDS and TB control in the Republic of Zambia- has achieved? | 1. It is perceived that UTH clinical practitioners working in the departments of internal medicine, pediatric, surgery and obstetric have directly received the benefit of laboratory based information such ARV treatment protocol through "weekly inter-department meeting" and laboratory services.<br>2. The number of laboratory services carried out in UTH Virology Laboratory and TB Laboratory reached 35,000 in 2002, and 27,000 as of September 2003. Among these services, the number of diagnostic laboratory by means of newly introduced techniques has dramatically increased zero in the beginning of the Project to 5000 on the annual basis at the present.<br>3. The Project plans to provide technical instruction on HIV tests during the training targeting VCT, MTCT and peripheral laboratories and to establish the Quality Assurance system in all laboratory centers. It is expected that a total of 100,000 tests concerned would be carried out per year. External Quality Assurance system of TB microscopic test will be established in all TB test centers of Lusaka Province. The Project is now in a pilot phase of utilizing External Quality Assurance system.<br>4. The accumulated data deprived on the analysis of laboratory services and various data-analysis and research work conduced in Virology Laboratory and TB Laboratory were reported to Working Groups and relevant departments of CBoH.<br>5. There is a room for improvement of both research data analysis in the laboratories and establishment of Quality Assurance system. |
| | | Was an effect produced by the achievement of each output? | 1. Availability of newly introduced techniques as a result of the Output I definitely brought about the increase of the number of laboratory tests in Virology Laboratory.<br>2. Trainings of HIV testing for technicians and midwives definitely brought about the increase of the number of VCT/MTCT centers since the laboratory component of VCT/MTCT program is essential to establish them.<br>3. It is perceived that provision of information to stakeholders might take place everywhere. But those events have not been clearly recorded properly. |

## Appendix 11: Results for Five Evaluation Criteria

| Evaluation criteria | Investigation item | Study item | Results |
|---|---|---|---|
| | | Were there any influences of external conditions that affected the achievement of the project purpose? | A. DOCUMENT REVIEW AND INTERVIEWS<br>1. It is perceived that the capacity and utilization of laboratory services at peripheral laboratories will be limited unless other aspects of laboratory support such as laboratory management, supplies and sufficient manpower are strengthened at the same time.<br>2. UTH has started "in-service training program" as its own service program attached to UTH. This re-education program enables clinical practitioners to attend training of ARV treatment protocol. As some C/P from the Project participate in the program as lecturers and the Project also provide training to midwives and laboratory technicians, the collaboration between the in-service training of UTH and the Project on common subject may contribute to the realization of the Project Purpose. |
| | What were the contributing / inhibiting factors which affected the effectiveness of the project? | | 1. The Government of Japan was decidedto provide 20 million Yen worth of HIV test kits and drugs per year over four consecutive years in collaboration with NORAD at time of the Project commencement. The amount of support would be 2/3 of total amount needed in Zambia.<br>2. In general, the Government of Republic of Zambia put high priority on HIV/AIDS control. In this regard, the Project is in good circumstance with political support form the Government.<br>3. As ARV therapy has been tested in Lusaka ,the associated sections of CBoH anticipate the contribution of laboratory aspect on ARV therapy monitoring. In this regard, the CBoH's policy on ARV therapy push the activities of developing ARV monitoring and CD4 count which the Project currently undertakes. The Project has provided the critical technical information to CBoH as well.<br>4. It is perceived that charge on those newly introduced laboratory service such as CD4 /CD8 count and viral load make certain extent beneficiaries hesitate the utilization of those services while cost recovery are essential to buy supplies for the services.<br>5. The National AIDS Committee suspended its activity for more than 6 months in order to review its organizational structure and function. Due to this, the activities of the Project related to formulating the Guideline for VCT and Care were inevitably delayed<br>6. The Laboratory suffers from chronic shortage of staff. In addition, a series of collaborative research work requires considerable time. Therefore, the C/P are involved in the Project activities for the limited time. |

## Appendix 11: Results for Five Evaluation Criteria

| Evaluation criteria | Investigation item | Study item | Results |
|---|---|---|---|
| Efficiency | Is the Output corresponding to the supplied amount of resource, or can it be said that the project was efficient? | Were the Inputs appropriate in terms of quality and quantity? | 1. Both JICA experts and C/P perceived that the personal in both Virology and TB Laboratory is absolutely insufficient in terms of quality and quantity. Senior member of C/P are frequently tied up with other works such as attending official meetings, giving lectures in UNZA, taking study leaves, conducting personal research work and dealing with official visitors. Some of C/P are engaged in not only for HIV/AIDS tests but also for other virological tests. It is roughly estimated that a total M/M of C/P's study leave including training in Japan accounts for 15% of the potential workload. Thus, these factors hinder the involvement of C/P in Project activities.<br>2. The following were pointed out through the group discussion among C/P.<br>- C/P perceived that some of equipment bought by the Project is unnecessary. For example, benches and cabinets purchased by the Project are not used.<br>- Certain expert / coordinator were not appropriate to some extent in terms of their working attitudes. They did not well discuss with C/P in the course of planning and implementation of the Project.<br>- The current expert / coordinator were appropriate as they helped them with training of techniques and production of reports/ manuals.<br>- Trainings in Japan need better supervision. [0]Training programs were not well structured to bring full benefits to the Project although the programs have been improved based on the feedback of C/P<br>3. The following were recognized through group discussion and response to questionnaire from JICA experts/coordinator.<br>- As most C/P's career background and profession are concentrated on laboratory science, the subject related to public health and epidemiology can be difficult for them to catch up or even burden to their own work.<br>- As many of senior C/P are obliged to take up additional roles outside and inside of UTH, it is difficult for the experts and C/P to find sufficient time for working together.<br>- JICA experts perceive that the activities of short-term expert sometimes fall into arrears after she or he leaves for Japan. |

## Appendix 11: Results for Five Evaluation Criteria

| Evaluation criteria | Investigation item | Study item | Results |
|---|---|---|---|
| | | Were the Inputs delivered in timely manner? | 1. According to the group discussion among C/P, the procurement process in most cases is very slow due to UTH's bureaucracy and many middlemen.<br>2. The absence of team leader for certain time is such an example of hindering efficiency of the implementation of the Project. |
| | | Was there alternative means for achieving each Output efficiently? | |
| | | Was there any influence of external conditions that affected the achievement of the Outputs? | 1. Public workers' strikes including heath workers' ones slow down the activities of the Project to some extent.<br>2. The delay in establishment of technical working group under NAC negatively affects the activities of the Project to some extent.<br>3. MOH ordered to postpone employment of staff. Thus, the Project will not likely acquire the required number of technologists/doctors. |
| | | Was there any influence of preconditions? | Not applicable |

## Appendix 11: Results for Five Evaluation Criteria

| Evaluation criteria | Investigation item | Study item | Results |
|---|---|---|---|
| | What was contributing / inhibiting factor which affected the efficiency of the project? | | 1. According to the group discussion among C/P, the following factors negatively contribute to the efficiency of the Project.<br>- UTH bureaucracy and ineffective middlemen discourage the procurement process for reagents, equipment and other supplies.<br>- The assignment period of an expert on equipment maintenance is not sufficient. The Zambia side should have also assigned C/P for equipment maintenance.<br>2. According to the group discussion among JICA experts and response to questionnaire, the following factors negatively contribute to the efficiency of the Project.<br>- It is perceived that procurement is very exhausting process. Some of necessary process such as preparation of specification and cost estimation are frequently conducted by JICA experts. This deprives their time of their original work.<br>- Insufficient communication between JICA experts and C/P sometimes led to inappropriate purchase of goods. Some furniture which is not utilized are examples.<br>- Initially, the purpose of the activities were not shared among the C/P. |
| Impact (including projection) | Are there any prospects of the indirect and ripple effects produced by the implementation of the project? | Prospect of the achievement of the Overall Goal – Majority of the people in the Republic of Zambia can receive the benefit of laboratory based services and information on HIV/AIDS and TB. | 1. As described in Effectiveness, clients of VCT/MTCT centers rapidly increased along with the training of HIV testing to technicians and midwives for the program. The Project will extend the effectiveness of the laboratory support in the area of ARV treatment among with the Government ARV treatment program.<br>2. EGA system of TB microscopic test will bring benefit directly to the patients in terms of quality diagnosis. It will also secure the DOTS program. |
| | | Possible influence of external conditions to the Overall Goal | A. DOCUMENT REVIEW AND KEY STAKEHOLDER INTERVIEW<br>1. The degree of understanding of diagnostic and treatment protocol among clinical practitioners may affect the utilization of laboratory based information and services. However, the relevant information is not available |

Appendix 11: Results for Five Evaluation Criteria

| Evaluation criteria | Investigation item | Study item | Results |
|---|---|---|---|
| | | Unexpected Positive/ Negative impact at the time of mid-term evaluation (projected) | **A. DOCUMENT REVIEW AND KEY STAKEHOLDER INTERVIEW**<br>1. The Project brought about positive image of UTH as a tertiary care hospital as well as the regional (Malawi, Tanzania) referral laboratory center for HIV.<br>2. It is projected that a series of HIV related laboratory techniques will produce essential laboratory information to secure the quality of epidemiological profile, MTCT, VCT, and other preventive programs and PWHA care programs including ARV drug provision.<br>3. It will help the Government for evidence-based decision making.<br>4. It is projected that a series of TB related laboratory information and quality assurance program will secure the quality of TB control program.<br>5. The potential capacity of the Virology Laboratory has induced a series of HIV and TB related collaborative research. The following are past and present collaborative research.<br>– Response To Measles Virus In HIV Infected And Non-Infected Children (Johns Hopkins University/ London School of Hygiene and Tropical Medicine)<br>– Impact of HIV on Measles and Measles Immunization (Johns Hopkins University/ London School of Hygiene and Tropical Medicine)<br>– Correlates of TB Immunology in Contacts (University College London)<br>– Molecular Epidemiology of Human Herpes Virus 8 Study (London School of Hygiene and Tropical Medicine)<br>– Anti-HIV Alternative Therapy Trial (Yamanashi Medical University, Japan/ Obiken Pharmaceutical Co.)<br>– Activated CTL Immunotherapy in Kaposis Sarcoma (Yamanashi Medical University, Japan/ Lymphotec Inc.)<br>– Breast Feeding Post Partum Health Project - Subacute Mastitis in HIV (Institute of Child Health, London)<br>– Antigen Presentation and Dendritic Cell Function in Children with Severe Malnutrition (Institute of Child Health, London)<br>– Cryptococcus Neoformans Carriage In Asymptomatic HIV Positive Individuals (International Medical Center of Japan) |

Appendix 11: Results for Five Evaluation Criteria

| Evaluation criteria | Investigation item | Study item | Results |
|---|---|---|---|
| | | | 6. Published papers up to date are as follows.<br>– "The impact of Tuberculosis and the levels of initial and acquired Anti-Tuberculosis Drug Resistance in Zambian prison" at International Union Against Tuberculosis and Lung Disease in 2002.<br>– "TB incident of street children in Lusaka Urban", at International Union Against Tuberculosis and Lung Disease in 2002.<br>– "Evaluation of PCR-based methods for the diagnosis of Tuberculosis by identification of mycobacterial DNA in urine sample, International Journal of Tuberclosis and Land Disease" |
| | | | 1. No negative impact was recognized. |
| | What were contributing / inhibiting factors which affected the achievement of the Overall Goal or what will be expected contributing / inhibiting factors which may affect the achievement of the Overall Goal? | | 1. It is perceived that the health impact is limited unless other aspects of HIV/AIDS control program such as treatment of opportunistic infections, care and support to PWHA as well as other preventive programs are strengthened. It is assumed that TB sub-sector remains the same. However, the expansion of ARV therapy is now being discussed to scale up from 10,000 to 100,000 in 2005 which may push forwards more PWHA to access to the ARV therapy. |
| | What were contributing and inhibiting factors, which brought unexpected positive or negative impacts? | | 1. Not recognized at this time. |

## Appendix 11: Results for Five Evaluation Criteria

| Evaluation criteria | Investigation item | Study item | Results |
|---|---|---|---|
| Sustainability | Will the effect of the project maintained after the completion of the project | Are there any possibilities that the activities carried out by the Project can be continuously implemented? | 1. A series of research works can be sustained since the most of works are collaborative research with well-known establishment institutions.<br>2. Since HIV/AIDS and TB are top priority of the Government, laboratory based scientific means and reliable information is definitely required for planning, monitoring and evaluation, and decision-making for resource distribution of the strategic plan. Therefore, politically and strategically the laboratory work is essential.<br>3. Capability of staff with equipped laboratory is attractive to collaborative researchers outside of Zambia. The laboratory is able to utilize some extent those collaborative research fund.<br>4. Shortage of staff is chronic problem. This affects some extent the organizational sustainability.<br>5. Cost recovery program for laboratory service including newly introduce examination by the Project is some extent functional. |
| | | Are there any prospects that equipments provided by the Project and trained counterpart personnel can be effectively utilized? | 1. It is understood that most of equipment and trained personnel are effectively utilized. But there are a few cases of unexpected results. Retain of staff is external factor. |
| | | Are there any prospects that the implementing agencies can secure human resources, finance, and system in order to continue the outcome of the Project? | 1. The currently the Project cost is bored by the Japan side except for salaries of C/P, utilities, and consumable and reagent for laboratory services.<br>2. The Government's continued assistance and increase in own research capacity including cost sharing with other research projects will help the outcome of the Project sustainable and further improvement. |

Appendix 11: Results for Five Evaluation Criteria

| Evaluation criteria | Investigation item | Study item | Results |
|---|---|---|---|
| | | How will the stakeholders such as MoH, UTH, each Working Group and partner NGOs be able to apply the Outputs of the project into their program? | 1. The Project will produce a model for laboratory monitoring of ARV therapy and a model for TB smear EQA system. The findings will be directly informed to CBoH. In addition, the findings will be shared with relevant stakeholders through the created homepage, newsletter, and meetings of related Technical Working Group.<br>2. Experiments and research findings will be published or compiled in a report.<br>3. The information for laboratory service will be provided clinicians through a laboratory handbook. |
| | What were contributing / inhibiting factors affected the sustainability of the project' outcome. Or what will the contributing / prevention factors which will affect the sustainability after the project? | | 1. Despite many actors are interested in supporting HIV/AIDS and TB control, funding are not always secured. The stable supply of resource is the top priority in this regard. |

2．List of Stakeholders

| visiting institute | visiting personal | Question D | Question E | Interview done |
|---|---|---|---|---|
| TB, CBoH | Dr.Kafwabulula, TB specialist, CBoH | x | | |
| HIV/AIDS CBoH | Dr. Mutonga, Director Clinical Care and Diagnostic | x | | |
| UTH Lab director | Dr. V. Mudenda,DEPUTY | | x | |
| UTH Director | Dr. T.K Lambart, Managing Director UTH | | x | x |
| PMTC techinical working group | Dr. Chipepo kankasa, Consultant Paediatrician – Paediatrics UTH Department | | x | |
| VCTworking gorup | Mr. Pascal Kwapa, Chairman, Zambia Counselling Council | | x | |
| Treatment Care and Support working group(ARV + TB) | Dr. Isaac Zulu, Consulant Physician, Dpet of Medicine Uth | | x | |
| CDC | Dr. David Nelson, Director, CDC | | x | x |
| HIV/AIDS, CBoH | Dr. Sininhyiza, Acting Director, Public Health Research | | x | x |
| NAC(Global Fund,WB) | Dr. Musonda/Dr.Simwanza | | x | |
| ARV treatment program UTH | Dr. Mwaba/Dr. Kalula | | x | |

3. Example of Question Guide

1. This question guide is used to assess the implementing process of the Project with group discussion s at the end of Pre-workshop (21 – 23 October 2003).

| | |
|---|---|
| Name: | The sheet reflects the view of : ☐ myself |
| Position / institution: | ☐ relevant group (specify: _____) |
| | ☐ institution |

1. Were the Activities implemented as planned? If not, discuss the following aspects

- Proper planning

- Management

- Inputs

2. How do you conduct monitoring activities? Discuss the following aspects.

- Mechanism of monitoring

- Modification of PDM

- Responses to the changes in the Important

3. Please discuss about relationship between the experts and counterparts referring the followings.

- condition of communication between the experts and counterparts

- reviewing process of problem solving method through joint work

- counterparts's perception (ownership and activeness)

4. Discuss about the involvement of beneficiaries and impact produced by the Project.

- How do you assess the change in knowledge and awareness of beneficiaries?

- How do you assess the change in technique, economy and other aspect such as policy change of beneficiaries?

5. How do you see the following?

- Degree of participation in the project

- Allocation of budget from Zambian side

- Timing of Input (equipment, expert, etc)

- Size of Input (equipment, expert, etc)

- Quality of Input (Appropriateness of expert, method of technique transfer by expert, quality and Appropriateness of training in Japan)

Dear Sir,

Mid-term Evaluation Mission on the JICA Technical Cooperation for HIV/AIDS and TB Control Project in the Republic of Zambia will conduct their activities starting from 3rd of November to 16th of November 2003.

In order to carry out the mid-term evaluation study efficiently and effectively, it is very significant for us to have your views and comments on the following questions in advance. Will you kindly to have an opportunity to discuss about the questions and comments. If you are in difficult circumstances, please write your answers on this sheet and submit to Eimitsu USDA by 28th of October 2003, who currently stay in Room 503 of Pamodzi Hotel, a member of the Mid-term Evaluation Team. Thank you very much for your cooperation.

Eimitsu USDA, usuda@icnet.co.jp
JICA Evaluation Team

1. Please provide the necessary information and check the appropriate box below.

| | |
|---|---|
| Name: | The answer sheet reflects the view of : ☐ myself |
| Position / institution: | ☐ relevant group (specify: _____ ) |
| | ☐ institution |

--Effectiveness--

2. Will the Project achieved the Project Purpose - Laboratory systems are strengthened and are effectively utilized for HIV/AIDS and TB control in the Republic of Zambia?

(1) What kind of laboratory based information and services do you receive from UTH/JICA HIV/AIDS and TB Control Project as the results of Project implementation? How often do you receive them?

(2) In the above context, would you think that "Laboratory systems are strengthened and are effectively utilized for HIV/AIDS and TB control"?

--Impact--

3. Will the Project contribute to realize the Overall Goal - Majority of the people in the Republic of Zambia can receive the benefit of laboratory based services and information on HIV/AIDS and TB? What else will the Project produce positive impact?

(1) Do you recognize any unexpected Positive impacts because of the Project?

(2) Do you recognize any unexpected Negative impacts because of the Project?

3. Was there any influence of external condition that affected the Project Purpose? External condition stands for the condition that would not be controlled by the Project but was considered to be important and unpredictable at the time of the project planning stage. The questions below are the external conditions that were recognized at the planning stage.

(1) Overall National Health Policy remains the same

(2) HIV/AIDS and TB remains high priority issue in Zambia

(3) Measures to HIV/AIDS and TB in programs and projects are continued to be taken as the same level as before.

(4) Sector wide approach has little influence on the Project.

(5) The focus on HIV/AIDS and TB measures (including the ARV therapy) is not changed.

(6) The position of UTH HIV/AIDS and TB labs in National Program remain the same

(7) MTCT, VCT and TB activities remain stable

(8) Administrative Structure of UTH remains the same

(9) Overlapping or competing activities on HIV/AIDS and TB are not carried by other donor agencies and NGOs

(10) Trained health staff continues to work on the Project

(11) Economic performance remain stable

5. Was there any other influence of external condition other than the above?

--Relevance--

6. Are the Overall Goal *(Majority of the people in the Republic of Zambia can receive the benefit of laboratory based services and information on HIV/AIDS and TB)* and the Project Purpose (*Laboratory systems are strengthened and are effectively utilized for HIV/AIDS and TB control in the Republic of Zambia*) consistent with the needs of target group?

7. Are the Project Purpose and Outputs (shown below) consistent with Zambia's HIV/AIDS control Program and TB Control program?

(I) Performance of laboratory techniques, data management and overall laboratory management are improved
(II) Performance and quality of peripheral labs for HIV/AIDS and TB testing and surveillance is improved
(III) Utilization of lab service by health workers (Private, public and NGOs) is improved
(IV) Information on HIV/TB generated by the project is utilized widely by majority of stakeholders in planning and implementing programmes (i.e. GRZ, other donors, health workers, NGOs, schools, youth and communities)
(V) Collaboration with HIV/AIDS and TB working groups is institutionalized

--Sustainability--

8. Prospects of appropriate utilization of the Output and continuation of the Project Activities at the stage.

(1) Will the equipment, facilities and human resources be appropriately and continuously provided in the future? What extent do GRZ provide those resources?

(2) Will number and proportion of counterparts gained technology sustained or expanded?

(3) How will the stakeholders such as MoH, UTH, each Working Group and partner NGOs be able to apply the Outputs of the project into their program?

9. Any comment on current trend of relevant area.

Pre-workshop
23 Oct 2003

| page 1 | page 3 | page 5 | page 7 |
|---|---|---|---|
| page 2 | page 4 | page 6 | page 8 |

Output

1. Utilization of lab service by health workers (Private, public and NGOs) is improved

○: done
△: ongoing
×: not necessary anymore
−: not yet started

| | Person-months Person-days | Equipment and consumables etc | Status | Products |
|---|---|---|---|---|
| 1-1 To train counterparts on surveillance and diagnosis techniques / methods at the central laboratories | 4 counterparts trained in Japan<br>4 counterparts trained in Zambia | | △ training | 7qualified staff for techniques |
| 1-2 To train lab staff locally to acquire preventive maintenance skills of lab equipment | | | | |
| 1-3 To establish or improve the following technologies in the central laboratories on monitoring, surveillance, and diagnosis | 9MM<br>(a) − (d) | Sequencer (j)<br>FACS caliber(J)<br>consumable (J+2) | △ | Data set for 2 research |

2. Performance and quality of peripheral labs for HIV/AIDS and TB testing and surveillance is improved

| | Person-months Person-days | Equipment and consumables etc |
|---|---|---|
| 2-1 To conduct training of trainer workshops for health workers in HIV/AIDS and TB diagnosis in collaboration with Technical Working Group | HIV/AIDS: 120 MH<br>TB: none | Reagents (J)<br>Test kits(J)<br>Consumable(J) |
| 2-2 To conduct laboratory training for health workers to support VCT, MTCT and TB control program | HIV/AIDS: -<br>TB: 300 MD | |
| 2-3 To participate in development of training manuals for HIV/AIDS and TB for staff of peripheral laboratories | HIV/AIDS: 30MD<br>TB: 200 MD | Computer, stationary, transport (j) |

| | | | | |
|---|---|---|---|---|
| 1-3(a) Provide technical support for monitoring Anti-retro viral (ARV) drug treatment | | Sequencer (j)<br>FACS caliber(J)<br>consumable (J) | △ | |
| 1-3(b) Anti- HIV drug assay and ARV drug resistance | | Sequencer (j)<br>Reagents (J) | ○/△ | 1. Paper on ARV naive patients<br>2. Report on Traditional medicine to CBoH |
| 1-3(c)HIV strain surveillance and sero-sentinel surveillance | | Sequencer (j)<br>Reagents (J) | ○/△ | 2 papers on HIV-1 subtypes(research journal) |
| 1-3(d) HIV immunological response | | | | |
| 1-3(e) TB drug resistance surveillance and Anti-TB drug susceptibility (improvement) | 200 MD | Transport<br>Tubes, eggs, Media,<br>Incubator, rack | △ | 1. > 300 cultured<br>2. 3 papers published |
| 1-3(f) Diagnostic value of TB (improvement) | 400MD | MGIT machine, media, drugs, tubes, racks | △ | > 300 specimens cultured |
| 1-4 To make recommendation on reviewing SOPs for HIV/AIDS and TB labs to CBoH | 200MD | computer, paper, toners | △ | 3 manuals<br>1. EQA guideline<br>2. Training manual<br>3. Routine microscopy manual |
| 1-5 To improve data management, information and over all management of Virology and TB laboratories | 400Mhours | computer, paper, toners | △ | computer database |
| TB molecular analysis | | reagents for TB molecular analysis<br>machine | - | |
| Investigations for other chest infectious disease, e.g. Nocardia | | regents, incubators | - | |

| | | |
|---|---|---|
| 2-4 To support planning, distribution and monitoring of activities of VCT and MTCT sites | HIV/AIDS: 150MD/year | Transprt (Norad) |
| 2-5 To ensure quality assurance for HIV/AIDS and TB testing | HIV/AIDS: 3MH | Kits consumable( J and Norad |
| 2-5(a) To ensure quality assurance of HIV testing at all VCT and MTCT sites | REFER TO 2-5 | |
| 2-5(b) To ensure quality assurance of TB diagnostic sites in Lusaka Province | TB: 800PD | computer, transportation, reagents, slides, containers |

page 1 page 3 page 5 page 7
page 2 page 4 page 6 page 8

Pre-workshop
23 Oct 2003

| | | |
|---|---|---|
| Overall Goal | Majority of the people in the Republic of Zambia can receive the benefit of laboratory based services and information on HIV/AIDS and TB. | 1. Prevalence of HIV infected people<br>2. Newly infected cases of HIV<br>3. Cure rate of TB cases<br>4. TB case detection rate |
| Project Purpose | Laboratory systems are strengthened and are effectively utilized for HIV/AIDS and TB control in the Republic of Zambia | No. and quality of results produced by laboratory system<br>No. of laboratory staff trained on HIV/AIDS and Performance of peripheral labs on quality assurance tests<br>No. of information disseminated to stakeholders |

page 1 page 3 page 5 page 7
page 2 page 4 page 6 page 8

3. Utilization of lab service by health workers (Private, public and NGOs) is improved

4. Information on HIV/TB generated by the project is utilized widely by majority of stakeholders in planning and implementing programmes (i.e. GRZ, other donors, health workers, NGOs, schools, youth and communities)

| Status | Products | | Person-months<br>Person-days | Equipment and consumables etc | Status | Products | |
|---|---|---|---|---|---|---|---|
| ○/△ | | 3-1 To sensitize health workers on the importance of lab diagnosis for HIV/AIDS and distribution of project newsletters | 200 MH per session | 7 trainings, kits, consumable(J | ○/△ | Training reports manuals | 4-1 To provide and distribute technical information and materials on HIV/AIDS and TB to stakeholders |
| | TB: 42 lab staff trained in AFB microscopy | 3-2 To update and distribute laboratory handbook for health workers | | | | | 4-2 To produce project homepage on the Internet |
| ○/△ | HIV/AIDS: 190 manuals<br>TB:. Manual being developed for consultation with other stakeholders | 3-3 To provide results of HIV/AIDS and TB lab tests timely to UTH clinicians | TB: 1200 PD / year<br>HIV/AIDS: 8 MH / day | TB: Fluorescent + ordinary microscope, reagents, tubes, container, orange sticks (2)<br>HIV/AIDS: Screen kits (J+Norad) | △ | TB: 30,000 samples / year<br>HIV/AIDS: average 5122 / year (427/ month) | 4-3 To hold dissemination meeting with MOH/CBoH on the activities of project at least twice a year |

Annual reports to CBoH + donors

○/△

Feedback to Centers
Annual report to CBoH

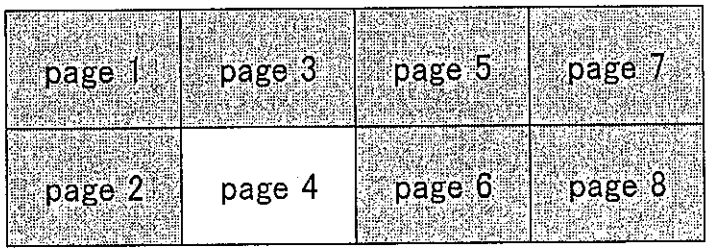
○/△

○training/
△
implementatio
n

46 lab staff trained
12 centers followed up
on site evaluation done

Pre-workshop
23 Oct 2003

4-4 To organize sensitizing meetings for youth in community on VCT program



page 1 | page 3 | page 5 | page 7
page 2 | page 4 | page 6 | page 8

| Person-months Person-days | Equipment and consumables etc | Status | Products |
|---|---|---|---|
| TB:100 MH | TB:computer, projector, refreshments, transports | △ | 400 participants |
| 5MH / week | computer, software | △ | ongoing |
| | | ○/△ | Reports to districts<br>2 VCTs |

5. Collaboration with HIV/AIDS and TB working groups is institutionalized

| | Person-months Person-days | Equipment and consumables etc | Status | Products |
|---|---|---|---|---|
| 5 Project staff both Japanese and Zambian get officially appointed and actively involved in various Technical Working Groups (VCT, MTCT, TB and Vaccine and Treatment) | - | - | - | - |

6 MH per week per site stationary, transport

Pre-workshop
23 Oct 2003

| | | | |
|---|---|---|---|
| page 1 | page 3 | page 5 | page 7 |
| page 2 | page 4 | page 6 | page 8 |

| | |
|---|---|
| Sufficient human and financial resources for prevention and treatment t for HIV/AIDS and TB are provided | HIV/AIDS and TB infection remain priority in Zambia |

| | | |
|---|---|---|
| Overall National Health Policy remains the same | HIV/AIDS and TB remains high priority issue in Zambia | Sector wide approach has little influence on the Project. |

| |
|---|
| The focus on HIV/AIDS and TB measures (including the ARV therapy )is not changed. |

| | |
|---|---|
| The position of UTH HIV/AIDS and TB labs in National Program remain the same | |
| MTCT, VCT and TB activities remain stable | |
| Trained health staff continues to work on the project | Two (2) staff of TB lab left for Study leave |

| |
|---|
| Economic performance remain stable |
| Equipment continues work optimally |
| Measures to HIV/AIDS and TB in programs and projects are continued to be taken as the same level as before. |
| Overlapping or competing activitiews on HIV/AIDS and TB are not carried by other donor agencies and NGOs |

CDL does QA on TB test covering 8 provinces except Lusaka while UTH TB lab does QA on all centers in Lusaka


| | | | |
|---|---|---|---|
| page 1 | page 3 | page 5 | page 7 |
| page 2 | page 4 | page 6 | page 8 |

# Procedures of Monitoring and Mid-Term Evaluation

Zambia HIV/AIDS and TB Control Project
(Mar. 2001-March 2006)

Usuda Eimitsu
(Evaluation Analysis)
Mid-term M&E Team

1

## Monitoring

A given situation is - Observed
- Supervised
- Followed up

by internal personnel

MONITORING IS A PART OF THE PROJECT

2

~~o measure deviation of the project from the original plan.~~

## Evaluation

A given situation is - Assessed
- Appraised
- Judged

by external personnel (or internal personnel)

EVALUATION CAN BE CONDUCTED

3

## 1. Designing Mid-term Evaluation based on JICA's Project Evaluation Guideline

(1) To prepare Project Design Matrix for mid-term Evaluation
(2) To develop evaluation questions and data collection method
(3) To prepare performance assessment evaluation gird and evaluation grid based on 5 evaluation criteria
(4) To develop question guide for interviewees if necessary

4

## 2. Assessing the project achievement and performance

(1) To discuss the method and the procedure together with the project team (Experts and C/P)
(2) To assess the project performance and achievement by means of preliminary assessment workshop (in which Experts and C/P are supposed to participate as a part of monitoring process)
(3) To assess the project performance and achievement based on other source of information (Usuda will deals with this as a part of evaluation process)
(4) To analyze achievements and obstacles of the project (Usuda will deal with this as a part of evaluation process)

5

## 3. Grasping current external conditions related to project performance and future influence on the project

(1) To confirm the current policy and program change related the project through interview with MOH, HIV/AIDS council CBoH etc.
(2) To find out any potential influences on the project in the past and future
(3) To revise important assumptions of a revised PDM and add the monitoring items if necessary

6

## 4. Preparing Mid-term evaluation presentation and workshop

(1) To prepare for the presentation and workshop
(2) To disseminate Evaluation method to the stakeholders
(3) To compile the findings based on evaluation criteria through the preliminary workshop and collected information

7

## 5. Conducting the Mid-term Evaluation

(1) To discuss and report on the preliminary findings to the evaluation team
(2) To conduct further assessment through direct observation and interviews with relevant institutes and organization
(3) To organize the presentation and workshop

8

## 6. Designing the appropriate monitoring method based on the revised PDM

(1) To collect baseline data and design the monitoring method
(2) To development of monitoring tools

9

## 7. Introducing developed monitoring method (tools) and creating the positive image on monitoring

(1) To collect baseline data and design appropiate monitoring method
(2) To develop monitoring tools
(3) To conduct post evaluation workshop by means of Appreciative Planning and Action

10

## 8. Compiling the results of mid-term evaluation

(1) To collect further information requested by the Evaluation Team
(2) To finalize the results of mid-term evaluation in the report

11

## 9. Reporting

(1) To report on the results of the mid-term evaluation to JICA Zambia Office
(2) To report on the results of the mid-term evaluation to JICA HQ

12

# Alternative Monitoring Method

HIV/AIDS and TB control project
13 Oct. 2003
Usuda E., Mid-tem Evaluation Team

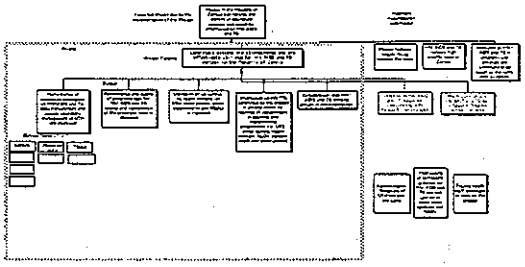
## Alternative?

| | Formal Monitoring | Alternative Monitoring |
|---|---|---|
| Frequency | Ongoing | Every 6 months |
| Purpose | Checking progress | Checking progress and creating team building |
| Data/information collection method | Inquiring responsible personal / indicator based | Participatory workshop / task activity based |
| Project members involved | Project manager and certain Experts & C/P | All staff involved in the project |
| Tools | Monitoring sheet and data base | Objective tree |
| Strength and weakness | Precise and quicker response to necessary management / Need management skill | Less precise and slower response to necessary management/Creating ownership and commitment |

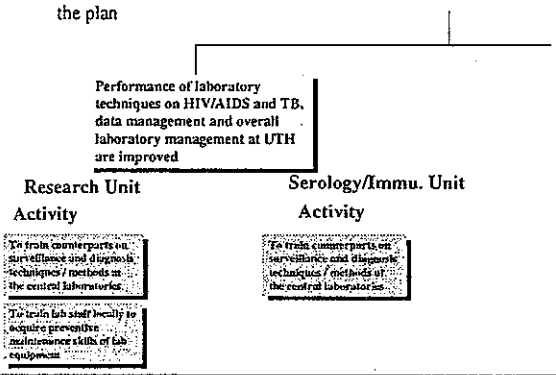
## Monitoring (=Output/Activity Assessment )Workshop

1. Create "objective tree" converted from PDM
2. Each unit lists up all the activities that were planned as well as the activities that have been carried out but not listed in the plan
3. Each unit lists up all the inputs (Number of personnel and time spent for each activity and calculates total "person days") under the specified Output.
4. Each unit lists up all the equipment and consumable for each activity under the specified Output.
5. Assess the achievement of each activity based on:
   ○:done. △:ongoing. - Not yet started. × :Not necessary anymore
6. Each unit lists up the products for each output.
7. Examine if there is a break-through product
8. Discuss if there is an external conditions to realize Outputs and check if existing assumptions became true or not.
9. Each unit lists up additional activities and expected products under each Output.

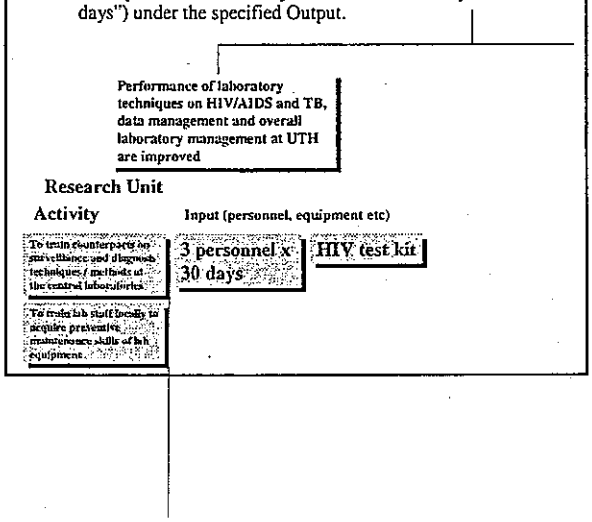
1. Create "objective tree" converted from PDM



2. Each unit lists up all the activities that were planned as well as the activities that have been carried out but not listed in the plan




3. Each unit lists up all the inputs (Number of personnel and time spent for each activity and calculates total "person days") under the specified Output.



4. Each unit list up all the equipment and consumable for each activity under the specified Output.

Performance of laboratory techniques on HIV/AIDS and TB, data management and overall laboratory management at UTH are improved

Research Unit

| Activity | Input (personnel, equipment etc) | |
|---|---|---|
| To train counterparts on surveillance and diagnosis techniques / methods at the central laboratories | 3 personnel x 30 days | HIV test kit |
| To train lab staff locally to acquire preventive maintenance skills of lab equipment | | |

5. Assess the achievement of each activity based on:
○:done, △:ongoing, - Not yet started. ×:Not necessary anymore

Performance of laboratory techniques on HIV/AIDS and TB, data management and overall laboratory management at UTH are improved

Research Unit

| Activity | Input (personnel, equipment etc | | Status |
|---|---|---|---|
| To train counterparts on surveillance and diagnosis techniques / methods at the central laboratories | 3 personnel x 30 days | HIV test kit | △ |
| To train lab staff locally to acquire preventive maintenance skills of lab equipment | | | |

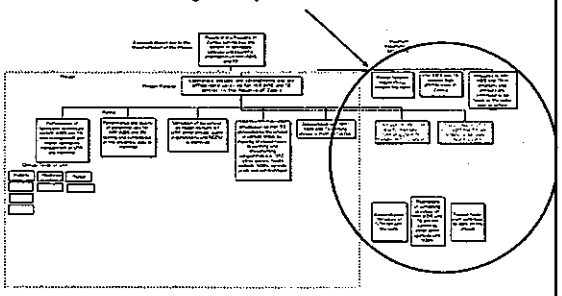
6. Each unit lists up the products for each output.

Performance of laboratory techniques on HIV/AIDS and TB, data management and overall laboratory management at UTH are improved

Research Unit

| Activity | Input (personnel, equipment etc | | Status | Products |
|---|---|---|---|---|
| To train counterparts on surveillance and diagnosis techniques / methods at the central laboratories | 3 personnel x 30 days | HIV test kit | △ | 15 participants, Training Manual X 20 |
| To train lab staff locally to acquire preventive maintenance skills of lab equipment | | | | |

8. Discuss if there is a external conditions to realize Outputs and check if existing assumptions became true or not.



9.Each unit lists up additional activities and expected products under each Output.

Performance of laboratory techniques on HIV/AIDS and TB, data management and overall laboratory management at UTH are improved

Research Unit

| Activity | Input (personnel, equipment etc | Status | Products | Expected Products |
|---|---|---|---|---|
| To train counterparts on surveillance and diagnosis techniques / methods at the central laboratories | 3 personnel x 30 days | HIV test kit △ | 15 participants, Training Manual X 20 | 100 participants, Training Manual X 20 |
| To train lab staff locally to acquire preventive maintenance skills of lab equipment | | | | |

# Operation Guide for Project Steering Committee Meetings and Quarterly Monitoring Meetings

## 1. The Project Steering Committee Meetings and Quarterly Monitoring Meetings

1.1. Monthly Steering Committee Meetings

1.1.1. The Zambian Counterparts and the JICA experts will meet jointly on a monthly basis to maintain and manage the Project activities.

1.1.2. The Monthly Steering Committee Meetings will result in the identification of any problems or issues concerning project implementation, and recommend necessary collective action and those responsible for taking action.

1.1.3. The meeting records will be filed into "The Steering Committee Meeting".

1.2. Preparation for Quarterly Monitoring Meetings

1.2.1. Responsible person for each activity will fill in "Actual" part of "Plan, Operation, and Monitoring Sheet" a week prior to Quarterly Monitoring Meetings. See "Monitoring Procedure"

1.2.2. Responsible person will fill in indicators of "Monitoring Sheet and Schedule" with relevant data a week prior to the Quarterly Monitoring Meetings.

- Epidemiology and data management unit will report on the following indicators under the PDM:
  - 1-A Total number of laboratory tests in Virology Laboratory and TB Laboratory in UTH
  - 1-B Total number of newly introduced laboratory tests in Virology Laboratory and TB Laboratory in UTH
  - 2-A Coverage of VCT centers sending samples of HIV test for QA
  - 2-D Number of trainings and trainees for VCT/MTCT sites
  - 4-BAssessment of utilization of the information generated by the Project among stakeholders with baseline and exit questionnaires
- Serology and immunology unit will report on the following indicators under the PDM.
  - 2-C Total number of laboratory tests identified with laboratory monitoring sheet of Government's ARV centers
- TB Laboratory will report on the following indicators under the PDM.
  - 3-A Standardized guideline for EQA is made
  - 3-B Number of TB microscopic centers participating in quality checking
  - 3-C Agreement rate between TB microscopic centers and the EQA center in UTH

- 3-D Number of TB microscopy centers covered with on-site evaluation visits

- The Steering Committee will discuss the following indicators under the PDM reviewing the relevant files.

- 1-D Combined indicators on HIV/AIDS related laboratory technique (the Project Monitoring file)
- 1-E Combined indicators on TB laboratory technique (the Project Monitoring file)
- 1-F Score of equipment assessment used for a JICA regular report(the Project Monitoring file)
- 5 Percentage of meeting attendance and reporting to the steering committee of the Project by the Project staff who are officially appointed (Minutes of HIV/AIDS and TB working group meeting)

1.3. Quarterly Monitoring Meetings

1.3.1. The Zambian Counterparts and the JICA experts will meet jointly on a quarterly basis to review and monitor progress of activities indicated in "Monitoring sheet and schedule".

1.3.2. The Project Steering Committee Meetings will be incorporated into Quarterly Monitoring Meeting when they are scheduled in the same month.

1.3.3. During the Monitoring Meetings, the member of the Meetings will check the following elements in comparing "Plan " and "Actual" and will discuss the progress of the Project.

- Progress of activities – " Plan, Operation, and Monitoring Sheet"
- Quality and quantity of necessary Inputs - " Plan, Operation, and Monitoring Sheet"
- Achievement of Outputs – "Monitoring sheet and schedule"
- Time flow of the Project - " Plan, Operation, and Monitoring Sheet"

1.3.4. The Monitoring Meetings will result in the identification of any problems or issues concerning project implementation, and recommend necessary collective action and those responsible for taking action. If necessary the alteration of expected result for indicator as well as the revision of the PDM will be discussed.

1.4. Planning for the next quarter

1.4.1. Based on recommend necessary collective action and those responsible for taking action made by the Steering Committee at Quarterly Monitoring Meetings, each responsible person will prepare for a new "Plan, Operation, and Monitoring Sheet (POMS)" using the format of POMS. The PMOS should be made by hand-writing covering remaining period of the Project so that they are not left in a computer.

1.4.2. At least, three copies of a prepared PMOS file will be made. The first copy will be filed into "Steering Committee Meetings and Quarterly Monitoring Meetings" in the Project office, the second file be kept by responsible Zambian counterparts and third copy will be kept responsible JICA experts.

## 2. Membership

2.1. Member of Steering Committee Meetings

2.1.1. Membership in the Steering Committee Meetings will include the following:

| **Zambia** | |
|---|---|
| 1 | 13 |
| 2 | 14 |
| 3 | 15 |
| 4 | 16 |
| 5 | 17 |
| 6 | 18 |
| 7 | 19 |
| 8 | 20 |
| 9 | 21 |
| 10 | 22 |
| 11 | 23 |
| 12 | 24 |

| **Japan** | |
|---|---|
| 1 | 9 |
| 2 | 10 |
| 3 | 11 |
| 4 | 12 |
| 5 | 13 |
| 6 | 14 |
| 7 | 15 |
| 8 | 16 |

## 3. Venue

3.1. 1. The Project Steering Committee Meetings and Quarterly Monitoring Meetings will be held at the Project office in UTH Laboratory.

## 4. Roles and Responsibilities

4.1. Chairpersons

4.1.1. _____ of UTH Laboratory will serve as a Chairperson for Project Steering Committee Meetings and Quarterly Monitoring Meetings. When he is not available, the other member of the UTH Laboratory will be replaced.

4.2. Taking of Minutes

4.2.1. The Steering Committee will assign one staff to take minutes for Project Steering Committee Meetings and Quarterly Monitoring Meetings. In order to ensure continuity in minute taking/recording, the staff should remain the same throughout the life of the project.

4.2.2. Outline/Format of Minutes — Minutes should provide adequate detail regarding the reports/presentations of meeting participants, issues and concerns discussed, and recommended further actions.

4.3. Distribution of Minutes

4.3.1. The staff responsible for taking and compiling minutes for Project Steering Committee Meetings and Quarterly Monitoring Meetings will be responsible for distributing minutes to all participants.

4.4. Record Keeping

4.4.1. The staff responsible for taking, compiling and distributing minutes for the Project Steering Committee Meetings and Quarterly Monitoring Meetings will be responsible for maintaining a file of all minutes.

## 5. Tools for Planning and Monitoring

5.1 Monitoring Procedure
5.2 PDM ver3
5.3 Indicators under the PDM ver3
5.4 Monitoring sheet and schedule
5.5 Plan, Operation and Monitoring sheet (Out 1 to Output 5)
5.6 Recording sheet for the indicator 4-A: List of information, category of beneficiaries, and estimated number of beneficiaries at each event
5.7 Recording sheet of trainings and trainees for the indicator 2-D : Number of training and trainees for VCT/MTCT
5.8 Questionnaire for assessing the utilization of laboratory generated information

Planing period: from to Monitoring date(date "Actual" filled)

**Output I** Performance of Laboratory techniques, data management and overall laboratory management are improved.

| No. | Plan Actual | ACTIVITIES | EXPECTED RESULTS/ INDICATORS (Numbers / Status) | POSITION IN CHARGE Z | J | 2003 10 | 11 | 12 | 2004 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 2005 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 2006 1 | 2 | 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-1 | Plan | To train counterparts on surveillance and diagnosis techniques / methods at the central laboratories | | Project Manager | Chief Advisor | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1-2 | Plan | To train lab staff locally to acquire preventive maintenance skills of lab equipment | | Unit Head, Virology and TB Lab | Project Coordinator, short-term expert(equipment maintenance) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1-3 | Plan | To establish or improve the following technologies in the central laboratories on monitoring, surveillance, and diagnosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1-3(a) | Plan | 1-3(a)Provide technical support for monitoring Anti-retro viral(ARV) drug treatment | | Serology & Immunology Unit,Molecular Biology Unit | Long-term expert(HIV/AIDS), Long-term expert(HIV/AIDS immunology and virology), Short- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1-3(b) | Plan | 1-3(b)Anti-HIV drug assay and ARV drug resistance | | Molecular Biology Unit | Long-term expert(HIV/AIDS), Long-term expert(HIV/AIDS immunology and virology), Short- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13-© | Plan | 1-3(c)HIV strain surveillance and sero-sentinel surveillance | | - Molecular Biology Unit - VCT Coordinator | - Long-term expert(HIV/AIDS), Long-term expert(HIV/AIDS immunology and virology), Short- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 1-3(d) | Plan | 1-3(d)HIV immunological response | | Serology & Immunology Unit | Long-term expert(HIV/AIDS), Long-term expert(HIV/AIDS immunology and virology), Short-... |
| | Actual | | | | |
| 13(e) | Plan | 1-3(e)TB drug resistance surveillance and Anti-TB drug susceptibility(improvement) | | Section head, TB lab | Long-term Expert(TB),Short-term Expert(TB) |
| | Actual | | | | |
| 1-3(f) | Plan | 1-3(f) Diagnostic value of TB(improvement) | | Advanced technique section,TB lab | Long-term Expert(TB),Short-term Expert(TB) |
| | Actual | | | | |
| 1-4 | Plan | To make recommendation in reviewing SOPs for HIV/AIDS and TB labs to CBoH as part of Technical Working Group | | Project Manager | Chief Advisor |
| | Actual | | | | |
| 1-5 | Plan | To improve data management, information and overall management of Virology and TB laboratories. | | Epidemiology and Datamanagement Unit | Long-term Expert(Public Health) |
| | Actual | | | | |
| | | | | | |
| | | | | | |

Input (Equipment, Money, Shorttime Expert, Local staff other than C/P, and Local Consultants etc.)

| | | | | | |
|---|---|---|---|---|---|
| | Plan | | | | |
| | Actual | | | | |
| | Plan | | | | |
| | Actual | | | | |
| | Plan | | | | |
| | Actual | | | | |

Planing period: from to Monitoring date(date "Actual" filled)

**Output II** Performace and quality of laboratory services with laboratory monitoring system at VCT sites and ARV centers are improved to be replicable for nation wide program

| No. | Plan Actual | ACTIVITIES | EXPECTED RESULTS/ INDICATORS (Numbers / Status | POSITION IN CHARGE Z | J | 2003 10 | 11 | 12 | 2004 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 2005 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 2006 1 | 2 | 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-1 | Plan | To formulate a strategic plan for establishing CD4 counting service for 9 ARV treatment centers | | Immunology and Serology Unit | Long-term Expert(HIV/AIDS) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-2 | Plan | To conduct trainings of CD4 counting for laboratory technologists/technitians at 9 ARV centers. | | Immunology and Serology Unit | Long-term Expert(HIV/AIDS) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-3 | Plan | To develop and revise protocol for CD4 counting | | Immunology and Serology Unit | Long-term Expert(HIV/AIDS) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-4 | Plan | To improve follow-up sheet of ARV treatment. | | Immunology and Serology Unit | Long-term Expert(HIV/AIDS)/ Short-term expert | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-5 | Plan | To compile and analyze CD4 counting data and follow-up sheet developed at the 9 ARV treatment centers. | | Immunology and Serology Unit | Long-term Expert(HIV/AIDS) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-6 | Plan | To apply technique for ARV drug resistance as part of laboratory monitoring | | Molecular Biology Unit | Long-term Expert(HIV/AIDS) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 2-7 | Plan | To conduct training of trainer workshops for health workers in HIV/AIDS diagnosis in collaboration with technical working group | | VCT manager | Long-term Expert(Public Health) |
| | Actual | | | | |
| 2-8 | Plan | To conduct laboratory training for health workers to support VCT and MTCT programmes. | | VCT manager | Long-term Expert(Public Health) |
| | Actual | | | | |
| 2-9 | Plan | To ensure quality assurances at every VCT and MTCT sites. | | VCT manager | Long-term Expert(Public Health) |
| | Actual | | | | |
| 2-10 | Plan | To conduct operational reserch for a model DOTS in tegrateed with ARV trreatment (same as3-4) | | Research Unit | Long-term Expert(TB,Public Health, HIV) |
| | Actual | | | | |

Input (Equipment, Money, Shorttime Expert, Local staff other than C/P, and Local Consultants etc.)

| | | | | | |
|---|---|---|---|---|---|
| | Plan | | | | |
| | Actual | | | | |
| | Plan | | | | |
| | Actual | | | | |
| | Plan | | | | |
| | Actual | | | | |

Planing period: from to Monitoring date(date "Actual" filled)

**Output III** Quality Tuberclosis diagnostic sytem is developed as a model for national TB laboratory network

| No. | Plan Actual | ACTIVITIES | EXPECTED RESULTS/ INDICATORS (Numbers / Status | POSITION IN CHARGE Z | J | 2003 10 11 12 | 2004 1 2 3 4 5 6 7 8 9 10 11 12 | 2005 1 2 3 4 5 6 7 8 9 10 11 12 | 2006 1 2 3 |
|---|---|---|---|---|---|---|---|---|---|
| 3-1 | Plan | To conduct training of trainer workshops for health workers in TB diagnosis in collaboration with technical working group | | TB section | TB Long-term Expert,TB Short-term Expert | | | | |
| | Actual | | | | | | | | |
| 3-2 | Plan | To conduct laboratory training for laboratory technologists/technitians at peripheral laboratories to support TB programmes. | | TB section | TB Long-term Expert,TB Short-term Expert | | | | |
| | Actual | | | | | | | | |
| 3-3 | Plan | To participate in development of training manuals for TB for staff of peripheral laboratories | | TB section | TB Long-term Expert,TB Short-term Expert | | | | |
| | Actual | | | | | | | | |
| 3-4 | Plan | To ensure quality assuarance for TB testing at all TB diagnosis sites in Lusaka Province. | | TB section | TB Long-term Expert,TB Short-term Expert | | | | |
| | Actual | | | | | | | | |
| 3-5 | Plan | To conduct operational reserch for a model DOTS in tegrateed with ARV trreatment(same as 2-10) | | TB section | TB Long-term Expert,TB Short-term Expert | | | | |
| | Actual | | | | | | | | |

Input (Equipment, Money, Shorttime Expert, Local staff other than C/P, and Local Consultants etc.)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Plan | | | | | | | | |
| | Actual | | | | | | | | |
| | Plan | | | | | | | | |
| | Actual | | | | | | | | |
| | Plan | | | | | | | | |
| | Actual | | | | | | | | |

Planing period: from to Monitoring date(date "Actual" filled)

## Output Ⅳ Utilization of laboratory information obtained from the Project activities is improved.

| No. | Plan Actual | ACTIVITIES | EXPECTED RESULTS/ INDICATORS (Numbers / Status | POSITION IN CHARGE Z | J | 2003 10 | 11 | 12 | 2004 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 2005 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 2006 1 | 2 | 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4-1 | Plan | To sensitize health workers on the importance of lab diagnosis for HIV/AIDS and distribution of project news letters. | | Project Manager | Long-term Exp.(Public Health),Chief Advisor, Coordinator | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4-2 | Plan | To update and distribute laboratory handbook for health workers. | | Project Manager | HIV immunology and virology | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4-3 | Plan | To provide results of HIV/AIDS and TB lab tests timely to UTH clinicians. | | Project Manager | Chief Advisor | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4-4 | Plan | To produce and distribute technical information and materials on HIV/AIDS and TB to stakeholders. | | Project Manager | Chief Advisor | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4-5 | Plan | To produce project homepage on the internet. | | Epidemiology and Data Management Unit | Long-term Exp.(Public Health) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4-6 | Plan | To hold dissemination meetings with MOH/CBoH on the activities of project at least twice a year. | | Project Manager | Chief Advisor | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Actual | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4-7 | Plan | To record a type of infromation, category of beneficiaries, and number of beneficiaries who access the infromation regularly | | Epidemiology and Data Management Unit | Long-term Exp.(Public Health) | |
| | Actual | | | | | |

Input (Equipment, Money, Shorttime Expert, Local staff other than C/P, and Local Consultants etc.)

| | | | | | | |
|---|---|---|---|---|---|---|
| | Plan | | | | | |
| | Actual | | | | | |
| | Plan | | | | | |
| | Actual | | | | | |
| | Plan | | | | | |
| | Actual | | | | | |

Planing period: from to Monitoring date(date "Actual" filled)

## Output V Collaboration with HIV/AIDS and TB Working Groups is institutionalized.

| No. | Plan Actual | ACTIVITIES | EXPECTED RESULTS/ INDICATORS (Numbers / Status | POSITION IN CHARGE Z | J | 2003 10 11 12 | 2004 1 2 3 4 5 6 7 8 9 10 11 12 | 2005 1 2 3 4 5 6 7 8 9 10 11 12 | 2006 1 2 3 |
|---|---|---|---|---|---|---|---|---|---|
| 5-1 | Plan | Project staff both Japanese and Zambian get officially appointed and actively involved in various Technical Working Groups(VCT, | | Director of lab Service(Deputy Director of the Project) | Chief Advisor | | | | |
| | Actual | | | | | | | | |
| 5-2 | Plan | To present to Techinical Working Group relevant research information from the Project activities | | Director of lab Service(Deputy Director of the Project) | Chief Advisor | | | | |
| | Actual | | | | | | | | |
| 5-3 | Plan | To coordinate the Project objectivies with relevant GRZ's organizations in HIV/AIDS and TB control | | Director of lab Service(Deputy Director of the Project) | Chief Advisor | | | | |
| | Actual | | | | | | | | |

Input (Equipment, Money, Shorttime Expert, Local staff other than C/P, and Local Consultants etc.)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Plan | | | | | | | | |
| | Actual | | | | | | | | |
| | Plan | | | | | | | | |
| | Actual | | | | | | | | |

| No. | Activity | Zambian Side | Japanese Side |
|---|---|---|---|
| 1-1 | To train counterparts on surveillance and diagnosis techniques / methods at the central laboratories | Project Manager | Chief Advisor |
| 1-2 | To train lab staff locally to acquire preventive maintenance skills of lab equipment | Unit Head, Virology and TB Lab | Project Coordinator, short-term expert(equipment maintenance) |
| 1-3 | To establish or improve the following technologies in the central laboratories on monitoring, surveillance, and diagnosis | | |
| | 1-3(a)Provide technical support for monitoring Anti-retro viral(ARV) drug treatment | Serology & Immunology Unit,Molecular Biology Unit | Long-term expert(HIV/AIDS),Long-term expert(HIV/AIDS immunology and virology), Short-term expert |
| | 1-3(b)Anti-HIV drug assay | Molecular Biology Unit | Long-term expert(HIV/AIDS),Long-term expert(HIV/AIDS immunology and virology), Short-term expert |
| | 1-3(c) HIV strain surveillance and sero-sentinel surveillance<br>- HIV stain<br>- sero-sentinel surveillance | - Molecular Biology Unit<br>- VCT Coordinator | - Long-term expert(HIV/AIDS),Long-term expert(HIV/AIDS immunology and virology), Short-term expert<br>- Epi&Public Heatlh Long-term expert |
| | 1-3(d)HIV immunological response | Serology & Immunology Unit | Long-term expert(HIV/AIDS),Long-term expert(HIV/AIDS immunology and virology), Short-term expert |
| | 1-3(e)TB drug resistance surveillance and Anti-TB drug susceptibility(improvement) | Section head, TB lab | Long-term Expert(TB),Short-term Expert(TB) |
| | 1-3(f) Diagnostic value of TB(improvement) | Advanced technique section,TB lab | Long-term Expert(TB),Short-term Expert(TB) |
| | | | |
| 1-4 | To make recommendation in reviewing SOPs for HIV/AIDS and TB labs to CBoH as part of Technical Working Group | Project Manager | Chief Advisor |
| 1-5 | To improve data management, information and overall management of Virology and TB laboratories. | Epidemiology and Datamanagement Unit | Long-term Expert(Public Health) |
| | | | |
| 2-1 | To formulate a strategic plan for establishing CD4 counting service for 9 ARV treatment centers | Immunology and Serology Unit | Long-term Expert(HIV/AIDS) |
| 2-2 | To conduct trainings of CD4 counting for laboratory technologists/technitians at 9 ARV centers. | Immunology and Serology Unit | Long-term Expert(HIV/AIDS) |
| 2-3 | To develop and revise protocol for CD4 counting | Immunology and Serology Unit | Long-term Expert(HIV/AIDS) |
| 2-4 | To improve follow-up sheet of ARV treatment. | Immunology and Serology Unit | Long-term Expert(HIV/AIDS)/ Short-term |
| 2-5 | To compile and analyze CD4 counting data and follow-up sheet developed at the 9 ARV treatment centers. | Immunology and Serology Unit | Long-term Expert(HIV/AIDS) |
| 2-6 | To apply technique for ARV drug resistance as part of laboratory monitoring | Molecular Biology Unit | Long-term Expert(HIV/AIDS) |
| 2-7 | To conduct training of trainer workshops for health workers in HIV/AIDS diagnosis in collaboration with technical working | VCT manager | Long-term Expert(Public Health) |
| 2-8 | To conduct laboratory training for health workers to support VCT and MTCT programmes. | VCT manager | Long-term Expert(Public Health) |
| 2-9 | To ensure quality assurances at every VCT and MTCT sites. | VCT manager | Long-term Expert(Public Health) |
| 2-10 | To conduct operational reserch for a model DOTS in tegrateed with ARV treatment (same as3-4) | Research Unit | Long-term Expert(TB,Public Health, HIV) |
| | | | |
| 3-1 | To conduct training of trainer workshops for health workers in TB diagnosis in collaboration with technical working group | TB section | TB Long-term Expert,TB Short-term Expert |
| 3-2 | To conduct laboratory training for laboratory technologists/technitians at peripheral laboratories to support TB programmes. | TB section | TB Long-term Expert,TB Short-term Expert |
| 3-3 | To participate in development of training manuals for TB for staff of peripheral laboratories | TB section | TB Long-term Expert,TB Short-term Expert |
| 3-4 | To ensure quality assuarance for TB testing at all TB diagnosis sites in Lusaka Province. | TB section | TB Long-term Expert,TB Short-term Expert |
| 3-5 | To conduct operational reserch for a model DOTS in tegrateed with ARV treatment(same as 2-10) | TB section | TB Long-term Expert,TB Short-term Expert |
| | | | |
| 4-1 | To sensitize health workers on the importance of lab diagnosis for HIV/AIDS and distribution of project news letters. | Project Manager | Long-term Exp.(Public Health),Chief Advisor, Coordinator |
| 4-2 | To update and distribute laboratory handbook for health | Project Manager | HIV immunology and virology |
| 4-3 | To provide results of HIV/AIDS and TB lab tests timely to UTH clinicians. | Project Manager | Chief Advisor |
| 4-4 | To produce and distribute technical information and materials on HIV/AIDS and TB to stakeholders. | Project Manager | Chief Advisor |
| 4-5 | To produce project homepage on the internet. | Epidemiology and Data Management Unit | Long-term Exp.(Public Health) |
| 4-6 | To hold dissemination meetings with MOH/CBoH on the activities of project at least twice a year. | Project Manager | Chief Advisor |
| 4-7 | To record a type of infromation, category of beneficiaries, and number of beneficiaries who access the infromation regularly | Epidemiology and Data Management Unit | Long-term Exp.(Public Health) |
| | | | |
| 5-1 | Project staff both Japanese and Zambian get officially appointed and actively involved in various Technical Working Groups(VCT, MTCT, TB and Vaccine and Research) | Director of lab Service(Deputy Director of the Project) | Chief Advisor |
| 5-2 | To present to Techinical Working Group relevant research information from the Project activities | Director of lab Service(Deputy Director of the Project) | Chief Advisor |
| 5-3 | To coordinate the Project objectivies with relevant GRZ's organizations in HIV/AIDS and TB control | Director of lab Service(Deputy Director of the Project) | Chief Advisor |

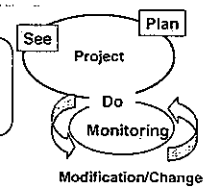
# Monitoring

20 November 2003
Usuda Eimitsu



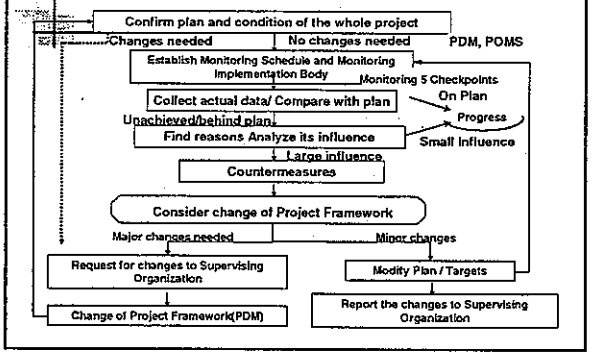
## Monitoring

Control the Project in its process, comparing with its plan and actual performance




Change/modify if necessary in accordance with Project Purpose

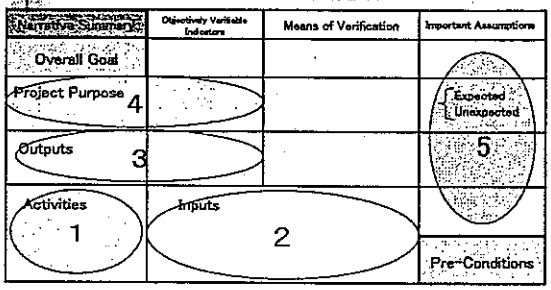
## Monitoring Procedure




## Monitoring 5 Checkpoints

1. Flow of Activities
2. Quality / quantity of Inputs
3. Achievement of Outputs
4. Achievement of the Project Purpose
5. Affects from Important Assumptions

## Monitoring Checkpoints in the PDM




## Present Situation of Monitoring

1. Responsible body for monitoring is not clearly recognized
2. Tools for monitoring are not methodically established.
3. Monitoring might be some extent individually conducted but monitoring for the whole project is not yet widely conducted.

Enhance the existing "Steering Committee of the Project". Use POMS and Monitoring sheet /Schedule created based on PDM to control the Project in its process.

## Basis for Monitoring

- The Project Steering Committee Meetings
- The Quarterly Monitoring Meetings

Enhancing monitoring implementation body

**Operation Guide for Project Steering Committee Meetings and Quarterly Monitoring Meetings**

## Tools for Planning Activities and Monitoring

| Tools | Planning | Monitoring |
|---|---|---|
| 1. Monitoring Procedure | Not applicable | Indicate general concept of monitoring |
| 2. PDM ver3 | Base for activity planning | Base of the Project monitoring |
| 3. Indicators under PDMver3 | Base for activity planning | Base of the Project monitoring |
| 4. Monitoring sheet and schedule | Expected achievements based on indicators | Actual achievements based on indicators |
| 5. Plan, Operation, and Monitoring | Expected activities and inputs based on PDM | Actual activities, inputs and timing of inputs |
| 6. Recording sheet for Indicator 4-A | Not applicable | Indicator 4-A |
| 7. Recording sheet for indicator 2-D | Not applicable | Indicator 2-D |
| 8. Questionnaire for assessing laboratory generated information | Baseline for indicator 4-B | Progress of indicator 4-B |

## Plan, Operation, and Monitoring Sheet

| No. | Plan Actual | ACTIVITIES | EXPECTED RESULTS/ INDICATORS (Numbers / Status |
|---|---|---|---|
| 3-1 | Plan | To conduct training of trainer workshops for health workers in TB diagnosis in collaboration with technical working group | |
| | Actual | | |
| 3-2 | Plan | To conduct laboratory training technologists/technitians at laboratories to support TB progr | |
| | Actual | | |

Responsible personnel fill the EXPECTED RESULTS / STUTUS WHNE THE ACTIVITIES IS COMPLETED

## Plan, Operation, and Monitoring Sheet

| POSITION IN CHARGE | | 2003 | | 2004 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z | J | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| TB section | TB Long-term Expert,TB Short-term Expert | | | | → Plan for course program and preparation of textbook | | | ↓ Conduct the course | | | | | | | | |
| | | | | | | | | | | | | | | | | |

Responsible personnel fill the planned activities for the ACTIVITY indicated in POMS. This should cover the remaining period of the Project. If the ACTIVITY is completed, you don't need fill in the part

## Plan, Operation, and Monitoring Sheet

| Plan Actual | ACTIVITIES | EXPECTED RESULTS/ INDICATORS (Numbers / Status | POSITION IN CHARGE |
|---|---|---|---|
| Plan | To conduct training of trainer workshops for health workers in TB diagnosis in collaboration with technical working group | 100 health workes are trained until March 2003 | TB section |
| Actual | *TOT worshop was conducted but its scale was less than expected, Because technical working group indicated the similar workshop had conducted before.* | 50 health workes attended the workshop held in Feb 3-7, 2003 | Dr.Zulu |

Responsible personnel fill "Actual" part including the cause of delay, additional activities in order to realize the expected result of the ACTIVITY.

Responsible personnel fill the actual status as a result of activities.

Indicate the name of the person in charge.

## Plan, Operation, and Monitoring Sheet

| POSITION IN CHARGE | | 2003 | | 2004 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z | J | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| TB section | TB Long-term Expert,TB Short-term Expert | | | | → Plan for course program and preparation of textbook | | | ↓ Conduct the course | | | | | | | | |
| Dr. Zulu | Ms. Kudo | | | | | | → Plan for course program and preparation of textbooks, 100 topics of textbook were made | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

Indicate the name of the person in charge.

Responsible personnel fill the actual work load in terms of timing and duration of the activities.

## Plan, Operation, and Monitoring Sheet

Input (Equipment, Money, Shorttime Expert, Local staff other than C/P, and Loc

| | | | | | |
|---|---|---|---|---|---|
| Plan | Short term expert for TB molecular biology | 2 weeks | | | |
| | Short term expert for TB molecular biology, Dr. Hirata will dispatched from 13 January to 28 January 2003. Two month delay influenced another delay of ACTIVITY 3-3 | 2 weeks | Dr. Zuku | Dr. Hirata | |

Responsible personnel also indicates required inputs such human resources

Responsible personnel fill the actual inputs in terms of timing and quantity

## Plan, Operation, and Monitoring Sheet

Monitoring sheet and schedule

The Steering Committee will compare the expected and the actual achievement based on "Monitoring sheet and schedule" and "Plan, Operation, and Monitoring Sheet".

## Monitoring Result Matrix may help the actions

| Outputs | Problems / Issues to be Occurred | Reasons | Counter-measures | Formalities Needed | In Charge |
|---|---|---|---|---|---|
| Output1 ••• | ••• | ••• | ••• | ••• | ••• |
| Output2 Facilities & Equipments | Needs survey delayed for one month | District's survey level is lower than expected | • Procurement is on plan | • Request for dispatch of short-term experts<br>• Follow-up by the present long-term experts | • Present long-term experts |
| Output3 Mobile Team | Manual preparation delayed 50% | Reasons are under investigation | • Postpone training for one month<br>-Implement Mobil team as planned | • Report to JCC<br>• Announcement of the delay of training | ••• |
| Output4 ••• | ••• | ••• | | | |

## Monitoring Matrix for Important Assumptions

| Level | Important Assumptions | Prospective Impact | Trigger Point | Present Condition |
|---|---|---|---|---|
| Project Purpose ••••• | Agricultural Promotion Policy is not changed. | Subsidy for Agricultural Sector is reduced. | Change of Minister, Reduction of budget allocation from the Ministry, Delay of payment | |
| Output1 ••••• | There is normal amount of rainfall. | The project is seriously affected by amount of rainfall less than half of usual | Beginning of rainy season delayed for one month. Amount of rainfall is less than half of usual. | |
| Output2 ••••• | ••••• | ••••• | ••••• | |
| Activities/Inputs ••••• | There is no major change in rice market. | Possibility of benefit loss if the price dropped than 20% | Depreciation of exporting market & local market of the targeting area | |

Trigger point:: Factors inhibiting accomplishment of Important Assumptions (Forecast)

## Plan, Operation, and Monitoring Sheet

| EXPECTED RESULTS/ INDICATORS (Numbers / Status) | POSITION IN CHARGE | 2003 | 2004 |
|---|---|---|---|
| | J | 10 11 12 | 1 2 3 4 5 6 7 8 9 10 11 12 |
| | TB Lecturer | TB Lecturer Expert TB Short-term Expert | |

Responsible person will make new Plan, Operation, and Monitoring Sheet covering the remaining period of the Project

## Record of Planning and Monitoring

Preparation of "Plan, Operation, and Monitoring", Filing of "Actual" part of PDMS, Report on the indicators, and Re-plan based on the response from Monitoring Meetings

Responsible Zambian counterpart

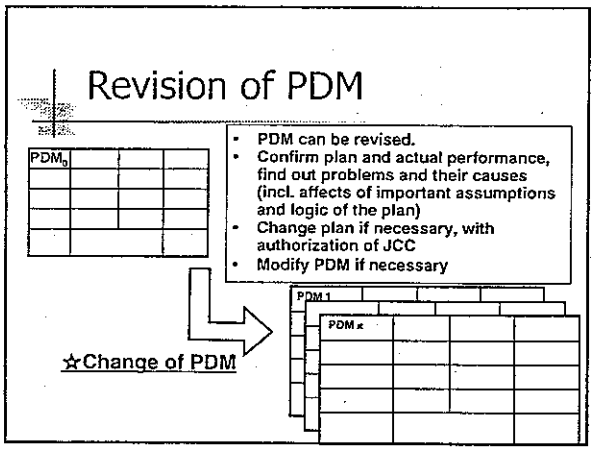
Responsible JICA expert

Feedback of quarterly monitoring result, One copy of "PDMS" is kept by JICA expert

Feedback of quarterly monitoring result. One copy of "PDMS" is kept by JICA expert

Quarterly Monitoring Meetings by Project Steering Committee

One copy of "PDMS" is kept in the Project office as well as revised "Monitoring sheet and schedule"


Revision of PDM
PDM0
PDM can be revised.
Confirm plan and actual performance, find out problems and their causes (incl. affects of important assumptions and logic of the plan)
Change plan if necessary, with authorization of JCC
Modify PDM if necessary
☆Change of PDM
PDM 1
PDM x

Monitoring sheet

18 November 2003

# Monitoring sheet and schedule

October 2003 (Mid-term Evaluation) ▼

September 2005 (Terminal Evaluation) ▼

| Output | | Indicators | 2000 | 2001 | 2002 | 2003 | Expected Result |
|---|---|---|---|---|---|---|---|
| 1. Performance of Laboratory techniques, data management and overall laboratory management are improved. | 1-A | Total number of laboratory tests in Virology Laboratory and TB Laboratory in UTH | | 22,805 | 45,358 | 37,738 | 40000 (year 2005) |
| | 1-B | Total number of newly introduced laboratory tests in Virology Laboratory and TB Laboratory | | 1,189 | 5,115 | 4,715 | 7000 (year 2005) |
| | 1-C | Percentage of establishment positions filled | | to be filled | | | 90% |
| | 1-D | Combined indicators on HIV/AIDS related laboratory technique<br>The categorical criteria were set up as follows. 1: Staff trained; 2: Availability of technique and summarized data profile, 3: Manual or series of protocol available, 4: Technique transferred outside of the UTH laboratory with quality assurance. The fina | | | | | |
| | | HIV test | 2 | 3.5 | 3.5 | 3.5 | 4: QA control all sites |
| | | HIV viral load technique | - | 2 | 3 | 3 | 3 |
| | | Monitoring of ARV drug treatment | - | 1 | 2 | 2 | 3: CD4 data set with an approved follow-up sheet become available and ARV sites monitoring system installed |
| | | PCR standard technique | 3 | 3 | 3 | 3 | 3 |
| | | Tissue culture | 2 | 3 | 3 | 3 | 3 |
| | | CD4 count test (FACCallibur) | - | - | 2 | 2 | 3: Available for quality control for dhynabeads method |
| | | CD8 count test | - | - | 2 | 2.5 | 3: Available for quality control system |
| | | Alternative CD4 count including Dynabeads method | - | - | - | 2 | 4: Available at the all 9 ARV center |
| | | Base = (Status in 2000) / (Expected Status) = (2+3+2) / (4+3+3+3+3+3+3+4) = 7/26---A<br>Current status=(2003 oct) / (Expected Status) = (3.5+3+2+3+3+2+2.5+2) / (4+3+3+3+3+3+3+4)=21/26---B<br>(B-A)*100/B=67% Completed | | | | | |
| | 1-E | Combined indicators on TB laboratory technique<br>The categorical criteria were set up as follows.(1: Staff trained; 2: Availability of technique and summarized data profile, 3: Manual or series of protocol available, 4: Technique transferred outside of the UTH laboratory with quality control) | | | | | |
| | | Review of routine screening at UTH | | | 3 | 3.5 | 4 |
| | | TB drug surveillance | | - | - | 2 | to be set up |
| | | Rapid detection (MIGT) | | - | 2 | 2 | to be set up |
| | | Finger print method | | - | 2 | 2 | to be set up |
| | | DDH method | | - | 2 | 2 | to be set up |
| | 1-F | Score of equipment assessment used for a JICA regular report | | - | - | 0.62 | 0.62 (Utlization status and condition of equipment remain the same) |

Mar 2004 Jun 2004 Sep 2004 Dec 2004 Mar 2005 Jun 2005 Sep 2005 Dec 2005 Mar 2006

Monitoring sheet

18 November 2003

| | | Indicators | 2000 | 2001 | 2002 | 2003 | Expected Result | Mar 2004 | Jun 2004 | Sep 2004 | Dec 2004 | Mar 2005 | Jun 2005 | Sep 2005 | Dec 2005 | Mar 2006 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2. Performace and quality of laboratory services with laboratory monitoring system at VCT sites and ARV centers are improved to be replicable for nation wide program | 2-A | Coverage of VCT centers sending samples of HIV test for QA | | - | - | 25 sites out of 106 | to be set up (Since QA is now conducted by District, coverage of QA will include this indirect coverage as well) | | | | | | | | | |
| | 2-B | Average score of QA test results for CD counting | | - | - | Not availabl e yet | to be set up | | | | | | | | | |
| | 2-C | Total number of laboratory tests identified with laboratory monitoring sheet of Government's ARV centers | | - | - | Not availabl e yet | to be set up | | | | | | | | | |
| | 2-D | Number of trainings and trainees for VCT/MTCT sites | | | | 7 courses 450 trainees in total | to be set upb (7 training course conducted by JICA others are funded from other donors) | | | | | | | | | |
| 3. Quality Tuberclosis diagnostic sytem is developed as a model for national TB laboratory network | 3-A | Standardized guideline for EQA is made | | - | - | Draft available | 30 copies available | | | | | | | | | |
| | 3-B | Number of TB microscopic centers participating in quality checking | | - | - | 2 | 22 centers | | | | | | | | | |
| | 3-C | Agreement rate between TB microscopic centers and the EQA center in UTH | | - | - | 0% | 70-80% | | | | | | | | | |
| | 3-D | Number of TB microscopy centers covered with on-site evaluation visits | | - | - | 22 centers | 30 (22 centers plus 8 additional centers in Lusaka) | | | | | | | | | |
| 4. Utilization of laboratory information obtained from the Project activities is improved. | 4-A | List of information type, category of beneficiaries, and estimated number of beneficiaries at each event | | - | - | started Novemb er 2003 | to be set up | | | | | | | | | |
| | 4-B | Assessment of utilization of the information generated by the Project among stakeholders with baseline and exit questionnaires | | - | - | Baseline set up | to be set up | | | | | | | | | |
| 5. Collaboration with HIV/AIDS and TB Working Groups is institutionalized | 5 | Percentage of meeting attendance and reporting to the steering committee of the Project by the Project staff who are officially appointed | | - | - | | 100% | | | | | | | | | |

9. Recording Sheet for the indicator 4-A : List of information type, category of beneficiaries, and estimated number of beneficiaries at each event

| 1. Date of Event | 2. Medica category | 3. Content of information | 4. Benfeficiaries | 5. Number of beneficiaries |
|---|---|---|---|---|
| | | | | |
| Indicator 4-A | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

1. If it is not one day event such as a poster hanging from one day to another, indicated the period of days as well

2. This indicates media such as meeting, seminar, workshop, newspaper, journal, TV, radio, poster, specified annual report, monthly report, e-mail, homepage, newsletter etc.
3. This indicates a content of information. Be specific as much as possible.

4. Primary beneficiaries. Group category who receive the information.

5. Total number of estimated beneficiaries. In case of journal, newspaper, and homepage etc., number of subscribers

The Post: 10,000 per day
Times of Zambia: 7-10,000 per day
Daily Mail: 6,000

## 10. Questionnaire for the Project/Laboratory Generated Information

To Whom may concerns.

JICA-UTH's HIV/AIDS and TB Control Project aims to strengthen capacity of laboratory and improve the utilization of laboratory-generated information through the Project activities.

In order to verify the utilization of laboratory-generated information, it is very significant for us to have your views on the utilization of laboratory-generated information as a baseline. Will you kindly to response the questions attached and submit to by 2003,.of UTH.

Thank you very much for your cooperation.

【1】 Respondent Profile: Please tick corresponding category.

1. affiliation
   - ☐ NAC technical Working Group
   - ☐ Government Official of CBoH
   - ☐ NGO (non-profit)
   - ☐ Private hospital / Clinic
   - ☐ Government Hospital
   - ☐ Other (please specify: )
2. professional
   - ☐ Medical Doctor
   - ☐ Laboratory worker
   - ☐ Other (please specify: )

【2】 What sort of laboratory-generated information regarding laboratory service could you access (receive) ?: Please tick corresponding category (categories).

☐ diagnostic report ☐ sampling method ☐ safety precaution
☐ hospital infection ☐ referral feedback
☐ examination method ☐ examination reading (interpretation)
☐ working load of examinations ☐ Information on examination fee

【3】What sort of laboratory-generated information regarding population could you access (receive) ?: Please tick corresponding category (categories).

- ☐ HIV/AIDS profile or description of certain population (Pleas specify: )
- ☐ TB profile or description of certain population (Please specify: )
- ☐ Other (Please specify: )

【4】What is (are ) the purpose you got the information ? Please tick corresponding category (categories).

- ☐ Diagnosis and case management
- ☐ Improvement of techniques and knowledge
- ☐ Situation analysis (understanding current situation and problem)
- ☐ Plan for project / program
- ☐ Monitoring of project / program
- ☐ Evaluation of project / program
- ☐ Operation and management on health services
- ☐ Experiments and research
- ☐ Policy reference
- ☐ Study
- ☐ Other (Pleas specify: )

【5】What is (are ) the source of the information above? Please tick corresponding category (categories).

- ☐ Annual report (Please specify: )
- ☐ Monthly report (Please specify: )
- ☐ Newsletter
- ☐ Internet Homepage
- ☐ Handbook or manual (Please sepecify: )
- ☐ Meetings (Please specifiy: )
- ☐ Training (Plaese specify: )
- ☐ Workshop(Please specify: )
- ☐ Seiminar (Please specify: )
- ☐ Newspaper
- ☐ TV /radio
- ☐ Other (Pleas specify: )

【6】 Do you recognize which one of those below provided from the HIV/AIDS and TB Control Project? Please tick corresponding category (categories).

- ☐ Annual report (Please specify: )
- ☐ Monthly report (Please specify: )
- ☐ Newsletter
- ☐ Internet Homepage
- ☐ Handbook or manual (Please specify: )
- ☐ Meetings (Please specify: )
- ☐ Training (Please specify: )
- ☐ Workshop (Please specify: )
- ☐ Seminar (Please specify: )
- ☐ Newspaper
- ☐ TV /radio
- ☐ Other (Pleas specify: )

【7】 What sort of information is (are ) needed for your work?

11. Profile of Government ARV Center

November 21, 2003

**Name of ARV center:**

(1) General Background

| | | |
|---|---|---|
| Location | Hospital Director and Other stakeholders | |
| | Address and telephone: | |
| | Population | |
| | Number of Health Centers under the Hospital | |
| | Access | ■ Access to Lusaka ( )<br>■ Patient's access to service ( ) |
| Capacity | Total number of staff | ■ Medical and paramedical staff<br>■ Non-medical |
| | Number of Visits per year Number of beds | ■ Number of visits per year ( )<br>■ Number of beds ( ) |
| Function | Medical service (No. of Doctor) | ☐ Internal Medicine ( ) ☐ Pediatric ( )<br>☐ Obstetric and Gynecology ( )<br>☐ Surgery ( )☐ Others ( ) |
| | Facility and supporting service (Number of Staff) | ☐ Operation theater ( )☐X-ray ( ) ☐ Pharmacy ( ) ☐ Laboratory ( )<br>☐ Others ( ) |
| Competing or Collaborating Organizations | ☐ Private Hospital / Clinic<br>( )<br>☐ Private Laboratory<br>( )<br>☐ Private Pharmacy<br>( )<br>☐ NGO<br>( ) | |

(2) ARV treatment

| | | |
|---|---|---|
| HIV patient | Number of HIV patients registered | |
| | Number of HIV patients who have started treating | |
| | How do you select the ARV patients? | |
| | Number of potential HIV patients who will have ARV therapy | |
| | HIV patients group established? | |
| | What kind of support is (will ) be available? | |
| ARV treatment group | Has ARV treatment group been established? | ☐ yes<br>☐ no<br>☐ other ( ) |
| | List of the members for ARV treatment group | |
| Training | What kinds of seminar / trainings have you received? (Name of training course and person participated in the training) | ■ ( )<br>■ ( )<br>■ ( )<br>■ ( ) |
| | What kinds of guideline / manual is available? | |
| Perception | • Willingness to ARV treatment<br>• Laboratory based monitoring<br>• Knowledge on CD4 counting | |

(3) Laboratory

| | | |
|---|---|---|
| Laboratory | Head of Laboratory | |
| | Telephone / E-mail | |
| | Number of position | |
| | Number of position filled | |
| | List of Laboratory staff | |
| Function | Total number of tests per year | |
| | Type of test available | See Annex |
| | Facility and equipment (Status) | ☐ Incubator ( )<br>☐ Distilled water ( )<br>☐ Autoclave ( )<br>☐ Water supply ( )<br>☐ Electricity supply ( )<br>☐ Drainage ( ) |
| | Laboratory Recording | ☐ Full blood counting ( )<br>☐ CD4 counting ( )<br>☐ Accounting ( )<br>☐ HIV screening test ( ) |
| Observation of the Laboratory | | |

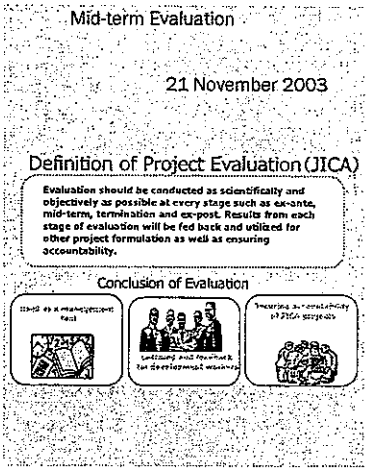
Continue

| | | |
|---|---|---|
| Training | What kinds of seminar / trainings have you received? (Name of training course and person participated in the training) | ■ ( )<br>■ ( )<br>■ ( )<br>■ ( ) |
| | What kinds of guideline / manual is available? | |
| Perception | • Willingness to ARV treatment<br>• Laboratory based monitoring<br>• Knowledge on CD4 counting | |

## JICA-UTH HIV/AIDS and TB Control Project

PDM version 2 January 2002 Period: March 2001—Mar 2006

| | |
|---|---|
| Overall Goal | Status of HIV/AIDS and TB in the Republic of Zambia is improved |
| Project Purpose | Laboratory systems are strengthened and are effectively utilized for HIV/AIDS and TB control in the Republic of Zambia |
| Output I | Performance of laboratory techniques, data management and overall laboratory management are improved |
| Output II | Performance and quality of peripheral labs for HIV/AIDS and TB testing and surveillance is improved |
| Output III | Utilization of lab service by health workers (Private, public and NGOs) is improved |
| Output IV | Information on HIV/TB generated by the project is utilized widely by majority of stakeholders in planning and implementing programmes (i.e. GRZ, other donors, health workers, NGOs, schools, youth and communities) |
| Output V | Collaboration with HIV/AIDS and TB Working Groups is institutionalized. |




# Mid-term Evaluation of the Project

## Mid-term Evaluation Method

The Mid-term Evaluation of the Project is performed based on the JICA's Project Evaluation Guideline which adopts a concept of Project Design Matrix (PDM) and Project Cycle Management (PCM). The PDM, which was formulated before the Project implementation, outlines the essential project elements such as project purpose, major activities, verifiable indicators for the achievements of the objectives and risks in the course of project implementation. The Project is implemented, monitored, and evaluated based on the PDM.

In the process of the Mid-term Evaluation, the evaluation team assesses the achievements for Objectives and Inputs, as well as performance for implementation process with the indicators shown in the PDM. The Project was also evaluated based on the DAC's five evaluation criteria (See Box "Five Evaluation Criteria) though the mid-term evaluation is particularly focused on Relevance and Efficiency among five evaluation criteria, as the aim of mid-term evaluation is to adjust the Project to an expected direction.

### Five Evaluation Criteria

- Relevance: To what extent is the Project Purpose consistent with the development policy of recipient country and the needs of target group?
- Effectiveness: To what extent has the Project Purpose been achieved?
- Efficiency: To what extent were Inputs converted into Outputs?
- Impact: To what extent will the Overall Goals be achieved? Are there any negative/positive and unexpected changes as a result of the Project?
- Sustainability: Will the activities and effects produced by the Project continue after the project completion?

## Achievements

Output I : Performance of laboratory techniques, data management and overall laboratory management are improved

It is perceived that 60-70% of the Output I was achieved. This ratio corresponds with the results from the document review and the group interview from the counterparts.

Newly introduced techniques refers the analysis of Zambian HIV strain, alternative method of CD counting, planning laboratory monitoring for ARV therapy program, local drug assay, and drug resistance etc A number of technical manuals were also prepared in this context.

In fact, the total number of laboratory tests in the Virology Laboratory reached approximately 7300 in 2002. It has rapidly increased from 13,800 in 2002 to 17,300 as of October, 2003.

The total number of newly introduced CD4/CD8, viral load, and HIV diagnostic test by PCR for newborn baby has dramatically increased from zero in 2000 to 1,189 in 2001, 5,115 in 2002 and 4,715 in the end of October 2003. It has exceeded the growth of the total number of tests done in the Virology Laboratory.

Furthermore, a number of samples were tested for experiments and surveillance by applying newly introduced techniques such as drug resistance assay, drug assay and analysis of HIV strains. The Virology Laboratory conducted HIV tests of 15,000 samples for 2001/2002 sentinel surveillance.

The diagnostic capacity of TB Laboratory remains the same as the number of microscopic tests (AFB microscopy) hovered around average of 20,000 over the Project period. Although a few of new techniques were introduced they are still at the experimental stage, but not applied to diagnostic services. Some preparatory work for multi drug resistance surveillance is being carried out.

Epidemiology and data management unit of UTH Virology Laboratory was equipped with a computer database which contains all necessary records for routine work. The current issue is how to analyze the information and to disseminate to users by means of this database.

## Output II Performance and quality of peripheral labs for HIV/AIDS and TB testing and surveillance is improved

Output II can be meant as the following three points in the proper sense of the word. The first is to monitor quality assurance for HIV testing at all VCT/MTCT sites and health facilities. The second is to set up laboratory monitoring system for planned Government ARV centers. The third is to establish external quality assurance system targeting 22 TB microscopic sites in Lusaka Province. In this regard, it is perceived that less than 30-40% of the Output II was achieved.

The training on HIV testing technique including data recording was conducted for technicians and midwives at health facilities, VCT/MTCT centers. Up to date, it has been undertaken through 17 group training program. The number of trainee including those individual trainees has reached 461 as of October 2003.

Inquires were sent to each Government ARV center to grasp the situation of laboratory at each site. Training plan was set up for introducing CD4 counting of dynabeads method.

TB related group training has been conducted six times and a total of 80 health workers have participated in these courses. Experimental external quality assurance (EQA) was introduced to the areas where DOTS strategy was adopted. The aim is to establish the EQA system in Lusaka Province.

## Output III: Utilization of lab service by health workers (Private, public and NGOs) is improved

As no related information has been systematically recorded and compiled, the degree of achievement for the Output III is hardly understood. The actual activities were observed less than expected.

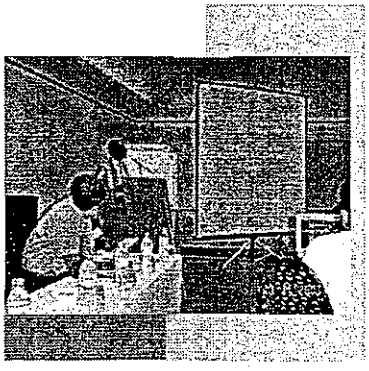
Laboratory activities and relevant information seem to be shared with clinicians of UTH through inter-department meeting, and to be released to the public through TV and newspaper.

## Output IV:Information on HIV/TB generated by the project is utilized widely by majority of stakeholders in planning and implementing programes (i.e. GRZ, other donors, health workers, NGOs, schools, youth and communities)

As the related information has not been systematically recorded nor compiled, the degree of achievement for the Output III is hardly understood. Although the result of experiment and research in the laboratory is likely to be utilized by someone or some institutions, it can not be always recorded well.

It is assumed that all JICA experts and counterparts provided tangible and intangible findings produced by laboratory to various stakeholders respectively although they are not properly recorded. However, at least it is recognized that the following laboratory issues are widely shared with relevant stakeholders through attending Technical Working Group and undertaking meetings with CBoH.

- Application of newly introduced laboratory technique to ARV treatment program
- Utilization of newly introduce laboratory techniques to diagnostic laboratory service
- Evaluation of HIV rapid testing and quality assurance method for HIV testing sites
- External Quality Assurance of TB microscopic test and system development
- Laboratory support to MTCT program



## Output V: Collaboration with HIV/AIDS and TB working groups is institutionalized

The Project has actively participated in relevant Technical Working Groups. As a result, some of laboratory findings can be incorporated into policy formulation. Further, the participation in these Working Groups enabled the Project to coordinate and collaborate with other programs.

## Five Evaluation Criteria

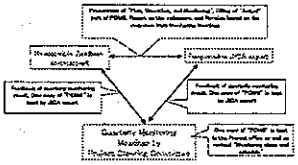
### Relevance

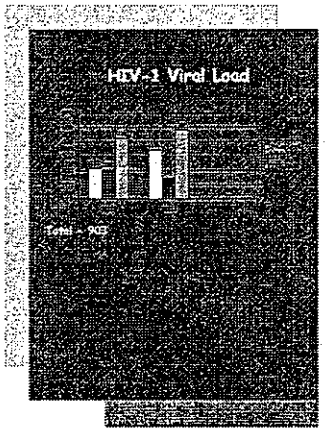
HIV/AIDS and TB has remained the critical problem for the people in Zambia since the commencement of the Project. The strengthening of laboratory capacity regarding HIV and TB can contribute to improvement of diagnosis and provision of scientific justification for effective measures to HIV/AIDS and TB control.

The current measures to AIDS and TB control are definitely the priority agenda for the Government of Zambia and MOH. "Strategic Framework 2002-2005" developed by HIV/AIDS/STD/TB Council also highlights interventions for VCT, MTCT and improved drug supply for the HIV positive clients. Since "Japan's Initiative in the Fight against Infectious and Parasitic Diseases on the occasion of the Kyushu-Okinawa G8 Summit ("Okinawa Infectious diseases) Initiative" was held in July 2000, the Government of Japan has put substantial fund on infectious and parasitic diseases as a central issue in Development. Japan's ODA Country Assistance Program for Zambia (2002-2007) also put priority on combating HIV/AIDS and TB and providing cost-effective health services.

Therefore, it is perceived that the Project is consistent with the Government policy of HIV/AIDS and TB control in Zambia and Japanese ODA policy and program as well as needs of the people in Zambia. At the time of mid-term evaluation, it was assessed that the validity of the Project was ensured.

Record of Planning and Monitoring






### Effectiveness

The number of laboratory services carried out in UTH Virology Laboratory and TB Laboratory reached 35,000 in 2002, and 27,000 as of September 2003. Among these services, the number of diagnostic laboratory by means of newly introduced techniques has dramatically increased zero in the beginning of the Project to 5000 on the annual basis at the present.

The Project plans to provide technical instruction on HIV tests during the training targeting VCT, MTCT and peripheral. External Quality Assurance system of TB microscopic test will be established in all TB test centers of Lusaka Province. The Project is now in a pilot phase of utilizing External Quality Assurance system.

The accumulated data deprived on the analysis of laboratory services and various data-analysis and research work conduced in Virology Laboratory and TB Laboratory were reported to Working Groups and relevant departments of CBoH.

There is a room for improvement of both research data analysis in the laboratories and establishment of Quality Assurance system. It is assumed that the Project has achieved the half mark to the Project Purpose-Laboratory systems are strengthened and are effectively utilized for HIV/AIDS and TB control in the Republic of Zambia.

### Impact

Given that the introduction of training on HIV tests together with collaborating other donor's supports could accelerate implementation of VCT/MCTC programs , it should be noted that training of HIV tests has brought about impacts. The newly introduced laboratory techniques enabled ARV drug monitoring as well as the HIV test for newborn infants.

In addition to such a laboratory technique, a series of operational research including laboratory analyses may have a potential policy impact when those findings and practices will be integrated into future HIV/AIDS/STI/TB strategic plan.

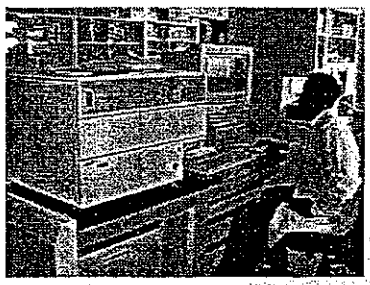
### Efficiency

Due to the chronic shortage of human resources, the limited inputs from the Zambian side were likely far from the required level of the implementation of the Project. The problem of inputs from the Japanese side in terms of timing was also identified. The absence of experts for certain time is such an example of hindering efficiency of the implementation of the Project.

### Sustainability

The laboratory services are being provided at client's expense. This is charged extra of a blood test, and is regularly revised by the Financing Committee within UTH. Since this committee was newly established, it is necessary to monitor its future activities.

The Project has borne the costs for research work and analysis of laboratory data.



## Recommendation

Based on the results of the mid-term evaluation, the Team recommends the following:

Nationwide contribution from the Project to public health topics should be more considered in the latter half period of the Project in a way being adapted to the needs in the area of HIV/TB control in Zambia.

To meet the enormous needs in the country, the focus is to be put more on developing a model for national programme utilizing the technology and capacity developed in the Project.

To meet the increasing needs for ARV treatment, MOH/CBoH and NAC should consider to secure the budget for ensuring health workers to conduct ARV monitoring activities.

Project monitoring process should be more valued to achieve the Project objective.

In order to ensure the sustainability of the Project, a scope for the future figure of UTH laboratory should be shared

## Revised PDM—PDM version 3

Through discussions, revised PDM was elaborated as below. The both sides agreed that the PDM would be the basis for management and evaluation of the Project. The team emphasized the importance of regular progress monitoring. The result of the evaluation was described in the Mid-term Joint-Evaluation Report. This report was initially prepared by the Team and approved at the Joint Coordinating Committee held on 13 November 2003

PDM version 3 revised on 13 November 2003 Period: March 2001—Mar 2006

| | |
|---|---|
| Overall Goal | Status of HIV/AIDS and TB in the Republic of Zambia is improved. |
| Project Purpose | Laboratory systems are strengthened and are effectively utilized for HIV/AIDS and TB control in the Republic of Zambia. |
| Output I | Performance of Laboratory techniques, data management and overall laboratory management are improved. |
| Output II | Performance and quality of laboratory services with laboratory monitoring system at VCT sites and ARV centers are improved to be replicable for nation wide program. |
| Output III | Quality Tuberclosis diagnostic system is developed as a model for national TB laboratory network. |
| Output IV | Utilization of laboratory information obtained from the Project activities is improved. |
| Output V | Collaboration with HIV/AIDS and TB Working Groups is institutionalized. |