# タンザニア連合共和国 LBT (Labour Based Technology) 研修能力強化プロジェクト(延長) 終了時評価調査報告書

平成 22 年 10 月 (2010 年)

独立行政法人国際協力機構 タンザニア事務所 タン事 JR 10-003

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# 序 文

「タンザニア国 LBT(Labour Based Technology)研修能力強化プロジェクト」は、2006年3月1日に署名・交換された討議議事録(Record of Discussions: R/D)及び2010年1月14日に署名・交換された変更 R/D に基づき、タンザニア連合共和国(以下、タンザニア国)において、特に地方道路の施工に LBT 技術の適用が拡大することを目指して、インフラ開発省の適正技術研修所(Appropriate Technology Training Institute: ATTI)の LBT 研修能力強化を目的として実施してきています。

今般、プロジェクト協力期間の終了を 2011 年 2 月に控え、独立行政法人国際協力機構 (JICA) は 2010 年 8 月 11 日から 9 月 3 日までの間、鈴木 正彦 国際協力専門員を団長とする終了時評 価調査団をタンザニア国に派遣し、タンザニア国側関係者と合同で、これまでの活動実績の確認や目標達成等について総合的な評価を行いました。これらの評価結果及び提言内容は本プロジェクトの合同調整委員会での協議を経て、協議議事録に添付することにより関係者間で確認されました。

本報告書は、同調査団による協議及び評価調査結果等を取りまとめたものであり、関連する国際協力の推進に活用されることを願うものです。

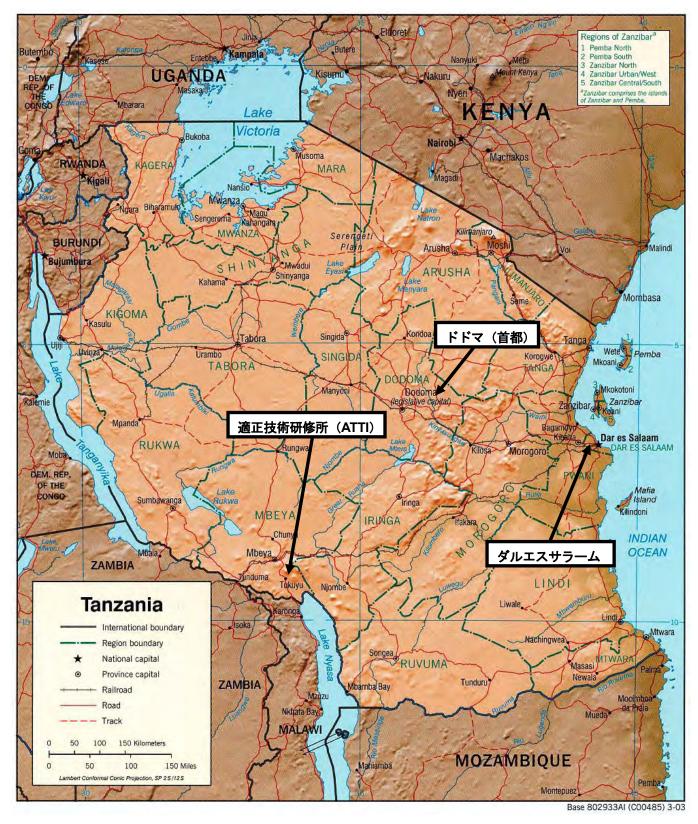
最後に本調査の実施に当たり、ご協力とご支援を頂いた関係各位に対し、心から感謝の意を表します。

平成22年10月

独立行政法人国際協力機構 タンザニア事務所長 勝田 幸秀

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プロジェクト所在地図



Source: University of Texas of Austin, Perry-Castañeda Library, Perry-Castaneda Library, Map Collection (http://www.lib.utexas.edu/maps/africa/tanzania rel 2003.pdf)

# 略語表

APO Annual Plan of Operation

ATTI Appropriate Technology Training Institute

CRB Contractors Registration Board

DANIDA Danish International Aid Agency

DIT Dar es Salaam Institute of Technology

ILO International Labour Organization

JCC Joint Coordinating Committee

JICA Japan International Cooperation Agency

KTC Kisii Training Centre

LBT Labor Based Technology

LGA Local Government Authority

LGTP Local Government Transport Program

M&E Monitoring and Evaluation

MELTEC Mount Elgon Labour-based Training Centre

M/M Minutes of Meeting

MoID Ministry of Infrastructure Development

NCC National Construction Council

NORAD Norweigian Agency for Development Cooperation
NSGRP National Strategy for Growth and Reduction of Poverty

ODA Official Development Assistance

OJT On the Job Training

O&M Operation and Management
PDM Project Design Matrix
PM Project Manager

PMO-RALG Prime Minister's Office, Regional Administration and Local Government

PO Plan of Operation

PRSP Poverty Reduction Strategy Paper
RAS Regional Administrative Secretary

R/D Record of Discussions

RMI Road Management Initiative
TANROADS Tanzania National Roads Agency

TFY Tanzanian Fiscay Year TOT Training of Trainers

TULS Taking the Use of LBT to Scale

#### 評価調査結果要約表(和文)

1. 案件の概要		
国名: タンザニア	案件名	: LBT(Labour Based Tehcnology)研修能力強化プ
	ロジェ	クト
分野:運輸交通	援助形]	態:技術協力プロジェクト
所轄部署:タンザニア事務所	協力金額	額(評価時点): 約 4.09 億円
協力期間:2006年5月~2011	年2月	先方関係機関:
R/D 締結日:2006年3月1日		インフラ開発省(MoID)
変更 R/D 締結日:2010年1月	14 日	適正技術研修所(ATTI)

#### 1-1 協力の背景と概要

タンザニア国(以下、「タ」国)における道路維持管理は、幹線道路・州道を管轄する TANROADS、県道以下を管轄する各地方自治体の大きく2つに分かれて実施されている。全長91,049kmと言われる道路ネットワークのうち、舗装されている区間はその7.3% に過ぎず、また、約58,037kmの地方道路(地方自治体の管轄)においては通行状態が良好であるとされている区間は10%程度に過ぎない。このような状況下で、資金不足から維持管理が行き届いていない地方道路において、LBT (Labour Based Technology)を活用した道路開発・維持管理の有用性がこれまでも指摘されていた。

「タ」国インフラ開発省が道路事業における LBT 活用指針を打ち出した 1996 年以降、世界銀行、NORAD (Norwegian Agency for development Cooperation)、DANIDA (Danish International Aid Agency)等によって LBT が特定の地方自治体によって活用され、有用性が確認されるに至ったが、こうした活用によって得られた知見は他の自治体等に共有されず、それぞれのプロジェクトが終了すると、LBT は他地域に普及することは無かった。

インフラ開発省は、こうした問題認識の下、2003 年 12 月に LBT の国家的枠組みの設立を目指し、LBT 政策の策定、LBT にかかる情報センターの設立、LBT 研修体制の構築等を構成要素とするプログラム(LBT 適用拡大計画: Taking the use of LBT to Scale)を作成し、実施に移すこととした。

このような背景をもとに、タンザニア政府は ATTI における研修実施能力強化のための「LBT 研修能力強化プロジェクト」を我が国に要請した。

同要請を受け、プロジェクトの基礎デザインを描くべく、2005 年 11 月に事前評価調査団が派遣された。これにより、要請内容の妥当性が確認され、ATTI の研修機能及び総合調整機能強化を視野に入れたプロジェクトのフレームワークの策定を行った。以上の経緯・調査結果を踏まえ、JICA タンザニア事務所とインフラ開発省は 2006 年 3 月に討議議事録 (R/D) に署名し、プロジェクトは 2006 年 6 月に開始された。

その後、2009 年 9 月~10 月に実施された終了時評価調査の結果、主にモニタリング・評価に係る能力向上のためにプロジェクト期間の延長が提案され、合同調整委員会での確認を経て 2010 年 1 月に変更 R/D への署名が行われた。変更 R/D への署名の結果、プロジェクト期間は 2011 年 2 月末までとされた。

# 1-2 協力内容

本プロジェクトは、適正技術研修所(ATTI)をカウンターパート(C/P)機関として、 2006 年 5 月から技術協力プロジェクトとして実施されている。

#### (1) 上位目標

LBT 研修受講者(地方自治体、民間建設業者、コンサルタント、タンザニア 道路公社、地域社会等)が LBT を利用したインフラ建設の計画・設計・実施 が できる。

(2) プロジェクト目標

ATTI がタンザニア国の LBT の国家研修機関として適切な研修提供・総合調整能力を備える。

#### (3) 成果

- 1) ATTI において正規の LBT 研修コース実施機能が整備され、実践的研修が定期的に行われる。
- 2) ATTI が LBT に啓発促進に主導的役割を果たし、タンザニア国関連機関の中核となる

# (4) 投入 (評価時点)

#### 日本側

短期専門家:	計8名	機材供与:	5,490 万円
研修員受け入れ	計6名	現地業務費:	6,070 万円(2010 年 7 月 22 日現在)

#### 相手国側

プロジェクト要員:	管理スタッフ:2 名	ローカル・コスト	n/a	
	技術スタッフ: 10 名			

#### 2. 評価調査団の概要

調査者 (担当分野、氏名、職位)

協力企画 丸尾 信 JICA タンザニア事務所員 薬価分析 磨内 造世 株式会社国際関発アソシェイツ	総括/道路技術	鈴木 正彦	JICA 国際協力専門員	
延価分析 磨内 遠州 株式会社国際関発アソシェイツ	協力企画	丸尾 信	JICA タンザニア事務所員	
	評価分析	廣内 靖世	株式会社国際開発アソシエイツ	

調査期間 |2010 年 8 月 11 日〜2010 年 9 月 3 日 | 評価種類: 終了時評価

#### 3. 評価結果の概要

#### 3-1 実績の確認

成果の指標のうち、モニタリング・評価(M&E)に係る指標は、前回終了時評価調査時には、部分的にしか達成されないと見込まれていた。本指標はまだ達成途上であるものの、評価結果の分析のための知識・技術がプロジェクトの残り期間中に ATTI スタッフに移転されることにより、プロジェクト終了までに概ね達成されると見込まれる。

プロジェクト目標については、前回終了時調査の評価では、M&Eシステムが実施に移されていなかったため、達成度は部分的になると見込まれた。前回調査を受けて M&E に係る活動が強化され、LBT 研修カリキュラム・モジュールの標準化に係る指標は、ほぼ達成されていると評価される。

上位目標については、前回終了時評価調査時に、研修参加者が習得技術を関係者に伝達するなどといった状況が見られた。今後、技術支援サービス等を通じて道路整備の現場への支援が ATTI から提供され、地方自治体が LBT 利用の道路工事に予算を割り当て、かつLBT 機材が民間業者にとってより容易に利用できる状態が確保されれば、プロジェクト終

了後3年以内にある程度達成されると見込まれる。

#### 3-2 評価結果の要約

#### (1) 妥当性

プロジェクトの上位目標及びプロジェクト目標はタンザニア国及びターゲット・グループ(ATTI スタッフ、地方自治体・民間業者・コミュニティからの研修生)のニーズと合致している。また、上位目標はタンザニア国の国家開発計画及び日本の ODA 政策とも整合性がある。また、関係者へのインタビューにより、LBT に関する日本の技術優位性も確認された。

以上から、プロジェクトの妥当性は高いといえる。

# (2) 有効性

プロジェクト目標は指標の達成度から判断するとほぼ達成されていると評価される。前回終了時評価調査において整備の必要性が指摘された、現場からのフィードバック体制については、プロジェクト期間終了までに実施するパイロット・プロジェクトの中で試行される。また、ATTIによる技術支援サービスに関する活動も開始された。一方、ATTIにおけるLBT研修の国家標準としての質を保つためにはM&Eの結果を受けて研修内容・資料の更新・改善を続ける必要があるが、M&E 結果の分析という意味では、成果1(研修分野)に関連したM&Eシステムが完全に構築されることは難しいと見込まれる。なお、成果2(普及啓発分野)は順調に進捗しており、プロジェクト終了までの達成が見込まれる。成果1、2ともにプロジェクト目標の達成に貢献している。

以上を勘案すると、プロジェクトは概ね有効であったと考えられる。

#### (3) 効率性

タンザニア・日本側双方の投入は、タイミング・質・量の面で、総じて適切である。 全体的に、投入はアウトプット産出に貢献したと判断されるが、M&E システム構築に 係る投入については、関係者間の情報共有に課題があったため、プロジェクト開始当初 に作成された M&E マニュアルが活用されないなど、効率的に貢献することができなか った。

総合的に判断すると、プロジェクトは概ね効率的に実施されてきたといえる。

#### (4) インパクト

#### 上位目標

LBT に特化した公共事業が限定的であったこと等により、自治体技術者・施工業者が研修成果を現場で活用する機会は限定的であったが、コミュニティからの参加者は研修成果を現場で活用している。前回終了時調査で確認されたとおり、研修参加者が習得技術を関係者に伝達するなどといった状況が見られたこともあり、今後、技術支援サービス等を通じて道路整備の現場への支援がATTIから提供され、地方自治体がLBT利用の道路工事に予算を割り当て、かつLBT機材が民間業者にとってより容易に利用できる状態が確保されれば、プロジェクト終了後3年以内にある程度達成されると見込まれる。

なお、上位目標の達成に向けては、現場レベルでの実践的能力向上と共に、政策レベルでの支援・中央政府によるモニタリングと助言が不可欠である。

#### その他のインパクト

既にいくつかの正のインパクトが現れている。例えば、ATTIの研修実施能力がプロジェクトを通して向上したことにより、首相府地方自治庁及びILOの研修を受注することにつながった。また、プロジェクトによって改善された研修コースにおいて、これまでに、合計400名以上の研修生(地方自治体技術者、民間業者、コミュニティ・リー

ダー)が LBT に関する知識・技術を習得した。さらに周辺国機関との連携強化活動の結果、ATTI、KTC (Kisii Training Centre、ケニア)、及び MELTEC (Mount Elgon Labour-based Training Centre、ウガンダ)との間に協力合意文書が取り交わされた。

一方、負のインパクトは本調査実施時点では確認されておらず、将来的な負のインパクトについても予測されない。

#### (5) 持続性

#### 制度・組織面

LBT 推進のための法的・政策的支援は今後も継続されるとみられるが、さらなる推進のためには、政策レベルからの明確なメッセージ及び関係省庁からのより具体的な指示が必要である。ATTI の 5 ヵ年戦略計画がプロジェクト活動の一環として策定されており、さらにプロジェクト終了までに更新されることになっており、ATTI による自立的な活動にとっての重要性が高い。

タンザニア側のプロジェクト・スタッフはいずれも ATTI の常勤職員であるため、プロジェクト終了後の雇用は確保されている。彼らは引続き関連ポストに配置される見込みであり、プロジェクトを通して得た技術・経験を業務に活用していくものと想定される。また、プロジェクトを通して構築された関連機関との協力関係は、プロジェクト終了後も ATTI と関係機関によりさらに進められるものと考えられる。

#### 財政面

タンザニア国政府はATTIの運営に必要な経常経費・事業費を予算措置してきており、 今後も継続されると見込まれる。

#### 技術面

タンザニア側のプロジェクト・スタッフの技術力は十分に向上している。プロジェクトによって移転された技術及び成果品は現地のニーズ・レベルに合致したものである。特に、グラベル道路整備・補修に関する技術・成果品は十分に活用され、今後の道路整備事業における活用・普及も期待できる。その他、実地における活用の機会がなかった技術・成果品については、研修計画を戦略的に策定することにより、プロジェクト終了後の活用・普及を確保できると思われる。供与機材については、部品の欠落や付属品の不具合といった一部機材の問題が解決されることにより、十分に活用されていくと見込まれる。

全体的にみると、プロジェクトの持続性は概ね確保されていると考えられる。

#### 3-3 効果発現に貢献した要因

3-3-1 計画内容に関すること 特になし

# 3-3-2 実施プロセスに関すること

プロジェクト内のコミュニケーションは概ね活動の円滑な実施に十分であり、タンザニア側・日本側の協力関係が築かれた。また、プロジェクトはインフラ開発省、首相府地方自治庁、地方自治体、建設業者登録委員会、全国建設業協会等の国内関連機関との連携/協力のもと実施された。プロジェクト・マネージャーでもある ATTI 校長のイニシアティブ、ATTI プロジェクト・スタッフのやる気と勤勉さ、ATTI 配属の青年海外協力隊員による普及啓発活動への協力も、効果発現に貢献した要因として挙げられる。

#### 3-4 問題点及び問題を惹起した要因

#### 3-4-1 計画内容に関すること

PDM の要素の一部の記述が曖昧であった。一部の指標の定義が不明瞭であり、また達成度を測る基準が設定されていなかったため、プロジェクトのアウトプットやプロジェクト目標の期待される達成度について、プロジェクト関係者が明確かつ共通の理解をもつことが困難であった。

#### 3-4-2 実施プロセスに関すること

本プロジェクトにおける活動モニタリングは、専門家チームの業務計画ならびに ATTI の戦略計画に基づいて行われ、定期的な報告も行われてきた。ただし、PO (Plan of Operation) が作成されておらず、PDM の指標に基づいたプロジェクトによるモニタリングも行われてこなかったため、プロジェクトの全体的な実施プロセス、PDM の指標及び活動の進捗状況について、プロジェクト関係者が明確かつ共通の理解をもつことが困難であった。

#### 3-5 結論

本プロジェクトは、2009年に実施した終了時評価調査の結果を受け、PDMの一部変更と共にプロジェクト期間を延長した。プロジェクト期間延長により、M&E活動が強化されると共に、パイロット・プロジェクトの実施を通して現場からのフィードバック体制・技術支援サービスについても構築の足がかりができるなど、有効であったと考えられる。

本プロジェクトにおいては、ATTIスタッフと専門家間でのプロジェクト進捗確認及び年間計画策定に係る緊密なコミュニケーションが取られた結果、プロジェクト目標達成に向けて効率的・効果的にプロジェクトは実施された。

プロジェクト開始当初は想定されていなかった、首相府地方自治庁やILOといった機関からのLBT研修実施に係る委託を受け、同研修を実施することを通してATTIの研修実施能力が高められると共に、多くの地方自治体技術者、民間業者に研修を受講する機会が与えられた。

プロジェクトの残り期間についても、持続性を高めるため、タンザニア・日本側双方によるなお一層の努力が必要である。また上位目標の達成に向けては、現場レベルでの実践的能力向上と共に、政策レベルでの支援・中央政府によるモニタリングと助言が不可欠である。

首相府地方自治庁では、地方道路開発計画に係るガイドラインが各地方自治体に配布する準備を進めており、同ガイドラインの活用を通して地元の資源を活用した LBT 技術の拡大が進むことが期待される。また、政策決定者への啓発を継続していくことにより、地方道路への LBT 適用につながることにつながると思われる。

なお、本プロジェクトではプロジェクト期間全体を通して PO が策定されず、また PDM にも一部論理構成が適切でない部分があり、プロジェクト目標の達成レベルを評価することに難があったため、今次調査時に関係者間で改めて PDM の整理を行い、その上で評価を実施した。

#### 3-6 提言(当該プロジェクトに関する具体的な措置・提案・助言)

#### 3-6-1 短期的提言 (プロジェクト期間中に係る提言)

合同評価調査団からプロジェクト(ATTI 及びプロジェクト専門家)に対して、以下の提言を行った。各提言内容については、合同調整委員会で説明して関係者の合意を得ると共に、別途プロジェクト関係者への詳細説明を行った。各内容は、プロジェクト終了までの活動に反映される予定である。

#### ① 標準研修コースの強化

研修実施機関としての持続性という観点からは、標準研修コースの実施能力を向上していくことが重要である。そのため ATTI は、その戦略計画の中に、標準コースの実施計画を盛り込み、その実施計画に沿って研修員募集も適切に行っていく必要がある。

② モニタリング・評価

研修カリキュラムや研修用資料を常に改善していくためには、モニタリング・評価(M&E)、特に現場で活用できているかという視点でのM&Eが不可欠である。そのためATTIは、モニタリング票を作成し、試行的に研修実施中モニタリングと研修実施後モニタリングを実施する必要がある。

③ 普及啓発

研修実施機関としての普及啓発を行う上では、研修部門と普及部門の連携により活動を展開することが効果的である。そのため、ATTI内で、研修実施時期を踏まえた普及啓発活動計画に係る協議機会を設けることが必要である。

④ 指導者研修

ATTI において提供する研修コースの質を維持するためには、ATTI 内において 指導者研修を実施する体制を整える必要がある。そのため、ATTI の戦略計画を見 直し、内部研修の実施計画を盛り込むと共に、試験的に同研修を実施することが 必要である。

⑤ 技術サポート機能

LBT に係る研修実施機関として、ATTI には技術支援サービスを提供することが期待されている。このため、ATTI スタッフの中で係るサービスの担当者を明確にし、マニュアルを策定して研修参加者に情報提供することが必要である。

⑥ 供与機材の効果的な活用

供与機材の一部には、部品の欠落や付属品の不具合により十分活用されていないものがある。プロジェクト専門家及びATTIが協力して必要な部品・付属品を調達し、供与機材を十分に活用することが必要である。

⑦ 年間活動計画(APO)の最終化

今次合同評価調査に合わせて開催した合同調整委員会において、暫定 APO 案が提示され、確認された。一方、同案には一部不足情報があることから、プロジェクト内で検討をした上で、9月末までに最終化し、APO に基づいてプロジェクトの残り期間の活動を実施していく必要がある。

#### 3-6-2 長期的提言(プロジェクト期間終了後の提言)

合同評価調査団から、プロジェクト成果を継続的に活用していくために、LBT にかかわるタンザニア側関係者へ以下の提言を行った。提言事項は合同調整委員会において説明を行い、関係者の理解を得た。

① LBT 普及に係る政策的支援

LBT の適用拡大のため、道路事業における LBT 活用の重要性について、より明確な政策レベルでの合意や指導がなされるべきである。加えて、LBT に係る普及は ATTI だけで行うのではなく、関連政府機関や業界団体によっても行われるべきである。

② LGTP の実施支援

LGTP には、LBT を活用した道路事業に係る課題やプログラムについての言及がなされており、同計画文書を活用することは重要である。そこで首相府地方自治庁で準備中の地方道路開発計画のガイドラインを活用して地方道路整備に係る計画が策定される必要がある。

③ 州政府事務局技術者の能力向上

中央政府で示された政策を実施に移す機関として、州政府事務局(RAS)技術者の能力向上を行うことが必要である。また、RASが州内でのLBT技術普及・波及に貢献すべきである。

④ 自治体及び建設業者の能力向上

ATTIで実施される研修への参加を通じて、自治体技術者及び建設業者の能力は 向上してきている。一方、現場における技術能力はまだ十分とは言い切れないた め、自治体技術者や建設業者に対して、しかるべき機関が現場レベルでの技術力 向上に資する継続的な支援を実施すべきである。

⑤ LBT での道路施工のための機材について

LBT を活用した道路施工において LBT 用機材を提供する手段として、機材リースシステムの構築・長期低利貸付制度の導入・機材リース企業の事業実施支援といった手法を検討すべきである。

⑥ LBT 関連機関との連携強化

ATTI がダルエスサラーム大学、ダルエスサラーム工科大学等との連携を強化することにより、LBT の普及のみならず人材育成に貢献するため、積極的に実施すべきである。

#### 3-7 教訓

① プロジェクトの設計に係る共通理解の重要性について

プロジェクト開始当初の段階では、まずは関係者間での共通理解を確認した上で、プロジェクト目標に向かって活動を推進することが重要である。

さらに、PDMやPOを基に各年の成果達成度合いを確認すると共に翌年の年次計画を策定することにより、個々の活動と成果・プロジェクト目標との関連を認識することが可能になり、プロジェクト運営上は効果的である。

- ② プロジェクト関係者間でのコミュニケーションの重要性について プロジェクトへの投入を効果的に活用するためには、関係者間の綿密なコミュニケーションが重要である。プロジェクトの活動は資料の作成に過剰に注力するべきではなく、成果品を作成する過程や実地での適用に注力すべきである。
- ③ 研修実施能力強化プロジェクトにおける M&E の重要性について 研修実施機関の能力を向上して人材を育成していくという手法のプロジェクト においては、研修内容が現場のニーズに真に即したものであるのか否かを常に確 認することが重要である。そのため、M&E の実施を通じ、研修内容等の最新化・ 向上・自立性を確保することが重要である。
- ④ 技術協力と資金協力の連携

技術協力を通じて強化された能力を活用しつつ、資金協力を投入することにより、双方の効果がより高く発現することが期待される。そのため、プロジェクト枠組みを形成する段階にあって、関連する資金協力の有無を確認すると共に具体的な連携の手法について検討することは重要である。

#### 3-8 フォローアップ状況

本調査においては、地方道路開発分野における継続的な協力の必要性についても関係機関との協議を行った。タンザニア側から提出された要請内容も踏まえ、本件協力に引き続いての支援の必要性及びその内容を検討する必要がある。

#### 評価調査結果要約表 (英文)

I. Outline	of the Project	
Country: U	•	Project title: The Project for Capacity Strengthening on Labour-Based Technology Training at ATTI
Issue/Sector	: Road Sector	Cooperation scheme: Technical Cooperation Project
Division in c	harge: JICA Tanzania Office	Total cost: Approximately 409 million yen
Period of	May 2006-February 2011 R/D signed on March 1, 2006	Partner Country's Implementing Organization : Appropriate Technology Training Institute
Cooperation	Amendment of R/D signed on January 14, 2010	Supporting Organization in Japan:

#### Related Cooperation:

#### 1 Background of the Project

It is reported that there exists in Tanzania, a road network of 91,049 km, of which no more than 6,662 km (7.3%) are paved. Further, it is also said that 58,037km of the road network is under local government. Condition of only 10% of the roads under the direct management of local government authorities is good/fair. Within this situation, in local roads that do not enjoy a required maintenance control due principally to a substantial lack of financial resources, it is well pointed out that the only rescue measure is the availability of a continuous road development and control service based on "Labor Based Technology" (LBT) programs.

Since MoID announced the principal application of LBT in 1996, international development partners such as World Bank, NORAD and DANIDA have applied LBT in their projects and realized its suitability. However, the LBT knowledge gained through the project was not collected for use as a common technology; LBT was not widely adopted in Tanzania and ended when a project was over.

Under such circumstances, MoID has decided to apply the following policy to make the use of LBT.

- 1. Preparation of Basic Policy of LBT
- 2. Establishment of information center of LBT
- 3. Establishment of core center of LBT training organization

In this background, the Government of Tanzania has requested the Government of Japan to support ATTI to enhance the ability to carry out trainings, and JICA commenced Technical Cooperation Project for Capacity Strengthening on Labor Based Technology (LBT) Training at ATTI, based on the Record of Discussions, signed on 1st March, 2006.

Through its cooperation, JICA has been provided technical support to ATTI. From 29<sup>th</sup> September to 13<sup>th</sup> October, 2009, JICA dispatched a Terminal Evaluation Team to Tanzania and jointly evaluated the Project with the Tanzanian Team. In the Joint Evaluation Report, one (1) year extension of the Project duration was recommended and presented on the occasion of Joint Coordination Committee (JCC) meeting. The necessity of one (1) year extension of the Project period was confirmed in the JCC meeting, and the project period was extended to 28<sup>th</sup> February, 2011 on the Amendment Record of Discussions, signed on 14<sup>th</sup> January, 2010.

# 2 Project Overview

- (1) The Project Purpose: ATTI has an appropriate capacity for training provision and overall coordination as a national training institute for LBT in Tanzania.
- (2) The Overall Goal: LBT trainees (e.g, LGA, Contractors, Consultants, TANROADS, Community Groups, etc) are able to plan, design and implement infrastructure works using LBT.
- (3) The Outputs
  - 1) Output 1: The function of executing qualified LBT training is ready at ATTI and the practical training implements regularly.
  - Output2: ATTI takes a leading role to promote LBT awareness and become a focal point of related partners in Tanzania.

## (4) Inputs:

# 1) Tanzanian Side:

Project staff:	Management staff: 2 persons	Local cost:	n/a
	Technical staff: 10 persons		

## 2) Japanese side:

Experts: 8 persons in t		Equipment:	¥ 54.9 million
Project staff trained in	6 persons in total	Local Cost:	¥ 60.7 million (as of
Japan:			22nd July 2010)

#### II. Evaluation Team

Members	of	Team Leader: Masahiko SUZUKI, Senior Advisor, JICA		
Evaluation		Cooperation Planning: Shin MARUO, Representative, JICA Tanzania Office		
Team		Evaluation Analysis: Yasuyo HIROUCHI, International Development Associates Ltd.		
Period	of	11/8 / 2010- 3/ 9/ 2010	Type of Evaluation: Terminal Evaluation	
Evaluation				

# III. Results of Evaluation

# 1 Accomplishment of the Project.

## 1-1 Accomplishment of the Project Purpose

	Achievement level of the Indicators		
a	Already achieved: The number of courses and participants trained by ATTI was increased		
	from 2 courses (24 participants) in TFY 2005/06 to 3 courses (143 participants) in TFY		
	2009/10. The Evaluation Team notes that the increase is attributable to increase of		
	demand-driven tailored training courses, including a large-scale PMO-RALG training for		
	the local governments and private contractors in TFY 2008/09 and 2009/10: Regular		
	Training Courses of ATTI, developed by the Project, have not been conducted as planned		
	and their enrollment has decreased.		
b	Already achieved: The number of the visitors to the Principal's Office of ATTI increased		
	from 87 people in 2006 to 162 people in 2009. As for 2010, the number has already		
	amounted to 110.		
c	The relevant data is not available.		

- Mostly achieved but would not be fully achieved by the Project end: The curriculum and module of ATTI is considered to have become de facto national standard for LBT training in Tanzania. For the curricula and module of ATTI to maintain the quality as de facto national standard ones, their updating would be required as appropriate. Operational Monitoring & Evaluation system, including feedback mechanism from the trainings conducted, is necessary for the updating. Such system is not likely to be established at ATTI by the Project end because (i) a feedback mechanism has yet to be developed; and (ii) ATTI staff feels that they have not yet acquired the relevant skills and knowledge, especially for summarization and analysis of the data, in practical and manageable manner.
- e The relevant data is not available.

#### 2 Summary of Evaluation

#### 2-1 Relevance

The Overall Goal and the Project Purpose are still relevant with the needs of Tanzania and Target Groups (i.e. ATTI, trainees from LGAs, contractors, community leaders, etc.) They are still consistent with the national development plan of Tanzania as well as Official Development Assistance (ODA) policies of Japan. Japanese technical advantage has been confirmed. Overall, the Project is considered to be highly relevant.

#### 2-2 Effectiveness

Judging from the degree of achievement of the Indicators, the Project Purpose has been mostly achieved. It is not likely to be fully achieved by the end of the Project because of overall delay of achievement of Output 1 (i.e. Training Component) caused by insufficient achievement regarding Regular Training Courses of ATTI as well as establishment of Monitoring & Evaluation system. On the other hand, steady progress has been made on the achievement of Output 2 (i.e. Promotion Component), which is expected to be achieved by the end of the Project. Both Output 1 and Output 2 are confirmed to have contributed to the achievement of the Project Purpose.

Taken together, the Project is considered to be mostly effective.

#### 2-3 Efficiency

In general, the Inputs from both sides have been appropriate in producing the Outputs in terms of timing, quality and quantity. Overall, the Inputs are considered to have contributed to production of the Outputs except for those related to Monitoring & Evaluation due to insufficient information sharing among the personnel concerned. This has led to insufficient production of the Output 1 as mentioned in 3.2.2.

Overall, the Project is considered to be mostly efficient.

#### 2-4 Impacts

<u>Impacts at the Overall Goal level</u>: It is likely that LBT trainees, including LGAs, contractors, community groups, etc. would be able to plan, design and implement infrastructure works using LBT in three years after completion of the Project on condition that the budget for roadworks using LBT is available at the concerned LGAs and that LBT equipment is made available for the

contractors.

Other impacts: Various positive impacts have been observed already. For example, ATTI has obtained training contracts with PMO-RALG and ILO. More than 400 LGA officials, contractors, and community leaders have been trained in the training courses developed by the Project. A General Agreement of Cooperation has been signed among ATTI, Mt Elgon Labor –based Training Centre in Uganda, and Kissi Training Center in Kenya. Negative impacts have not been observed. They are not foreseen, either.

#### 2-5 Sustainability

Institutional and organizational aspects: Policy support for LBT promotion is likely to continue though explicit message from policy level as well as clear-cut instructions from the relevant authorities is needed for further promotion. The Strategic Plan of ATTI has been developed through the Project, which would be updated by the Project end. All of the Tanzanian project staff members are permanent employees of ATTI, whose employment for the post-project period is ensured. They are expected to be assigned to the relevant posts so that they could utilize the techniques/experiences obtained through the Project continuously. The coordination with the relevant organizations, which has been developed through the Project, is likely to develop further. Financial aspects: So far, the Government of Tanzania has allocated necessary budget for the activities of ATTI.

<u>Technical aspects</u>: Technical capacity of the Tanzanian project staff has been enhanced sufficiently. The skills and knowledge transferred through the Project as well as the deliverables are relevant with the local needs and levels. In particular, those related to training on gravel road have been utilized fully and have been disseminated widely. For the others, in order to ensure utilization and dissemination for the post-project period, the strategy for training implementation is needed. The equipment provided by the Project would be fully utilized after the end of the Project if the problems regarding some equipment are rectified.

From a comprehensive viewpoint, sustainability of the Project would be mostly ensured.

#### 3 Factors that promoted realization of effects

#### 3-1 Factors concerning to Planning

Nothing special

#### 3-2 Factors concerning to Implementation

In general, communication within the Project is sufficient for smooth implementation. Cooperative relations between Tanzanian and Japanese sides have been built up. The Project has been implemented in coordination/cooperation with various organizations, including MoID, PMO-RALG, some of the District Governments, Constructor's Registration Board, and National Contractors Council. Initiative and commitment of the Principal of ATTI, motivation and diligence of the Project Personnel as well as cooperation of the Japan Overseas Cooperation Volunteers assigned to ATTI have been identified as the factors that have facilitated the implementation process.

#### 4 Factors that impeded realization of effects

## 4-1 Factors concerning to Planning

The initial and current PDM has some shortfalls. Description of some of the PDM components is vague. Most of the Objectively Verifiable Indicators are not objectively verifiable. In many cases, criteria to assess the achievement level are not clear. Definition of some Indicators is insufficient. These shortfalls have made it difficult for all those concerned to have clear and common understanding of the expected and actual achievement level of the Outputs and the Project Purpose.

#### 4-2 Factors concerning to Implementation

A Plan of Operations (PO), which specifies information necessary for planning and monitoring of the Project, such as "expected result(s)", "schedule", "person in charge", "implementers", "major inputs" etc. for each Activity or Sub-Activity of the PDM, as well as an annual PO (APO), has not been developed. The achievement of the Indicators and the progress of the Activities of the PDM have not been monitored, either. It is noted that the activities have been implemented based on the Work Plan of the Japanese Experts Team as well as the Strategic Plan of ATTI and have been reported periodically, but these plans do not necessarily coincide with the PDM. These shortfalls have made it difficult for all those concerned to have clear and common understanding of the overall implementation process and progress of the Project based on the PDM. (For reference, the Project is developing a PO/ APO for the Extended Period. The PO/APO is expected to be finalized through a series of discussion among all those concerned).

#### **5 Conclusion**

Through the close communication between ATTI staff and Japanese experts, and through confirmation on annual Project progress and discussion on annual Project planning among ATTI staff, Japanese experts and JICA, the Project was effectively and efficiently implemented for the accomplishment of the Project purpose.

It should be pointed out that the implementation of many demand-driven tailored training courses, which had not been expected at the initial stage of the Project, positively gave a profound impact on strengthening capacity of ATTI training implementation. Through conducting tailor-made training courses entrusted by PMO-RALG, more than 270 engineers/technicians of LGAs and contractors from 5 regions have been trained, and staff from LGAs and contractors from more regions are expected to be trained in a few years time.

For the sustainability of the Project, some more efforts by both Tanzanian and Japanese sides are requested as shown in the clause of "Recommendations" below by the end of the Project period. Further, for the achievement of the Overall Goal and the Super Goal, commitment at policy level, monitoring and guidance from central government, as well as much more practical capacity development at the ground are indispensable.

As is mentioned above, more than 270 staff in LGAs and contractors have been trained and are expected to be trained through participation to ATTI training. According to the information provided through PMO-RALG, the guideline for local road development planning which incorporates

use of local resources and emphasizing LBT utilization is to be distributed to each LGA through Regional Administrative Secretary.

It is expected that through continuous effort on awareness raising of decision makers, these positive progress on LBT promotion would contribute to the LBT application for local road maintenance and rehabilitation.

In this Project, as a Plan of Operation (PO) has not been prepared before the commencement of and throughout the Project period, it is difficult to confirm the appropriateness of the timing of inputs based on the original Project implementation plan. Besides, due to some illogicality and inappropriateness of Project Design Matrix (PDM), there were some difficulties on measuring the Project accomplishment level objectively. In this sense, it could be said that there were some difficulties on the management of this Project.

#### 6 Recommendations

#### 6-1 By the end of the Project

The following recommendations were presented by Joint Evaluation Team to ATTI and the Project experts. Each recommendation is presented on the occasion of JCC and all the members understood and agreed. Besides, as a results of the detailed explanation by the Team, the items recommended by the Team would be reflected to the Project activities for the remaining period.

(1) Regular training courses to be core courses

From the view point of sustainability on training implementation of ATTI, it is recommended to make a strategic plan of training course implementation, in which more emphasis should be put on regular training courses rather than request basis training courses. In the remaining Project period, it is recommended to review the Strategic Plan of ATTI to insert mid-term plan on regular training course implementation based on the expected demand from LGAs, contractors and other concerned parties. Further, it is recommended to make schedule of regular course implementation and advertisement considering timing of budget disbursement from central government to LGAs.

# (2) Monitoring and evaluation

For continuous improvement of training courses, monitoring and evaluation (M&E) of trainings and feedback for the training curriculum and materials are indispensable. In this sense, proper implementation of M&E for each training course is necessary. Information on training demand, which is expected to be collected through post-training monitoring, is considerably important for planning of annual and mid-term training implementation.

In the remaining Project period, it is recommended to prepare simple monitoring sheet and to implement on-going training monitoring by using the prepared sheet.

#### (3) Promotion and awareness

For the effective promotion and awareness, collaboration between promotion unit and training unit in ATTI is very important.

In the remaining Project period, it is recommended to have opportunity to hold meeting(s) on planning of promotion and awareness activities considering the training implementation plan.

# (4) Training for trainers (TOT)

For keeping the quality of ATTI training, continuous effort for training of trainers is important. Dissemination seminar within ATTI, on-the-job training and sending of trainers to TOT courses are important.

In the remaining Project period, it is recommended to review Strategic Plan to incorporate in it plans on in-house training and to conduct those on trial.

# (5) Function of technical support

As a training institute for LBT, ATTI is requested to provide technical support service on LBT works.

In the remaining Project period, it is recommended to appoint ATTI staff in charge of technical support service, to prepare manual on technical support and inform the ex-trainees and on-going training participants on the service.

# (6) Effective use of equipment provided through the Project

Some pieces of equipment are not used because of the deficit of attachment and lack of parts. For full utilization of the provided equipment for the training in ATTI, these deficits and their shortcomings should be rectified in the remaining Project period.

It is further strongly recommended to procure attachment for towed-graders and parts for asphalt cutters.

#### (7) Finalization of Annual Plan of Operation (APO)

Contents of tentative Annual Plan of Operation (APO) were discussed and confirmed on the occasion of JCC meeting. It is recommended to finalize the APO by the end of September, 2010 after mutual consultation among concerned personnel in the Project. It is further recommended that the APO be fully utilized for the Project management in the remaining period.

#### 6-2 After the end of the Project

The following recommendations were presented by the Joint Evauation Team in JCC meeting for the sustainable utilization of the Project outputs. All the members in JCC understood and agreed to the recommendations.

# (1) Policy support on LBT promotion

For the promotion of LBT application in local road works, clearer commitment from policy level and tangible/concrete instruction from certain governmental organization is recommended. Besides, LBT promotion shouldn't be done only through ATTI, but also through other governmental organizations, contractors/consultant associations and so on.

## (2) Monitroing of LGTP

On LGTP document, some issues and program implementation procedures related to LBT works are mentioned. For full utilization of the program document, monitoring and reviewing of the LGTP is important. It is expected that the guideline for local road

development planning, which has already been prepared by PMO-RALG and to be distributed to LGAs, will be utilized for drawing up of Council Transport Infrastructure Master Plan, 3 year Maintenance and Development Program and other planning related to road maintenance/rehabilitation.

- (3) Capacity strengthening of Regional Administrative Secretary (RAS) Engineers

  For the promotion of LBT at grounds, policy enforcement is important. In this sense, it is
  recommended to strengthen the capacity of Regional Administrative Secretariats (RAS)
  engineers on policy enforcement and monitoring of projects conducted in LGAs.

  Besides, it is expected that RAS engineers play important role for dissemination of
  experience and knowledge on LBT works at ground to LGAs within the Region.
- (4) Capacity strengthening of LGAs and local contractors

  Though capacity of some engineers/technicians of LGAs on planning/supervising of LBT works and that of some contractors on LBT works are strengthened through participating in trainings by ATTI, the capacity at the ground is still not enough. In this regard, continuous support for LGAs and contractors on LBT road works is recommended.
- (5) Light equipment for LBT road works For securing provision of light equipment for LBT works, it is recommended to consider measures on the provision of equipment, i.e. establishment of equipment lease system, soft-loan provision, encouragement of private equipment leasing firms and so forth.
- (6) Collaboration with other institutions related to LBT Collaboration with LBT related institutions, such as University of Dar es Salaam, Dar es Salaam Institute of Technology (DIT) and National Construction Council (NCC), etc. are required to be continued and enhanced. Such collaboration is important not only for the promotion of LBT, but also for raising human resources on LBT works, such as district engineers/technicians, LBT contractors, LBT consultants, trainers for LBT and so on.

#### 7 Lessons learned

(1) Importance of common understanding of Project Design

As is addressed in the clause of "Conclusion", lacking of Plan of Operation, which is a necessary document for project management, caused uncoordinated flow of some activities and miscommunications among Project related personnel. At the initial stage of a project implementation, it is important to share the whole view of the project implementation plan among concerned personnel for the development of common understanding.

Further, for the effective project management, Project Design Matrix (PDM) together with PO should be utilized for the confirmation of annual progress and achievement of a project, planning of annual project implementation and making annual Plan of Operation (APO).

(2) Close communication among concerned personnel in a project

For the effective utilization of input for a project, close communication among concerned personnel is considerably important. Project activities should not be too much concentrated on documents production, such as manuals, materials and so forth, but on the process of producing deliverables and their practical application at the ground through close communication each other.

- (3) Importance of M&E in a project for training capacity enhancement
  For dissemination of knowledge and skills in certain field, an approach to enhance the
  training implementation capacity is effective. In a project, for strengthening of training
  implementation, M&E system should be incorporated in project activities. Without M&E
  activities, training could not be updated, upgraded and sustained.
- (4) Collaboration between Technical Assistance and Financial Cooperation
  In this Project, by utilizing both the enhanced capacity on training implementation in ATTI and the fund from LGTP, the outputs of the Project was widely spread. Collaboration between technical assistance and financial cooperation could make projects much efficient and effective. In this sense, it is important at the stage of project designing to confirm availability of concerned funding project/program to be collaborated and consider the concrete way of making collaboration from the initial stage.

#### 7 Follow-up situation

The Evaluation Team had discussions on the necessity of continuous support for local road development. Considering the request made by the Government of Tanzania, discussions should be continued among concerned parties on the necessity and contents of further support.

# 第1章 終了時評価調査の概要

#### 1-1 協力の背景

「夕」国政府は、道路を含む経済インフラ整備を戦略的優先分野に置いており、特に既存道路ネットワークの規格向上及び維持管理に力を入れている。1980年代前半の経済危機の中で道路整備事業が停滞し、既存道路の維持補修も放置された。そのため、道路荒廃は著しく、主要幹線道路すら分断され、輸送時間の遅延、車両の損壊等を招いている。2005年に策定された第2次PRSPであるNSGRP(National Strategy for Growth and Reduction of Poverty)では、クラスター1「成長と所得貧困の削減」において、地方道の整備は農業セクターを刺激し、農村の経済成長を促すと分析されており、優先分野のひとつとなっている。「夕」国は、世銀が1990年代初頭からサブサハラの17カ国を対象に主導する"Road Management Initiative (RMI)"に参加し、道路セクターの改革を推進している。また、2000年7月には幹線道路の維持管理を担う唯一の行政法人として"Tanzania National Roads Agency (TANROADS)"を設立して道路網の整備と維持管理を実施している。

「タ」国における道路維持管理は、幹線道路・州道を管轄する TANROADS、県道以下を管轄する各地方自治体の大きく2つに分かれて実施されている。全長91,049kmと言われる道路ネットワークのうち、舗装されている区間はその7.3%に過ぎず、また、58,037kmの地方道路(地方自治体の管轄)においては通行状態が良好であるとされている区間は10%に満たない。このような状況下で、資金不足から維持管理が行き届いていない地方道路において、LBT(Labour Based Technology)を活用した道路開発・維持管理の有用性がこれまでも指摘されていた。

「タ」国インフラ開発省が道路事業における LBT 活用指針を打ち出した 1996 年以降、NORAD (Norwegian Agency for Development Cooperation)、DANIDA (Danish International Aid Agency) 等によって LBT が特定の地方自治体によって活用され、有用性が確認されるに至ったが、こうした活用によって得られた知見は他の自治体等に共有されず、それぞれのプロジェクトが終了すると、LBT は他地域に普及することはなかった。

インフラ開発省は、こうした問題認識の下、2003 年 12 月に LBT の国家的枠組みの設立を目指し、LBT 政策の策定、LBT にかかる情報センターの設立、LBT 研修体制の構築等を構成要素とするプログラム(LBT 適用拡大計画: Taking the use of LBT to Scale: TULS)を作成し、実施に移すこととした。

本案件は、「タ」国政府からの要請に基づき、上記プログラムのうち LBT 研修体制の構築を支援するものであり、インフラ開発省適正技術研修所(Appropriate Technology Training Institute: ATTI)を実施機関として、ATTI の研修実施能力強化を中心とした活動を実施した。

ATTI は、インフラ開発省傘下の研修機関であり、ダルエスサラームから約1,000km離れた Mbeya 州 Rungwe 県に位置している。ATTI は、上記 LBT 適用拡大計画において LBT の国家的な研修担当機関として明確に位置づけられているものの、本プロジェクト開始前は、

一研修機関として、校長及び6名の講師により、年2回の短期研修及び地方自治体へのアドホック的な出張研修を実施するにとどまっており、国家的な研修拠点として実質的に機能するためには、組織及び人員の強化、研修計画策定能力の強化、研修実施能力の強化等のキャパシティビルディングが必要とされていた。

このような背景をもとに、「タ」国政府は ATTI における研修実施能力強化のための「LBT 研修能力強化プロジェクト」を我が国に要請した。

同要請を受け、プロジェクトの基礎デザインを描くべく、2005 年 11 月に事前調査団が派遣された。これにより、要請内容の妥当性が確認され、ATTI の研修機能及び総合調整機能強化を視野に入れたプロジェクトのフレームワークの策定を行った。以上の経緯・調査結果を踏まえ、JICA タンザニア事務所とインフラ開発省は 2006 年 3 月に討議議事録 (R/D) に署名し、プロジェクトは 2006 年 6 月に開始された。

その後、2009 年 9~10 月に実施された終了時評価調査の結果、主にモニタリング・評価 に係る能力向上のためにプロジェクト期間の延長が提案され、合同調整委員会での確認を経て 2010 年 1 月に変更 R/D への署名が行われた。変更 R/D への署名の結果、プロジェクト期間は 2011 年 2 月末までとされた。

#### 1-2 調査団派遣の経緯と目的

今次調査は、2011年2月のプロジェクト終了予定時期を控え、プロジェクト活動の実績・成果を評価・確認するとともに、今後のプロジェクト活動に対する提言及び今後の類似事業の実施に当たっての教訓を導くことを目的として実施した。実績・成果の評価・確認方法は以下の通りである。

- (1) PDM (Project Design Matrix) に沿い、プロジェクトの実績、実施プロセスを調査し、相手側機関と合同でプロジェクト目標等の達成状況を確認する。
- (2) 評価 5 項目(妥当性・有効性・効率性・インパクト・持続性)の観点からプロジェクト実施結果を評価する。

なお、本プロジェクトは 2009 年 9~10 月に終了時評価調査を実施した結果、プロジェクト期間が延長された。このため、今次評価に際しては 2009 年に実施した終了時評価調査の結果を踏まえつつ、延長後 1 年間の活動実績・成果を中心に確認・評価を行った。

また、本プロジェクトの成果を活かし、タンザニア国(以下、「タ」国)における地方道路整備を効果的に展開する支援策につき、「タ」国関係者との協議を行った。終了時評価結果は合同評価報告書として取りまとめ、合同調整委員会(JCC: Joint Coordinating Committee)において報告を行い、協議議事録(Minutes of Meeting)での確認を行った。

# 1-3 調査団の構成

# 1-3-1 日本側メンバー

担当分野	名前	所属
総括/道路技術	鈴木 正彦	JICA 国際協力専門員
協力企画	丸尾 信	JICA タンザニア事務所員
評価分析	広内 靖世	株式会社国際開発アソシエイツ

# 1-3-2 タンザニア側メンバー

名前	所属	
Eng. Joshwa M.E Raya	LBT Coordinator	
	Ministry of Infrastructure Development	
Eng. Elina KAYANDA	NDA Ag. Assistant Director of Economic and Productive Sector	
	Ministries	
	Coordinator, Infrastructure Unit, MPO-RALG	

#### 1-4 調査日程

Duration of the Study: 11 Aug, 2010-3 Sep, 2010

ъ. Г			J	apanese Membe	rs	Tanzania	n Members
No.	date	е	Leader	Coordinator	Evaluation Anasysis	MoID (Leader)	PMO-RALG
1	11-Aug				Depart from Japan		
2	12-Aug	Thu			Arrive at Dar es Salaam		
Ш	13-Aug			1400 Meeting w Infrastructure, N			
	14-Aug				Dar -> Iringa		
5	15-Aug	Sun			Iringa -> Tukuyu		
6	16-Aug	Mon			Greeting to Project Manager Meeting with expert(s)		
7	17-Aug	Tue			Meeting with ATTI staff (Evaluation method, PDME)		
8	18-Aug	Wed			Interview to ATTI staff( I) & data organization		
9	19-Aug	Thu			Confirmation of equipment conditions Interview to ATTI staff( II) & data organization		
	20-Aug				Intervie to ATTI staff &JE (III) & data organization		
11	21-Aug	Sat	Depart from Japan		Compilation of results of		
12	22-Aug		Arrive at Dar es Salaam		Interview to ex-trainees in Mbeya & data organization		
13	23-Aug		Meeting with JICA Office Dar ->Makambako	←	Interview to ex-trainees & data organization	Dar -> Makambako	
14	24-Aug	Tue	Makambako -> Tukuyu Interview to ex-trainee (contractor) Site survey - practical training of LBT Courtesy Call to Principal, ATTI Meeting within Japanese members	←	Interview to ex-trainees & data organization Courtesy Call to Principal, ATTI Internal Meeting	Makambako => Tukuyu Courtesy Call to Principal, ATTI	
15	25-Aug	Wed	Meeting with ATTI Discussions on further cooperation for rural road development	<b>←</b>	<b>←</b>	<b>-</b>	
16	26-Aug	Thu	Meeting with Mr. Raya Site survey – Do–nou method Interview to technicians, LGAs	<b>-</b>	←	Meeting with Japanese members Tukuyu -> Makambako	
17	27-Aug		Tukuyu -> Iringa Meeting with PMO-RALG	←	←	Makambako -> Iringa Meeting with PMO-RALG	Meeting with Mission Members
	28-Aug	Sat	Iringa -> Dar File Preparation	←	←	←	<b>←</b>
19	29-Aug	Sun	File Preparation	←	<b>—</b>	←	←
20	30-Aug	Mon	Discussions on Joint Evaluation	←	<b>←</b>	Discussions on Joint Evaluation	←
21	31-Aug	Tue	Discussion on Joint Evaluation Report Presentation of Evaluation results to the Project Discussion on Rural Road Development Project	<b>↓</b>	<b>←</b>	Discussions on Joint Evaluation Report Leave for Mtwara	Discussion on Joint Evaluation Report Presentation of Evaluation results to the Project Discussion on Rural Road Development Project
22	1-Sep		AM: File Preparation PM: Joint Cordinating Committee	←	<b>←</b>		PM: Joint Cordinating Committee
23	2-Sep	Thu	Report to the Embassy of Japan Depart from Dar	←	←		
24	3-Sep	Fri	Arrive at Japan				

# 1-5 評価手法

今次調査では、以下の手法により評価を実施した。

- (1) プロジェクト実績・実施プロセスの検証
  - 1) 日本・タンザニア双方の投入実績、プロジェクトの成果達成状況、プロジェクト目標の達成度、プロジェクト終了後の上位目標達成見込みを確認する。
  - 2) 活動の実施状況、カウンターパートへの技術移転方法、プロジェクトのマネジメント体制、実施機関やカウンターパートのプロジェクトへの認識、カウンターパートの配置状況、関係機関のプロジェクトへの参加状況・認識度合い、実施過程での問題や効果発現に影響を与えた要因について確認する。

#### (2) 5項目評価

評価 5 項目について、2009 年に実施した終了時評価調査で確認した内容との重複を避け、主に以下の視点からの評価を行った。特に、プロジェクト期間を延長したことにより得られる成果、プロジェクト延長の要因となった事項についての延長期間中の達成見込みという観点から評価を行った。

#### 1) 妥当性

- ① 社会のニーズとの一致
- ② 対象グループの要望との一致
- ③ 対象分野の開発課題への取り組みとしての適切性
- ④ 対象グループ設定の適正性
- ⑤ 波及効果の有無
- ⑥ 効果の受益・費用負担の公平性
- ⑦ 前回終了時評価以降のプロジェクトを取り巻く環境の変化

#### 2) 有効性

- ① プロジェクト目標達成の見込み
- ② 成果設定の適正性
- ③ プロジェクト目標達成のための外部条件設定の適切性
- ④ 外部条件によるプロジェクト目標達成への影響の有無
- ⑤ プロジェクト目標達成に向けた阻害・貢献要因分析

#### 3) 効率性

- ① 成果の達成状況
- ② 成果達成に向けた活動内容設定の適正性
- ③ 成果達成のための外部条件設定の適切性
- ④ 外部条件による成果達成への影響の有無
- ⑤ 投入量・質の適正性
- ⑥ 活動実施のタイミングの適切性
- ⑦ 成果達成のための費用対効果の検証
- ⑧ プロジェクト目標達成のための費用対効果の検証

#### 4) インパクト

- ① 上位目標の達成見込み
- ② 上位目標達成による開発計画へのインパクト見込み
- ③ 上位目標達成に向けた阻害要因内容
- ④ 上位目標とプロジェクト目標の相関の妥当性
- ⑤ 上位目標以外の正負のインパクトの有無
- ⑥ ジェンダー、民族、社会的階層によるインパクトの違いの有無
- ⑦ その他負の影響の有無

#### 5) 持続性

- ① LBT 適用拡大計画の継続可能性
- ② 関連規制・法制度の整備状況及び整備予定
- ③ LBT 技術研修を展開していく取組みへの担保の有無
- ④ プロジェクトの効果を継続する組織能力

- ⑤ ATTI のプロジェクトに対するオーナーシップ
- ⑥ 経常経費を含む予算の確保状況
- ⑦ 予算増加の可能性
- ⑧ 資機材の維持管理の適切性
- ⑨ 社会的弱者への配慮の有無
- ⑩ 環境配慮の有無
- ⑪ 総合的に判断する持続性の評価

## (3) 提言及び教訓の抽出

評価結果に基づき、プロジェクト・「タ」国側関係者に対して提言を行うととも に、類似のプロジェクトにおいて参考にすべきと思われる教訓を抽出する。

特に、プロジェクト期間を1年間延長したことの意義についての提言・教訓を 抽出する。

#### 1-6 主要面談者

## 1. 適正技術研究所(ATTI)

Eng. Emmanuel W. Raphael, Principal

Eng. Mahmoud M. Chamle, Deputy Principal and Training Engineer

Eng. Robert Marealle, Trainer

Mr. H.A. Mombo, Trainer

Mr. A.S. Meena, Accountant

## 2. インフラ開発省 (MoID)

Ambassador Herbert E. Mrango, Deputy Permanent Secretary Eng. Musa I. Iyombe, Director of Transport Infrastructure Eng. Joshwam M.E Raya, LBT Coordinator

## 3. 首相府地方自治庁 (PMO-RALG)

Eng. Elina Kayanda, Coordinator, Infrastructure Unit Mr. Ven K. Ndyamurama

# 4. タンザニア道路公社 (TANROADS)

Eng. Thmas Mosso

## 5. 地方政府土木技官

Ms. Teddy Tarimo, Technician, Morogoro District Council Mr. Faustine Ruzila, Technician, Kibondo District, Kigoma Region Mr. Daudi L. Gao, Technician, Korogwe District, Tanga Region

# 6. 小規模民間土木事業者

Mr. Musa A. Mwakibwaga, Technician

## 7. 日本人専門家

徳永 達己 (総括/組織運営)

# 8. 在タンザニア国日本大使館

関 行規(二等書記官)

# 9. JICA タンザニア事務所

勝田 幸秀 (所長)

長谷川 敏久(次長)

福沢 大輔(職員)

# 第2章 プロジェクトの実績

# 2-1 投入実績

PDM の計画(仮訳)	実績
1 タンザニア側	
1.1 プロジェク ト・スタッフの配 置	
1) プロジェク ト・ディレク ター	1) プロジェクト開始当初から、インフラ開発省の次官がプロジェクト・ディレクターとして配置されている。
2) プロジェク ト・マネージ ャー	2) プロジェクト開始当初から、ATTI の校長がプロジェクト・マネージャー として配置されている。
3) その他のプロ ジェクト・ス タッフ(技術 スタッフ、事	3) 現在、ATTIの職員10名が技術スタッフとして配置されている(研修担当 部署8名、普及啓発・情報担当部署1名、メカニカル・ワークショップ 担当部署1名)。さらに、財務・調達・総務課から3名が事務スタッフと して配置されている。
<u>務スタッフ)</u> 1.2 施設・機材の	(詳細は合同評価報告書別添の RM A-1 参照)
提供 1) プロジェク ト実施に必 要な土地・建	1) プロジェクト実施に必要な土地・建物・施設はプロジェクト開始当初から提供された。
<ul><li>物・施設</li><li>2) 専門家に必要なオフィス・スペース</li></ul>	2) プロジェクト開始当初から、執務スペースとして ATTI の事務棟の一室が 提供され、必要な設備も提供された。
と設備 3) その他、必要 に応じて双 方の合意す る施設	
1.3 ATTI の運営 管理費 (職員 給与、その他 の事務費、活	プロジェクト開始時より、ATTIの経費(管理運営費、関連機材のメンテナンス費を含む)はタンザニア側によって負担されている。
動費、研修費) 1.4 全ての関連資機材・車両・施設のメンテ	
ナンス費	
2 日本側	
2.1 専門家の配置 想定分野は、組織 管理、カリキュラ ム・教材開発、研 修モニタリング&	
評価 (M&E)	

PDM の計画(仮訳)	実績
	<延長期間>
	調査実施時点までに、3分野(プロジェクト・リーダー/業務管理、研修評
	価とモニタリング、パイロット・プロジェクト(メンテナンス)、3名の専門
	家が派遣された。   (詳細は合同評価報告書別添の RM B-1 参照)
2.2 ATTI 職員へ	
の研修の提供	合計 4名の ATTI 職員が本邦研修を受講した。
	< <u>延長期間</u> > 調査実施時点までに2名が本邦研修を受講しており、2010年10月にもう1 名が受講する予定である。
	表 2-1 日本の会計年度毎の本邦研修実績(単位:人)
	2006 2007 2008 2009 2010 合計 (*計画)
	0 1 2 1 2 (1*) 6 (7*)
	(詳細は合同評価報告書別添の RM B-2 参照)
2.3 ATTI におけ	<当初期間>
る LBT 研修	総額 54.9 百万相当の機材が供与された。
に必要な資機 材・車両・倉	✓延長期間>
庫	機材は供与されていない。
	表 2-2 日本の会計年度毎の機材供与実績(単位:円)
	2005 2006 2007 2008 2009 2010 合計
	2,351,243   32,345,510   7,778,072   0   12,464,515   0   54,938,342
	(詳細は合同評価報告書別添の RM B-3 参照)  <当初期間 <p></p>
7.4 追加的現地来 務費	1 <u>  1   1   1   1   1   1   1   1   1 </u>
4,7,4	ルド業務費、メカニカル・ワークショップ建設費、報告書作成費、現地コン
	サルタント費である。
	les E tang
	○延長期間> ○2010 年 7 日 20 日本本は、 約 14 五十日 2 1 1 1 2 10 2 1 1 2 1 1 2 1 2 1 2 1 2
	2010年7月22日までに、約14百万円が支出された。主要費目はフィールド業務費及び現地コンサルタント費である。
	ま 2~2 日本の合計年度気の理地業務弗宝徳(単位・ギ四)
	表 2-3 日本の会計年度毎の現地業務費実績(単位:千円) 2006 2007 2008 2009 2010 合計
	2000   2007   2000   2007   2010   (~7月22日)
	7,808 9,494 19,935 9,199 14,294 60,730
	(詳細は合同評価報告書別添の RM B-4参照)

## 2-2 アウトプットの実績

指標(PDMe)	実績
1aATTI の 研修カリ キュラム 及びシラ バスが開発され、見直される	<ul> <li>✓プロジェクト前&gt;         LGA/業者対象の Gravel Road 研修及びコミュニティ・リーダー対象の Gravel Road 研修の合計 2 種類の研修コースが ATTI において行われていたが、カリキュラムやシラバスは存在しなかった。</li> <li>✓当初期間&gt;         2007 年 5 月 (TFY 2006/07)、 ATTI 標準研修コースとして、6 種類のコース (3 種類の定期コース、1 種類の特別コース、及び 2 種類のモバイル・コース) のカリキュラム及びシラバスが開発された。</li> </ul>
	表2-4 プロジェクトによって開発された ATTI 標準研修コース
	コース・タイプ 場所 対象
	I. 定期研修コース (毎年)       (毎年)         1 LGA 技術者・コンサルタント向 け Gravel Road 研修       ATTI 政府職員、コンサルタント
	2 業者向け Gravel Road 研修 ATTI 雇用主、業者、NGO 職員
	3 アスファルト処理道路技術研修 ATTI 土木技術者、コンサルタント
	II. 特別研修コース (隔年)
	4       小型機材オペレーション及び工 ATTI オペレーター、現場監督、機材 レンタル・ユニットのマネージ
	THE THE TABLE TO T
	III. モバイル研修コース (要請ベース)       ATTI 会社役員、マネージャー
	5       LBT 契約管理研修コース       ATTI       会社役員、マネージャー         6       道路工事監督及びコミュニティ・ リーダー向け Gravel Road 研修コ ース       現地       道路工事監督、村落コミュニティ・ イ・リーダー
	<ul> <li>✓延長期間&gt;カリキュラム・シラバスの改訂が進行中であり、プロジェクト終了までに完了する見込みである。</li> <li>▶ コース No. 1 &amp; 2: カリキュラム・シラバスは、ATTI 内の技術レビュー、M&amp;E、パイロット・プロジェクト及び土嚢と品質管理の TOT 及び技術支援サービスの結果を反映して改訂される。</li> <li>▶ コース No. 3-5: カリキュラム・シラバスは、ATTI 内の技術レビュー及び品質管理の TOT の結果を反映して改訂される。</li> <li>▶ コース No.6: カリキュラム・シラバスは、ATTI 内の技術レビュー、M&amp;E、土嚢と品質管理の TOT 及び技術支援サービスの結果を反映して改訂される。</li> <li>✓結論&gt;指標はほぼ達成されており、プロジェクト終了までに達成される見込みであ</li> </ul>

指標(PDMe)	実績
Ib研修教材・標準 文書が開 発され、 普及される。	【Gravel Road】及びコミュニティ・リーダー対象の Gravel Road 研修の合計 2 種類の研修コースが ATTI によって行われていた。定期 研修のテキストは存在していたが、モバイル研修コースのものはなかった。 ≪当初期間 2008 年 3 月(TFY 2007/08)、インフラ開発省発行の「Labour Based Roadworks Technical Manual」に基づいて、6 種類の ATTI 標準研修コース(表 2 − 4 参照)用の7種類の LBT 標準研修マニュアルが開発された。研修生の資料として研修マニュアルからハンドアウトが配布されたが、他機関へは研修マニュアルは普及されなかった。
	◆延長期間>カリキュラム・シラバスの改訂が進行中であり、プロジェクト終了までに完了する見込みである。  → コース No. 1 & 2 : 研修マニュアルは、内部の技術レビュー、M&E、パイロット・プロジェクト、土嚢と品質管理の TOT 及び技術支援サービスの結果を反映して改訂される。  → コース No. 3-5 : 研修マニュアルは、ATTI 内の技術レビュー及び品質管理のTOT の結果を反映して改訂される。  → コース No.6 : 研修マニュアルは、ATTI 内の技術レビュー、M&E、土嚢と品質管理のTOT 及び技術支援サービスの結果を反映して改訂される。  ATTI は関連機関に研修マニュアルを普及し始めている。ダルエスサラーム大学、ダルエスサラーム工業大学、ムベヤ工科大学のLBT入門コースの研修資料として、コース No 1 の研修マニュアルが配布された。
10 ATTI /7	<結論> 指標はほぼ達成されており、プロジェクト終了までに達成される見込みである。
1c ATTI に おいて実 施される 各種研修 コース修生 の数	<ul> <li>プロジェクト前</li> <li>ATTI 内で行われる研修としては、LGA/業者向けの定期研修コース (Gravel Road) があったが、定期的には実施されていなかった。</li> <li>実績:当初期間</li> <li>2008年3月 (TFY 2007/08)、ATTI 内で行われる研修として4種類の研修 (3種類の定期コース及び1種類の特別コース)が開発された (表2-4)。計画では、定期研修コースは毎年、特別研修コースは隔年に行われることになっており、各コースの定員は20名である。</li> </ul>
	<ul> <li>▶ 全体: ATTI 内で行われる研修は当初の計画通りには行われなかった。その理由は、TFY 2007/08 から TFY 2009/10 にかけて、ATTI は首相府地方自治庁から委託された地方自治体職員/業者向け大規模 LBT 研修の準備及び実施への対応を行ったためである。</li> <li>▶ 定期研修コース: 定期研修コースは計画通りには実施されなかった。プロジェクトによって3種類のコースが開発されたが、実施されたのは1種類(LGA/業者対象の Gravel Road 研修) だけであった。しかも、実施頻度は毎年ではな</li> </ul>

指標(PDMe)		実績
		く、隔年であった。1回あたりの研修生の平均人数は TFY 2006/07 の 15 名(定
		員の75%) から TFY 2008/09の7名(定員の35%) に減少した。
	>	特別研修コース:特別研修コース は行われなかった。

#### <実績:延長期間>

- ▶ 全体:ATTI は首相府地方自治庁研修のフォローアップとして行われるトライアル・コントラクトの監督(supervision)も委託されており、職員は関連作業への対応を行っているが、定期研修コースは実施されており、TFY 2010/11内に2回目の定期研修コースが実施される予定である。.
- ▶ <u>定期研修コース</u>: ATTI では、調査実施時点で定期研修コース (LGA/業者対象の Gravel Road 研修)が進行中であった。研修生は8名(定員の40%)で、前回とほとんど変わりがない。その他の2種類の定期コースは行われていない。ただし、ATTIは、2010年3月に発行されたニュースレター第1号において、TFY2010/11にアスファルト処理道路技術研修を実施すると発表している。
- ▶ 特別研修コース:特別研修コース は実施されておらず、プロジェクト終了までに実施される予定もない。実施されなかった理由の一つとして、業者所有のLBT機材の不足が挙げられている。

表2-5 ATTI内で実施された研修の回数及び研修生の平均人数

#		従来のコース		プロジェクト開発の新規コ ース			
	コース・タイプ	TFY 2006/07	TFY 2007/08	TFY 2008/09	TFY 2009/10	TFY 2010/11 (-8月10日)	
I.	定期研修コース						
1	地方自治体&コンサ ルタント対象 Gravel Road 研修	2 (30 名)	0	1 (7 名)	0	1 (8 名)	
2	業者対象 Gravel Road 研修	n/a	n/a	0	0	0	
3	アスファルト処理道 路技術研修	n/a	n/a	0	0	0	
II	. 特別研修コース						
4	LBT 契約管理研修	n/a	n/a	0	0	0	
矽	「修実施回数	2	0	1	0	1	
矽	「修生の合計人数	30	0	7	0	8	
	:ース1回あたりの平均 数=A	15	0	7	0	8	
各	-コースの定員=B	20	n/a	20	n/a	20	
定	≧員充足率= A/B	75%	n/a	35%	n/a	40%	

(詳細は合同評価報告書別添の RM C-1 参照)

<結論>

\_\_\_\_ 指標の達成度は想定より低い。ATTI 内で実施された研修コースの回数及び研

指標(PDMe)				実	績	_	
		分的に達成される ースを実施につい					
1d TOT によって ATTI の研修講 師が能力 向上する	20 スキ AT	▼実績: 当初期間> 2009 年に実施した終了時評価では、ATTI は「TOT を通して得た新たな知識・スキルを教授することが可能となり、当該指標は既に達成された」と評価した。  ATTI 標準研修コース(6 種類)実施に必要な 4 種類の TOT が下表の通り実施された。					
	表2	表 2 - 6 当初期間に実施された ATTI トレーナー/インストラクター対象 TOT 科目 時期 場所 TOT 関連					
	1	教授法	2007年8	3月	ATTI/ ムベヤ	受講者数 8	コース No. 1,2,3,4,5,6
	2	調達・研修管理	2007 8 月 2008 年 1		同上	7	5
	3	アスファルトダ 道路建設	<b>処理</b> 2008年9	月	同上	8	3
	4     アスファルト処理 道路メンテナンス     2009年8月 (ケニア)     KTC (ケニア)     5						
	<実績:延長期間> 下表の通り、2種類の TOT が実施される予定である。 表2-7 延長期間において進行中/今後実施予定の TOT						
		表 2 - 7     科目	延長期間にま 時期	らいて	<b>進行中/今</b> 場所	TOT	関連   フース No

	科目	時期 場所		TOT 受講者数	関連 コース No.
1	メンテナンス /土嚢技術	2010年9月	ATTI	9	1,2
2	品質管理	2010年8月、11-12月	TANROADS 中央ラボ (TANLAB)	9	1,2,3,6

- ▶ 品質管理: TOT 参加者はラボ及びフィールドにおける土壌特性の分析手法を 習得することが見込まれる。
- メンテナンス/土嚢技術: TOT 参加者は LBT に組み込まれた土嚢技術を利用 したメンテナンス手法を習得することが見込まれる。

## <結論>

2009年に実施した評価時の指標の達成度は現在も保たれており、今後さらに強 化される見込みである。

# 織機能が

1e ATTI の組 | <実績:当初期間>

2009年に実施した終了時評価では、以下の理由により「指標は既に達成された」 強化され としている:

> <u>予算の増加: ATTI の予算は TFY2005/06 の 5 億 Tsh から TFY2008/09</u> には 11.1 億 TSh に増加した。

指標(PDMe)				実績			
	の 6 名か ● 新規部署(	。 11名に増加	加した。 年にはメン	カニカル・	ワークシ	ョップ担旨	ジェクト開始時 当部署が創設さ
	表 2 一 8 夕	ンザニア会詞	十年度別 A	TTI 予算	(7月-6月	目)(単位	100万 Tsh)
		財源	TFY 2005/06	TFY 2006/07	TFY 2007/08	TFY 2008/09	
		道路基金	80	64	80	85	
		通常予算	400	285	184	119	
		特別予算	46	98	656	923	
		合計	526	447	920	1,127	
1f ATTI /z ta	増加している。 研修講師。 創設されるを果たして	TI によれば、 いる由であっ <u>数: ATTI の研 と部署</u> : 当初 ていることが 施した評価時	たが、具体 肝修講師 ( 期間に創記 確認された	本的数値は 校長を含む せされた 2 た。	t入手でき む)数は 1 : 部署は A	なかった。 0 名である TTI におい	る。 ヽて重要な役割
1f ATTI にお	<プロジェクト	· 則 P					

## ける研修 テムの確

<u>\f</u>

研修時の達成度テスト及び質問票によってモニタリングは行われていたが、研 M&E シス | 修コース改善のための結果の整理・活用は行われていなかった。

#### <実績:当初期間>

- M&E マニュアル策定前のモニタリング: 研修モニタリングは従来のやり方 で行われた。
- ▶ M&E 担当者任命及び M&E マニュアルの策定:2007 年 3 月、研修課長が M&E 担当に任命され、定期研修コースの M&E マニュアルが策定された。同マニ ュアルでは、下表の通り、3種類のモニタリングが想定されている。

表2-9 M&E マニュアル (2007年版) に基づくモニタリングの概容

	タイプ	実施時期	主要モニタ リング項目	対象者	主要な手法
1	事前モニタ リング	各コース前	研修準備	ATTI 職員	内部チェック
2	研修時モニ タリング	講義・実習それ ぞれの開始時、 中間、終了時	リアクショ ン&ラーニ ング	研修生	内部チェック、 質問票、試験、 観察、インタビ ュー
3	事後モニタ リング	各コース終了 後6ヶ月以内	研修結果の 現場適用	元研修生、 その上司	質問票、電話イ ンタビュー

また、同マニュアルによれば、研修評価は ATTI 戦略計画の目標・ゴール

指標(PDMe)	実績
	の指標達成度を測定するために行われるものであり、研修コース改善のため の評価は想定されていない。
	その他の標準研修コース (特別研修コース及びモバイル研修コース) 用マニュアルは特に策定されなかった。
	➤ <u>M&amp;E マニュアル策定後のモニタリング</u> : 2007 年に策定されたマニュアルは、 実行に移すには高度・複雑すぎたため活用されず、モニタリングは従来のや り方で行われた。事前モニタリング及び事後モニタリングは実施されなかっ た (詳細は RM C-2 参照)。
	※ <u>終了時評価(2009 年 10 月)</u> : 2009 年に実施した終了時評価では「ATTI の M&E システムはまだ実質的に機能していない」と評価し、「現場からのフィードバック・メカニズムを充分に機能させるために M&E システムの実施能力の強化」が必要であるとの指摘がなされた。これに関連して、指標(「研修実施中及び事後における研修生のパフォーマンスの M&E 分析実施」)の追加が提案され、2009 年 10 月の第 4 回 JCC 会合で承認された。
	▼ 接着:延長期間 ※ 新たな M&E マニュアルの策定: 2010 年 6 月、ATTI の M&E システムを機能 させるために、新たに簡素化された M&E マニュアルが策定された。ただ、 2009 年に実施した終了時評価において提言された「LBT 道路工事現場からの フィードバック」のためのメカニズムは明確に示されていない。その一方で、 研修評価のコンセプト及び手法は最初のマニュアルから引き継がれており、 やはり研修コース改善を目的とする評価は想定されていない。また、M&E の項目及び調査手法は示されているが、分析手法については明確に記されていない。
	▶ M&E マニュアル (2010 年版) 策定後のモニタリング: 一部の研修コースにて、新マニュアルを使った研修時モニタリングが行われている。ポスト・モニタリングは一部の首相府地方自治庁研修において実施されたが、内部チェックが中心で、元研修生の研修結果の現場活用に関するモニタリングは行われていない。また、これまで事前モニタリングは行われていない(詳細は RM C-2 参照)。
	➤ <u>M&amp;E 分析の実施</u> : ATTI スタッフはデータの集約・分析を含む関連スキル・ 知識を習得していないと感じており、モニタリング結果は集計・分析されて いない。この問題に対処するために、ATTI では、2011 年 1 月に、スタッフ を対象とする M&E 分析手法ワークショップを計画している。
	◇結論〉 当該指標はまだ達成途上にある。M&E 分析に必要なスキル・知識が実践的な 方法で ATTI スタッフに移転されれば、プロジェクト終了までに指標は概ね達成 されるであろう。
1g 研修実施 中・事後の 研修生の	当該指標は 2009 年 10 月の終了時評価時の提言によって追加された指標である。

指標(PDMe)	実績
パフォー マンスに 関 す る M&E 分析	< 実績: 2009 年 10 月~現在 > 指標 1f の実績に記したように、進捗していない。         < 結論 >
の実施	当該指標の達成度は予測より低いといえる。M&E 分析に必要なスキル・知識が実践的な方法で ATTI スタッフに移転されれば、プロジェクト終了までに指標は概ね達成されるであろうが、プロジェクトの残り期間を考えると、充分に達成することは困難だと思われる。
1h : LBT 技術 サポート 提供機能 の開発	当該指標は 2009 年 10 月の終了時評価時の提言によって追加された指標である。プロジェクトでは、「技術支援体制のための機能」を元研修生への無料技術支援サービスだと解釈している。技術支援サービスの実績は記録・集計され、関連研修コースにフィードバックされる予定である。
	実績: 2009年10月~現在   > あまり進捗していない。このほど普及啓発・情報担当部署が所掌することに決まったばかりであり、活動の本格開始は2010年9月になる予定である。延長期間の暫定PO(RM-D)によれば、全ての関連活動はプロジェクト終了までに完了する見込みである。
li	< 結論 > 関連活動が始まったばかりである。延長期間の暫定 PO が全ての関連する ATTI スタッフ及び専門家による充分な協議を経て最終化され、それらが実行に移されれば、当該指標はプロジェクト終了までに達成されるだろう。
コ プロジェ クト開始 時に比べ	< プロジェクト前 > 関連データは入手できなかった。モニタリングによる生データはあるが整理されていない。
て、研修生 からの評 価が高く なる.	< 実績: 当初期間 > 関連データは入手できなかった。モニタリングによる生データはあるがほとんど整理されていない。
	全ての研修コースにおいてモニタリング活動は行われた(指標 1d の実績参照)が、整理されたデータがあるのは、TFY2006/07 に実施された第 12 回及び第 13 回定期研修コースだけである。これらの研修はプロジェクトによって標準カリキュラムや研修マニュアルが開発され、ATTI 講師が TOT を受講される前に実施されたものである。
	▼実績:延長期間→ 関連活動が始まったばかりである。モニタリング活動は一部実施されているが、データは整理/分析されていない。作業に必要なスキル・知識が ATTI に移転されていないためである。 参考までに、今次調査においてインタビューした第 15回 定期研修コースの研修生は研修の内容及び ATTI 講師のスキル・知識を高く評価していた。
	<結論> 関連データが入手できなかったため、当該指標の達成度は評価できなかった。

指標(PDMe)	実績
1j 研修機関 としての ATTI 施 設・機材の 向上	<ul> <li>▼譲: 当初期間&gt; 2009 年に実施した終了時評価では「当該指標は既に達成されている」と評価された。その主な根拠は以下の通りである。</li> <li>● ワークショップが建設され、研修に必要な機材が供与された。</li> <li>● 2007 年 8 月、ATTI は機材管理の責任者を任命し、機材管理体制が整った。プロジェクトは施設の効果的利用、メンテナンス体制の整備・機材調達方法等の技術移転を ATTI に行った。</li> </ul>
	<ul> <li>▼績: 延長期間&gt;</li> <li>2009年10月の評価において指摘された事項の現況は以下の通りである。</li> <li>● ワークショップ及び研修機材の状態は良好に保たれている。</li> <li>● 機材管理及びメンテナンス体制は機能しており、プロジェクトから移転された技術はメンテナンス体制の運用に利用されている。</li> </ul>
	2009 年 10 月時点の達成度は現在も保たれており、当時の評価は現在も有効であるといえる。

実績

指標(PDMe)

2a ATTI に由来	<プ1	コジェクト前>			
する各種普	ATTI に普及啓発担当部署は存在せず、PR 資料は作成されていなかった。				
及啓発活動					
(ATTI ウェ	<実約	責:当初期間>			
ブサイト、	20	09 年に実施し	た終了時評価では「PR 資料の作製及び配	布が着実に進んでお	
メディアに	り、	当該指標は既に	に達成されている」と評価された。		
おける LBT					
宣伝など)	20	07年8月に普	及啓発・情報担当部署創設され、下表の通	り、PR 資料が製作・	
が行われる	配布	された。			
		表:	2-10 当初期間の PR 資料作製・配布	状況	
		年・月	PR 資料	製作部数	
	1.	2008年3月	半期ニュースレター (試験ベース)	10 (英語)	
	2.	2009年5月	研修パンフレット及び研修アウトライン	1,000(英語) 2,000(スワヒリ語)	
	3.	2009年3月	LBT の普及啓発 DVD	42 (英語)	
	普及 2010 が発 成が DVI	年 4 月には A 行される予定 進行中であり、	当部署によって、継続的に PR 資料が作成 TTI の半期ニュースレター第 1 号が発行さ である。また現在、新たな LBT 及び ATTI 、2010 年 9 月末までに 30 分の DVD が完 2010 年 2 月に開催予定の最終セミナーに	され、10月に第2号 の普及啓発 DVD 作 成する予定である。	

指標	E (PDMe)	実績					
7 1 1 1	( ( )	表 2 一 1 1 延長期間の PR 資料作製・配布状況					
			年・月	関連活動	製作部数		
		1.	2010年4月	半期ニュースレター第1号発行	500 (英語)		
		2.	(計画) 2010年9月	新たな LBT 及び ATTI 普及啓発用 DVD の製作	(スワヒリ語ナレーション & 英語字幕)		
		3.	(計画) 2010年10月	半期ニュースレター第 2 号発行	500(英語)		
		4.	(計画) 2011年2月	DVD 配布	200   (スワヒリ語ナレーシ  ョン & 英語字幕)		
			 09 年に実施し	た終了時評価時の達成度は現在も保た あるといえる。	:れている <sup>1</sup> . 当時の評価		
2b	関連機関			はプロジェクトによってモニタリング	`されておらず、客観的		
	から LBT	に検	証可能なデー	タは入手できなかった。			
	及び LBT 研修に関	<参ネ	考情報>				
	する問い		- 2009 年に実施した終了時評価では、以下の理由により「当該指標は既に達成				
	合わせ件	されたと考えられる」とされた。					
	数が増加	• 「ATTI 職員へのインタビューが、特に地方自治体からの ATTI 研修に関す					
	する	る依頼・問い合わせ件数が増えていることを示している」					
		<ul><li>「また、インタビューによれば、私企業からの依頼・問い合わせ件数が増 えている」</li></ul>					
2c	意思決定	えている」 <プロジェクト前>					
20	者、一般国	<u> </u>	「 <u>クロンエクト削</u> 」 年1回、ゾーンごとの啓発セミナーが開催されていた。				
	民、私企業				,		
	のパート	<実統	<実績:当初期間>				
	ナーの		09 年に実施し	た終了時評価では、「当該指標は順調は	こ進捗している」とされ		
	LBT に関 する意識	1		: ATTI は LBT に係るセミナー/ワーク	ケショップを 15 回開催		
	が向上す る(ATTI		し、のべ650名以上の参加を得た。				
	によって 行われた		▶ <u>展示会参加</u> : ATTI 関係者は LBT を推進するために、8 つの展示会/セミナーに参加した。				
	セミナ	<実終	責:延長期間>				
	ー・キャン	<u> </u>		TTI は、ムベヤ県議会総会において、	LBT 啓発キャンペーン		
	ペーンの	を実施し、同県県会議員約30名、県各部署の代表約30名が参加した。2011					
	参加者数			ロジェクトの最終 セミナーが開催され			
	など)		<ul><li>展示会: ATTI は 2 つの展示会に参加した。これらの展示会の参加者は約 1,900 名であった。</li></ul>				
			1,900 泊 じめつ	った。 (詳細は合同評価報告書別添の	ORM C-4 (1)&(2)参照)		
		<結請	<u></u>	WELL AND THE TAXABLE TO BE TAXABLE.	- (-)(-)> ////		

 $^1$  訳注:指標に計画値が示されていないため、正確な達成度は不明である。  $^2$  訳注:指標に計画値が示されていないため、正確な達成度は不明である。

2009 年に実施した終了時評価時の達成度は現在も保たれており<sup>2</sup>、当時の評

指標	票(PDMe)	実績
		価は現在でも有効であるといえる。
2d	ATTI の	
	研修修了	2009年に実施した終了時評価では、「LBT 及び LBT 業者の定義が 2007年に明
	書が LBT	確にされ、ATTIの修了書受領が LBT 業者登録及び LBT を使った道路工事受注
	業者登録	の要件となった。以上の点は、CRB が策定する規則やガイドラインの中で LBT
	の必要条	に関するカテゴリーとして定められている」ことから、「当該指標は既に達成さ
	件の一つ	れたと結論づけられる」。
	とみなさ	
	れる	
		上記で記された状況に変化はない。
		2009 年に実施した終了時評価時の達成度は現在も保たれており、当時の評価
		は現在でも有効であるといえる。

## 2-3 プロジェクト目標の実績

プロジェクト目標: ATTI がタンザニア国の LBT の国家研修機関として適切な研修提供・総合調整能力を備える。

指標(PDMe)	実績								
a プロジェク	ATTI によって実施されたコース及び研修生の数は、下表のように、プロジェ								
ト開始前に	クト開	  始前(TFY200	05/06)	に比べる	ると大幅に	増加して	いる。この	の増加は、	首相
比べて、	府地方	自治庁の大規模	莫研修	(TFY 20	008/09 及で	ブ 2009/10	) を含む	委託型研修	ミコー
ATTIによっ	スの増	加によるもの	であり、	アウト	プット1	の指標10	の実績で	記したよ	うに、
て実施され	定期研	修コースを含む	む標準に	コースは	:計画通り	に行われて	ていない。		
たコース及									
び研修生の		表 2-1	2 AT	TI の実	施した研修	<u></u> タコース数	及び研修:	生数	_
数が増え		TFY	2	2005/06	2006/07	2007/08	2008/09	2009/10	
る。		ATTI の実施し	. –	2	3	1	4	3	
		研修コース数	Ź		<i>J</i>	1	7	3	1
		研修生数		24	53	45	194	143	
		(詳細は合同評価報告書別添の RM C-1 参照)							
	<結論	< <a href="#">結論</a>							
	指標は既に達成されている。								
	ATTI の校長室への訪問者数は、2006 年(プロジェクト開始年)の 87 名から								
	2009年	2009年の162名と増加している。2010年については、訪問者数は既に110名に							
	上って	いる。							
b 2006年と比									
較してATTI			表 2-	- 1 3	ATTI 校長	室の訪問			
校長室への		2006	2007	200	08 200	19	2010	`	
訪問者数が							8月13日	)	
増加する	87   168   209   162   110								
	/ <u>√+:</u> ∌/\	_							
	<	シャニングをサイン	la 1	7					
		は既に達成され	ru (V)	ఏ.					

指標(PDMe)	実績
c 関係者の ATTIに関す る評価	客観的に検証可能な関連データは入手できなかった。(ATTI は 2011 年 2 月に 開催予定の最終セミナー前に県議会議員その他の関係者にインタビューを行う 予定である)。  参考情報  タンザニア国において LBT の普及啓発を管轄するインフラ開発省及び首相府 地方自治庁の関係者は、ATTI には LBT の国家研修機関として必要な研修・調整 能力が備わりつつあるとの見解である。また、国際的な LBT 主唱者である ILO も、リンディ州・ムトワラ州における ILO の研修実施につき、技術プロポーザ ル審査後に ATTI に委託したことから、ATTI の能力を認めていると考えられる。
d LB 研修カラムール化	▼指標の定義 プロジェクト関係者によれば、当該指標は「タンザニア国のLBT 研修において、ATTI の研修カリキュラム・モジュールが標準であると認められる」と解釈される。 ▼実績 アウトプット2の指標 2b の実績 で示したように、ATTI の修了書は CRB にLBT 業者として登録する際の要件になった。インフラ開発省のLBT コーディネーター及び ATTI によれば、他の機関が、有効な修了書を発行できる LBT 研修コースを提供しようと思えば、その研修コースは ATTI によって認定される必要がある。ATTI 認定の研修コースは、プロジェクトを通して開発されたカリキュラム・モジュールに準拠して行われる。この意味で、ATTI のカリキュラム・モジュールは、実質的にタンザニア国 LBT 研修の国家標準として認められていると判断される。 なお、ATTI のカリキュラム・モジュールが実質的な国家標準としての質を保つためには、適宜更新されることが必要である。更新のためには、研修の現場からのフィードバック・メカニズムを含む M&E システムが機能していることが必要となるが、アウトプット1の指標 If の実績で示したように、M&E システムはまだ十分には確立されていない。  「株舗」 当該指標は、実質的に、ほぼ達成されている。しかし、ATTI における研修 M&E システムがプロジェクト終了までに十分に構築されることは困難であると思われることから、当該指標のプロジェクト終了時までの達成度は限定的であると考えられる。
e TULS 報告 書における ATTIの評価	TULSの中間評価・最終評価が行われておらず、関連データは入手できなかった。  <結論  関連データが入手できないため、当該指標の評価は不可能である。

なお、2009 年度に実施した終了時評価調査時にプロジェクト目標の指標として追加した 2 点について、今次調査時に関係者間で協議した結果、両指標はアウトプット 1 の指標とする 方が適切と判断された。このため、両指標に係る実績は、それぞれ 1g、1h として「2-2 アウトプットの実績」に記載した。また、この指標の変更に伴う PDM の変更は、今次調査 時に開催された合同調整委員会において合意された。

## 第3章 プロジェクトの評価

## 3-1 実施プロセスの検証

項目	結果
1	a. プロジェクトの当初 PDM はプロジェクトの 4 年目に、合同終了時評価団の提
活動の進捗	言を受けて改訂された。修正 PDM は 2009 年 10 月の第 4 回 JCC 会合において
状況	承認された。
	b. 当プロジェクトでは、プロジェクト活動の計画・モニタリングに必要な項目(活
	動・詳細活動ごとの期待される結果、スケジュール、責任者、実施者、主要な
	投入など)が示された「活動計画書(PO),は作成されなかった。PDMの活動
	の進捗状況は記録・報告されていない(なお、活動は専門家チームの業務計画
	ならびに ATTI の戦略計画に基づいて行われ、定期的に報告されている)。
	c. 延長期間のPO/年間PO(暫定案は合同評価報告書別添のRM-Dを参照)はプ
	ロジェクト関係者による十分な協議を経て、2010年9月末までに最終化される
(1)	べく、JCC において合意された。
(1)	<当初期間>
アウトプッ	2009年に実施した合同評価では、「ほぼすべてのプロジェクト活動は計画通り
ト1の活動	に実施され、完了している」としつつも、「ATTI において M&E システムはまだ
	実質的に機能していない」と指摘し、以下の提言を行った。
	1) 活動 1-5(「M&E システムを開発・実施する」)を「LBT 道路建設作業の現場からのフィードバックを含めた M&E システムを開発・実施し、研修プ
	ログラムの更新により、システムを十分に機能させる」に修正すること。
	2) 新たに活動 1-6 (「ATTI研修で習得された知識・スキルの実践的活用を
	促進するために、M&E システムの中にLBT関係者への技術サポート提
	供機能を整備する」)を設けること。
	これらの提言は 2009 年 10 月の第 4 回 JCC 会合において承認された。
	7, 2 00, 21, 12, 12, 12, 12, 12, 12, 12, 12, 12
	<b>▽延長期間</b> >
	各種の活動が行われたが、POが存在しないため、計画に対する進捗度を検証
	することは不可能である(延長期間にこれまで行われた活動及び今後の計画は
	RM-D の暫定 PO 案を参照。なお、暫定 PO 案によれば、すべての関連活動はプ
	ロジェクト終了までに完了する予定である)。
	特記事項:
	1) 活動 1-3 (「モバイル研修ユニットの戦略・実施計画を策定する」):モバ
	イル研修ユニットの戦略・実施計画は策定されていない。その代わり、ATTI
	の戦略計画(2006-2009)が策定され、2010 年 3 月に更新された(戦略 計画(2009-2014))。同計画はプロジェクト終了までにさらに更新される
	新画 (2009-2014))。向計画はプロジェクト終りまでにさらに更利される   予定である。プロジェクトの説明によれば、活動の内容が変更になったの
	は、(i) ATTI の戦略計画が存在しなかったこと、(ii) モバイル研修ユニッ
	トの戦略・実施計画はATTIの戦略計画に含まれことによる。しかしなが
	ら、実際にはモバイル研修は、従来通り、アドホックに実施されている。
	2) 活動 1-5 及び 活動 1-6: 暫定 PO (APO) 案に示される計画は、一部の関
	係者により策定されたもので、ATTI 内部で十分に協議されていない。2010
	年9月末までに暫定POが最終化され、プロジェクト終了までに全ての詳
	細活動が完了することが求められる。

項目	結果
(2) アウトプッ ト2の活動	<当初期間> 2009年に実施した合同評価では、「ほぼすべてのプロジェクト活動は計画通り に実施され、完了している」とされた。
	✓延長期間〉 いくつかの活動が行われたが、POが存在しないため、計画に対する進捗度を 検証することは不可能である。具体的活動及び今後の計画はRM-Dの暫定PO案 に示されている。なお、暫定PO案によれば、すべての関連活動はプロジェクト 終了までに完了する予定である。
	特記事項:1) 活動2-6 (「活動1-5で行われるパイロット・プロジェクトを利用して、ATTI における LBT 機材リースに関するケーススタディを行う」): 暫定 PO (APO) 案に示されるこの活動項目は、現行の PDM には含まれていないが、2010年8月より実施されている。この活動は、2009年に実施した終了時評価の提言(「各州において、ATTIの研修機関と LBT 道路建設作業.のインターフェースを創る」必要性を指摘したもの)に応じて加えられたものである。
2 実施体制	現行の実施体制はプロジェクトを円滑に実施するにあたって適切であった。
3 プロジェクト管理	1) 合同調整委員会 (JCC) : 本プロジェクトの R/D によれば、JCC の役割は (i) 承認された年間予算に基づいてプロジェクトの年間作業計画を決定し承認する、(ii) プロジェクトの全体的な年間支出及び年間作業計画の達成度をレビューする、(iii)プロジェクトに関する主要な課題をレビューし意見を交換する、の 3 点である。 また、JCC は年1回以上行われるか、必要に応じて行われると規定されている。これまで、JCC の会合は年1回行われており、プロジェクト実施に関する有益な助言を行ってきた。しかしながら、年間作業計画(APOと同義)が策定されていなかったため、R/D に定められた役割のうち、最初の2 点については十分には果たされていない。  2) PDM 及び PO に基づくプロジェクト管理: PDM 及び PO は JICA の協力する案件のプロジェクト管理において重要なツールである。しかしながら、本プロジェクトにおいては、PDM は効果的に活用されてこなかった。PO については、既に述べたように、本プロジェクトにおいては策定されてこなかった。これらの課題により、関係者がプロジェクトの全体的な実施プロセスと進捗度及びプロジェクト目標の達成度について共通の理解を有することが困難となった。
4 プロジェク ト内のコミ ュニケーシ ョン	プロジェクト内のコミュニケーションは、プロジェクトを円滑に実施するにあたって、概ね十分であり、タンザニア側・日本側の間に協力的な関係が構築された。
5 関連現地機 関との連携	プロジェクトは、インフラ開発省、首相府地方自治庁、一部の県政府、CRB、 NCC など様々な現地関連機関と連携・協力して行われた。
6 その他の貢 献・阻害要	1) 貢献要因     a ATTI 校長/プロジェクト・マネージャーの当プロジェクト及び LBT 推進に 係るイニシアティブとコミットメントはプロジェクトの円滑な実施を大

項目	結果
因	いに促進した。 b プロジェクト・スタッフは協力的で、やる気があり、勤勉である。 c ATTI に配置された青年海外協力隊が普及啓発・情報担当部署の普及啓発活動に貢献した。 d 首相府地方自治庁が ATTI を研修機関・研修提供者として活用することに積極的である。 2) 阻害要因: 特になし

## 3-2 評価5項目による評価

3-2-1 妥当性 プロジェクトの妥当性は高い

項目	評価
1.1 必要性	
(1) ターゲ ット・グ ループ	プロジェクト目標(「ATTI がタンザニア国の LBT の国家研修機関として適切な研修提供・総合調整能力を備える」) はターゲット・グループ(ATTI 及び研修生) のニーズに合致している。
の ニ の を 合性	➤ ATTI: タンザニア政府のTULSプログラムによれば、ATTIは「LBTの国家研修機関として広く認められる」ようになることが求められており、ATTI自身の「ビジョン (2010年)」には、「タンザニア国において、質の高いLBT研修提供の第一人者となる」ことが掲げられている。  地方自治体(県政府)からの研修生(技術者): タンザニア国においては、県政府が都市道路・県道・支線道路(全長 58,037km)を管理しているが、そのうち Good/Fair と評価されるのは 10%に過ぎない。さらに、首相府地方自治庁が、Road Fund Board (RFB)との合意に基づき、地方自治体に対して、道路基金の 20%を LBTを利用した道路工事に確保するよう通達している。このような事情から、地方自治体からの研修生は、管轄地域において LBTを利用した道路工事を推進するための実践的なスキル・知識を必要として研修に参加しており、ATTIが研修機関としての能力を高めることは、彼らのニーズと合致しているといえる。  民間セクターからの研修生:彼らは、LBT業者として事業を始める、あるい
	は強化するために、LBT の実践的スキル・知識を得ることを必要として ATTI の研修に参加しており、ATTI が研修機関としての能力を高めることは、彼ら のニーズと合致しているといえる。 <u>コミュニティからの研修生</u> :彼らは、要請ベースで実施されるモバイル研修 コースの受講者である。彼らは、研修後、LBT を用いてコミュニティの道路 工事を行うことが求められており、ATTI が研修機関としての能力を高めることは、彼らのニーズと合致しているといえる。
1.2 優先度	
(1)タンザニ ア国の 国家計 画との 整合性	上位目標(「LBT の研修生(地方自治体、民間業者、民間コンサルタント、TANROADS、コミュニティ・グループなど)が LBT を利用したインフラ建設の計画・設計・実施 ができる」)はタンザニア国の開発計画と整合性がとれている。  ▶ 「タンザニア開発ビジョン 2025」において、「政府はインフラ投資を最優先
<b>霍石性</b>	<ul> <li>プランサー / 開発とション 2025」において、「政府はインノノ投資を取優元で推進せねばならず、投資は、通常、民間セクター及びコミュニティの参画を伴わねばならない。特に、道路網の発展は農村開発推進において絶対的に不可欠である」と強調されている。</li> <li>プロジョン問題を軽減するために行われる比較的小規模の労働集約型道路プロジェクトにおいては、コミュニティ・ベースのイニシアティブの奨励が必要である」と記されている。</li> </ul>
(2)日本国の ODA 政 策 と の 整合性	上位目標は日本国の ODA 政策と整合性がとれている。  最新の「日本 ODA 大綱」(2003 年 8 月)において、「経済開発の主要因である社会経済インフラの開発への支援提供」を含む「持続的成長への取り組み」は four priority issues の一つに挙げられている。

項目	評価
	<ul> <li>最新の「ODA 中期政策」(2005年2月)において、「日本は、道路・・・、 生活環境改善につながるインフラなど、商業・投資環境の改善に貢献する 経済・社会インフラの整備を支援する」とされている。</li> <li>最新の「国別援助計画」(2008年6月)において、運輸(道路)セクターは 優先分野の一つに挙げられている。</li> </ul>
1.3 手 段 と して の 適切性	
(1)日本の技 術 的 優 位性	日本の技術的優位性は確認された。 ▶ タンザニア側のプロジェクト・スタッフの日本人専門家への評価及び彼らの技術力の向上度を考慮すると、当該分野における日本の技術の優位性があると判断される。特に、道路工事の計画・準備・施工管理に関する日本の技術はタンザニア側にとって非常に有益であった。 ▶ 日本で確立された土嚢技術がプロジェクトを通してLBTに適用された。

## 3-2-2 有効性

有効性は概ね確保される見込みである。

項目	評価
2.1 アウトプ ットの達	➤ <u>アウトプット1</u> :指標から判断すると、アウトプット1はほぼ達成されているが、プロジェクト終了までに十分に達成されることは困難であると思われることは、ATTLの常用である。ススな研修 MAR に係る性質のプロジ
成度	る。これは、ATTI の定期研修コース及び研修 M&E に係る指標のプロジェクト終了までの十分な達成が難しいと思われることによる。 ▶ アウトプット2:順調に進捗しており、プロジェクト終了までに達成される
	見込みである。 (詳細は第2章「プロジェクトの実績」参照)
2.2 プロジェ クト目標 の達成度	指標の達成度から判断すると、プロジェクト目標はほぼ達成されているが、プロジェクト終了までに十分に達成されることは難しいと思われる。これは2.1で示したようにアウトプット1の達成に遅れがあり、その影響を受けるためである。
	(詳細は第2章「プロジェクトの実績」参照)
2.3 アウトプ ットのプ ロジェク ト目標に 対する貢 献	プロジェクト目標は(i) ATTI における LBT の国家研修機関として適切な研修提供能力の整備、(ii) ATTI における LBT の国家研修機関として適切な総合調整能力の整備、の2つのサブ目標から構成される。アウトプット1 (研修) はプロジェクト目標の前半部分に直接貢献し、アウトプット2 (普及啓発) は後半部分に貢献していると判断される。
2.4 外部条件	プロジェクト目標の外部条件として以下の 2 点が PDM に特定されている。 <ul> <li>第1の条件 (「研修生が職場に留まり、研修結果を活用できる」): 関連データは入手できなかった。いずれにせよ、当条件はプロジェクト目標達成に必要な条件ではない。</li> <li>第2の条件 (「地方自治体交通プログラム (Local Government Transport Programme: LGTP)) が計画通り実施される。特に、PMO−RALGの目的と役割が明確にされ、関係者間の調整が十分に行われる」): LGTP (2007-2012) は、財源の形態の変化により十分には実施されていない。一</li> </ul>

項目	評価
	方、首相府地方自治庁の目的と役割は明確にされており、首相府地方自治庁
	はインフラ開発省とともに関係者の調整を十分に行っている。
2.3 その他の	特になし。
促進・阻害要	
因	

## 3-2-3 効率性

プロジェクトは概ね効率的であったと考えられる。

項目	評価			
3.1 アウトプッ トの産出レ ベル	「3-2-2 有効性」で記したように、アウトプット1はほぼ達成されているが、ATTIの定期研修コース及び研修 M&E に係る指標がプロジェクト終了でに十分に達成される見込みは低く、アウトプット1自体もプロジェクト終了でに十分に達成されることは難しいと思われる。一方、アウトプット2についば順調に進捗しており、プロジェクト終了までに達成される見込みである。			
3.2 外部条件	<ul><li>外部条件(「LGA において ATTI の LBT 研修に参加するための予算が確保される」): 関連データは入手できなかった。</li></ul>			
3.3 投入の適 切さ				
(1) タンザニ ア側				
(a) プロジェ クト・ス タッフ	<ul><li>✓当初期間&gt;</li><li>▶ 2009 年に実施した合同終了時評価では「タンザニア側によって配置された人員は適切であった」と評価された。</li></ul>			
	<ul><li>延長期間&gt;</li><li>▶ タイミング、期間、人数: タンザニア側プロジェクト・スタッフは、当初期間に配置されたスタッフが引き続き配置されている。</li><li>▶ 質、分野: 概ね、関連する分野・経験、適切な技術レベルを有する技術スタッフが配置された。</li></ul>			
	▼アウトプット産出への貢献度 高い			
(b) 建物・施 設	注:2009 年に実施した合同終了時評価では、建物・施設の適切さについて特に言及していない。			
	▼ プロジェクト期間全体 ➤ タイミング、規模・数: プロジェクトに必要な土地・施設は適時に提供されてきた。専門家の執務室として、プロジェクト開始以来、ATTI事務局棟内に一室が提供されている。執務室は PM でもある校長の執務室の近くに位置しており、PM と専門家チームの円滑なコミュニケーションを促進している。 ➤ 質:総じて適切である。			

項目	評価						
	<アウトプット産出への貢献度>						
() 5 4	▶ 高い。 注:2009 年に実施した合同終了時評価ではローカル・コストの適切さについて						
(c) ロ ー カ ル・コス ト							
·	✓ プロジェクト期間全体>						
	<ul><li>✓ ブロジェクト期間全体</li><li>▶ タイミング、量:総じて、必要な額がタイムリーに支出された。</li></ul>						
	<アウトプット産出への貢献度> ▶ 高い。						
(2)日本側							
(a)専門家	注:2009 年に実施した合同終了時評価では、専門家の適切さについて特に言及していない。						
	<プロジェクト期間全体>						
	▶ タイミング、期間、人数:専門家は、JICA の承認した年間計画通りに派遣されている。						
	<ul><li>▶ <u>賃、分野</u>: 適切な分野、経験、技術レベルの専門家が派遣された。一部の専門家はタンザニアあるいは東アフリカにおける業務経験を有し、タンザニア側とスワヒリ語でコミュニケーションをとることも可能である。</li></ul>						
	マウトプット産出への貢献度>						
	➤ 高~中程度。専門家の派遣は、概ね、アウトプットの産出に貢献してきた。しかし、ある分野では、不十分な情報共有により、投入が関連する指標の十分な達成に結びつかなかった。						
(2) 研修員受	≪当初期間>						
け入れ	<ul> <li>▶ 2009年に実施した合同終了時評価では、タンザニア側は本邦研修が ATTI スタッフのやる気を強く引き起こし、ATTI の一般的な能力向上に貢献したと判断した。一方、日本側は「LBT は既に日本で使われておらず、日本では効果的に学べない」可能性を指摘した。評価団全体としては、一部の研修については近隣諸国で実施されればより効率的だっただろうと結論づけた。</li> </ul>						
	✓延長期間>						
	▶ <u>タイミング、量、質</u> : 本調査実施時点で、ATTIスタッフ(研修講師)が1名、 本邦研修に参加中であったため、その研修の量・質について評価はできなかっ						
	た。 <ul> <li>活用:評価時点でプロジェクトの残り期間が約半年間であったため、本邦研修を受講中のスタッフが研修結果をどの程度プロジェクト活動に活用できるかは不確かである。また、評価団がインタビューを行った元研修員のうち、1名は本邦研修で学んだスキル・知識をプロジェクト活動に活用することができたと述べたが、残りの元研修員は活用が困難だと感じている。その理由として、日本の技術レベルが高度すぎること、一部の研修内容が彼らの業務に関係なかったことが挙げられている。</li> </ul>						
	▶ <u>その他</u> :元研修員は本邦研修で得られたやる気を現在も保っている。しかし、本邦研修に派遣されたことのないスタッフも、元研修員同様に、業務に真摯な姿勢で臨んでいることをここに付記する。						

	項目	評価						
		▼ウトプット産出への貢献度 ▶ 中程度。 一部の研修コースは、アフリカの第3国で実施されれば、アウトプット産出により貢献したと思われる。						
(d)	機材	◆当初期間> ➤ 2009 年に実施した合同終了時評価では、「JICA の供与機材は量・質ともに基本的に適切であったが、納入業者側がスペックを誤ったために牽引グレーダーの活用が不可能であるというマイナーな問題も報告されている」とした。						
		<ul> <li>延長期間</li> <li>▶ タイミング、量、質、スペック:延長期間に機材は供与されなかった。</li> <li>▶ 活用:当初期間に供与された機材は概ね活用されている。 2009 年に実施した終了時評価において指摘された 2 台の牽引グレーダーについては、プロジェクトが問題の解決に努力しているにも関らず、まだ利用されていない。実習には約 15 年前に調達された牽引グレーダーが利用されている。 また、アスファルト・カッター1 台が、主要部品の欠如のために利用されていない。</li> <li>▶ 運転&amp;保守管理(O&amp;M): これまで機材はタンザニア側によって問題なく管理されてきた。納入業者の保証の有効な機材以外は、保守管理・修理作業のほとんどは ATTI で行われている。</li> </ul>						
		▼アウトプット産出への貢献度 高い。						
(e)	追加的現地業務費	<ul> <li>▶ <u>タイミング、量</u></li> <li>● 必要な額がタイムリーに支出された。</li> <li>▼ウトプット産出への貢献度</li> <li>▶ 高い。</li> </ul>						
,	関連プとの連携ロト	<ul> <li>▶ JICA プロジェクト/スキームとの連携:         <ul> <li>青年海外協力隊(JOCV)派遣:ATTIに配属されたAV教育分野の短期隊員(2008年10月~2009年4月)及び村落開発隊員(2009年1月~)が、プロジェクトに協力し、普及啓発・情報課のスタッフによるアウトプット2の活動の計画・実施を支援してきている。彼らの貢献はプロジェクト関係者によって広く認められている。</li> <li>ウガンダ国建設運輸省のJICA専門家:2008年7月、ウガンダからの代表団の一員として、同国建設運輸省派遣中のJICA専門家がATTIを訪問し、プロジェクト側とLBTに関する意見交換を行った。(詳細は合同評価報告書別添のRMC-4(3)参照)</li> </ul> </li> <li>▶ 他ドナーとの連携:         <ul> <li>ILO:2009年3月、プロジェクトは、ILO、JICA及びインフラ開発省共催の「LBTのためのロールアウト・セミナー:タンザニアにおけるLBT利用拡</li> </ul> </li> </ul>						
		「LBT のためのロールアウト・セミナー: タンサニアにおける LBT 利用払 大に係るチャレンジと今後の道」.に参加し、ATTI の活動に関するプレゼン テーションを行った。 <u>東アフリカ諸国の他の LBT 研修機関との連携</u> :  • 2009 年 8 月、ATTI の研修講師 5 名がケニア国のキシイ研修センター(KTC) のアスファルト処理研修コースに参加した。						

項目	評価
3.6 その他 の促進・阻 害要因	特になし。

#### 3-2-4 インパクト

上位目標は、地方自治体がLBT利用の道路工事に予算を割り当て、かつLBT機材が民間業者にとってより容易に利用できる状態が確保されれば、ある程度達成されるだろう。その他の正インパクトも既に観察されている。負のインパクトは観察されておらず、予測もされない。

項目	評価					
4.1 上位目標						
レベルの						
インパク						
<u></u>						
(1) 上位目標	上位目標(「LBT の研修受講者(地方自治体、民間建設業者、コンサルタント、					
達成の可	タンザニア道路公社、地域社会等)が LBT を利用したインフラ建設の計画・					
能性(プ	計・実施ができる」)は、地方自治体がLBT利用の道路工事に予算を割り当					
ロジェク	かつ LBT 機材が民間業者にとってより容易に利用できる状態が確保されれば、					
ト終了後 - 1	プロジェクト終了後3年以内にある程度達成されると見込まれる。					
3年以内)	1) ATTI 定期研修コースの元研修生:					
	① 地方自治体(県)からの研修生(技術者): 研修生の所属する地方自治体					
	には LBT の活用について組織的な関心があるものと思われる。研修生は 所属する県の財政支援を受けて ATTI の定期研修に参加している。一部は					
	所属する原の対政又接を支げてAIIIの足期研修に参加している。一部は一 業務命令で参加しており、残りは上司の許可を得て参加している。実際、					
	評価団がインタビューを行った第 15 回 定期研修コース (2010 年 7-9 月)					
	の参加者(複数名)は、予算さえあれば、研修後、LBT を業務に活用したいと述べている。					
	いと述べている。 ② 民間セクターの元研修生:関連情報が入手できなかった。					
	2) ATTI モバイル研修コースの元研修生 (コミュニティ・グループ):元研修生					
	は、既に研修で得たスキル・技術を現場で活用しているものと思われる。					
	イル研修コースは要請ベースで行われている。元研修生は、DANIDA等に					
	って資金協力が行われているコミュニティの道路工事において LBT を利用					
	ることが求められており、そのためのスキル・知識の習得のために研修に					
	している。					
	3) ATTI に委託された首相府地方自治庁研修の元研修生:					
	① 地方自治体からの元研修生(技術者):首相府地方自治庁は、Road Fund					
	Board (RFB) との合意書に基づいて、全ての地方自治体に対して道路基					
	金からの予算の 20%を LBT 関連の道路工事に割り当てるように指示して					
	おり、地方自治体からの研修生は業務で研修結果を活用することができる					
	と確信している。さらに、首相府地方自治庁の研修の一環として、当該県					
	の議員や行政長官(県レベルの鍵となる意思決定者)を対象に、LBTに関					
	する意識啓発セミナーが行われた。さらに、首相府地方自治庁では、研修					
	結果の現場適用をより確実なものとするために、地方自治体が首相府地方					
	自治庁に提出する四半期報告書に LBT 道路工事に利用された予算額を明					
	示するよう指示し、結果を毎年まとめて研修のフォローアップを行う予定					

項目	評価					
	である。 ② 民間セクターの元研修生:首相府地方自治庁研修 M&E 委員会の指示を受け、民間セクターの元研修生の CRB 登録プロセスの支援も行っている ATTIによれば、全ての元研修生は 2010 年 10 月までに LBT 業者として登録される見込みである。LBT 業者として登録されれば、元研修生は、LBT の利用を義務づけた地方自治体の道路工事の入札に参加することが可能となる。首相府地方自治庁によれば、彼らは各地方自治体が首相府地方自治庁の研修生として選抜した業者であるため、入札を経て事業を受注できる見込みが高いとのことである。また、評価団がインタビューを行ったある元研修生は、首相府地方自治庁研修後に行われたトライアル・コントラクトが、彼らの能力を地方自治体に証明するのに役立ったと述べた。一方で、インタビューを行った元研修生のほとんどは、研修に参加した業者の多くが LBT 機材を所有していない実態を指摘し、LBT 機材へのアクセスを容易にする手段が講じられない限り、研修で学んだスキル・知識を実地で活用することは困難だとの懸念を示した。					
(2) 外部条件	<ul> <li>▶ PDM の外部条件 (「LGTP が計画通り実施される」): これまでのところ、この条件はほぼ満たされている。ただし、フェーズ I (2007-12) は資金協力の形態が変ったため十分には実施されていない。なお、首相府地方自治庁は 2011 年に LGTP のフェーズ I のレビューを行い、フェーズ II のドキュメントを策定する予定である。</li> <li>▶ PDM に特定されていない外部条件: 「インパクト」 4.1 (1)で示したように、LBT を使った道路工事の予算が地方自治体によって割り当てられること、及び LBT 業者が必要な機材により容易にアクセスできるようになること、の 2 点は上位目標のための外部条件であると認められる。</li> </ul>					
4.2 その他の インパク ト	<ul> <li>●既に現れた正のインパクト</li> <li>1. プロジェクトによって能力が向上したことにより、ATTI は首相府地方自治庁及び ILO の LBT 研修を受注することができた。特に大規模な首相府地方自治庁研修の実施を通じて、ATTI 及びスタッフの自らの能力に対する自信が深まった。</li> <li>2. これまで、合計 404 名の研修生(県の技術者、民間業者、コミュニティ・リーダー)が、プロジェクトによって開発された新たなカリキュラム・モジュールに基づく ATTI の研修に参加した。</li> <li>3. プロジェクトの支援する対外ネットワーク活動を通して、ATTI、ケニアのキシイ研修センター(KTC)及びウガンダの MELTEC の三機関の校長によって"General Agreement of Cooperation"が締結され、同書は ILO によって裏書された(詳細は合同評価報告書別添の RM C-4 (3)参照)</li> <li>4. 2010 年 8 月、ムベヤにおいて行われた青年海外協力隊の村落開発部会において、本プロジェクトの専門家チームが、LBT/土嚢技術の講義及び実習を行い、タンザニア各地に配属されている合計 7 名の村落開発隊員 LBT に関する基礎的スキル・知識を身につけた。また、同部会には、ウガンダの土木分野の隊員3 名が参加し、LBT/土嚢技術の講義及び実習を通して、彼らの知識・技能が強化された。</li> </ul>					

項目	評価				
	◆予測される正のインパクト >				
1. 東アフリカ地域の LBT 研修機関の協力関係が"General Agra Cooperation"に基づき強化されると見込まれる。					
	2. 村落開発部会において研修を受けた協力隊員が、各々の任地において LBT/土 嚢技術を普及することが見込まれる。				
	<b>◆</b> 負のインパクト▶				
	▶ 負のインパクトは観察されておらず、予測もされない。				

## 3-2-5 持続性 持続性は概ね確保される見込みである。

項目	評価					
5.1 制度·組						
織面 (1) 政策・法	タンザニア国には LBT 推進に関する以下のような政策支援があり、これらは					
的支援	今後も継続する見込みである。					
	➤ 「Construction Industry Policy」(2003 年)において、雇用機会創出のための「労働集約型建設関連活動」の推進が、貧困撲滅支援策として特定されており、「労働集約型・コミュニティ参加型方式の重要性・実行可能性に対する意識・コミットメントの形成」が、貧困撲滅支援に係る施策方針の一つに挙げられている。					
	<ul> <li>Tanzania National Business Council の発布した「Kilimo Kwanza (農業第一)</li> <li>イニシアチブにおいて、インフラ開発は10本の柱の一つに挙げられている。</li> </ul>					
	→ 首相府地方自治庁の策定した LGTP (2009-2012 年) において、「労働集約型 手法」は戦略的アプローチの一つに掲げられている。					
	▶ 首相府地方自治庁及び TANROADS は、Road Fund Board (RFB) との間に、 同基金から配分される予算の 20%を LBT 関連の道路工事に割り当てるとい う履行協定書を個々に取り交わしている。					
	ただし、このような政策支援があるにも関らず、評価団がインタビューを行っ					
	た関係者の多くは、LBT のさらなる推進には、LBT の道路工事への適用に関す					
	る政策レベルのより明確なコミットメント及び管轄省庁からの具体的な指示が 必要だと指摘している。					
(2)組織戦略 (出口戦	2010 年 3 月に、プロジェクトを通して、ATTI の 5 ヵ年戦略計画 (2009-2014年) が策定されており、プロジェクト終了までに更新される見込みである。					
<u>略)</u> (3) プロジェ	全てのタンザニア側プロジェクト・スタッフは ATTI の常勤スタッフであり、					
クト・ス	プロジェクト終了後も継続的に雇用される。また、プロジェクト終了後も関連ポ					
タッフの	ストに配置される見込みである。従って、彼らは、今後も、習得したスキル・知					
配置	識を業務に十分に活用し、プロジェクトの効果を維持していくことが可能 る。					
(4) 管理運営	これまで、ATTI は大きな支障なく関連活動の運営管理を行ってきており、プ					
能力	ロジェクト終了後も、独力で関連活動を運営管理していけると思われる。					
(5) 関連機関 との連携	既述の通り、これまで ATTI は関連機関と連携して活動を行ってきた。連携を通して築かれた相互信頼・協力関係はプロジェクト終了後も継続すると見込まれる。					
5.2 財政面	これまでのところ、タンザニア政府は ATTI の活動に必要な予算を措置しており、プロジェクト終了後も必要な予算は確保されると見込まれる。					
5.3 技術面						
(1) プロジェ クト・ス	1. 研修分野 プロジェクト・スタッフ(研修講師)の技術能力は TOT 及び専門家チームに					
クト・スタッフの	プロジェクト・スタック(研修講師)の技術能力は IOI 及び専門家ケームに   よる OJT を通して向上した。彼らは、Gravel Road に関する研修の計画・実施に					
技術能力	ついては主体的な役割を果たしており、専門家チームからの最小限の助言を受けて活動を行ってきた。プロジェクト終了までには、関連活動を独力で計画・実施できる十分な知識・技能が備わると見込まれる。					

項目	評価

ただし下表の通り、研修講師(校長を含めた11名)の中には、TOTに参加できなかった者もいる。また、ATTIは研修コースに対する需要の増加に応えるために新規の常勤・非常勤講師を雇用する計画がある。

表3-1 TOT に参加/不参加の研修講師数

		,	
	TOT (科目)	TOT に参加し た研修講師数	TOT に不参加の 研修講師数
1	教授法	7	4
2	調達・研修管理	6	5
3	アスファルト処理道路建設	7	4
4	アスファルト処理道路メン テナンス	5	6

ATTIでは、新規雇用の研修講師の中で経験の少ない者については、経験豊富な講師の行う研修コースに研修生として参加することが奨励されている。このような組織内の技術移転は非公式かつ自発的に行われている。プロジェクトを通して行われた TOT の効果を維持・最大化し、また LBT の国家研修機関としての研修の質を保つためにも、ATTI 内における技術移転はより体系的な方法で行われる必要がある。

#### 2. 普及啓発・意識形成

DVD、ニュースレター等の普及啓発資料作成及び意識啓発セミナー他の関連活動の実施により、ATTIの能力・知識は強化された。さらなる強化には、普及啓発・情報担当部署のスタッフの増員が必要となろう。

#### (2) 移転技術 及び成果 品 の 活 用・普及

#### 1. 研修分野

プロジェクトによって移転された技術・手法及びプロジェクトの成果品は現地のニーズとレベルに適合したものであった。

プロジェクトを通して、6種類のATTI標準研修コースのカリキュラム、モジュール、及び研修マニュアルが開発された(「プロジェクトの実績」のアウトプットの指標1bの実績参照)が、全てが実際に活用されてきたわけではない。地方自治体対象の定期研修コース(Gravel Road 研修コース)のカリキュラム類はATTIによって十分に活用され、さらにタンザニアの関連教育機関に普及されてきた。また、ATTIの研修時には、研修生用資料として研修マニュアルから資料が配布されている。Gravel Road 研修コースに対する需要の増加に鑑みると、プロジェクト終了後も同コースのカリキュラム類は十分に活用されるだろう。また、コミュニティ対象のモバイル研修コース(Gravel Road 研修コース)もある程度活用されてきており、今後も活用が見込まれる。

一方、その他の4コースのカリキュラム類は、関連コースが実施されていないことから、まだ活用されていない。ATTIでは、TFY2010/11中に別の定期研修コース(アスファルト処理道路研修)を1回実施する計画だが、残りのコースについては実施予定がない。

項目	評価				
	表3-2 プロジェクトの開発したカリキュラム類が利用された研修コースの 実施回数				
	研修コースのタイプ	実施回 数			
	1定期研修コース:地方自治体・コンサルタント対象の1Gravel Road 研修	7 *			
	2 定期研修コース: 民間業者対象の Gravel Road 研修	0			
	3 定期研修コース: アスファルト処理技術の研修	(1)**			
	4 特別研修コース: 小型機材オペレーション及び工具管理	0			
	5 モバイル研修コース: LBT 契約管理研修	0			
	- エバイル研修コース・ 道路丁事監督・コミュニティ・リー	_			
	6   ダー向け Gravel Road 研修	3			
	* 実施回数は首相府地方自治庁&ILO 研修のものを含む	<b>,</b>			
	** ATTI は TFY 2010/11 に研修を 1 回実施する計画である	=			
	同様に、TOTで習得された全てのスキル・知識が実際の研修に活用されている わけではない。				
	表3-3 TOTで習得したスキル・知識が実際に使われた研修コースの実施回数				
	TOT (科目)       習得したスキルかた研修コースの事				
	1 教授法 10				
	2 調達・研修管理 0				
	3 アスファルト処理道路建設 0				
	4 アスファルト処理道路メンテナンス (1)*				
	*ATTI は TFY 2010/11 に関連コースを実施する計画である				
	これらの問題は、需要主導型のカスタムメイドの Gravel Road 研修(首相府地方自治庁の大規模研修を含む)の受注増加に起因する。今後、ATTI において研修計画を戦略的に策定することにより、成果品及び移転技術の有効活用が確保できると思われる。				
	(元研修生による研修結果の活用については「インパクト」 4.1(1)参照。)				
	2. 普及啓発 普及啓発資料の作成を通して習得されたスキル・知識は今後の資料作成に活か されるだろう。また、セミナー開催で培われた経験及び習得されたノウハウは、 今後も、同様のセミナー開催にあたって活用されるだろう。				
(3) 供与機材 の活用と 保守管理	ェクト終了後も活用が見込まれる。十分な活用を確保するためには、牽引グレーダー (2 台) 及びアスファルト・カッター (1 台) に係る問題の解決が必要である。				
	▶ 保守管理: プロジェクトによって構築された機材の保守管理体制はプロジャスト級スペメが使せる トリスナヤス				

ェクト終了後も継続すると見込まれる。

## 第4章 提言

以上の評価結果に基づき、以下のとおり合同評価調査団としての提言をとりまとめた。 提言内容については、合同調整委員会(JCC)において評価調査団から発表を行い、関係者 の理解・合意を得た。

#### 4-1 プロジェクトの残り期間に係る提言

#### 4-1-1 標準研修コースの強化

本プロジェクト期間中に、ATTI は首相府地方自治庁や ILO からの委託を受けて大規模な研修を実施してきたが、その一方で標準研修コースの実施が限定的となった。大規模な研修コースを実施することは、研修講師の実地での技術活用機会が増えることにより、技術力の向上に大いに貢献したと評価される。

一方、研修実施機関としての持続性という観点からは、標準研修コースの実施能力を向上していくことが重要である。

そのため ATTI は、その戦略計画の中に、標準コースの実施計画を盛り込み、その実施計画に沿って研修員募集も適切に行っていく必要がある。

#### 4-1-2 モニタリング・評価

研修カリキュラムや研修用資料を常に改善していくためには、モニタリング・評価(M&E)の実施が不可欠である。特に、研修実施後現場に戻った研修員に対するモニタリング・評価を行うことにより、実地でのニーズを的確に把握することが可能となる。

そのため ATTI は、モニタリング票を作成し、試行的に研修実施中モニタリングと研修実施後モニタリングを実施する必要がある。

#### 4-1-3 普及啓発

LBT に係る研修実施機関として、ATTI には LBT を用いた道路事業の普及や政策決定者への啓発を行うことが期待されている。研修実施機関としての普及啓発を行う上では、研修参加者の出身地区に対する普及啓発活動を実施するなど、研修部門と普及部門の連携により活動を展開することが効果的である。

そのため ATTI 内で、研修実施時期を踏まえた普及啓発活動計画に係る協議機会を設けることが必要である。

#### 4-1-4 指導者研修

今後増加していくと見込まれる研修需要に対応するためには、指導者を新規雇用する必要が出てくるが、ATTI において提供する研修コースの質を維持するためには、ATTI 内におい

て指導者研修を実施する体制を整える必要がある。

そのため、戦略計画を見直し、内部研修の実施計画を盛り込むと共に、試験的に同研修を 実施することが必要である。

#### 4-1-5 技術サポート機能

LBT に係る研修実施機関として、ATTI には技術支援サービスを提供することが期待されている。ただし、ATTI の本来事業は研修実施事業であることを踏まえ、係るサービスは電話・電子メール等の簡易な方法で実施されるべく検討が必要である。

そこで、ATTI スタッフの中で係るサービスの担当者を明確にし、マニュアルを策定して係るサービスについて研修参加者に情報提供することが必要である。

#### 4-1-6 供与機材の効果的な活用

供与機材の一部には、部品の欠落や付属品の不具合により十分活用されていないものがある。これまでにも専門家及び JICA 事務所が係る事態への対応を行ってきたが、未だ解決に至ってはいない。

そこで、プロジェクト専門家及びATTIが協力して必要な部品・付属品を調達し、供与機材を十分に活用することが必要である。

#### 4-1-7 年間実施計画の最終化

今次合同評価調査に合わせて開催した合同調整委員会において、年間プロジェクト実施計画が提示され、確認された。一方、同計画には一部不足情報があることから、プロジェクト内で検討をした上で、9月末までに最終化し、その計画に基づいてプロジェクトの残り期間の活動を実施していく必要がある。

#### 4-2 プロジェクト期間終了後の提言

#### 4-2-1 LBT 普及に係る政策的支援

道路事業における LBT 活用の重要性については複数の政策に盛り込まれているものの、 依然として現場での適用はさほど進んでいないのが現状である。

そこで、より明確な政策レベルでの合意や指導がなされるべく提言を行った。加えて、 LBT に係る普及は ATTI だけで行うのではなく、インフラ開発省の LBT ユニットや、首相 府地方自治庁、その他政府機関や業界団体によっても行われるべきである。

#### 4-2-2 LGTPの実施支援

LGTP には、LBT を活用した道路事業に係る課題やプログラムについての言及がなされて

おり、同計画文書を活用することは重要である。首相府地方自治庁ではLGTPに関連して地方道路開発計画のガイドラインを準備中であり、近々各自治体に配布すると共に説明のためのワークショップが開催される予定であることから、係るガイドラインを活用して地方道路整備に係る計画策定がなされるべきである。

#### 4-2-3 州政府事務局技術者の能力向上

中央政府で示された政策を実施に移す機関として、州政府事務局(RAS)技術者の能力向上が重要である。加えて、RASが州内でのLBT技術普及・波及に貢献すべきである。

#### 4-2-4 自治体及び建設業者の能力向上

ATTIで実施される研修への参加を通じて、自治体技術者及び建設業者の能力は向上してきている。一方、現場における技術能力はまだ十分とは言い切れないため、自治体技術者や建設業者に対して、しかるべき機関が現場レベルでの技術力向上に資する継続的な支援を実施すべきである。

#### 4-2-5 LBT での道路施工のための機材について

インフラ開発省、首相府地方自治庁、ATTI等との協議において、LBT の普及を阻害している要因の一つとして、LBT 用機材の不足についての言及がなされた。

そこで、LBT を活用した道路施工において LBT 用機材を提供する手段として、機材リースシステムの構築・長期低利貸付制度の導入・機材リース企業の事業実施支援といった手法を検討すべきである。

なお、本プロジェクトでは機材リースシステムに係るケーススタディを実施する予定であ り、同結果を踏まえて対応策を検討することも可能であると思われる。

#### 4-2-6 LBT 関連機関との連携強化

ATTI がダルエスサラーム大学、ダルエスサラーム工科大学等との連携を強化することにより、LBT の普及のみならず人材育成に貢献するため、積極的に実施すべきである。

## 第5章 教訓

本プロジェクトの実施を通じ、他の類似プロジェクトに活用すべく、以下の教訓を導いた。

#### 5-1 プロジェクトの設計に係る共通理解の重要性について

本プロジェクトの管理上、PDM や PO といった資料が十分には活用されなかったため、 プロジェクト関係者間で誤解やコミュニケーション不足が生じた。プロジェクト開始当初の 段階では、まずは関係者間での共通理解を確認した上で、プロジェクト目標に向かって活動 を推進することが重要である。

さらに、PDM や PO を基に各年の成果達成度合いを確認すると共に翌年の年次計画を策定することにより、個々の活動と成果・プロジェクト目標との関連を認識することが可能になり、プロジェクト運営上は効果的である。

#### 5-2 プロジェクト関係者間でのコミュニケーションの重要性について

プロジェクトへの投入を効果的に活用するためには、関係者間の綿密なコミュニケーションが重要である。プロジェクトの活動は資料の作成に過剰に注力するべきではなく、成果品を作成する過程や実地での適用に注力すべきである。

#### 5-3 研修実施能力強化プロジェクトにおける M&E の重要性について

ある分野の知識や技術を普及するに当たっては、研修実施機関の能力を向上して人材を育成していくという手法が効果的である。係るプロジェクトにおいては、研修内容が現場のニーズに真に即したものであるのか否かを常に確認することが重要である。

そのため、M&E の実施を通じ、研修内容等の最新化・向上・自立性の確保をすることが 重要である。

#### 5-4 技術協力と資金協力の連携

技術協力を通じて強化された能力を活用しつつ、資金協力を投入することにより、双方の効果がより高く発現することが期待される。そのため、プロジェクト枠組みを形成する段階にあって、関連する資金協力の有無を確認すると共に具体的な連携の手法について検討することは重要である。

## 第6章 プロジェクト終了後の地方道路整備の展開

以前から指摘されている通り、今次調査における関係者との協議の結果、LBT 適用拡大に向けた課題として指摘されたのは、①LBT 施工用機材の不足、②実地における計画・実施能力の不足についてであった。

LBT 施工用機材の不足への対応法としては、公的機関による機材リースシステムの運用等の可能性があるが、どの機関が運営主体として適切であるか、また機材の維持管理と共に同システムの運営管理能力の向上をいかに実施するかが課題である。機材リースシステムは、今次プロジェクトにおいてもケーススタディを実施する予定であり、その中で得られる教訓や、その他類似事業の実施経験を活かしていくことが効果的であると思われる。

各自治体での成果を波及するメカニズムとしては、州政府事務局(RAS)技術者を波及の 促進者とすることが適切であるとの指摘もなされた。

各協議の結果を踏まえると、選定した1-2の州の中で複数の自治体を選定し、パイロット事業の実施・政策決定者への普及啓発活動を実施すると共に、RAS を起点とした普及メカニズムの構築を図り、同時に機材リースシステムの試験運用を実施するということが考えられる。

また、本調査において技術協力と資金協力の連携による効果についての指摘がなされたことを踏まえ、JICAによる地方道路分野への資金協力の可能性についても今後検討の必要があると思われる。

## 付属 資料

第5回合同調整委員会協議議事録

#### 付属資料 第5回合同調整委員会協議議事録

## Minutes of Meetings on 5<sup>th</sup> Joint Coordinating Committee on the Project for Capacity Strengthening on Labour Based Technology (LBT) Training at ATTI

The 5<sup>th</sup> Joint Coordinating Committee (hereinafter referred to as "JCC") meeting on the Project for Capacity Strengthening on Labour Based Technology (LBT) Training at ATTI (hereinafter referred to as "the Project") was held on 1<sup>st</sup> September, 2010 at the Ministry of Infrastructure Development (hereinafter referred to as "MoID") Headquarters, TANCOT House conference room. Through series of discussions made during the meeting, the members confirmed and agreed on the matters referred to in the document attached herewith.

Dar es Salaam, 1st September, 2010

Mr. Toshihisa Hasegawa

Senior Representative

Japan International Cooperation Agency

Tanzania Office

Ambassador Herbert E. Mrango

Deputy Permanent Secretary

Ministry of Infrastructure Development



#### Attachment

## 1. Opening

The 5<sup>th</sup> Joint Coordinating Committee (hereinafter referred to as "JCC") meeting was officially started at 1530hrs by Ambassador Herbert E. Mrango, Deputy Permanent Secretary of Ministry of Infrastructure Development..

The meeting was chaired by Ambassador Mrango and the proposed agenda was agreed without any revision. All the participants to the JCC meeting made self-introduction to know each other.

Eng. Musa. I. Iyombe, made introductory remarks on behalf of Ministry of Infrastructure Development.

#### 2 Presentation on ATTI activities and achievements

Eng. Mahmoud Chamle of ATTI made presentations on the Project activities and achievement. The presentation material is attached herewith as APPENDIX-I.

## 3. Presentation of Project progress

Dr. Tatsumi Tokunaga, leader of the experts' team for the Project made presentations on the Project progress and plan mainly on the extended Project period. The presentation material is attached herewith as APPENDIX-II.

## 4. Joint Evaluation Report

Joint Terminal Evaluation results were presented by the Joint Evaluation Team (hereinafter referred to as "the Joint Team") which was consisted of 2 members from Tanzanian side and 3 members from Japanese side. The Tanzanian Terminal Evaluation Team was headed by Mr. Joshwa M.E Raya, LBT Coordinator, MoID and the Japanese Terminal Evaluation Team, was headed by Mr. Masahiko Suzuki, Senior Advisor of the Japan International Cooperation Agency (hereinafter referred to as "JICA"). The Joint Team has conducted terminal evaluation of the Project from 12<sup>th</sup> to 31<sup>st</sup> August, 2010.

The Joint Team presented on the outline of the conclusion of the evaluation results and recommendations based on the Joint Evaluation Report attached herewith (APPENDIX-III).

Discussions were made mainly on the conclusion and recommendations, and all the members understood and agreed on the contents of Joint Evaluation Report.

#### 5. A. O. B.

## (1) Progress on ATTI to be semi-autonomous body

MoID informed the members on the progress of discussions and preparations for making ATTI to be a semi-autonomous body as follows:

1) Committee on ATTI to be semi-autonomous body has been established.



All

- 2) The members of committee are senior officials from MoID.
- 3) Preliminary study has already started from December, 2009.
- 4) ATTI is planned to be a semi-autonomous body in February, 2012.

The members were supportive of this initiative as it would positively enable ATTI to conduct LBT training more effectively and efficiently. MoID promised to provide further information to JICA on the progress in this regards.

### (2) Approval on PDM revision and tentative Annual Plan of Operations (APO)

For making the PDM more logically feasible, modification of the latest PDM, which was approved in the last JCC meeting held in October, 2009, was proposed. Further, tentative Annual Plan of Operations (APO) on the activities for last 1 year of the Project period was also presented for effective Project management.

After series of discussions, both modified PDM and tentative APO were approved. Approved PDM and tentative APO are attached as APPENDIX-IV and APPENDIX-V respectively.

### (3) National Plan on LBT

The Ministry of Infrastructure Development informed that National Policy for LBT will be integrated to the National Transport Policy, which is now under reviewing in MoID.

### 6. Closing

Concluding remarks were made by chair person Ambassador Herbert E. Mrango, and the meeting was officially closed at 1720hrs.

- APPENDIX -I Presentation material on ATTI activities and achievements
  - -II Presentation material on Project progress
  - -III Report of the Joint Terminal Evaluation
  - -IV Project Design Matrix (PDM) ver. 3
  - -V Tentative APO



Hh

List of Participants

No	Name	Position	Institution
1	Ambassador Herbert E. Mrango	Deputy PS	MoID
2	Eng. Musa I. Iyombe	Director of Transport Infrastructure	MoID
3	Eng. Elina Kayanda	Coordinator, Infrastructure Unit	PMO-RALG (TZ Evaluation Team)
4	Eng. Thmas. Mosso		TANROADS
5	Eng. Emmanuel Raphael	Principal	ATTI, MoID
6	Eng. Mahmoud Chamle	Deputy Principal	ATTI, MoID
7	Eng. Robert Marealle	Trainer	ATTI, MoID
8	H. A. Mombo	Trainer	ATTI, MoID
9	A. S. Meena	Accountant	ATTI, MoID
10	Mr. Toshihisa Hasegawa	Senior Representative	JICA Tanzania
11	Dr. Tatsumi Tokunaga	Team Leader	JICA Expert
12	Mr. Masahiko Suzuki	Senior Advisor	ЛСА HDQs (JP Evaluation Team Leader)
13	Mr. Shin Maruo	Representative	JICA Tanzania Office (JP Evaluation Team)
14	Ms. Yasuyo Hirouchi	Permanent Expert	IDeA (JP Evaluation Team)
15	Mr. Daisuke Fukuzawa	Representative	JICA Tanzania Office





### MINISTRY OF INFRASTRUCTURE DEVELOPMENT Appropriate Technology Training Institute (ATTI) - MBEYA

### CAPACITY STRENGTHENING PROJECT UNDER JICA – TANZANIA AT ATTI

Presented by ATTI - Mbeya

at

JCC MEETING AT DAR ES SALAAM

1ST SEPTEMBER 2010

### **CONTENT COVERAGE**

- 1. Background Information
- 2. ATTI Vision and Mission
- 3. Technical co-operation for capacity strengthening on LBT training
- 4. Achievement gained
- 5. Activities Accomplished through JICA support
- 6. Conclusion and Recommendations

### **Background Information**

The Appropriate Technology Training Institute (ATTI) is a Government Institution under the jurisdiction of the Ministry of Infrastructure Development.

ATTI has been provided with the mandate of training and developing courses on Labour Based Technology (LBT) methods as an appropriate technology in road construction, rehabilitation and maintenance for low volume roads in Tanzania.

Program for up-scaling LBT in Tanzania; The program was officially launched on October 2004.  $\label{eq:continuous}$ 

The overall objective of the programme is to contribute to Economic Development and Poverty Reduction by creating employment in infrastructure investments and optimizing the use of local resources with emphasis on labour-based technology.

### **Background Information**

### **Immediate Objectives**

The immediate objective was to establish a National Framework for the application of LBT in Tanzania in four years time. While the development process includes the following:-

- ⇒Formulation, adoption and publication of an appropriate and adequate national policy to guide the use of Labour-based Technology in Tanzania.
- Describing of knowledge and capacity building in the public and private sectors for the proper planning, designing and implementation of infrastructure works using Labour-Based Technology

### **Background Information**

- Creation of an enabling environment for the provision and maintenance of infrastructure using labour-based technology, principally using the private sector.
- The programme comprises of two components:
  - Strengthening of Appropriate Technology Training Institute (ATTI) based in Mbeya and
  - Establishment of Labour Based Technology Unit (LBTU) at the MoID headquarters.

### ATTI VISION AND MISSION

### **ATTI Vision**

To become the leading provider of high quality training for stakeholders' and practitioners' of Labour Based Technology in Tanzania and other countries.

### **ATTI Mission**

To provide high quality training and information to LBT practitioners and policy makers; to standardise, develop and coordinate LBT training in Tanzania; to contribute to research and development of LBT; and promote the application of LBT in the construction sector.

### TECHNICAL CO-OPERATION FOR CAPACITY STRENGTHENING ON LBT TRAINING

JICA Cooperation support to ATTI started from June 2006 for the period of 4 year and was scheduled to end on March 2010.

### The Goal

The purpose was to provide to ATTI, the necessary technical and material support for capacity strengthening of the institute in the area of training, promotion and documentation.

### **Extension of Project period**

In order to accomplish the outstanding works on low volume sealed road training, monitoring and evaluations and introduction of new technology of road repair and maintenance using Do-nou technology the project period was later extended for another one year scheduled to terminate in February 2011.

### **ACHIEVEMENT GAINED**

- The formulation of National Training for Labour-Based Technology at ATTI is now progressing well as the capacity of ATTI has now been increased in such a way that ATTI is now able to carry out training and make promotion of the LBT activities in the country.
- The support from JICA has enabled to put in place the conducive environment for the establishment of ATTI as a National Institutional for LBT in Tanzania.
- ATTI has managed to disseminate the LBT knowledge, skills and capacity building in the public and private sectors for the proper planning, designing and implementation of infrastructure works using Labour-Based Technology.

### **ACTIVITIES ACCOMPLISHED THROUGH JICA SUPPORT**

To enhance ATTI capacity of carrying out training expertly, it was necessary to design courses that would respond to the need of providing the basic technical aspects relating to the application of Labour Based Technology (LBT) in road improvement works. The activities accomplished in this respect are as follows:-

- •1. Development of CURRICULUMS AND SYLABUS
- •2. Development of standard text material
- •3. Construction of Mechanical Workshop
- \*4. Provisions of LBT plants equipment and tools
  \*5. Conducting of Training of Trainers (T.O.T) course
- •6. Development of ATTI's Strategic Plan
- •7. Development of ATTI's Planning, Monitoring and Evaluation Manual
- \*8. LBT Promotion activities: Conducting rollout Seminars, attending training seminars. Various exhibition of ATTI activities .
- •9. Overseas training

### ACHIEVEMENTS THROUGH JICA SUPPORT

Through the JICA support project to ATTI, Training capacity has been strengthened, as the result the institute managed to enter into training contract to carryout various courses on LBT such as:-

- Training programme on LBT to council staff, local consultants and contractors, sponsored by PMO-RALG;
- Training programme in LBT to council staff and , TANROADS and contractors from MTWARA sponsored by ILO;
- In house training in LBT since we have now conducted a total of 15 courses;
- Training for Village gang leaders and Forepersons

### CONCLUSION AND RECOMMENDATIONS

ATTI has increased and strengthened its capacity and ATTI today is capable of managing and carrying out the training and promotion of LBT in the Country;

The success work of up-scaling of LBT application in Tanzania now mainly rely on the formulation of guiding policy to guide the stakeholders' and LBT practitioners' from Local Government's Councils and the concerned Ministries and Agencies (PMO-RALG, MoID, TANROADS etc) on how LBT should be operational.

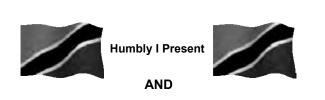
Once the problems is addressed the application of LBT in the country would be increased and institutionalize the routine operations of low volume road works covering all aspects of planning, designing, budgeting implementation of works within the country.

### **CONCLUSION AND RECOMMENDATIONS**

### **Future** cooperation

In order for ATTI to further strengthen its capacity, the following areas are requested to be assisted and further strengthened:-

- Strengthening on monitoring and evaluation areas;
  - Continue on research on Don-nou Technology for LBT on road work maintenance and repair;
- Research and application of sealed road on Low Volume road surfacing using LBT;
- Further research and development on LBT on the use of local resources: and
- Setting up of LBT Min-laboratory for carrying out simple test on Bituminous and soil materials.



Thank you for your Kind Attention!

### The Technical Cooperation for Capacity Strengthening on Labour Based Technology (LBT)

2006-2010 5th Year

**PROGRESS REPORT** 

Japan International Cooperation Agency Eight-Japan Engineering Consultants Inc.

### Project Purpose

■ATTI has an appropriate capacity for training provision and overall coordination as a national training institute for LBT in Tanzania

### Output 1

■ The function of executing qualified LBT training is ready at ATTI and the practical training implements regularly.

### Output 2

■ ATTI takes a leading role to promote LBT awareness and become a focal point of related partners in Tanzania.

### Overall Goal

LBT trainees (e.g, LGA, Contractors, Consultants, TANROADS, Community Groups, etc) are able to plan, design and implement infrastructure works using LBT.

### Super Goal

■ The Project will contribute to economic development and poverty reduction through the proper construction and maintenance of rural road and by creating employment in infrastructure investments and optimizing the uses of local resources with emphasis on LBT.

### Annual Plan of Operations of JICA Project (Mar 2010-Feb 2011)



### Major Activities of APO for Output 1

### Major Activities of APO for Output 1

- 1.1 To restructure the organization and enhance capacity of the staff in order to provide qualified training.
  - -Conduct TOT for trainers.
    (Quality control, Do-nou, OJT)

### Major Activities of APO for Output 1

- 1.2 To review and develop curriculum, syllabus and training materials through identifying the target group of the training and training partners.
  - -Conduct technical review of Curriculum, syllabus and training materials.

### Major Activities of APO for Output 1

- 1.3 To prepare strategy and operational plan for Mobile training unit.
  - Review and update the Strategic Plan (2009-2014)

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Major Activities of APO for Output 1

- 1.4 To review and develop curriculum, syllabus and training materials through identifying the target group of the training and training partners.
  - ILO in Mtwara and Lindi
  - PMORALG training Phase 1 and 2
  - 15th Regular Course, etc.

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### Major Activities of APO for Output 1

■ 1.5 To develop a monitoring and evaluation system, which includes feedback from actual fields of LBT road construction works, and the system well functioned by updating the training program.

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### Major Activities of APO for Output 1

■ 1.6 To develop a function in M&E system to provide technical support to the stakeholders of LBT for the practical utilization of the knowledge and skills acquired in the training in ATTI.

Major Activities of APO for Output 2

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### Major Activities of APO for Output 2

- 2.1 To assist in setting up an unit for LBT promotion in ATTI.
- 2.2 To coordinate and strengthen the relationship with relevant authorities and institutes (technical educational institutions, registered organizations in the private sector, academic authority, etc.) .

Nanenane Festival in Dodoma 1st-9th August 2009

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### Major Activities of APO for Output 2

- 2.3 To collect and accumulate knowledge experience on LBT utilization within and out of the country.
- 2.4 To prepare publicity materials for the public and private sector partners.

Major Activities of APO for Output 2

■ 2.5 To carry out targeted awareness campaign and sensitization seminars.
-Prepare for Rollout seminar.

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### from Majira Newspaper 12th March 2009



### Major Activities of APO for Output 2

■ 2.6 To Conduct a case study on LBT equipment lease at ATTI through pilot projects.



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### REPORT OF THE JOINT TERMINAL EVALUATION ON THE PROJECT FOR CAPACITY BUIDLDING ON LABOR BASED TECHNOLOGY TRAINING AT ATTI

September 1, 2010

Mr. Masahiko Suzuki

Leader of the Japanese Evaluation Team

Senior Advisor

Japan International Cooperation Agency

Eng. Joshwa M.E Raya

Leader of the Tanzanian Evaluation Team

**LBT** Coordinator

Ministry of Infrastructure Development

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### REFERENCE MATERIALS

- RM -A: Record of Tanzanian Inputs
- RM- B: Record of Japanese Inputs
- RM -C: Data related to some Indicators
- RM -D: The Tentative PO for the Extended Period proposed by the Project

### SUMMARY OF ABBRIVIATIONS

APO Annual Plan of Operation

ATTI Appropriate Technology Training Institute

C/P Counterpart

CRB Contractors Registration Board
DANIDA Danish International Aid Agency

DSM Dar es Salaam

DIT Dar es Salaam Institute of Technology

ILO International Labor Organization

JCC Joint Coorginating Committee

JICA Japan International Cooperation Agency

J/E Japanese Expert

JOCV Japan Overseas Cooperation Volunteer

KTC Kisii Training Centre

LBT Labor Based Technology
LGA Local Government Authority

LGTP Local Government Transport Program

M & E Monitoring and Evaluation

MELTC Mt Elgon Labor –based Training Centre
MOID Ministry of Infrastructure Development

M/M Minutes of Meetings

NCC National Construction Council

NORAD Norweigian Agency for Development Cooperation

NSGRP National Strategy for Growth and Reduction of Poverty

ODA Official Development Assistance

O & M Operation and Maintenance

PDM Project Design Matrix

PMO-RALG Prime Minister's Office, Regional Administration and Local

Government

PO Plan of Operation
P/P Project Personnel

RAS Regional Administrative Secretary

R/D Record of Discussions
RM Reference Material

TANROAD Tanzania National Roads Agency

TFY Tanzania Fiscal Year
TOT Training of Trainers

TULS Taking the Use of LBT to Scale

### 1. Introduction

### 1.1 Objectives of the Evaluation

The evaluation activities were performed with the following objectives:

- (1) To verify the accomplishments of the Project in comparison to those planned;
- (2) To identify obstacles and/or facilitating factors that have affected the implementation process;
- (3) To analyze the Project in terms of the five evaluation criteria (i.e. Relevance, Effectiveness, Efficiency, Impact, and Sustainability); and
- (4) To make recommendations on the Project regarding the measures to be taken for the remaining period as well as the post-project period; and to draw lessons for similar projects

### 1.2 Members of the Joint Evaluation Team

### (1) The Japanese Team

Title	Name	Position
		Senior Advisor
Team Leader	Mr. Masahiko SUZUKI	Japan International Cooperation Agency
		(JICA)
Cooperation	Mr. Chin MADUO	Representative
Planning	Mr. Shin MARUO	JICA Tanzania Office
Evaluation/Analysis	Ms.Yasuyo HIROUCHI	Permanent Expert
Evaluation // triaryolo	Mo. radayo riii (OOOrii	International Development Associates Ltd.

### (2) The Tanzanian Team

Title	Name	Position
Team Leader	Eng. Joshwa M.E RAYA	LBT Coordinator
Team Leader	Elig. Joshwa W.E RATA	Ministry of Infrastructure Development
		Ag. Assistant Director of Economic and
Member	Eng. Elina KAYANDA	Productive Sector Ministries and
Member	Eng. Elina KAYANDA	Coordinator, Infrastructure Unit,
		PMO-RALG

### 1.3 Schedule of the Evaluation Study

The Evaluation Study was conducted from August 13 to 31, 2010. The Joint Evaluation Team (hereinafter refereed to as the Team) collected the information through questionnaires and a series of interviews with Tanzanian project personnel, Japanese Experts, some of the stakeholders. The Team also conducted field observations in Mbeya. Based on the results, the Team prepared a draft report and finalized it through a series of discussions on August 30 and 31.

### 2. Outline of the Project

### 2.1 Background of the Project

It is reported that there exists in Tanzania, a road network of 91,049km, of which no more than 6,662km (7.3%) are paved. Further, it is also said that 58,037km of the road network is under local government<sup>1</sup>. Condition of only 10% of the roads under the direct management of local government authorities is good/fair. Within this situation, in local roads that do not enjoy a required maintenance control due principally to a substantial lack of financial resources, it is well pointed out that the only rescue measure is the availability of a continuous road development and control service based on "Labor Based Technology" (LBT) programs.

In order to manage actually as a national training center, the Appropriate Technology Training Institute (ATTI), a training institution under the legal umbrella of Tanzanian Ministry of Infrastructure Development (MOID), this project deals with issues such as the strengthening of organizations and personnel, as well as the reinforcement of training planning set up ability, and training practical capability, among other capacity development initiatives. For the diffusion of LBT initiatives in the region, available natural resources and work force are applied as required capacity to the upgrading and maintenance of public facilities. The target is thus to meet ATTI requirements.

Since MOID announced the principal application of LBT in 1996, international development partners such as World Bank, NORAD and DANIDA have applied LBT in their projects and realized its suitability. However, the LBT knowledge gained through the project was not collected for use as a common technology; LBT was not widely adopted in Tanzania and ended when a project was over.

Under such circumstances, MOID has decided to apply the following policy to make the use of LBT.

- 1. Preparation of Basic Policy of LBT
- 2. Establishment of information center of LBT
- 3. Establishment of core center of LBT training organization

In this background, the Government of Tanzania has requested the Government of Japan to support ATTI to enhance the ability to carry out trainings, and JICA commenced Technical Cooperation Project for Capacity Strengthening on Labor Based Technology (LBT) Training at ATTI, based on the Record of Discussions, signed on 1st March, 2006.

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Source: TANROADS 3<sup>rd</sup> Quarter Progress report 2009/2010 and PMO-RALG's Operational plan for 2010/2011

Through its cooperation, JICA has been provided technical support to ATTI. From 29<sup>th</sup> September to 13<sup>th</sup> October, 2009, JICA dispatched a Terminal Evaluation Team to Tanzania and jointly evaluated the Project with the Tanzanian Team. In the Joint Evaluation Report, one (1) year extension of the Project duration was recommended and presented on the occasion of Joint Coordination Committee (JCC) meeting. The necessity of one (1) year extension of the Project period was confirmed in the JCC meeting, and the project period was extended to 28<sup>th</sup> February, 2011 on the Amendment Record of Discussions, signed on 14<sup>th</sup> January, 2010.

### 2.2 Summary of the Project

- (1) The Project Purpose: ATTI has an appropriate capacity for training provision and overall coordination as a national training institute for LBT in Tanzania.
- (2) The Overall Goal: LBT trainees (e.g, LGA, Contractors, Consultants, TANROADS, Community Groups, etc) are able to plan, design and implement infrastructure works using LBT.
- (3) The Outputs
  - 1) Output 1: The function of executing qualified LBT training is ready at ATTI and the practical training implements regularly.
  - 2) Output2: ATTI takes a leading role to promote LBT awareness and become a focal point of related partners in Tanzania.

### 3. Methodology of Evaluation

### 3.1 Review of the Project Design Matrix (PDM)

For evaluation of a technical cooperation of JICA, Project Design Matrix <sup>2</sup>(PDM) is used as one of the essential documents. Prior to the start of the evaluation, the Team reviewed the latest PDM approved by the Joint Coordination Committee (JCC) on October 12, 2009 (See Annex 1), and agreed to prepare a PDM for Evaluation (PDMe) as a basis of the evaluation (See Annex 2). The PDMe was prepared by the Team through consultation with Tanzanian project personnel and Japanese experts.

### 3.2 Data Collection Method and Analysis

### 3.2.1 Data Collection Method

The Team collected information through reviews of the documents and reports relevant to the Project, questionnaire surveys and interviews with the Tanzanian personnel and the Japanese experts engaged in the Project as well as some of the key stakeholders, and field surveys.

<sup>&</sup>lt;sup>2</sup> PDM: a summary table of a project design that describes necessary Inputs, Activities. Outputs, Project Purpose, Overall Goal, Important Assumption, Objectively Verifiable Indicators, Means of Verification, and the logical relationship between and among them

### 3.2.2 Items of Analyses

### (1) Accomplishment of the Project

Accomplishment of the Project was measured in terms of the Inputs, the Outputs and the Project Purpose in comparison with the Objectively Verifiable Indicators of the PDMe as well as the plan delineated in the Record of the Discussions (R/D).

### (2) Implementation Process

Implementation process of the Project was reviewed to see if the Activities have been implemented according to the schedule delineated in the latest Plan of Operations (PO), and to see if the Project has been managed properly as well as to identify obstacles and/or facilitating factors that have affected the implementation process.

### (3) Evaluation based on the Five Evaluation Criteria

- (a) Relevance: Relevance of the Project was reviewed to see the validity of the Project Purpose and the Overall Goal in connection with the needs of the beneficiaries and policies of Tanzania and Japan.
- (b) Effectiveness: Effectiveness was analyzed by evaluating the extent to which the Project has achieved and contributed to the beneficiaries.
- (c) Efficiency: Efficiency of the Project implementation was analyzed focusing on the relationship between the Outputs and Inputs in terms of timing, quality, and quantity.
- (d) Impacts: Impacts of the Project were forecasted by referring to positive and negative impacts caused by the Project.
- (e) Sustainability: Sustainability of the Project was analyzed in institutional, financial and technical aspects by examining the extent to which the achievement of the Project would be sustained and/or expanded after the Project was completed.

### 4. Summary of Accomplishment and Implementation Process of the Project

### 4.1 Accomplishment of the Project

(1) Inputs (Details are described in section (1) of Annex 3) Summary of Inputs is shown in the tables below.

### **Table 1: Summary of Tanzanian Inputs**

Allocation	Management P/P:2 persons	Running Expenses:	n/a	
of P/P:	Technical P/P: 10 persons			

**Table 2: Summary of Japanese Inputs** 

Dispatch of Experts:	8 persons in total	Provision of Equipment:	¥ 54.9 million
P/P Trained in	6 persons in total	Local Activity Cost:	¥ 60.7 million (as of 22 <sup>nd</sup>
Japan:			July 2010)

### (2) Outputs (Details are described in section (II) of Annex 3)

### Output 1

Outpu	Results
10	Curricula and syllabus for six ATTI Standard Training Courses for LBT have been developed, which
1a	would be modified based on the internal review and/or feedback from the M& E of the training by the Project end.
	The Indicator has been mostly achieved and is expected to be achieved by the end of the Project.
1b	Training manuals for six ATTI Standard Training Courses for LBT have been developed, which would be modified based on the internal review and/or feedback from the M& E of the training by the Project end. ATTI has started distributing their training manuals to other educational institutes for their use, too.
	The Indicator has been mostly achieved and is likely to be achieved by the end of the Project.
1c	The training at ATTI (i.e. three Regular Courses and one Special Course), has not been conducted as envisaged. The enrollment has decreased, too. These shortfalls are attributed to concentration of ATTI staff on a demand-driven tailored LBT training for local government personnel and private enterprises in five Regions, which has been commissioned by PMO-RALG.
	The achievement level of the Indicator is less than expected because the number of the Standard Courses conducted at ATTI and their trainees has not increased as envisaged. The Indicators would be partly achieved by the Project end. It is noted that, during the meetings with the Evaluation Team, the Principal of the ATTI showed his commitment for implementation of the Regular and Special Courses in years to come.
1d	Capacity of ATTI trainers/Instructors necessary for implementing the Standard Courses has been developed through TOTs.
	The Indicator has been achieved, which would be further enhanced by the Project end
1e	ATTI's institutional function has been strengthened in terms of budget, human resource and organization.
1f	Establishment of the M& E system, which is fully operational, is still on its way.
	The first Joint Terminal Evaluation Team pointed out that "monitoring and evaluation system in ATTI has still not practically functioned yet" and stressed the need for strengthening of "implementation capacity of M&E system for making feedback system work well".
	Monitoring based on the manual produced by the Project started in June 2010. The results have not been compiled/analyzed for feedback because ATTI staff feels that they have not yet acquired the relevant skills and knowledge, especially for summarization and analysis of the data.
	Achievement of the Indicator is half-way through. The Indicator would be mostly achieved if the skills and knowledge necessary for M & E analysis are transferred to the ATTI staff in practical and manageable manner. It would not be fully achieved, considering the length of the remaining period.
1g	M& E analysis on trainees' performance during training courses and in the post-training has not been carried out because the necessary skills and knowledge have not been transferred to the ATTI staff in practical and manageable manner.
	The achievement level of the Indicator is less than expected. The Indicator would be mostly achieved if the skills and knowledge necessary for M & E analysis are transferred to the ATTI staff in practical and manageable manner. It would not be fully achieved, considering the length of the remaining period
1h	Not much progress has been made on the matter. The Head of the Promotion and Information Section has been appointed as a person in charge for telephone advice service for ex-trainees; and the relevant activities would begin in September 2010. According to the tentative PO for the Extended Period (Annex 2), all of the relevant activities would be completed by the end of the Project.

	Results
	The Indicator would be achieved if the tentative PO for the Extended Period is finalized through participation of all of the personnel concerned and is implemented as planned.
1i	The achievement level of the Indicator cannot be assessed because of unavailability of the relevant data.
1j	Facilities and equipment of ATTI have been upgraded so that practical training of the Standard Courses can be conducted without problems.
	The Indicator has been achieved

### Output 2

	Results
2a	The production of PR materials, including promotion DVD on LBT and ATTI, semi-annual newsletters, etc. as well as their dissemination has been progressing steadily.
	The Indicator has been achieved, which would be further enhanced by the Project end
2b	According to the first Joint Terminal Evaluation Report, "It is presumed that this target indicator has already been achieved" for the following reasons:
	<ul> <li>"Interviews with ATTI staff show that the number of requests and inquiries on ATTI training, particularly those from local governments, has increased": and</li> </ul>
	"Also, the interviews show that those from the private sector has increased".
2c	ATTI has organized 16 seminars/workshops on LBT, in which more than 700 people attended. ATTI
	has participated in 10 exhibitions/seminars to promote LBT.
	The Indicator has been achieved, which would be further enhanced by the Project end
2d	According to the first Joint Terminal Evaluation Report, "It is concluded that this target indicator has already been achieved" because "The definition of LBT and a LBT contractor was clarified in 2007 and receiving an ATTI certificate has become required for registering as a LBT contractor and bidding for road construction with LBT. The points mentioned above were stipulated in a CRB decree or guideline
	as a LBT category."

### (3) Project Purpose (Details are described in section (III) of Annex 3)

	Results
а	The number of courses and participants trained by ATTI was increased from 2 courses (24
	participants) in TFY 2005/06 to 3 courses (143 participants) in TFY 2009/10.
	The Indicator has been achieved already.
b	The number of the visitors to the Principal's Office of ATTI increased from 87 people in 2006 to 162
	people in 2009. As for 2010, the number has already amounted to 110.
	The Indicator has been achieved already.
С	The relevant data is not available.
d	Any institutes, which are interested in offering LBT training courses for contractors with eligible certificates, need to have their training courses authenticated by ATTI. In this sense, the curriculum and module of ATTI could be considered as de facto national standard for LBT training in Tanzania.
	For the curricula and module of ATTI to maintain the quality as de facto national standard ones, their updating would be required as appropriate. Although operational M& E system, including feedback mechanism from the training conducted, is necessary for the updating, such system has yet to be fully established.
	Practically, the Indicator has been mostly achieved. It is not likely to be fully achieved by the end of the Project because the M & E system of training courses at ATTI would not have become fully operational by then.
е	The relevant data is not available.

### **4.2 Implementation Process of the Project** (Details are described in Annex 4)

The initial PDM was modified in the fourth year of the Project based on the recommendations of the first Joint Terminal Evaluation Team. The modified PDM was approved by the fourth JCC meeting on October, 2009.

In general, communication within the Project is sufficient for smooth implementation. Cooperative relations between Tanzanian and Japanese sides have been built up. The Project has been implemented in coordination/cooperation with various organizations, including MOID, PMO-RALG, some of the District Governments, CRB, and NCC. Initiative and commitment of the Principal of ATTI, motivation and diligence of the Project Personnel as well as cooperation of the Japan Overseas Cooperation Volunteers assigned to ATTI have been identified as the factors that have facilitated the implementation process.

The PDM for the Project has not been used effectively. Most of the Objectively Verifiable Indicators are not objectively verifiable. Definition of some Indicators is found vague, too. In addition, a Plan of Operations (PO) has not been developed for the Project. The progress of each of the Indicators and the PDM Activities has not been monitored, either. (It is noted that the activities have been implemented based on the Work Plan of the Japanese Experts Team as well as the Strategic Plan of ATTI and have been reported periodically). This has made it difficult for all those concerned to have clear and common understanding of the overall implementation process and progress of the Project based on the PDM and PO as well as expected achievement level of the Outputs and the Project Purpose.

At present, the Project is developing the PO/Annual PO (APO) for the Extended Period. According the tentative PO/APO, all of the necessary activities would be completed by the end of the Project. The tentative PO/APO would be further discussed among the personnel concerned with the Project and is expected to be finalized by the end of September 2010.

### 5. Summary of Evaluation based on the Five Evaluation Criteria

### **5.1 Relevance** (Details are described in Section 1 of Annex 5)

The Overall Goal and the Project Purpose are still relevant with the needs of Tanzania and Target Groups (i.e. ATTI, trainees from LGAs, contractors, community leaders, etc.) They are still consistent with the national development plan of Tanzania as well as Official Development Assistance (ODA) policies of Japan. Japanese technical advantage has been confirmed.

Overall, the Project is considered to be highly relevant.

### **5.2 Effectiveness** (Details are described in Section 2 of Annex 5)

Judging from the degree of achievement of the Objectively Verifiable Indicators, the Project Purpose has been mostly achieved. It is not likely to be fully achieved by the end of the Project because of overall delay of achievement of Output 1 caused by insufficient achievement of the Indicators related to training courses at ATTI (i.e Regular Courses and Special Course) and M&E system, including the ones added based on the recommendations of the first Joint Terminal Evaluation. On the other hand, steady progress has been made on the production of Output 2. Output 2 is expected to be produced by the end of the Project. Both Output 1 and Output 2 are confirmed to have contributed to the achievement of the Project Purpose.

Taken together, the Project is considered to be mostly effective.

### **5.3 Efficiency** (Details are described in Section 3 of Annex 5)

In general, the Inputs from both sides have been appropriate in producing the Outputs in terms of timing, quality and quantity. The Inputs are considered to have contributed to production of the Outputs except for those related to monitoring & evaluation due to insufficient information sharing among the personnel concerned. This has led to insufficient production of the Output 1.

Overall, the Project is considered to be mostly efficient.

### **5.4 Impacts** (Details are described in Section 4 of Annex 5)

<u>Impacts at the Overall Goal level</u>: It is likely that LBT trainees, including LGAs, contractors, community groups, etc. would be able to plan, design and implement infrastructure works using LBT in three years after completion of the Project on condition that the budget for roadworks using LBT is available at the concerned LGAs and that LBT equipment is made available for the contractors.

Other impacts: Various positive impacts have been observed already. For example, ATTI has obtained training contracts with PMO-RALG and ILO. More than 400 LGA officials, contractors, and community leaders have been trained in the training courses developed by the Project. General Agreement of Cooperation has been signed among ATTI, MELTEC, and KTC. Negative impacts have not been observed. They are not foreseen, either.

### **5.5 Sustainability** (Details are described in Section 5 of Annex 5)

Institutional and organizational aspects: Policy support for LBT promotion is likely to

continue though explicit message from policy level as well as clear-cut instructions from the relevant authorities is needed for further promotion. The Strategic Plan of ATTI has been developed through the Project, which would be updated by the Project end. All of the Tanzanian project staff members are permanent employees of ATTI, whose employment for the post-project period is ensured. They are expected to be assigned to the relevant posts so that they could utilize the techniques/experiences obtained through the Project continuously. The coordination with the relevant organizations, which has been developed through the Project is likely to develop further.

<u>Financial aspects</u>: So far, the Government of Tanzania has allocated necessary budget for the activities of ATTI.

<u>Technical aspects</u>: Technical capacity of the Tanzanian project staff has been enhanced sufficiently. The skills and knowledge transferred through the Project as well as the deliverables are relevant with the local needs and levels. In particular, those related to training on gravel road have been utilized fully and have been disseminated widely. For the others, in order to ensure utilization and dissemination for the post-project period, the strategy for training implementation is needed. The equipment provided by the Project would be fully utilized after the end of the Project if the problems regarding some equipment are rectified.

From a comprehensive viewpoint, sustainability of the Project would be mostly ensured.

### 6. Conclusion

In this Project, as a Plan of Operation (PO) has not been prepared before the commencement of and throughout the Project period, it is difficult to confirm the appropriateness of the timing of inputs based on the original Project implementation plan. Besides, due to some illogicality and inappropriateness of Project Design Matrix (PDM), there were some difficulties on measuring the Project accomplishment level objectively. In this sense, it could be said that there were some difficulties on the management of this Project.

On the other hand, through the close communication between ATTI staff and Japanese experts, and through confirmation on annual Project progress and discussion on annual Project planning among ATTI staff, Japanese experts and JICA, the Project was effectively and efficiently implemented for the accomplishment of the Project purpose.

It should be pointed out that the implementation of many demand-driven tailored training

courses, which had not been expected at the initial stage of the Project, positively gave a profound impact on strengthening capacity of ATTI training implementation. Through conducting tailor-made training courses entrusted by PMO-RALG, more than 270 engineers/technicians of LGAs and contractors from 5 regions have been trained, and staff from LGAs and contractors from more regions are expected to be trained in a few years time.

For the sustainability of the Project, some more efforts by both Tanzanian and Japanese sides are requested as shown in the clause of "Recommendations" below by the end of the Project period. Further, for the achievement of the Overall Goal and the Super Goal, commitment at policy level, monitoring and guidance from central government, as well as much more practical capacity development at the ground are indispensable.

As is mentioned above, more than 270 staff in LGAs and contractors have been trained and are expected to be trained through participation to ATTI training. According to the information provided through PMO-RALG, the guideline for local road development planning which incorporates use of local resources and emphasizing LBT utilization is to be distributed to each LGA through Regional Administrative Secretary.

It is expected that through continuous effort on awareness raising of decision makers, these positive progress on LBT promotion would contribute to the LBT application for local road maintenance and rehabilitation.

### 7. Recommendations and Lessons

### 7.1 Recommendations

- (1) Recommendations for remaining Project period (up to February, 2011)
  - Regular training courses to be core courses
     Conducting of demand-driven tailered training courses, such as PMO-RALG course,
     ILO course and so forth, has positively impacted on strengthening of training
     implementation capacity of ATTI. On the other hand, frequency of annual regular
     training course has not reached to the expected level, because of the limited number
     of trainers.

From the view point of sustainability on training implementation of ATTI, it is recommended to make a strategic plan of training course implementation, in which more emphasis should be put on regular training courses rather than request basis training courses.

In the remaining Project period, it is recommended to review the Strategic Plan of

ATTI to insert mid-term plan on regular training course implementation based on the expected demand from LGAs, contractors and other concerned parties. Further, it is recommended to make schedule of regular course implementation and advertisement considering timing of budget disbursement from central government to LGAs.

### 2) Monitoring and evaluation

For continuous improvement of training courses, monitoring and evaluation (M&E) of trainings and feedback for the training curriculum and materials are indispensable. In this sense, proper implementation of M&E for each training course is necessary. Information on training demand, which is expected to be collected through post-training monitoring, is considerably important for planning of annual and mid-term training implementation.

As is recognized in ATTI, monitoring and evaluation should not be considered as activities apart from training implementation, but be included in whole process of training. For securing sustainable M&E on training courses, it is necessary to adopt simplified method.

In the remaining Project period, it is recommended to prepare simple monitoring sheet and to implement on-going training monitoring for 15<sup>th</sup> regular training course, post-training monitoring for 13<sup>th</sup> and 14<sup>th</sup> regular training courses by using the prepared sheet. For feedback of the results of training evaluation to future training implementation, ATTI internal workshop for each training course is recommended to be held.

### 3) Promotion and awareness

As a leading training institute of LBT in Tanzania, ATTI is requested to continue its effort to promote LBT road works and to raise awareness of decision makers. For the effective promotion and awareness, collaboration between promotion unit and training unit in ATTI is very important. For example, it might be effective to hold awareness seminars targeting the districts in which ex-trainees of ATTI training exist.

In the remaining Project period, it is recommended to have opportunity to hold meeting(s) on planning of promotion and awareness activities considering the training implementation plan.

### 4) Training for trainers (TOT)

For responding the increasing demand from LGAs on LBT training, ATTI is now working on recruiting new permanent and part-time trainers. For keeping the quality of ATTI training, continuous effort for training of trainers is important. Dissemination seminar within ATTI, on-the-job training and sending of trainers to TOT courses are important.

In the remaining Project period, it is recommended to review Strategic Plan to incorporate in it plans on in-house training and to conduct those on trial.

### 5) Function of technical support

As a training institute for LBT, ATTI is requested to provide technical support service on LBT works for LGAs, mainly for ex-trainees, to promote LBT road works in Tanzania. However, as the major role of ATTI is to provide proper training on appropriate technology, such support system should be provided basically through telephone, e-mail and so on.

In the remaining Project period, it is recommended to appoint ATTI staff in charge of technical support service, to prepare manual on technical support and inform the ex-trainees and on-going training participants on the service.

### 6) Effective use of equipment provided through the Project

Some pieces of equipment such as towed-graders and asphalt cutters are not used because of the deficit of attachment and lack of parts respectively. For full utilization of the provided equipment for the training in ATTI, these deficits and their shortcomings should be rectified in the remaining Project period.

It is further strongly recommended to procure attachment for towed-graders and parts for asphalt cutters.

### 7) Finalization of Annual Plan of Operation (APO)

Contents of tentative Annual Plan of Operation (APO), which is attached to this Joint Evaluation Report, would be discussed and confirmed on the occasion of JCC meeting. It is recommended to finalize the APO by the end of September, 2010 after mutual consultation among concerned personnel in the Project. It is further recommended that the APO be fully utilized for the Project management in the remaining period.

### (2) Recommendations for post Project period (after March, 2011)

### 1) Policy support on LBT promotion

Though the importance of LBT application to road works is pointed out on some policy papers, such as National Transport Policy and Construction Industry Policy, integration of road works utilizing appropriate LBT is slow.

In this regard, clearer commitment from policy level on LBT application for road works and tangible/concrete instruction from certain governmental organization is recommended. Besides, LBT promotion shouldn't be done only through ATTI, but also through LBT unit, Ministry of Infrastructure Development, PMO-RALG, other governmental organizations, contractors/consultant associations and so on.

### 2) Monitoring of LGTP

On LGTP document, some issues and program implementation procedures related to LBT works are mentioned. For full utilization of the program document, monitoring and reviewing of the LGTP is important. It is expected that the guideline for local road development planning, which has already been prepared by PMO-RALG and to be distributed to LGAs, will be utilized for drawing up of Council Transport Infrastructure Master Plan, 3 year Maintenance and Development Program and other planning related to road maintenance/rehabilitation.

3) Capacity strengthening of Regional Administrative Secretary (RAS) Engineers For the promotion of LBT at grounds, policy enforcement is important. In this sense, it is recommended to strengthen the capacity of Regional Administrative Secretariats (RAS) engineers on policy enforcement and monitoring of projects conducted in LGAs.

Besides, it is expected that RAS engineers play important role for dissemination of experience and knowledge on LBT works at ground to LGAs within the Region.

### 4) Capacity strengthening of LGAs and local contractors

Though capacity of some engineers/technicians of LGAs on planning/supervising of LBT works and that of some contractors on LBT works are strengthened through participating in trainings by ATTI, the capacity at the ground is still not enough. In this regard, continuous support for LGAs and contractors on LBT road works is recommended.

### 5) Light equipment for LBT road works

Through the series of discussions with MOID, PMO-RALG, ATTI and other concerned parties, it was pointed out that lack of light equipment, such as pedestrian roller and plate compactor is one of the major constraints for the dissemination of LBT in the field. In this regard, it is recommended to consider measures on the provision of equipment for LBT road works, i.e. establishment of equipment lease system, soft-loan provision, encouragement of private equipment leasing firms and so forth. Findings from the case study on equipment leasing system which is planned to be conducted through the Project could be utilized for considering appropriate measures.

6) Collaboration with other institutions related to LBT

ATTI collaboration with LBT related institutions, such as University of Dar es Salaam, Dar es Salaam Institute of Technology (DIT) and National Construction Council (NCC), etc. are required to be continued and enhanced. Such collaboration is important not only for the promotion of LBT, but also for raising human resources on LBT works, such as district engineers/technicians, LBT contractors, LBT consultants, trainers for LBT and so on.

### 7.2 Lessons Learned

1) Importance of common understanding of Project Design

As is addressed in the clause of "Conclusion", lacking of Plan of Operation, which is a necessary document for project management, caused uncoordinated flow of some activities and miscommunications among Project related personnel. At the initial stage of a project implementation, it is important to share the whole view of the project implementation plan among concerned personnel for the development of common understanding.

Further, for the effective project management, Project Design Matrix (PDM) together with PO should be utilized for the confirmation of annual progress and achievement of a project, planning of annual project implementation and making annual Plan of Operation (APO).

2) Close communication among concerned personnel in a project

For the effective utilization of input for a project, close communication among concerned personnel is considerably important. Project activities should not be too much concentrated on documents production, such as manuals, materials and so forth, but on the process of producing deliverables and their practical application at the ground through close communication each other.

- 3) Importance of M&E in a project for training capacity enhancement For dissemination of knowledge and skills in certain field, an approach to enhance the training implementation capacity is effective. In a project, for strengthening of training implementation, M&E system should be incorporated in project activities. Without M&E activities, training could not be updated, upgraded and sustained.
- 4) Collaboration between Technical Assistance and Financial Cooperation In this Project, by utilizing both the enhanced capacity on training implementation in ATTI and the fund from LGTP, the outputs of the Project was widely spread. Collaboration between technical assistance and financial cooperation could make projects much efficient and effective. In this sense, it is important at the stage of project designing to confirm availability of concerned funding project/program to be collaborated and consider the concrete way of making collaboration from the initial stage.

**End of Document** 

# Annex 1 Latest PDM (PDM ver2 revised on 12, Oct, 2009)

1. Project Period: 4 years and 10months (May 2006 - February 2011)
2. Supervising Organization: Ministry of Infrastructure Development, Implementing Organization: Appropriate Technology Training Institute (ATTI), Ministry of Infrastructure Development 3. Project Location: ATTI in Rungwe District, Mbeya Region

4. Target Group: (1) Direct Target: ATTI staff, ATTI trainees (from LGA, Contractors	If trainees (from LGA, Contractors, Consultants, TANROADS, Community Groups	. Consultants, TANROADS, Community Groups, etc). (2)Indirect Target: People in the community around the LBT road work sites	around the LBT road work sit
Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Super Goal  The Project will contribute to economic development and poverty reduction through the proper construction and maintenance of rural road and by creating employment in infrastructure investments and optimizing the uses of local resources with emphasis on LB	*Number of employment created by the construction and maintenance of infrastructure works using LBT  * Total number of kilometers of rural road improved, maintained or constructed using LBT  * Optimized utilization of local resources (such as stone, sand, etc)  * Activation of villages and rural community through rural road construction *d maintenance  *Community contribution (such as manpower, materials, etc)  *Impact/influence toward poverty reduction	* NSGRP (National Strategy for Growth and Reduction of Poverty) Implementation Reports * Interview and Questionnaire to Stakeholders including LGAs * Policy documents	
Overall Goal  LBT trainees (e.g, LGA, Contractors, Consultants, TANROADS, Community Groups, etc) are able to plan, design and implement infrastructure works using LBT	*Various activities and conduct of LBT trainees after the training (Impact on the job performance: The trainees can adapt the skills and knowledge to different situation and transmit it to the people he/she has to work with.)  * Number of kilometers & its condition of rural road constructed, and/or maintained using LBT	* Interview and Questionnaire to Stakeholders including LGA * NRTP Reports (Road improvement adopted LBT) * Policy documents (e.g., TULS Reports) * Training Programme Evaluation Reports	Road Fund provides the road maintenance budget substantially and timely to TANROADS and PORALG.
Project Purpose  ATTI has an appropriate capacity for training provision and overall coordination as a national training institute for LBT in Tanzania	* Number of courses and participants trained by ATTI *: Number of Number of visitors to ATTI *Evaluation from trainees and related stakeholders *Standardizing training curriculum and module for LBT * Evaluation of ATTI in "Taking the use of LBT to Scale" *Implementation of M&E analysis on trainees' performances both during training courses and in the post-training period *Developed function for provision of technical support on LBT	*Training Record  * Annual Report of ATTI  * ATTI Visitor Book  * Interview and Questionnaire to Trained Personnel/Stakeholders including LGA  * Evaluation Reports (Study on customer satisfaction)  * Training curriculum, module, syllabus  * Report of "Taking the use of LBT to Scale"  * Reports on ex-trainees' performance	National Rural Transport Programme (NRTP) is implemented as schedule, particularly the intension and role of PORALG is clarified and be well coordinated among the stakeholders.
Output 1 <u>:</u> The function of executing qualified LBT training is ready at ATTI and the practical training implements regularly.	*Training curricula and syllabuses at ATTI developed & reviewed *Training Materials and standard documents developed and disseminated *Number of various training courses and trainees at ATTI *ATTI Trainers/Instructors' ability increased *ATTI's institutional function strengthened *Establishment of Training Monitoring and Evaluation System at ATTI *Upgrading on ATTI Facility and Equipment as a Training Institute	* Annual Report of ATTI  * Organizational & Training Structure on ATTI  * Annual Training Plan  * Training Record, Training curriculum, Training Materials  * Interview and Questionnaire to Trained Personnel / Stakeholders including LGA  * Training Programme Evaluation Reports  * Record of ATTI Facility & Equipment	TULS is progress on schedule, and R/D is enhanced and strengthening.  Trained personnel remain in their working organization and can utilize the training results.
Output 2: ATTI takes a leading role to promote LBT awareness and become a focal point of related partners in Tanzania.	*Various promotion of LBT derived from ATTI (e.g., ATTI Website, LBT Publicity by media, etc) *Reference related to LBT and LBT Training from related Institutions *Awareness to Decision Makers, Public and Private Sector Partners on LBT raised (Standardization of LBT in Road Reporting and Documents, Employment & Budgetary allocation for LBT, Numbers of attending campaign & seminar, etc) *ATTI certificate be considered as one of the necessary conditions to register LBT contractors.	* ATTI Website  * Public Relation Record  * Media programme on LBT promotion  * Annual Report of ATTI  * Interview and Questionnaire to Stakeholders including LGA & Private Contractors  * Policy documents (e.g., TULS Report)	National Rural Transport Programme (NRTP) is implemented as schedule, particularly the intension and role of PORALG is clarified and be well coordinated among the stakeholders.

# Annex 1 Latest PDM (PDM ver2 revised on 12, Oct, 2009)

Activities	Inputs	The finance and
	<japanese side=""></japanese>	budget for
1.1 To restructure the organization and enhance capacity of the		attending on LBT
staff in order to provide qualified training.	(1) Assignment of experts	training at ATTI
1.2 To review and develop curriculum, syllabus and training	l he expected subjects are as follows;	are secured in
programme and prepare training materials through identifying	- Institutional management	LGA <u>.</u>
the target group of the training and training partners.	- Curriculum and Teaching Material development	I
1.3 To prepare strategy and operational plan for Mobile training	- Training Monitoring and Evaluation	
nnits	(2) Necessary equipment, machinery, materials and vehicles with storage for LBT training at	
1.4 To implement the annual training programmes	ATTI	
1.5 To develop a monitoring and evaluation system, which includes	(3) Provision of trainings for ATTI staff	Pre-Conditions
feedback from actual field of LBT road construction works, and	(4) Supplemental operational cost	Continuous
make the system well functioned well by updating the training		budgetary supports
program.	<tanzanian side=""></tanzanian>	to the ATTI, and
1.6 To develop a function in M&E system to provide technical		highest priority and
support to the stakeholders of LBT for the practical utilization of	(1) Assignment of counterpart personnel	
the knowledge and skills acquired in the training in ATTI	1) Project Director	_
	2) Project Manager	roject
2.1 To assist in setting up an unit for LBT promotion in ATTI.	3) Other Project Staffs (Training staff & Administrative and clerical personnel)	ensured by
2.2 To coordinate and strengthen the relationship with relevant	(2) Provision of facilities and equipment	9000
authorities and institutions (technical educational institutions	1) Land, buildings, and facilities necessary for the implementation of the Project	Necessary number
registered organization in the private sector accreditation	2) Office space and necessary facilities for the Japanese experts	of ATTI staff keeps
authority etc)	3) Other facilities mutually agreed upon as necessary	employed.
2.3 To collect and accumulate knowledge and experiences on LBT	(3) Running expenses for ATTI management	
utilization within and out of the country	Including staff salary, other administrative and operational costs, and training cost	
2.4 To prepare publicity material for the public and private sector	(4) Maintenance cost for all the relevant equipment, machinery, materials, vehicles and	
partners	facilities	
2.5 To carry out targeted awareness campaigns and sensitization	(5)Contact with relevant organizations and its coordination (including set up and manage	
seminars	JCC of the Project)	
ATTI - Appropriate Technology Training Institute	MoW - Ministry of Works	
GoT - Government of Tanzania	NSGRP - National Strategy for Growth and Reduction of Poverty	
JCC - Joint Coordination Committee	NKI P - National Kural Iransport Programme	(

Mow - Ministry or works

NSGRP - National Strategy for Growth and Reduction of Poverty

NRTP - National Rural Transport Programme

PORALG - President's Office - Regional Administration and Local Government

R/D - Research and Development

TANROADS - Tanzanian National Roads Agency

TULS - "Taking the Use of Labour Based Technology to Scale"

LBT - Labour-Based Technology LBTU - Labour-Based Technology Unit LGA - Local Government Authority M&E - Monitoring & Evaluation

## Annex 2 PDM for Evaluation (PDMe)

Struckthrough = the words deleted from the original sentences. <u>Underlined</u> = the words added to the original sentences

- Project Period: 4 years and 10months (May 2006 February 2011)
   Supervising Organization: Ministry of Infrastructure Development, Implementing Organization: Appropriate Technology Training Institute (ATTI), Ministry of Infrastructure Development
   Project Location: ATTI in Rungwe District, Mbeya Region
   Target Group: (1) Direct Target: ATTI staff, ATTI trainees (from LGA, Contractors, Consultants, TANROADS, Community Groups, etc), (2) Indirect Target: People in the community around the LBT road work sites

work sites			
Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
SuperGoal  The Project will contribute to economic development and poverty reduction through the proper construction and maintenance of rural road and by creating employment in infrastructure investments and optimizing the uses of local resources with emphasis on LBT	a : Number of employment created by the construction and maintenance of infrastructure works using LBT b: Total number of kilometers of rural road improved, maintained or constructed using LBT c: Optimized utilization of local resources (such as stone, sand, etc) d: Activation of villages and rural community through rural road construction and maintenance e: Community contribution (such as manpower, materials, etc) f: Impact/influence toward poverty reduction	* NSGRP (National Strategy for Growth and Reduction of Poverty) Implementation Reports * Interview and Questionnaire to Stakeholders including LGAs * Policy documents	
Overall Goal  LBT trainees (e.g, LGA, Contractors, Consultants, TANROADS, Community Groups, etc) are able to plan, design and implement infrastructure works using LBT	a: <del>Various activities and conduct of LBT trainoes after the training (Impact on the jeb performance.</del> The <u>ex-</u> trainees can adapt the skills and knowledge to different situation and transmit it to the people he/she has to work with.) b: Number of Xkilometers & its condition of rural road constructed, and/or maintained using LBT	* Interview and Questionnaire to Stakeholders including LGA * NRTP Reports (Road improvement adopted LBT) * Policy documents (e.g., TULS Reports) * Training Programme Evaluation Reports	Road Fund provides the road maintenance budget substantially and timely to TANROADS and PORALG.
Project Purpose  ATTI has an appropriate capacity for training provision and overall coordination as a national training institute for LBT in Tanzania	a: Number of courses and participants trained by ATTI increased compared with the one before the Project c: Evaluation of ATTI from the trainess and related stakeholders b: Evaluation of ATTI from the Principal's Office of ATTI increased compared with the one in 2006 d: Standardizing training curriculum and module for LBT e: Evaluation of ATTI in "Taking the use of LBT to Scale" report f: Implementation of ATTI in "Taking the use of LBT to Scale" report f: Implementation of M&E analysis on traines' performances both during training seurses and in the post training period →moved to 1g es Developed function for provision of technical support on LBT →moved to 1h	*Training Record  * Annual Report of ATTI  * ATTI Visitor Book  * Interview and Questionnaire to Trained Personnel/Stakeholders including LGA  * Evaluation Reports (Study on customer satisfaction)  * Training curriculum, module, syllabus  * Report of "Taking the use of LBT to Scale"  * Reports on ex-trainees' performance	A:National Rural Local Government Transport Programme (NIBLEGTP) is implemented as scheduled, particularly the intension and rocal pMO-RALG is clarified and be well coordinated among the stakeholders.
Output 1:  The function of executing qualified LBT training is ready at ATTI and the practical training implements regularly.	<ul> <li>1a: Training curricula and syllabuses at for ATTI developed &amp; reviewed</li> <li>1b: Training materials and standard documents developed and disseminated</li> <li>1c: Number of various training courses and trainees at ATTI</li> <li>1d: ATTI Trainers/Instructors' ability increased through TOT</li> <li>1e: ATTI's institutional function strengthened</li> <li>1f: Establishment of Training Monitoring and Evaluation System at ATTI,</li> <li>1g: Implementation of M&amp;E analysis on trainees' performances both during training courses and in the post-training period</li> <li>1h: Developed function for provision of technical support on LBT</li> <li>1i: Evaluation from the trainees become higher compared with the one in the beginning of the Project</li> <li>11 Evaluation on ATTI Families and Fourinment as a Training Institute</li> </ul>	* Annual Report of ATTI  * Organizational & Training Structure on ATTI  * Annual Training Plan  * Training Record, Training curriculum, Training Materials  * Interview and Questionnaire to Trained Personnel / Stakeholders including LGA  * Training Programme Evaluation Reports  * Record of ATTI Facility & Equipment	A.TUL S is progress on schedule, and RAD is exhedule, and RAD is extengthening.  Trained personnel remain in their working organization and can utilize the training results.  National Pural Local Government Transport Programme (ANPLICTP) is implemented as
	1j: Upgrading on ATTI Facility and Equipment as a Training Institute		

## Annex 2 PDM for Evaluation (PDMe)

	scheduled, particularly the intension and role of PMORALG is clarified and be PMO-RALG well coordinate the stakeholders.	The finance and budget for attending on LBT training at ATTI are secured in LGA.  Continuous budgetary supports to the ATTI, and highest priority and secure implementation for the Project is ensured government.  Necessary number of ATTI staff keeps employed.	
Struckthrough = the words deleted from the original sentences. Underlined = the words added to the original sentences	ort)	<ul> <li>CJapanese Side&gt;     <ul> <li>(1) Assignment of The expected sure - Institutional - Curriculum</li> <li>Training Md</li> <li>(2) Necessary equat ATTI</li> <li>(3) Provision of training Anter Draining Anter Draining Anter Draining Side</li> <li>(1) Assignment of 1) Project Draining Side</li> <li>(2) Provision of fair Draining Side</li> <li>(3) Provision of fair Draining Side</li> <li>(4) Maintenance cos (5) Contact with result of the Project Draining Side</li> </ul> </li></ul>	NSGRP - National Strategy for Growth and Reduction of Poverty NRTP - National Rural Transport Programme PORALG - President's Office - Regional Administration and Local Government RID - Research and Development TANROADS - Tanzanian National Roads Agency TULS - "Taking the Use of Labour Based Technology to Scale
Struckthrough=the words deleted f	ATTI takes a leading role to promote  LBT awareness and become a focal point of related partners in Tanzania.  C: Awareness to Decision Number of Standardizatis  Employment & Budgatary attending campaign & semuces to semice of the semice of	Activities  1. To restructure the organization and enhance capacity of the staff in order to provide qualified training.  1.2 To review and develop curriculum, syllabus and training programme and prepare training materials through identifying the target group of the training and training partners.  1.3 To prepare strategy and operational plan for Mobile training units 1.4 To implement the annual training programmes.  1.5 To develop a monitoring and evaluation system, which includes feedback from actual field of LBT road construction works, and make the system well functioned well by updating the training program.  1.6 To develop a function in M&E system to provide technical support to the stakeholders of LBT for the practical utilization of the knowledge and skills acquired in the training in ATTI.  2.1 To assist in setting up an unit for LBT promotion in ATTI.  2.2 To coordinate and strengthen the relationship with relevant authorities and institutions (technical educational institutions, registered organization in the private sector, accreditation authority, etc)  2.3 To collect and accumulate knowledge and experiences on LBT utilization within and out of the country  2.4 To prepare publicity material for the public and private sector partners  2.5 To carry out targeted awareness campaigns and sensitization seminars ATTI - Appropriate Technology Training Institute	GoT - Government of Tanzania JCC - Joint Coordination Committee LBT - Labour-Based Technology LBTU - Labour-Based Technology Unit LGA - Local Government Authority M&E - Monitoring & Evaluation

### I Accomplishment of the Inputs

Plan as per PDM	Source/ Method	Results
1 Tanzanian side	motilod	
1.1Assignment of counterpart personnel 1) Project Director 2) Project	Review of record of Inputs	<ol> <li>Permanent Secretary, MOID, has been assigned as Project Director since the beginning of the Project</li> <li>Principal, ATTI, has been assigned as Project Manager since the beginning of the Project.</li> </ol>
Manager 3) Other Project Staffs (Training staff & Administrative and clerical personnel)		3) At present, 10 staff members of ATTI are assigned as the technical personnel, including 8 from Training Section, 1 from Promotion & Information Section, and 1 from Mechanical Section. In addition, 3 persons from Finance, Procurement and Administration Section are assigned as administrative staff
		(For details, please see RM A-1)
1.2 Provision of facilities and equipment	Review of progress	Land, buildings, and facilities necessary for the implementation of the Project has been provided since the beginning of the Project
Land, buildings, and facilities necessary for the implementation of the Project	reports	<ol> <li>Office space has been provided in the building of the Administration Office of ATTI since the beginning of the Project. Necessary facilities for the Japanese experts have been provided as well.</li> </ol>
Office space and necessary facilities for the Japanese experts     Other facilities mutually agreed upon as necessary		
1.3 Running expenses for ATTI management Including staff salary, other administrative and operational costs,	ditto	Running expenses for ATTI and maintenance cost for all the relevant equipment have been borne by the Tanzanian side since the beginning of the Project
and training cost  1.4 Maintenance cost for all the relevant equipment, machinery,	ditto	
materials, vehicles and facilities		
2 Japanese side		
2.1 Assignment of experts. The expected subjects are as follows; - Institutional management	Review of record of Inputs	Original Period> A total of six Experts in five fields (i.e. Project Leader/Operational Management, Development and Training Materials/Evaluation and Monitoring of Training, Equipment Management, and LBT Application Survey, and Evaluation and Monitoring of Training) were dispatched.
- Curriculum and Teaching Material development - Training		Extended Period> So far, a total of three Experts in three fields (i.e. Project Leader/Operational Management, Evaluation and Monitoring of Training, and Pilot Project (Maintenance) have been dispatched.
Monitoring and Evaluation		(For details, please see RM B-1)
2.2 Provision of trainings for ATTI staff	ditto	< Original Period > A total of four ATTI staff members were trained in Japan.
		<extended period=""></extended>

Plan as per PDM	Source/ Method	Results
		Two staff members have been trained in Japan. Another person is planned to be trained in Japan in October 2010
		Table (I)-2.2: Number of personnel trained in Japan by the Japanese fiscal year (April-March)  2006 2007 2008 2009 2010 Total (*plan)
		0 1 2 1 2(1*) 6(7*)
2.2 Nacces	ditto	(For details, please see RM B-2)
2.3 Necessary equipment, machinery,	ditto	< Original Period > The equipment equivalent to 54.9 million yen has been provided.
materials and vehicles with storage for LBT		<extended period=""> There is no plan for equipment provision.</extended>
training at ATTI		Table (I)-2.3: Provision of equipment by the Japanese fiscal year (April-March) Unit= yen
		2005 2006 2007 2008 2009 2010 Total
		2,351,243   32,345,510   7,778,072   0   12,464,515   0   54,938,342   (For details, please see RM B-3)
2.4 Supplemental operational cost	ditto	Criginal Period Approximately 46 million yen was disbursed as supplemental operational cost. Major expense items include costs for flied operation, construction or workshop, report production, and local consultant.
		Extended Period > As of 22 July 2010, approximately 14 million yen has been disbursed as supplemental operational cost. Major expense items include costs for flied operation and local consultant.
		Table (I)-2.4: Provision of local activity costs by the Japanese fiscal year (April-March)  2006 2007 2008 2009 2010 Total
		7,808 9,494 19,935 9,199 14,294 60,730 (For details, please see RM B-4)

### II Accomplishment of the Outputs

### 1. Output 1: The function of executing qualified LBT training is ready at ATTI and the practical training implemented regularly.

	Objectively Verifiable Indicators (PDMe)	Source/ Method	Results
1a	Training curricula and syllabuses at ATTI developed & reviewed	Review of the annual reports of ATTI, interview with P/P and J/E	Pre-project Period Two kinds of training courses were offered by ATTI: a Regular Course for LGA/contractors on gravel road, and a Mobile Course for gang leaders on gravel road. The curricula and syllabuses for these courses did not exist, however. Original Period In May 2007 (i.e. TFY 2006/07), the curricula and syllabuses of the six Standard Training Courses, including three Regular Courses, one Special

Objectively Verifiable Indicators (PDMe)	Source/ Method	Results	
		Course, and two Mobile Courses, were developed as ATTI Standard Training Courses as shown in the table below.	
		Table (II)-1a: ATTI Standard Training Courses developed by the Project  # Course type Venue Target group	
		I. Regular Course (every year)  1 LGA &consultants course on ATTI Government staff, gravel roads consultants	
		2 Contractors course on gravel ATTI Employers, contactors roads and NGO staff	
		3 Technical course on bituminous ATTI Civil engineers and technicians, consultants  II. Special Course (every two years)	
		4 Operation of light equipment and hand tools management Supervisors and managers of equipment hire unit	
		III. Mobile Course (upon request)  5 LBT contract management ATTI Managing directors, course managers	
		6 Forepersons & gang leaders On Road forepersons, village course on gravel roads site gang leaders	
		Review of the curricula and syllabuses of the training courses is ongoing. It is expected that they would be revised by the end of the Project.  Course No. 1 & 2: The curricula and syllabuses would be revised reflecting the results of internal technical review, M&E and the Pilor Projects and TOT on Do-nou & quality control and telephone advice service (ref. Indicator 1h).  Course No. 3-5: The curricula and syllabuses would be revised based or internal technical review and TOT on quality control.  Course No.6: The curricula and syllabuses would be revised reflecting the results of internal technical review, M&E and TOT on quality control and telephone advice service (ref. Indicator 1h).  Conclusion  The Indicator has been mostly achieved and is expected to be achieved by the end of the Project.	
1b Training materials and standard documents developed and	Review of the annual reports of ATTI, interview with P/P and J/E	Certain Pre-project Period   Two kinds of training courses were offered by ATTI: a Regular Course for LGA/contractors on gravel road, and a Mobile Course for gang leaders or gravel road. The training materials/standard text for the Regular Course was available but those for the Mobile Course did not exist.	
disseminate d		Original Period> In March 2008 (i.e. TFY 2007/08), seven kinds of LBT standard training manuals for the six ATTI standard training courses (ref. Table (II)-1a) were developed based on the Labour Based Roadworks Technical Manual produced by the Appropriate Technology Unit of the MOID. The handouts from the training manuals were distributed to the trainees. The training manuals per se were not disseminated to other Institutes.	
		<ul> <li>Extended Period</li> <li>Review of the standard training manuals is ongoing. It is expected that they would be revised by the end of the Project.</li> <li>Course No. 1 &amp; 2 : The training manuals would be revised reflecting the results of internal technical review, Monitoring&amp; Evaluation and the Pilot</li> </ul>	

Objectively Verifiable Indicators	Source/ Method	Results
Verifiable Indicators (PDMe)  1c Number of various training	Review of the annual reports of ATTI,	Projects and TOT on Do-nou & quality control and telephone advice service (See Indicator 1h).  Course No. 3-5: The training manuals would be revised based on internal technical review and TOT on quality control  Course No.6: The training manuals would be revised reflecting the results of internal technical review, Monitoring & Evaluation and TOT on quality control and telephone advice service (See Indicator 1h).  ATTI has started to distribute the training manuals to the relevant institutes. The training manual on Course No 1 has been shared with the University of Dar es Salaam, Dar es Salaam Institute of Technology, and Mbeya Institute of Science and Technology for use in their introductory courses on LBT.  Conclusion  The Indicator has been mostly achieved and is likely to be achieved by the end of the Project.  Pre-project Period  One training course was offered by ATTI (i.e Regular Course for LGA/contractors on gravel road. It was not conducted regularly, however.
courses and trainees at ATTI	interview with P/P and J/E	<ul> <li>✓ Original Period &gt;         By March 2008 (i.e. TFY 2007/08), four kinds of training courses, which are to be conducted at ATTI, had been developed; including three Regular Courses and a Special Course (ref. Table (II)-1a). The Regular Courses are to be conducted every year and the Special Course is to be conducted every two years. Target number of trainees for each Course is twenty.     </li> <li>➤ Overall: Trainings at ATTI were not conducted as envisaged because ATTI was occupied with preparation for and implementation of the large-scale LBT training for local government officials and private contractors, entrusted by PMO-RALG, in TFY 2007/08-TFY 2009/10.</li> <li>➤ Regular Course: Regular Courses were not conducted as planned. Although three Courses were developed, only one Course (i.e. LGA &amp; consultants course on gravel road) was implemented. It was conducted not annually but biannually. Average number of trainees for each course declined sharply from 15 (i.e. 75% of target) in TFY 2006/07 to 7 (i.e. 35% of target) in TFY 2008/09.</li> <li>➤ Special Course: The Special Course was not conducted at all.</li> </ul>
		<ul> <li>Extended Period</li> <li>Overall: Although ATTI is still occupied with PMO-RALG training related activities because of the delay of the trial contracts, it has managed to conduct one Regular Course and plans to conduct one more within TFY 2010/11.</li> <li>Regular Course: A Regular Course (i.e. LGA &amp; consultants course on gravel road) is ongoing. The number of trainees is 8 (i.e. 40% of target), which is almost the same as the previous one. The other two Courses have not been conducted. It is noted that ATTI, in its first semi-annual newsletters in March 2010, announced that a course on bituminous road would be offered in TFY 2010/11.</li> <li>Special Course: The Special Course has not been conducted. There is no plan to conduct one by the end of the Project. Shortage of LBT equipment owned by contractors is one reason why this course has not been implemented.</li> </ul>

Objectively Verifiable Indicators (PDMe)	Source/ Method	Results						
(i 2iiie)			Table (II)-1c: Number of c					
		.,	0	L .	ng course	ļ		g course 10 2010/11
		#	Course type	2006/07	2007/08	2008/09	2009/	(-Aug.10)
			Regular Course			1		
		1	LGA &consultants course on gravel roads	2 (30 trainees)	0	1 (7 trainees)	0	(8 trainees)
		2	Contractors course on gravel roads	n/a	n/a	0	0	0
		3	bituminous roads	n/a	n/a	0	0	0
			. Special Course	:- /-				
		4	Operation of light equipment and hand tools management	n/a	n/a	0	0	0
		T	otal number of course	2	0	1	0	1
		T	otal number of trainees	30	0	7	0	8
		tr	verage number of ainees per course=A	15	0	7	0	8
		р	arget number of trainees er course=B	20	n/a	20	n/a	20
			he ratio of the number of ainees to target= A/B	75%	n/a	35%	n/a	40%
1dATTI		number of courses conducted at ATTI and their trainees have r as envisaged. The Indicators would be partly achieved by the It is noted that, during the meetings with the Evaluation Team, th ATTI showed his commitment for implementation of the Regular Courses in years to come.					ne Principal of	
Trainers/Inst ructors' ability increased	Review of the annual reports of ATTI,	<original period=""> According to the first Terminal Evaluation Report (October 2009), the Inc "has been already been achieved because ATTI has now become a teach new knowledge and skills learned" through TOTs.</original>						
through TOT	interview with P/P and J/E		Four kinds of TOTs, which were necessary to carry out the six ATTI Standard Training Courses, were conducted as shown in the table below.					
			Table (II)-1d-1: TOT fo	<u>r AT</u> TI Trair	ners/Instruc	ctors in the	Origina	al Period
			Subject	Timing	g Venu	ie # of t	rained onnel	Relevant Course No.
		1	Teaching methodology	Aug. 2007	ATTI/ Mbeya	a	8	1,2,3,4,5,
		2	Procurement and training management	2007 and Ja 2008			7	5
		3	Construction o bituminous surfacing road	2008	ditto		8	3
		4	Maintenance o bituminous surfacing road		KTC (Ken	ya)	5	3
		_	xtended Period> o more TOTs are planned	d as show	n in the ta	ble below	<i>1</i> .	

Objectively Verifiable Indicators	Source/ Method	Results							
(PDMe)									
					ng/planned				,
		Subject	Timing	3	Venue		of target ersonnel	Relevant Course No.	
		1 Maintenance/ Do-nou	Sep. 20	10 ATT	Ί		9	1,2	
		2 Quality control	Aug., Nov-Dec 2010	c. Lab	IROAD Co oratory in Salaam		9	1,2,3,6	
		<ul> <li>Quality contranalysis of somethod using</li> </ul>	oil charact <u>'Do-nou</u> :	eristics i The part	n laborato icipants a	ory and fi re expect	eld ted to lea		
	Review of	<a href="#">Conclusion</a> The level of ach expected to be fur						l Evaluation	n is
1eATTI's institutional function strengthene d	reports of ATTI, mini-statem ent of expenditur e prepared by ATTI, interview with P/P and J/E	Original Period>According to the fi has already been <ul> <li>Increase of B</li> <li>TShs for TF\ shown in the</li> <li>Increase in the the Principal, time of the telestablished in established in</li> </ul>	achieved udget: To 2005/06 table belo e number increased rminal eva new Seci n August	" for the tal budg to app ow.  of train of train from 6 aluation. 2 2007.	following let of ATT roximately ers: The rat the be	reasons. I increas y 1.1 bill number o ginning c	: ed from a ion for T  f ATTI tra f the Proj	about 0.5 bi FY 2008/09 iners, included to 11 at Transport	llion as ding the was
			Tanzaniar		udget alloca ar (Jun-Ju 2006/07	l) Unit=1		Shs	
		_	Road	80	64	80	85	1	
			current	400	285	184	119		
		Buc	ecial Iget	46	98	656	923		
		<ul> <li>Extended Period</li> <li>Budget: Total available. Accone in TFY 20</li> <li>Number of trather current Event Eve</li></ul>	amount cording to 005/06. ainers: The valuation. atted: Two play impo	ATTI, the number Sections rtant role the Inc.	e budget er of the tr s establish es at ATTI	was incre rainers at ned durin	eased cor : ATTI is 1 g the Orion	009/10 was npared with 0 at the time	the ne of are
1f Establishment of Training Monitoring and	Review of the annual reports of ATTI, interview with P/P	Evaluation has be Pre-project Perior Prior to the begin been conducted questionnaire to the	nd> ning of the during its	ne Proje s impler	ct, monito	oring of t through	he trainir achieve	ng courses ment test	had and

Objectively Verifiable Indicators	Source/ Method	Results					
(PDMe) Evaluation	and J/E	been organized and had not been utilized in the improvement of the training					
System at ATTI		courses.  < Original Period>					
		Monitoring before the development of M& E manual: Monitoring of the training courses were conducted in the way it used to be.					
		Assignment of person in charge of M& E and Development of the M& E manual: In March 2007, the Head of the Training Section was appointed as a person in charge of the M&E and the M & E manual for the Regular Course was developed. According to the manual, three types of training monitoring are envisaged as shown in the table below.					
		Table (II)-1f: Outline of the Monitoring as per the first M & E manual  Type of Timing Major Main Target Major monitoring monitoring items					
		1 Pre- Prior to each Training organization 2 Ongoing In the Reaction monitoring inception, and learning organization and learning organization.					
		middle and end of each class room and practical training questionnaire, test, observation and interview					
		3 Post-monitoring Within 6 months after each training results in the work Ex-trainees Questionnaire & telephone interview					
		According to the manual, training evaluation would be conducted in order to measure achievement of the Indicators set for the Goal and Purpose of Logical Framework of the ATTI Strategic Plan. Evaluation for improvement of the training courses is not envisaged.					
		The Manual(s) for other Standard Training Courses (i.e. Special Course and Mobile Course) were not developed in specific.					
		Monitoring after the development of the M& E manual: The manual (March 2007) was not applied because it was found too sophisticated/complicated to be put in use. Such being the case, monitoring of the training courses were implemented in old ways. Pre-monitoring and post-monitoring were not conducted. Monitoring results were not compiled/summarized/analyzed as had been the pattern. (See RM C-2 for details)					
		Assessment by the first Joint Terminal Evaluation Team (October 2009): The Evaluation Team pointed out that "monitoring and evaluation system in ATTI has still not practically functioned yet" and stressed the need for strengthening of "implementation capacity of M&E system for making feedback system work well". The new Indicator "implementation of M&E analysis on trainees' performances both during training courses and in the post-training period" was proposed, which was approved by the fourth JCC meeting in October 2009.					
		< Extended Period>    Development of the second M& E manual: In order to make the M & E					

Objectively	Source/	Results
Verifiable Indicators (PDMe)	Method	
		system operational, another M&E manual, which is actually a set of simplified monitoring and evaluation formats, was developed in June 2010. The second M&E manual does not clearly show the mechanism of "feedback from actual field of LBT road construction works" recommended by the first Joint Terminal Evaluation Team, however. For example, as per the second manual, post-monitoring is now implemented mainly for internal check. The concept and method of training evaluation are taken over from the first manual. Evaluation for improvement of the training courses is not envisaged in the second manual, either. Items and methods of M&E are shown but the method of analysis is not made clear.
		Monitoring after the development of the second M& E manual: Ongoing monitoring of some training courses has been carried out based on the second manual. Post-monitoring has been conducted for the PMO-RALG training but the questionnaire/telephone survey on the application of the training results by the ex-trainees, was not conducted. Pre-monitoring has not been conducted (See RM C-2 for details).
		Implementation of M& E analysis: Monitoring results have not been compiled/analyzed because the ATTI staff feels that they have not acquired the relevant skills and knowledge, especially for summarization and analysis of the data, yet. (As all the trainers/instructors have been occupied with implementation of training activities, they may not have found time to sit and analyze the data in any case). A workshop on the method of M&E analysis for the ATTI staff is planned in January 2011.
		<a href="Conclusion"></a>
1g Implementatio n of M&E	Review of progress reports and annual	The current Indicator was added based on the recommendation of the first Terminal Evaluation in October 2009.
analysis on trainees' performance s both during	reports, interview with P/P and J/E	< Results: October 2009-present > No progress has been made as mentioned in the results of Indicator 1f.
training courses and in the post-training period		Conclusion The achievement level of the Indicator is less than expected. The Indicator would be mostly achieved if the skills and knowledge necessary for M & E analysis are transferred to the ATTI staff in practical and manageable manner. It would not be fully achieved, considering the length of the remaining period.
1h Development of function for provision of technical support on	ditto	The current Indicator was added based on the recommendation of the first Terminal Evaluation in October 2009. The Project interprets "function for technical support system" as telephone advice service for ex-trainees, which would be provided for free of charge. It is a plan to record, compile, and feedback the results of the telephone advice into the training courses.
LBT		Results: October 2009-present Not much progress has been made on the matter. The Head of the Promotion and Information Section has been appointed as a person in charge just recently; and the relevant activities would begin in September 2010. According to the tentative PO for the Extended Period (RM D), all of the relevant activities would be completed by the end of the Project.
		<conclusion></conclusion>

Objectively Verifiable	Source/ Method	Results
Indicators (PDMe)		
		The relevant activities have just started. The Indicator would be achieved if the tentative PO for the Extended Period is finalized through participation of all of the personnel concerned and is implemented as planned.
1i Evaluation from the trainees	Review of monitoring results	<a href="#">Pre-project Period</a> <a href="#">Relevant data is not available.</a> Although the raw data is available, it is not well compiled.
become higher compared with the one in the		Original Period> Relevant data is not available. Although the raw data is available, it is not well compiled.
beginning of the Project.		Monitoring activities were implemented in all of the training courses (ref. Indicator 1d); the compiled data, however, is available for only 12 <sup>th</sup> and 13 <sup>th</sup> Regular Course trainings, which had been implemented before the standard curriculum/training manual was developed and the TOT for the ATTI trainers were conducted.
		Relevant data is not available. Although some monitoring activities have been implemented, the data have not been compiled/analyzed yet because the related skills and knowledge have not been transferred to ATTI yet. For reference, some trainees of 15 <sup>th</sup> Regular Course, interviewed by the Evaluation Team, set high valuation on the contents of training and the skills and knowledge of the ATTI trainers.
		< Conclusion > The achievement level of the Indicator cannot be assessed because of unavailability of the relevant data.
1j Upgrading on ATTI Facility and Equipment as a Training Institute	Review of the annual reports of ATTI, interview with P/P and J/E	<ul> <li>Results: Original Period</li> <li>According to the first Joint Terminal Evaluation Report, "the target indicator has already been achieved" for the following reasons:         <ul> <li>A workshop was constructed and equipment required for training was provided.</li> <li>ATTI assigned a staff responsible for equipment management and established an equipment management system in August 2007. Also, the Project provided ATTI with technical assistance on the effective use of facilities, the development of a maintenance system, methods to procure equipment and human resource development.</li> </ul> </li> </ul>
		<ul> <li>Results: Extended Period&gt;         The current status of the points made by the first Terminal Evaluation Team is as follows:         <ul> <li>The workshop and equipment for training is kept in good condition.</li> <li>The equipment management and maintenance system is operational. The methods transferred by the Project are being utilized to run the system.</li> </ul> </li> </ul>
		<a href="Conclusion"></a>

### (2) Output 2: ATTI takes a leading role to promote LBT awareness and become a focal point of related partners in Tanzania.

Objectively	Source/	Results				
Verifiable Indicators (PDMe)	Method					
2aVarious promotion of LBT derived from ATTI	Review of annual reports	Definition of the Indicator> Judging from the first Joint Terminal Evaluation Report, the Indicator is interpreted as meaning that "PR materials produced and distributed by ATTI".				
(e.g., ATTI Website, LBT Publicity by media, etc.) conducted.		< Pre-project Period > There was no Section/Unit in charge of promotion. PR materials were not produced by ATTI.				
		Original Period According to the first Joint Terminal Evaluation Report, "the target indicator has already been achieved because the production of PR materials and the dissemination of these materials have been progressing steadily".				
		Promotion and Information Section was established in August 2007. Three kinds of PR materials were produced and distributed by the Section as shown in the table below.				
		Table (II)-2a1: Production/distribution of PR materials in the Original Period				
		Month/ Year   PR materials   Number of copies   produced				
		1. Mar.2008 Semi-annual newsletters on 10 (in English) experimental basis				
		2. May.2009 Training pamphlets and training 1,000 (in English) outlines through LBT network 2,000 (in Swahili)				
		3. Mar 2009 The 1st promotion DVD on LBT 42 (in English)				
		Extended Period> PR materials have been continuously produced and distributed by the Promotion and Information Section. The first semi-annual newsletter of ATTI was published in April 2010. The second one is planned to be published in October 2010. The second promotion DVD on LBT and ATTI is under preparation. It is expected that the 30-minute DVD would be completed by the end of September 2010. Copies are planned to be distributed to all of the District Engineers in the final roll-out seminar of the Project in Feb. 2011.				
		Table (II)-2a2: Production/distribution of PR materials in the Extended Period				
		Month/ Activity Items Number of copies produced				
		1. Apr. 2010   Production/distribution of the 1st news   500 (in English)   letters				
		2. (Plan) Production of the 2nd promotion DVD on (in Swahili narration & English subtitle)				
		3. (Plan) Production/distribution of the 2 <sup>nd</sup> 500 (in English)				
		Oct .2010   semi-annual news letters   4. (Plan)   Distribution of copies of the 2 <sup>nd</sup>   200   (in Swahili narration & English subtitle)				
		< Conclusion > The achievement level of the Indicator at the time of the first Terminal Evaluation has been kept. The assessment is found to be still valid.				
2b Reference related to LBT and	ditto	Objectively verifiable data is not available because the number of reference has not been monitored by the Project.				
LBT Training		<for reference=""> According to the first Joint Terminal Evaluation Report, "It is presumed that</for>				

Objectively Verifiable Indicators (PDMe)	Source/ Method	Results
from related Institutions increased.		<ul> <li>this target indicator has already been achieved" for the following reasons:</li> <li>"Interviews with ATTI staffs shows that the number of requests and inquiries on ATTI training, particularly that from local governments, has increased": and</li> <li>"Also, the interviews show that from the private sector has increased".</li> </ul>
2c Awareness to Decision Makers, Public and Private Sector Partners on LBT raised (Number of people attending campaign & seminar organized by ATTI, etc)	ditto	
2d ATTI certificate be considered as one of the necessary conditions to register LBT contractors.	ditto	Original Period According to the first Joint Terminal Evaluation Report, "It is concluded that this target indicator has already been achieved" because "The definition of LBT and a LBT contractor was clarified in 2007 and receiving an ATTI certificate has become required for registering as a LBT contractor and bidding for road construction with LBT. The points mentioned above were stipulated in a CRB decree or guideline as a LBT category." Extended Period There is no change in the situation. Conclusion The achievement level of the Indicator at the time of the first Terminal Evaluation has been kept. The assessment is found to be still valid.

### III Accomplishment of the Project Purpose

The Project Purpose: ATTI has an appropriate capacity for training provision and overall coordination as a national training institute for LBT in Tanzania.

Objectively Verifiable Indicators (PDMe)	Source/ Method	Results
a Number of courses and participants trained by ATTI increased compared	Review of the training records	The number of courses and participants trained by ATTI was sharply increased compared with the one in TFY 2005/06. This is attributable to increase of demand-driven training courses, including a large-scale PMO-RALG training for the local governments and private contractors in TFY 2008/09 and 2009/10. Regular courses of ATTI have not been conducted as envisaged as stated in the results of the Indicator 1c of Output 1.

Objectively	Source/ Method	Results								
Verifiable Indicators (PDMe)	wethod									
with the one before the			Table (I		nual numb	per of cour	ses and pa	rticipants b	y ATTI 2009/10	1
Project			Number	of	2003/06	3	1	4	3	
			training ATTI	by						
			Number trainees	of	24	53	45	194	143	
			clusion>	a boon	achiovad	alroady	(For de	tails, plea	se see R	M C-1)
b Number of visitors to the Principal's	Record of the visitors	The nu	The Indicator has been achieved already.  The number of the visitors to the Principal's Office of ATTI increased from 87 people in 2006 to 162 people in 2009. As for 2010, the number has already amounted to 110.							
Office of ATTI increased			2006	20			er of Visito	2010		
compared with the one in			87	16	88 2	09	162	(~13th A 110	ug)	
2006			lusion>	- h	aabiayaa	l alma a du	1			
	Review of		dicator has levant data				olans to co	onduct int	erviews w	ith the
	the evaluation results	Distric	t Counciloi ruary 2011	rs and						
c Evaluation of ATTI from related stakeholders		The MOID and the PMO-RALG, which are in charge of LBT promotion in Tanzania, hold the view that ATTI has been building up capacity for training provision and overall coordination necessary for a national training institute for LBT in Tanzania. In addition, ILO, which is one of the international LBT advocators, seem to recognize the capacity of ATTI, judging from the fact that ATTI was awarded the contract with ILO on training implementation for Lindi and Mtwara Regions after submission of the technical proposal.  Cefinition of the Indicator According to the personnel concerned with the Project, the Indicator is interpreted as meaning that "the training curriculum and module of ATTI would be regarded as standard ones for LBT training in Tanzania". Results As mentioned in the results of the Indicator 2b for the Output 2, certificate of ATTI has become one of the requirements for a contractor to register with Contractor Registration Board as LBT contractors. According to the LBT Coordinator of MOID as well as the Principal of ATTI, any institutes, which are interested in offering LBT training course for contractors with eligible certificates, need to have their training courses authenticated by ATTI. The training courses authenticated by ATTI would be implemented in conformity with the curriculum and module of ATTI developed through the Project. In this sense, the curriculum and module of ATTI to maintain the quality as de facto national standard for LBT training in Tanzania. For the curricula and module of ATTI to maintain the quality as de facto national standard ones, their updating would be required as appropriate. Although an operational M& E system, including feedback mechanism from the training conducted, is necessary for the updating, such system has yet to be fully established at ATTI as shown in he Indicator 1.f of the Output 1.						raining raining of the udging raining		
d Standardizing training curriculum and module for LBT	Interview with ATTI Principal and LBT coordinator /MOID									

Objectively Verifiable Indicators (PDMe)	Source/ Method	Results
		Practically, the Indicator has been mostly achieved. It is not likely to be fully achieved by the end of the Project because the M & E system of training courses at ATTI would not have become fully operational by then.
e Evaluation of ATTI in "Taking the use of LBT to Scale" report	Review of TULS report.	The related data is not available because neither mid-term nor final evaluation report of TULS, which would have included the evaluation of ATTI as a recognized national institute, has not been produced. <conclusion achievement="" assessed="" be="" because="" cannot="" data.<="" indicator="" level="" of="" relevant="" td="" the="" unavailability=""></conclusion>

### IV Likelihood of Accomplishment of Overall Goal

Overall Goal: LBT trainees (e.g, LGA, Contractors, Consultants, TANROADS, Community Groups, etc) are able to plan, design and implement infrastructure works using LBT

U	noups, etc) are able to	piali, ues	igh and implement inhastructure works using LD1
I	Objectively Verifiable	Source/	Results (as of * August 2010 unless otherwise mentioned)
	Indicators (PDMe)	Method	
	a The ex-trainees can adapt the skills and knowledge to different situation. The ex-trainees transmit LBT to the people		See 4.1(1) of Annex 5.
	b X kilometres & its condition of rural road constructed, and/or maintained using LBT		Relevant data is not available

### Annex 4 Implementation Process

Item	Source/	Results
1 Progress of Activities	Methods	Note:  a The initial PDM was modified in the fourth year of the Project based on the recommendations of the first Joint Terminal Evaluation Team. The modified PDM was approved by the fourth JCC meeting on October, 2009.  b The Plan of Operations (PO), which specifies information necessary for planning and monitoring, such as "expected result(s)", "schedule", "person in charge", "implementers", "major inputs" etc. for each Activity or Sub-Activity of the PDM, has not been developed for the Project. The progress of each of the PDM Activities has not been recorded/reported, either. (It is noted that the activities have been implemented based on the Work Plan of the Japanese Experts Team as well as the Strategic Plan of ATTI and have been reported periodically.)  c At present, the Project is developing the PO/Annual PO (APO) for the Extended Period. The tentative one is attached as RM D for reference. The PO/APO would be further discussed among the personnel concerned with the Project and is expected to be finalized by the end of September 2010.
(1) Activities under Output 1	Review of progress reports, annual reports, questionn aire &interview with relevant Project Personnel (P/P) and Japanese Expert(J/E)	Original Period According to the first Joint Evaluation Report, "almost of all Project Activities have been implemented and completed as had been scheduled". Nonetheless, the first Evaluation Team pointed out that "monitoring and evaluation system in ATTI has still not practically functioned yet"; and recommended the modification of the original Activity 1-5 ("To develop and implement M& E) into the current one ("To develop an M&E system, which includes feedback from actual field of LBT road construction works, and made the system well functioned for updating the training programme"). The first Evaluation Team also recommended to create Activity 1-6 ("To develop an M&E system, which includes feedback from actual field of LBT road construction works, and make the system well functioned for updating the training programme"). The recommendations were authorized by the fourth meeting of JCC in October 2009. Extended Period Variety of activities has been conducted. The current Evaluation Team, however, is not able to assess their progress because the PO does not exist. The activities conducted so far as well as tentative plan for the remaining period is shown in the RM D.
(2)Activities under Output 2		Remarks:  1) Activity 1-3 ("To prepare strategy and operational plan for Mobile training unit"): The strategy and operational plan for the Mobile Training Unit has not been developed. Instead, the first Strategic Plan of ATTI (2006-2009) was developed. The second Strategic Plan (2009-2014) was developed in March 2010. It is expected to be updated by the end of the Project. According to the explanation made by the Project, the content of the Activity was changed because (i) there had been no Strategic Plan of ATTI; and (ii) the strategy and operational plan for the Mobil Training Unit would be included in the Strategic Plan of ATTI. The strategy and operational plan for mobile training, however, has not been clarified in the Strategic Plan. In fact, mobile training has been conducted on ad-hoc basis as in the past.  2) Activity 1-5 and Activity 1-6: The plan delineated the Tentative PO/APO has not been discussed within ATTI fully yet. For example, responsible person and implementers of the sub-activities have not been specified/finalized yet. At the moment, it is not certain if all the sub-activities would be completed by the end of the Project without rush.  Original Period  According to the first Joint Evaluation Report, "almost of all Project Activities have been implemented and completed as had been scheduled".  Extended Period  Though some activities have been conducted, the current Evaluation Team is not able to assess their progress because the PO does not exist. The activities

### Annex 4 Implementation Process

Item	Source/ Methods	Results
2Implementation System  3 Project Management	Review of progress reports Review of progress reports, questionn aire &interview with relevant P/P,J/E, review of PDM/PO	conducted so far and a tentative plan for the remaining period is shown in the Annex 2.  Remarks:  1) Activity 2-6 ("Conduct a case study on LBT equipment lease at ATTI through Pilot Projects implemented under Activity 1-5): This Activity Item, presented in the tentative PO/APO, is not included in the current PDM. Since August 2010, the case study has been implemented, taking advantage of the Pilot Projects conducted under Activity 1-5. This Activity was created in response to the recommendation made by the first Joint Terminal Evaluation Team, which stress the need for "creation of interface between training institute in ATTI and actual LBT road construction works in each region".  Implementation System of the Project is considered appropriate for smooth implementation of the Project.  1) Joint Coordinating Committee (JCC): According to the Record of Discussions (R/D) of the Project, functions of the JCC are: (i) to decide and approve the Annual Work Plan of the Project based on the approved annual budget; (ii) to review the overall progress and annual expenditure of the Project as well as the achievement of the Annual Work Plan mentioned above; and (iii) to review and exchange views on major issues arising from or in concerning the Project. The JCC is to meet at least once a year or whenever necessity arises. So far, the JCC meetings were held once a year. The JCC has provided helpful advice for project implementation. Of the three functions delineated in the R/D, the first and the second ones have not been carried out because the Annual Work Plan of the Project (i.e., Annual PO) has not been developed.  2) Project Management through the PDM and the PO: The PDM as well as the PO is an essential tool for the project management for the project. Furthermore, most of the "Objectively Verifiable" Indicators are not objectively verifiable. Most of them lack criteria to judge the achievement level. Some are not well defined, either. Most of the "Means of Verification" require implementation of certain activities by
4	Questionn	process and progress of the Project based on the PO as well as expected achievement level of the Outputs and the Project Purpose of the PDM.  In general, communication within the Project has been sufficient for smooth
Communicat ion	aire and interview with P/P and J/E	implementation of the Project. Cooperative relations between Tanzanian and Japanese sides have been built up.
5.Coordination with relevant local organizations	-ditto-	The Project have been implemented in coordination/cooperation with various organizations, including the MOID, the PMO-RALG, some of the District Governments, CRB, and NCC
6. Other factors that have affected the implementati on process	-ditto-	<ol> <li>Positive factors:         <ul> <li>Initiative and commitment of the Principal of ATTI/Project Manager concerning the Project and promotion of LBT has facilitated the implementation of the Project greatly.</li> <li>The Project Personnel have been very cooperative, motivated, and hardworking.</li> <li>Japan Overseas Cooperation Volunteers dispatched to ATTI have contributed to the promotion and awareness activities of Promotion and Information Section.</li> <li>Commitment of PMO-RALG to use ATTI as a training institute/provider.</li> </ul> </li> <li>Negative factors: Not found.</li> </ol>

### I. RELEVANCE: The Project is highly relevant.

Item	Source/ Method	Evaluation
1.1 Necessity		
(1) Relevance with the needs of Target Group	Review of the relevant document (organizatio nal law, etc), questionnai re and interview with the relevant P/P	The Project Purpose ("ATTI has an appropriate capacity for training provision and overall coordination as a national training institute for LBT in Tanzania) is still relevant with the needs of the Target Groups (i.e. ATTI and its trainees).  > ATTI: ATTI is expected be transformed into "a recognized national institute for the LBT" as per the "Taking the Use of Labour Based Technology to Scale (Establishment of the National Framework)" Programme of the Government of Tanzania. ATTI's Vision 2010 is to "become the leading provider of high quality training for LBT in Tanzania".  > Trainees from LGAs (i.e. Engineers and technicians): In Tanzania LGAs (i.e. district governments) manage the urban, district, and feeder roads (56,625km), of which 46,401km are earth roads. In addition, the PMO-RALG has instructed LGAs to set aside 20% of budget from the Road Fund for roadworks using LBT based on the agreement between the Road Fund Board and the PMO-RALG. Trainees from LGAs are enrolled in the training courses because they feel the need for acquiring the practical skills and knowledge for LBT in order to promote the roadwork using LBT in their respective Districts.  > Trainees from private sector: They are enrolled in the training courses conducted by ATTI because they feel the need for acquiring or enhancing the practical skills and knowledge for LBT in order to either start the business or improve the business performance as LBT contractors.  > Trainees from community leaders: They are the trainees of mobile training courses, which are conducted upon request. The trainees participate in the training as they are expected to utilize the LBT in the roadworks in their communities.
1.2 Priority		
(1) Relevance with national plan of Tanzania	Review of the documents	The Overall Goal ("LBT trainees (e.g, LGA, Contractors, Consultants, TANROADS, Community Groups, etc) are able to plan, design and implement infrastructure works using LBT") is still consistent with development plan of Tanzania.  The "Tanzania Development Vision 2025" states that "Investment in infrastructure must be accorded the highest priority and be spearheaded by the government. This investment must also involve the private sector and communities generally. In particular, development of the road network is absolutely essential for promoting rural development".  The National Strategy for Growth and Reduction of Poverty (NGSRP) states that "community-based initiatives need to be encouraged for smaller-scale labour-based road initiatives to alleviate acute communication problems in rural areas".
(2) Relevance with ODA policies of Japan	ditto	The Overall Goal is still consistent with ODA policies of Japan.  ➤ According to the latest "Japan's Official Development Assistance Charter" approved by the Cabinet in August 2003 addressing sustainable growth, including "providing assistance for the development of the socio-economic infrastructure- a key factor for economic development", is identified as one of the four priority issues.  ➤ The latest "Japan's Medium-Term Policy of Official Development Assistance" (February 2005) states that "Japan will assist in the provision of economic and social infrastructure that contributes to improvement and trade and investment climates, such as roads···,and infrastructure for improving the living environment".  ➤ According to the latest "Country Assistance Program for the United"

Item	Source/ Method	Evaluation
		Republic of Tanzania" (June 2008), the transport (road) sector is identified as one of the priority areas.
1.3 Adequacy as means		
(1)Technologic al Advantage of Japan	Questionna ire, interviews with P/P and J/E	<ul> <li>There are technical advantages of Japan.</li> <li>Judging from the assessments of the Tanzanian project personnel on Japanese Experts as well as increase in the technical capacity of the Tanzanian staff, advantages of Japan are confirmed. The Japanese skills for planning, preparing, organizing, and managing roadworks have been found to be quite useful. In addition, Do-nou technology established in Japan has been successfully incorporated in LBT through the Project.</li> </ul>

### II. **EFFECTIVENESS**: The Effectiveness of the Project is mostly ensured.

Items	Source/	Evaluation
2.1 Achievement level of the Outputs	Review of the Annex 3.	<ul> <li>Output 1: Judging from the achievement level of the Indicators, Output 1 has been mostly achieved but is not likely to be fully achieved by the end of the Project because the Indicators related to training courses at ATTI and M&amp; E, including the ones added based on the recommendations of the first Joint Terminal Evaluation are not likely to be fully achieved by the Project end.</li> <li>Output 2: Steady progress has been made on the achievement of Output 2. It is expected to be achieved by the end of the Project.</li> </ul>
2.2 Achievement level of the Project Purpose	ditto	(For details, please see Annex 3)  Judging from the achievement level of the Indicators, the Project Purpose is almost achieved but is not likely to be fully achieved by the end of the Project because of some delay of overall achievement of the Output 1 mentioned in 2.1  (For details, please see Annex 3)
2.3 Contribution of Outputs to the Project Purpose	Review of the PDM	The Project Purpose consists of two parts: (i) development of appropriate capacity for training provision as a national training institute; and (ii) development of appropriate capacity for overall coordination as a national training institute. Training component (i.e. Output 1) contributes directly to the first part of the Project Purpose and Promotion component (i.e. Output 2) contributes to the second part.
2.4 Important Assumptions	Review of progress reports	<ul> <li>Two Important Assumptions for the Project Purpose are identified in the current PDM:         <ul> <li>The first Assumption ("Trained personnel remain in their working organization and can utilize the training results."): The relevant data is not available. In any case, this is not the condition necessary for achievement of the Project Purpose.</li> </ul> </li> <li>The second Assumption ("Local Government Transport Programme (LGTP) is implemented as scheduled. Particularly, the intension and role of PMO-RALG is clarified and coordinate the stakeholders well."): The Assumption has been satisfied so far. The LGTP (2007-2012) has not been fully implemented due to change in the mode of funding. The intention and role of the PMO-RALG in LBT promotion have been made clear. The PMO-RALG, together with the MOID, has coordinated the stakeholders well.</li> </ul>
2.3 Other promoting /hampering factors	ditto	Specific factors have not been identified.

### III EFFICIENCY: The Project is considered to be mostly efficient.

Items	Source/ Methods	Evaluation
3.1 Production level of Outputs	Review of the Annex 3.	As mentioned 2.1, Output 1 has been mostly produced but is not likely to be fully produced by the end of the Project because the Indicators related to training courses at ATTI and M& E, including the ones added based on the recommendations of the first Joint Terminal Evaluation are not likely to be fully produced by the Project end. On the other hand, steady progress has been made on the production of Output 2. It is expected to be produced by the end of the Project.
3.2 Important Assumptions	Review of progress reports	The Assumption identified in the PDM ("The finance and budget for attending on LBT training at ATTI are secured in LGA."): The relevant data is not available.
3.3 Inputs		
(1) Tanzanian side		
(a) Project personnel	Questionn aire &interview with the relevant P/P and	Original Period According to the first Evaluation Report, the "personnel assigned by the Tanzanian side have been appropriate".
	P/P and J/E	<ul> <li>Extended Period</li> <li>Timing, Duration, Quantity: All of the present Tanzanian project staff is the ones who had been assigned in the original period. They have been continuously assigned to the extended period of the Project without any intermittence.</li> <li>Quality, Field: In general, technical staff with the relevant background, experiences, and technical level has been assigned.</li> </ul>
(b) Duilding	-ditto-	Overall Contribution to the Outputs High.
(b) Building, and facilities	-aitto-	Note: Specific comments on the appropriateness of the building and the facilities are not found in the first Evaluation Report.
		<ul> <li>Project Period on the whole</li> <li>Timing and quantity: Land and facilities necessary for the Project activities have been provided in time. A room in the building for the Administrative Office of ATTI has been made available as office space for the Japanese Expert Team since the beginning of the Project. The room is located near the office of the Principal (PM), which has facilitated the smooth communication between the PM and the Expert Team.</li> <li>Quality: Generally appropriate.</li> </ul>
		<pre><overall contribution="" outputs="" the="" to="">     High</overall></pre>
(c) Financial inputs	ditto-	Note: Specific comments on the appropriateness of financial inputs are not found in the first Evaluation Report, except for appreciation on ATTI's contribution to the first roll-out seminar conducted in 2007.
		Project Period on the whole Timing and quantity: In general, necessary amount has been allocated and disbursed in timely manner.
		Overall Contribution to the Outputs High
(2)Japanese side		- Filigii
(a)Expert	Questionna ire &interview with P/P	Note: Specific comments on the appropriateness of Japanese Experts are not found in the first Evaluation Report.

Items	Source/ Methods	Evaluation
	and J/E	Project Period on the whole Timing, duration and number: Experts were dispatched in accordance with an annual plan of dispatch approved by JICA. Quality: The experts with adequate background, experiences and technical level have been assigned. Some of the Experts had work experiences in Tanzania or East Africa. Some were able to communicate with the Tanzanian side in Swahili, too. Overall Contribution to the Outputs Medium to High. In general, the Experts have contributed to production of Outputs. In some field, however, the inputs have not led to the sufficient achievement of the relevant indicators due to insufficient information sharing.
(2) Training in Japan	-ditto-	<ul> <li>Original Period</li> <li>According to the first Evaluation Report, Tanzanian side considers that the training in Japan gives a strong incentive and motivation for ATTI staffs and contributes to the capacity building of ATTI in general. The Japanese side pointed out "LBT may not be learned effectively in Japan because it is no longer used in Japan". The Evaluation Team found out that some training would have been more efficient if they had been conducted in the neighboring countries.</li> <li>Extended Period</li> <li>Timing , Quantity and Quality: At present, one of the ATTI trainers is being trained in Japan. Since he is still under the training, the quantity and quality of the training is not assessed.</li> <li>Utilization: Since the Project ends in six months, it is not certain how much the staff being trained in Japan could utilize the acquired skills and knowledge in the Project activities. As for the ex-trainees interviewed by the Team, one commented that he had been able to utilize what he learned in his work. The others have found it difficult to apply because the technical level of Japan is too advanced and some of training contents were not relevant to their work.</li> <li>Others: The ex-trainees still keep the incentive and motivation derived from the training in Japan. It should be noted, however, that those staff members who had not been trained Japan are also committed to their work as much as the ex-trainees.</li> </ul>
(d) Equipment	-ditto-	<ul> <li>✓ Overall Contribution to the Outputs</li> <li>➤ Medium. The contribution would have been more if some of the training courses had been implemented in the third countries in Africa.</li> <li>✓ Original Period</li> <li>➤ According to the first Evaluation Report, "equipment, which was provided by JICA, is basically appropriate in terms of quantity and quality, although it discovers some minor problems such as a supplier's wrong specification which have made it impossible to put towed graders into a practice".</li> <li>✓ Extended Period</li> <li>➤ Timing, quantity, quality, specification: One staff member has been dispatched to Japan for training.</li> <li>➤ Utilization: The equipment provided in the Extended Period has been fully utilized for the Project activities. The equipment provided in the Original Period has been utilized in general. Two towed graders, pointed out in the first Evaluation Report, have not yet been put in use though the Project has been working hard to solve the problem. In the meantime, the existing towed graders, procured approximately 15 years ago, have been used for</li> </ul>
		practical training. In addition, an asphalt cutter has not been used because some essential parts have been missing.  ➤ Operation &Maintenance (O& M): The equipment has been managed by

Items	Source/ Methods	Evaluation
		the without a problem. Most of the services and repair works for the equipment have been done at ATTI garage except for those under warranty agreement with the supply dealer.  > Contribution to Outputs: High.
(e) Local activity cost	-ditto-	<ul> <li>➤ Timing and Quantity:         <ul> <li>Necessary amount of has been disbursed in time.</li> </ul> </li> <li>&lt; Overall Contribution to the Outputs</li> <li>➤ High</li> </ul>
3.4Coordinati on with other relevant projects	Progress reports, J/E	<ul> <li>Coordination with other JICA Projects/Schemes:         <ul> <li>Japan Overseas Cooperation Volunteer (JOCV) program: A short-term JOCV in the field of Audio-Visual Education, who was assigned to ATTI from October 2008 to April 2009, as well as a JOCV in the field of Community Development, who has been assigned since January 2009, have cooperated with the Project by assisting the ATTI staff member of the Promotion and Information Section in planning and implementing the Project activities under Output 2. Their contribution is widely appreciated by the personnel concerned with the Project.</li> <li>JICA Expert assigned to the Ministry of Work and Transport in Uganda: In July 2008, the Expert visited ATTI as one of the delegation members from Uganda, to exchange the ideas and views on LBT with the Project. (For details, please see RM C-4 (3))</li> <li>Coordination with other donors:</li></ul></li></ul>
3.6 Other promoting /hampering factors	Accomplis hment grid, progress reports	Specific factors have not been found.

IV. IMPACT: The Overall Goal is likely to be achieved to some extent on condition that the budget for roadworks using LBT is allocated by the concerned LGAs and that LBT equipment is increasingly made available for the contractors. Other positive impacts have been observed already. Negative impacts have not been observed. They are not foreseen, either.

Items	Source/ Methods	Evaluation
4.1 Impact at the Overall Goal level		
(1) Likelihood of achieveme nt of the Overall Goal	Interview with P/P, ex-trainee s, MOID, PMO-RAL G	The Overall Goal ("LBT trainees (e.g, LGA, Contractors, Consultants, TANROADS, Community Groups, etc) are able to plan, design and implement infrastructure works using LBT ") is likely to be achieved in 3 years after the completion of the Project to some extent on condition that the budget for roadworks using LBT is allocated by the concerned LGAs and that LBT equipment is increasingly made available for the contractors.  1. Ex-trainees of ATTI Regular Courses  a The trainees from LGAs (i.e. District Engineers and Technicians): It is presumed that organizational interest for utilization of LBT exists in

Items	Source/ Methods	Evaluation
		the concerned LGAs. The trainees from the LGAs have been sponsored by their respective Districts for participation in the training. Some of them have been directed to participate by their supervisors while others have obtained permission. In fact, the trainees of 15 <sup>th</sup> Regular Course (from July to September 2010) interviewed by the Evaluation Team stated that they would like to use LBT for their work (if the fund is available).  b The trainees from private sector: No information is available.  2. Ex-trainees of ATTI Mobile Courses (i.e. Community leaders): It is presumed that the ex-trainees have already utilized the training results in the field. The Mobil Courses have been implemented upon request. The trainees have participated in the training as they were expected to utilize the LBT in the roadworks in their communities funded by DANIDA, etc  3. Ex-trainees of the PMO-RALG training programme entrusted to ATTI:  a The trainees from LGAs (i.e. District Engineers and Technicians): The PMO-RALG assumes that the trainees from the LGAs would be able to utilize the training results in their work since the PMO-RALG has instructed all the LGAs to set aside 20% of the budget from the Road Fund to LBT roadworks based on the performance agreement between PMO-RALG and Road Fund Board. In addition, LBT awareness seminars targeting the concerned District Councilors & the District Executive Heads were held as part of the PMO-RALG training. In order to make sure that the training results are applied in the concerned LGAs, the PMO-RALG plans to follow-up the post-training situation by requesting the LGAs to include the amount of the budget utilized for LBT roadworks in their quarterly report to the PMO-RALG, which would be compiled annually.  b The trainees from the private sector are going to be registered with the CRB as LBT contractors by October 2010, according to the ATTI, which assist the registration process as instructed by the M & E committee of the PMO-RALG training. Once the ex-trainees register as LBT contract
(2) Important Assumptio n	Questionn aire &interview with the relevant P/P and J/E	<ul> <li>Assumption identified in the PDM ("Local Government Transport Programme (LGTP) is implemented as scheduled"): As stated already, the Assumption has been satisfied so far. The LGTP Phase I (2007-2012) has not been fully implemented due to change in the mode of funding. The PMO-RALG plans to review the Phase I and to prepare the Phase II document in 2011.</li> <li>Assumptions not identified in the PDM: As stated in 4.1 (1), availability of the fund for roadworks using LBT as well as facilitation of access of the LBT contractors to the necessary equipment are found to be Important</li> </ul>
4.2 Other	Questionn aire	Assumptions for achieving the Overall Goal. <positive alredy="" impacts="" observed=""></positive>
impacts	&interview with the relevant P/P and J/E, interview	<ol> <li>With capacity developed through the Project, ATTI was able to obtain contracts with the PMO-RALG and ILO on holding their trainings. Through implementing the large-scale PMO-RALG training, in particular, the ATTI as well as its staff have gained much confidence in</li> </ol>

Items	Source/ Methods	Evaluation
	with farmers'	their capacity.
	groups	2. So far, a total of 404 trainees, including District Engineers and Technicians, contractors, and community leaders, have participated in the training courses organized by ATTI, in which the new curricula and modules as well as training materials developed through the Project were applied.
		3. Through networking activities of the Project, a "General Agreement of Cooperation" was signed by the Principals of ATTI, KTC in Kenya, and MELTEC in Uganda in . The Agreement was endorsed by the ILO. (For details, please see RM C-4 (3))
		4. A total of 7 JOCVs (Community Development) from different Regions of Tanzania have gained basic skills and knowledge on LBT through a class-room presentation and one-day practical training on Do-nou methodologies combined with LBT provided by the Japanese Expert Team at a JOCV meeting conducted in August 2010. Three JOCVs (Civil Engineering) from Uganda also participated in the meeting, whose skills and knowledge have been enhanced.
		< Positive impacts foreseen >
		Cooperation among LBT training instutues in East Africa is expected to be enhanced based on the General Agreement.
		JOCVs trained by the Project in August 2010 are expected to disseminate do-nou methodologies combined with LBT in their sites of assignment.
		3. < Negative impacts >
		> Negative impacts have not been observed. They are not foreseen, either.

### V. SUSTAINABILITY: The Sustainability of the Project would be mostly ensured.

Items	Source/ Methods	Evaluation
5.1 Institutional & Organizational Aspects  (1) Policy and legal supports		There are policies in Tanzania, which support promotion of LBT  The Construction Industry Policy (2003) identifies, in its policy to support poverty eradication, promotes the "labour based construction related activities" to create of employment opportunities. To "create awareness and commitment of the importance and viability of both labour-based and community based delivery arrangements" is listed as one of the Policy Directions to support poverty eradication.  In a paper called "Kiliomo Kwanza" ("Agriculture First") issued by the Tanzanian National Business Council, infrastructure development is identified as one of 10 Pillars.
		<ul> <li>The LGTP (2009-2012) prepared by PMO-RALG identifies "labour-based methods" as one of the Strategic Approaches.</li> <li>The Road Fund Board has performance agreements with PMO-RALG and TANROAD respectively to set aside 20% of the fund provided by the Road Fund for LBT related roadworks.</li> <li>Nonetheless, the need for clearer commitment from policy level on LBT application in the roadworks as well as instruction from government authorities is pointed out by many of those interviewed by the Evaluation Team.</li> </ul>

Items	Source/ Methods	Evaluation
(2)Organizational strategy (Exit strategy)	Questionnai re and discussion with managerial P/P,J/E	The Five-year Strategic Plan of ATTI (2009-2014) was developed through the Project in March 2010. It is expected to be updated by the end of the Project.
(3) Deployment of Project Personnel	ditto	All of the Tanzanian Project Personnel are permanent staff of the ATTI, which ensures their continuous employment. They are expected to be assigned to the relevant posts after the end of the Project, too. They will be able to fully utilize their knowledge and skills to continue their task and sustain the Project effect.
(4) Management capacity	ditto	ATTI has managed the relevant activities without serious problems so far. It is expected that they will be able to manage the relevant activities for themselves after the end of the Project.
(5) Coordination with relevant organizations	ditto	ATTI has coordinated their activities with concerned organizations as mentioned in Annex 4 and Annex5. Mutual confidence and collaboration, which have been built though the process, are likely to continue after the end of the Project.
5.2 Financial Aspects	Questionnai re and discussion with the managerial P/P	So far, he Government of Tanzania has allocated necessary budget for the activities of ATTI. It is likely that financial sustainability is secured
5.3Technical Aspects		
(1) Technical capacity of P/P	Review of progress reports questionnair e and interview with the relevant P/P, J/E	1. Training Technical capacity of the Tanzanian Project staff (i.e. trainers/instructors) has been remarkably enhanced through TOTs as well as OJT provided by the Japanese Experts Team. They have been playing main role in planning, implementation of the training activities on gravel roads with minimum advisory support from the Japanese experts. It is likely that they will gain enough skills and knowledge to plan and implement the relevant activities by the end of the Project.  The Evaluation Team notes that not all the trainers/instructgors (11 in total, including the Principal) have attended the TOTs as shown in the Table below. In addition, ATTI plans to recruit new permanent and part-time trainers in order to meet increasing demand for its training courses.
		Table a: The number of trainers/instructors of ATTI who attended/did not attend TOT
		Subject of TOT # of # of
		trainers/instruc trainers/instruc tors who tors who did attended TOT not attend TOT
		1 Teaching methodology 7 4
		2 Procurement and training 6 5 management
		3 Construction of bituminous 7 4 surfacing road
		4 Maintenance of bituminous 5 6 surfacing road
		At ATTI, newly recruited trainers/instructors with less experience are encouraged to sit in the training courses conducted by their seniors as trainees whenever they can. Such internal technical transfer is conducted in informal and voluntary manner. In order to sustain and maximize the effects of the TOTs provided by the Project as well as to maintain the quality of the training in general as a national training institute for LBT, technical transfer within ATTI need to be implemented in more systematic manner.  2. Promotion and Awareness

Items	Source/		Evaluation								
Remo	Methods	newsletters, related activi further enha	ducing materials of promotion and an and through conducting of award ties, skills and knowledge of ATTI ancement /strengthening of cap ncreasing staff members in Promot	eness ser have beer pacity for	minars and othe n enhanced. Fo promotion and						
(2) Utilization and dissemination of the transferred techniques and project deliverables	Questionnai re and interview with the relevant P/P, J/E	1. Training The technique the deliveral curricula, sy Training Couli-1-1a and 1 LGA and concurriculum, seducational training man increasing deliand training in curriculum, serviculum, se	ues and methods transferred thro bles are relevant with the locallabuses, and training manuals for ses have been developed through of Annex 3 for details). Those isultants on gravel roads have been yllabus, and training manual have institutes in Tanzania. In additionals have been distributed to the emand for the course on gravel roamanual would be utilized fully after the yllabus, and training manual for Mons and gang leaders have been utilities.	al needs or the Si h the Profor the Ri utilized fubeen disson, the hatrainees. Indeed, its curble end of obile Courtized to sor	and levels. The x ATTI Standard ject (See Section egular Course foully by ATTI. The eminated to other andouts from the Considering the criculum, syllabus the Project. The se on gravel road me extent.						
		to be utilized ATTI has a p	, syllabuses, and training manuals f d since the concerned Courses ha lan to implement another Regular ( 11 but it has no plans for the others	ave not be Course on	een implemented						
			able b. Number of training courses in what abus/training manuals developed by the								
			Course type		# of courses implemented						
		1 Regul	ar Course: LGA &consultants course	on gravel	7 *						
		2 Regular Course: Contractors course on gravel roads 0									
		2 Regular Course: Contractors course on gravel roads 0 3 Regular Course: Technical course on bituminous roads (1)**									
		1 1 7	al Course: Operation of light equipment management	and hand	0						
			e Course: LBT contract management co	ourse	0						
			e Course: Forepersons & gang leaders of the course of the	course on	3						
		* The nu	Imber of courses includes PMO-RALG plans to conduct a course in TFY 2010/		ngs						
		skills and ki	way, the trainers/instructors have no nowledge acquired through the T related courses have not been impl	OTs in th							
			able b. Number of training courses in what abus/training manuals developed by the	e Project we	ere used						
			Subject of TOT	which the	ng courses in e skills were ilized						
		1 Tead	ching methodology		10						
		2 Proc	curement and training management		0						
		3 Con	struction of bituminous surfacing road		0						
		4 Mair	ntenance of bituminous surfacing road		(1)*						
		<u> </u>	*ATTI plans to conduct a related course	e in TFY 20	10/11						

The above mentioned shortfalls are attributable to increase of demand-driven tailored courses on gravel roads, including those of PMO-RALG. In order to ensure effective utilization of the project

Items	Source/ Methods	Evaluation
		deliverables and transferred techniques, strategy for training implementation should be developed by the end of the Project.  (For utilization of the training results by ex-trainees, please see 4.1 (1))  2. Promotion and Awareness Skills and knowledge gained through the production of materials for promotion and awareness would be utilized for producing further materials.
		Experiences and acquired know-how on holding awareness seminars would contribute to organization of the same in future.
(3) Utilization and maintenance of the provided machinery and equipment	Questionn aire and interview with the relevant P/P, J/E	<ul> <li>Utilization: Machinery and equipment provided by the Project has been utilized for the training in general. It is expected to be continuously utilized after the end of the Project. The problems associated with two towed grades and an asphalt cutter should be rectified in order to ensure the full utilization of the provided equipment.</li> <li>Maintenance: The equipment management and maintenance system established by the Project is likely to continue after the end of the Project.</li> </ul>

### RM A Record of Tanzanian Inputs

### A-1. List of Tanzanian Personnel

(F=Full time assignment for the Project, P=Part time assignment for the Project)

### (1) Project Director

Name	Position in	the Organi	ization		F/P	Assignment Period
Eng. Omary Chambo	Permanent	Secretary,	Ministry	of	Р	May 2006~
	Infrastructur	e Developm	ent (MOID)	)		present

### (2) Project Manager

Name	Academic Background	Position in the Organization	F/P	Assignment Period
Mr. Emmanuel W. Raphael	Civil Engineer	Principal, ATTI	Р	May 2006~ present

### (3) Technical Personnel at ATTI

### a. The present project personnel

	Name	Academic Background	Position in the Organization	ATTI years	F/P	Assignment period	Relevant PDM Activity number(s)
1.	Mr. Mahmoud M. Chamle	Civil Engineer	Training Engineer, Training Section	6	Р	May 2006~ Present	1.1, 1.2, 1.3, 1.4, 2.2, 2.3, 2.5, 0.1
2.	Mr. Joseph E. Majarua	Civil Technician	Senior Instructor, Training Section	13	Р	May 2006~ Present	1.1, 1.2, 1.4, 1.6
3.	Mr. Richard D. Kansimba	Diploma in Tech. Education	Training Engineer, Training Section	16	Р	May 2006~ Sep 2007 July 2010-present	1.1, 1.2, 1.4, 1.6
4.	Mr. Richard B. Mahango	Mechanical	Training Engineer, Mechanical Section	3	Р	May 2007~ Present	1.1, 1.4, 1.6
5.	Mr. Given Eliringia	Quantity Surveyor	Training Engineer, Dy Head of Training Section	3	Р	May 2007~ Present	1.1, 1.4, 2.3, 3.1, 1.6
6.	Mr. Bernado A. Munaku	Civil Engineer	Training Engineer, Training Section	3	Р	May 2007~ Present	1.1, 1.4, 2.2, 1.6
7.	Mr. Rwambay Mtete	Civil Engineer	Training Engineer, Head of Training Section	2	Р	May 2009~ present~	1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 0.1
8.	Mr. Paulo Sango	FTC in Civil	Senior Instructor, Training Section	2	Р	May 2009~ Present	1.1, 1.4, 1.6
9.	Mr. Paul Henry	Ordinary diploma in Civil	Senior Instructor, Training Section	2	Р	May 2009~ present	1.1, 1.4, 1.5, 1.6
10.	Mr. Hussein A. Mombo	Civil Technician	Vice Principal of ATTI Senior Instructor, Promotion & Information Section	16	Р	May 2006~ Present	1.1, 1.2, 1.4, 1.6, 2.1, 2.2, 2.4, 2.5, 0.1

### RM A Record of Tanzanian Inputs

### **b** . The former project personnel

	Name	Academic Background	Position in the Organization	ATTI years	F/P	Assignment period	Relevant PDM Activity number(s)
1.	Mr. Francis P. Mwandu	Civil Technician	Senior Instructor, Training Section	N.A	Р	May 2006~ Oct 2009	1.1, 1.2, 1.4, 1.5

### (4) Administrative personnel at ATTI

	Name	Academic Background	Position in the Organization	ATTI years	F/P	Assignment period	Relevant PDM Activity number(s)
1.	Mr. Edmund L. Mavika	Diploma in Materials Management	Management Supplies Officer, Finance, Procurement & Administration	6	Р	May 2006~ Present	1.1, 0.1
2.	Mr. Johansen Rukambaiga	Master in Finance	Accountant, Finance, Procurement & Administration	2	Р	May 2009~ Present	1.1, 0.1
3.	Mr. Amani Meena	Advance Diploma in Accountancy	Accountant II, Finance, Procurement & Administration	2	Р	May 2009~ Present	1.1, 0.1

B-1. Assignment of Japanese Experts

ا العامد	Project rear	151	ist real		ZIIU TEGI			old I cal			+ai   cai		1100	our real					IVIVIVI			
Japanese	Japanese Fiscal Year	20	2006		2007			2008			2009			2010		1st Year	2nd Year	3rd Year	4th Year	_	5th Year	Total
Calend	Calender Year	2006		20	2007		2008	81		2009			2010		2011	- Cool	0000		Topic	0000	ino	
Name	Title/Responsibility 4	5 6 7 8 9 10 11 12	10 11 12 1	1 2 3 4 5 6	7 8 9 10 11 12	1 2	3 4 5 6 7	7 8 9 10 11	12 1 2 3	4 5 6 7	8 9 10 11 12 1	1 2 3 4	5 6 7 8 9	9 10 11 12	1 2 anzani	Japan	anzania Japan	anzania Japa	Japan I anzani	Japan	anzania Japan	ıl anzanık
Tatsumi Tokunaga	Project Leader / Operational Management	-													4.50	0.50	7.00 0.00	7.00 0.33	3 5.00	0.50	5.03 0.67	28.53
Takayo o Sasaki/ s Mitsue Nuiguchi(4th B	Development of Carriculum and Training Materials / Evaluation and Monitoring of Training (1)	•		•											2.00	0.50	1.00 0.00	0.00 0.00	0 1.00	00.00	0.00 0.00	4.00
Motoki Ogawa P	Development of Carriculum and Training Materials / Evaluation and Monitoring of Training (2)			•		•			1						1.50	0.00	2.00 0.00	3.00 0.00	0 3.00	0.00	0.00 0.00	9.50
Masanori Takeishi /Kouji Uzawa	Equipment Management		8			•			1		1				(1.00	(1.00) 0.00 1	1.00 0.00	7.00 0.00	0 2.00	00.00	0.00 0.00	9.00
Shinya Hanaoka	LBT Application Survey								•						0.00	0.00	0.00 0.00	1.00 1.00	00.00	0.00	0.00 0.00	1.00
Motoki Ogawa N	Sub-project Leader / Operational Management(2														0.00	0.00	0.00 0.00	0.00 0.00	0 0.00	00:00	5.27 0.00	5.27
Mitsue Umiguchi	Evaluation and Monitoring of Training												1		0.00	0.00	0.00 0.00	0.00 0.00	0 0.00	0.00	3.20 0.00	3.20
Yoshinori Fukubayashi (	Pilot Project (Maintenance)														0.00	0.00	0.00 0.00	0.00 0.00	00.00	0.00	2.50 0.00	2.50
Hiroaki Takahashi (	Pilot Project (Rehabilitation)														0.00	00.00	0.00 00.00	0.00 0.00	00.00	0.00	1.50 0.00	1.50
Ryousuke (	Pilot Project (Equipment Management)														0.00	0.00	0.00 0.00	0.00 0.00	0 0:00	0.00	1.50 0.00	1.50
To	Total														8.00	1.00	Isl	18.00 1.33	11	0.50	19.00 0.67	.99
Grand	Grand Total														6	9.00	11.00	19.33	11.50	20	19.67	69.50

### RM B Record of Japanese Inputs

### B- 2. List of Tanzanian personnel trained in Japan

	Name	Title/Organization at the time of training	Training Period	Title of Training Course	Training Venue
1.	Mr. Emmanuel W. Raphael,	Principal, ATTI	Sep 18-Nov23 2007	Project Management and Evaluation for Civil Engineers in Public Works	Yokohama
2.	Mr. Mahmoud M. Chamle	Training engineer, ATTI	Jul 9-Aug9 2008	Road Management and Maintenance Technology for Africa	Osaka
3.	Mr. Richard B. Mahango	ditto	Sep2-Nov 28, 2008	Construction Equipment and Mechanized Construction Management	Osaka and Yokohama
4.	Hussein Alliy Mombo	ditto	May 7-August 8 2009	Road Management and Maintenance Technology for Africa	Osaka
5.	Mr. Joseph E. Majarua	Civil Technician	June 28-Aug 7, 2010	Road Management and Maintenance Technology for Africa	Osaka
6.	Mr. Bernado A. Munaku	Civil Engineer	Jul 1-Aug 31, 2010	Road Engineering and Administration	Sapporo

## RM B Record of Japanese Inputs

### List of Equipment provided by Japan Б. Э.

No.	JFY	ltem	Specification	Number, Unit or Set	Amount	Location	Responsible person	# of disposed equipment	# of available equipment	Use	Mgt	Relevant PDM activity number
1	2005	2005 Vehicle	Toyota Landcruiser Hard Top 12- Seater	1	TZS 40,538,675	Workshop	Richard B. Mahango	0	1	A	A	1.1, 1.4, 3,2
2	2006	2006 Water tanker	T0009	2	US\$19,730	Workshop	Richard B. Mahango	0	2	В	В	1.1, 1.4, 3.2
3	2006	2006 Engine pump	ень ень	2	TZS 625,000 Workshop	Workshop	Richard B. Mahango	0	2	В	В	1.1, 1.4, 3.2
4	2006	Manual grader	200*100*6RHS 100*4SHS	2	US\$34,000 Workshop	Workshop	Richard B. Mahango	0	2	Ш	Е	1.1, 1.4, 3.2
2	2006	Fuel tanker	T0009	2	US\$15,170	Workshop	Richard B. Mahango	0	2	В	В	1.1, 1.4, 3.2
9	2006	Vibration rollor	LP750	1	€ 14,000		Richard B. Mahango	0	1	A	A	1.1, 1.4, 3.2
7	2006	VIDIALIOITE	LP6500	1	€ 13,250	Workshop	Richard B. Mahango	0	1	A	A	1.1, 1.4, 3.2
8	2006	2006 Hand tools		1 set	TZS 4,884,700	Workshop	Richard B. Mahango	0	1	A	A	1.1, 1.4, 3.2
6	2006	2006 Plate compactor	DYNAMIC DM82	2	€ 3,780	Workshop	Richard B. Mahango	0	2	С	A	1.1, 1.4, 3.2
10	2006	2006 Water tank	2000L	2	TZS 389,000	Workshop	Richard B. Mahango	0	2	A	A	1.1, 1.4, 3.2
11	2006	2006 Tractor	4500cc, 110HP, 480Nm	2	US\$63,762	Workshop	Richard B. Mahango	0	2	A	A	1.1, 1.4, 3.2
12	2006	Trailer	5-7 tons with 4 tires Single Axle	2	US\$14,000 Workshop	Workshop	Richard B. Mahango	0	2	A	A	1.1, 1.4, 3.2
13	2006	Bitumen heater and bitumen sprayer	Phoenix Model PA, 1000L	1	115864 100	Workshop	Richard B. Mahango	0	1	С	A	1.1, 1.4, 3.2
14	2006	2006 Hopper gritter (Chipping spreader)	Phoenix Model HG001	1	00404, 100	Workshop	Richard B. Mahango	0	1	0	A	1.1, 1.4, 3.2
15	2006	200	100kVA	1	US\$35,140	Workshop	Richard B. Mahango	0	1	A	A	1.1, 1.4, 3.2
16	2006	Gererator		1	TZS 9,693,000	Workshop	Richard B. Mahango	0	1	O	С	1.1, 1.4, 3.2
17	2006	Tools		1 set	TZS 49,997,000	Workshop	Richard B. Mahango	0	1	В	С	1.1, 1.4, 3.2
18	2006	2006   Tents	7kVA	1 set	TZS 5,960,000	Store	Edmund L. Mavika	0	1	С	A	1.1, 1.4, 2.4, 2.5
19	2006	Audio visual equipment	Video Camera, Digital Camera, DVD recorder and TV-sets	1 set	TZS 5,062,000	Promotion section	Hussein A. Mombo	0	1	A	В	1.1, 1.4, 2.4, 2.5
20	2006	Laptop computer	A220	-	US\$4,770	Promotion section	Hussein A. Mombo	0	1	A	A	1.1, 1.4, 2.4, 2.5
21	2006	Multimedia projector	XR-10S	-	TZS 2,860,000	Promotion section	Hussein A. Mombo	0	1	4	4	A 1.1, 1.4, 2.4, 2.5
22	2006	2006 Pedestrian roller	BRR650	1 unit		Workshop	Richard B. Mahango	0	1	∢	A	1.1, 1.4, 3.2
23	2006	2006 Plate compactor	PCX500	2 unit		Workshop	Richard B. Mahango	0	2	В	В	1.1, 1.4, 3.2
24	2006	2006 Asphalt cutter	AFS350	2 unit	US\$27,400	Workshop	Richard B. Mahango	0	2	Е	D	1.1, 1.4, 3.2
25	2006	2006 Rammer	RT66	1 unit		Workshop	Richard B. Mahango	0	1	В	A	1.1, 1.4, 3.2
26	2006	2006 Concrete mixer	Minimix150	1 unit		Workshop	Richard B. Mahango	0	1	В	A	1.1, 1.4, 3.2
27	2007	Materials for bitumen training	Aggregate, Gravel, Sand and Cement	1 set	TZS 28,338,195			$\setminus$				All consumed through 1.1
28	2007		Bitumen Asphalt	1 set	US\$27,910	$\setminus$		$\setminus$	$\setminus$		$\setminus$	ditto
29	2007		for Bitumen Heater and Sprayer	1 set	US\$6,555	Workshop	Richard B. Mahango	0	1	В	A	1.1, 1.4, 3.2
30	2007	Spare parts	for Generator	1 set	TZS 6,144,826	Workshop	Richard B. Mahango	0	1	A	A	1.1, 1.4, 3.2
31	2007		for Vibration Roller	1 set	US\$14,418	Workshop	Richard B. Mahango	0	1	A	A	1.1, 1.4, 3.2
32	2007	Workshop equipment		1 set	TZS 5,139,000	Workshop	Richard B. Mahango	0	_	∢	∢	1.1, 1.4, 3.2
33	2007	2007 Paving equipment		1 set	US\$14,069	Workshop	Richard B. Mahango	0	1	С	A	A 1.1, 1.4, 3.2
34	2009	2009 Vibration roller	LP750	е	US\$55,763 Workshop	Workshop	Richard B. Mahango	0	3	¥	٨	A 1.1, 1.4, 3.2
35	2009	2009 Dump Truck	FSR33H	-	US\$87,425 Workshop	Workshop	Richard B. Mahango	0	1	∢	A	1.1, 1.4, 3.2
			-									

Nse

Mgt A: Always possible to use with sufficient maintenance B: Almost no problem in use C: Possible to use if repaired D: Difficult to use

B. Sometimes (1-3 a week)
C: Use concentrated on particluar period
D: Rarely (1-3 times a year)
E: No use due to particular reasons

### RM B Record of Japanese Inputs

	JFY2005	JFY2006	JFY2007	JFY2008	JFY2009	Total
\$SN	0	278,072	62,952	0	143,188	484,212
SZ1	TZS 40,538,675 79,470,700	79,470,700	39,622,021	0	0	159,631,396
Euro€	0	31,030	0	0	0	31,030
Total(TZS)	40,538,675	40,538,675   557,663,967   134,104,710	134,104,710	0	0 214,905,438	947,212,791
Total(Yen)	2,351,243	32,344,510	7,778,073	0	12,464,515	54,938,342
	Rate(Aug2010) Yen	Yen	SZL			
	\$SN	90'28	1501			
	SZL	850.0	1			
	Euro€	113.73	1961			

B-4. Disbursement of Local Activity Cost (as of 22th July 2010)

Currency Unit: Japanese Yen

7,808,000 9,494,000 19,935,000 9,199,000 14,294,000 60,730,000 Total 7,755,000 10,899,000 1,911,000 27,752,000 1,940,000 5,247,000 Pilot development, LBT Applicability data collection for developing curriculum Survey, TOT for ATTI trainers, Cost of Hiring Local Consultant ATTI Strategic Plan, Projects (Maintenance Rehabilitation) Training Reports, and Progress Reports and others Inception Report, Annual 25,000 40,000 90,000 9,000 16,000 Report Production Cost (Printing and Book **Binding Cost**) 0 3,275,000 3,275,000 Construction Cost construction Workshop C/P 2,577,000 4,247,000 9,027,000 7,276,000 6,499,000 29,626,000 Cost (Excluding Field Operation Rent cars, C travel and others management) training and JFY 2006 **JFY 2008** JFY 2009 JFY 2010 JFY 2007 Details Total Item

RM B-(4)

C-1 List of training conducted by ATTI

Relevant TOT finished by then (*1)				Α	4			A		⋖		A		A	A			۷		
Use of standard text developed by the Project (Mar.2008)			×	n/a	(2008/09)	(2009/10)	7	7		>		7		>	>			^		!
Use of curriculum developed by the Project (May 2007)			×	n/a		(2009/10)		>		>		>		>	>			>		
Number of those who received certificates	15	14	23	45	(2008/09)	(2009/10)	0 (Total) 0	2		51		8		22						
Number of trainees	16	14	23	45	(2008/09)	(2009/10)	92 (Total) 279	7		51		8		22	38			n.a.		
Budget Source	ATTI	ATTI	ATTI	DANIDA	PMO- RAI G/	LGTP		ATTI		ILO		ATTI		DANIDA	ILO			PMO-	KALG/ LGTP	
Target/type of participants	LGA, private sector (contractor, consultants)	ditto	Small-scale women companies	Village gang leaders	District Engineers,	fron	Districts	LGA, private sector	(contractor, consultants)	TANROAD Regional	Managers' Officers, LGAs, contractors	LGA, private sector	(contractor, consultants)	Village gang leaders	TANROAD	Regional	LGAs, contractors	gine	tecnnicians, and contractors from	13-19 Districts
Venue (Region)	Mbeya /ATTI	Mbeya /ATTI	Mbeya /ATTI	Kilolo ,IIula	Dodoma, Mheya	Rukwa,	labora, Singida	Mbeya /ATTI		Mtwara		Mbeya /ATTI		Bagamoyo	Lindi			Ruvuma	ıınga	
Type of Training	12th Regular training	13th Regular training	Special training	DANIDA Mobile training	PMO-RALG/LBT Training	Staff, Cor	and Contractors (Phase I)	14th Regular training (Road	Technician's Course)	ILO - LBT Training for Rural Road Rehabilitation and		15th Regular training (Road	Technician's Course)	TANROAD Mobile training	ILO-LBT Training (2)			PMO-RALG/LBT Training	programme (Pnasell)	13-19 Districts
Month/ Year	Aug-Oct. 2006	Mar-Jun 2007	May-Jun 2007	May-Jun 2008	Aug 2008-	Sep. 2009		Apr-Sep.	2009	Nov.2009- Mar 2010		Jul-Sep.	2010	Jul-Aug 2010	(Plan)	Sep-Oct	0107	(Plan)	Sep-Nov 2010	) 
TFY	2006/07	2006/07	2006/07	2007/08	2008/09-			2008/09		2009/10		2010/11		2010/11	2010/11	<u> </u>		1 2010/11		
	<del>-</del>	2	ю.	4.	5.			g	)	7.		œ	)	6	10	-		11		

(\*1) A=TOT on teaching methodology (Aug 2007), B=TOT on procurement and contract management (Aug 2007), C=TOT on LBT construction of bituminous surfacing (Sep 2008)

## State of monitoring implementation for each training course conducted by ATTI C-5:

\*. A=Completed, B=Ongoing and to be completed by the Project end, C: Plan to be implemented and completed by the Project end, D=Plan to be conducted after the end of the Project, F=No concrete plan vet X=Not conducted

		Monitoring	data	summarized		۷		∢		×		×		×		Ш		Ш		Ш		Ш		Ш		Ш	
	on*	Course	report	prepared		٧		٧		٧		٧		٧		В		a	מ	В	)	J	)	Q		Q	
	State/Plan of Monitoring Implementation*	Post	-monitoring	within 6 months	after training	×		×		×		×	<	ن	)	В	(Note 5)	Э		Э		Q		Э		Э	
	»/Plan of Monit	Ongoing	monitoring	(Practical	training)	٧		٧		٧		٨	:	٥	ζ.	В	(Note 4)	٥		٧		В		Э		Э	
	State	Ongoing	monitoring	(Classroom	training)	∢		۷		٧		۵		٥	ξ.	×		٥		۷		⋖		Ш		Ш	
		Internal	bre-	monitoring			\		/	×		×	<	×	<	×		×		×		×		Ш		Э	
	Use of the M&	ĭ	developed in	March 2007		ON	(Note 1)	ON ON	(Note 2)	ON :	(Note 2)	ON	(Note 2)	ON	(Note 2)	YES	(Note3)	ON	(Note 2)	ON	(Note 2)	YES	(Note 3)	n/a		n/a	
conducted	Training Course					12th Regular training		13th Regular training		Special training for small-scale	temale contractors	DANIDA Mobile training in Kilolo	and Ilula (2 courses)	14th Regular training		PMO-RALG/LBT Training Phase I	(5 courses)	ILO training in Mtwara		TANROAD Mobile training in	Bagamoyo	15th Regular training		ILO/Pilot Programme (2)		PMO-RALG/LBT Training	programme Phase2 (2 courses)
E=INO CONCRETE PIAM YET, A=INOT CONDUCTED	Month/Year	of Training				Aug-Oct.	2006	Mar-Jun	2007	May-Jun	2007	May-Jun	2008	Apr-Sep.	2009	Aug 2008-	Sep. 2009	Nov.2009-	Mar.2010	Jul-Aug	2010	Jul-Sep.	2010	(Plan)	Sep-Oct2010	(Plan)	Sep-Nov2010
NO COLICIEIE	TFY					2006/07		2006/07		2006/07		2007/08		2008/09		2008/09-	2009/10	2009/10		2010/11		2010/11		2010/11		2010/11	
Ī						7	:	2.		3.		4	:	'n	<u> </u>	Œ	<u>.</u>	^	:	α	<u> </u>	σ	<u> </u>	1	<u>ر</u>	1	<u> </u>

### Evaluator's Note:

- Note 1: M& E Manual was not ready
- Note 2: Monitoring conducted in old ways,
- Note 2: A format simplified in June 2010 was used.
- While all the practical training courses ended before September 2009, "on-going Monitoring is being conducted at trial contract sites as the Project regards the trial monitoring" started in June 2010, which is more than 9 months after completion of the training. Monitoring is being conducted at trial contract sites as the Project regards the trial contract sites as the Project regards the trial contract as kind of practical training. So far, monitoring in 5 out of 29 Districts has been completed.

  Note 4. So far, monitoring called "Post-monitoring" has been conducted in 2 Districts. It was mainly for internal check of ATTI: utilization of the acquired skills by the ex-trainees Note 3: Monitoring was not conducted during actual implementation of the practical training.
  - was not included as monitoring items.

### C-3: Data related to evaluation from trainees at the end of each course

### (1) Results of Evaluation conducted using existing formats of ATTI

	Type of training		Number of trainees	Number of respondents	Number of those who replied the training was "good"	% of those who replied the training was "good"
1.	12th regular	(a) Classroom	16	15	6	37.5%
	training	(b) Practical	13	13	4	30.8%
2.		(a) Classroom	14	14	8	57.1%
	training	(b) Practical	13	13	4	30.7%

### C-4: Data related to Promotion and Awareness

### (1) List of the exhibitions/seminars in which ATTI participated to promote LBT

	Month/ Year	Exhibition	Type of target group A=Decision makers B=Public C=Private sector partners D=Donors	Number of visitors
1.	Jun 06	The Public Service Management Week Exhibition at Dar es Salaam	A,B,C,D	n.a.
2.	Jun 08	Tanzania's Public Service Management exhibition in Dar es Salaam	A,B,C,D	n.a.
3.	Jul 08	A week for Regional Administration and Local Government in Shinyanga	A,B,C,D	n.a.
4.	Aug 08	Farmers Day exhibition in Mbeya	A,B,C,D	n.a.
5.	Sep 08	Construction Industry Forum exhibition in Dar es Salem	A,B,C,D	n.a.
6.	Jun 09	African Public Service Management Week exhibition in Dar es Salem	A,B,C,D	n.a.
7.	Jun 09	Tanzania's Public Service Management exhibition in Dar es Salaam	A,B,C,D	n.a.
8.	Aug 09	Farmers Day exhibition in Dodoma	A,B,C,D	500
9.	Jun 10	Public Service Week Exhibition at Mwanza	A,B,C,D	640
10	Aug.10	Farmers Day exhibition in Dodoma	A,B,C,D	1,261

### (2) Number of participants to seminars/campaigns organized by ATTI

	TFY	Month/ Year	Activity item	Type of target group A=Decision makers B=Public C=Private sector partners D=Donors E=Others	Number of participants
1.	2007/08	Sep.07	Roll-out seminar for Engineers and District executive Directors (DEDs) in Dodoma	A ,C ,D	50
2.	2007/08	Dec. 07	Awareness seminar for LBT stakeholders in Mbeya	A (Officials of PMO-RALG), C, D	150
3.	2007/08	Mar 08	ILO-JICA seminar on "Up scaling the use of Labour Based Technology in Tanzania, challenges and the way forward"	ABCD	70
4.	2007/08	Apr-May08	Awareness seminars as part of PMO-RALG training in 5 Regions (5 seminars in total)	A (District Councilors, District Executive Director)	123
5.	2008/09	Mar.09	Roll-out seminar in Dar es Salaam	B, C, D, E	50
6.	2009/10	Nov.09	Awareness seminars as part of ILO training in Mtwara and Linidi (2 seminars in total)	A (District Councilors, District Executive Director), C (Contractors), D (ILO)	39
7.	2009/10	Nov.09	Awareness workshop for workers at trial	C (Workers,	46

	TFY	Month/ Year	Activity item	Type of target group A=Decision makers B=Public C=Private sector partners D=Donors E=Others	Number of participants
			contract site in Mballzi	contractors (ex-trainees))	
8.	2009/10	Dec.09	Awareness seminar at Mbeya City Council	A (Community development officers, engineers, and technicians)	25
9.	2009/10	Dec.09	Awareness seminar at DSM Institute of Technology	D (Instructors and students)	45
10	2009/10	Dec.09	Awareness seminar at Mbeya Institute of Science and Technology	D (Instructors and students)	53
11	2009/10	Apr 10	Awareness seminar at Mbeya District Council Full Council Meeting	B (30 civil councilors and around 30 heads of departments)	60
12					711

### (3) Activities related to networking with LBT training institutes in East Africa

	TFY	Month/ Year	Activity	Results
1.	2006/07	Nov- Dec 2006	Visit to Mt Elgon Labour-based Training Centre (MELTEC) in Uganda, Labour Based Technology Institutes of Kisii (KTC) in Kenya	Ideas and views on training methods and materials, promotion of LBT were exchanged
2.	2008/09	July 2008	ATTI received delegates from Uganda, consisting of staff of MELTEC, personnel from the Ministry of WT, and experts from JICA and DANIDA who were assigned to MWT.	A "General Agreement of Cooperation" proposed by ATTI was discussed
3.	2008/09	July 2008	ATTI received 7 trainers form Uganda and 3 trainers from Kenya	Ideas and views on training methods and materials, promotion of LBT were exchanged
4.	2009/10	Aug. 2009	Five trainers of ATTI participated in the bituminous surfacing course at KTC	Trainers of ATTI learned method utilized in Kenya
5.	2009/10	Dec. 2009	Participated in the 13th ILO Regional Seminar in Uganda	A "General Agreement of Cooperation" was signed by the Principals of ATTI and MLETC and KTC and endorsed by ILO

Activit	tiesof the PDM and its sub-Activities	Expected results				hedu	le foi	r the							Person in charge	Implementers (Tanzanian			
		for the Extended	Т	FY 2	2009	/10					010/	11			(Tanzanian	side)	Other major	inputs	
		Period							Y20	_					side)		Other major	IIIputo	Remarks
					(	Caller	nder	Yea	r 201	10			20	11					
			Mar	Ap	Ma	y Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb			Japanese	Tanzanian	
LBT traini	ut 1: The function of executin training is ready at ATTI and t ing implements regularly.	the practical													PM( Raphael)		JE:Tokunaga		
	To restructure the organization and of the staff in order to provide qualifi														PM (Raphael)		JE: Tokunaga (Ogawa)		
1.1.1	Conduct TOT for trainers														PM		JE :Tokunaga		
а	TOT on quallity control at Dar es Salam	(1)All trainers trained (13 in total) (2)A TOT report prepared in one month													PM	PM	JE :Ogawa LAC :Training fee for TANROAD		
b	TOT on Do-nou in Mbeya	ditto		Ĭ	<b></b> -					_					PM	PM	JE :Fukubayasi	,	
С	OJT through Pilot Project on maintenance in Rungwae conducted under 1.5.9	(1) X ATTI trainers trained (2) OJT report developed as part of the Pilot Project Report													PM	PM	JE :Fukubayasi		OJT on planning and design, contract management, supervision and insepction
	OJT through Pilot Project on rehabilitation in Mbozi conducted under 1.5.9	ditto													PM	PM	JE:Takahashi		ditto
	To review and develop curriculum, s training programme and prepare trai through identifying the target group of training partners.	ining materials																	
	Conduct technical review of the curriculm/text developed by the Project	All the curriculum (6) and texts (7) reviewd													Given	Given	JE :Tokunaga (Ogawa)		
	To prepare strategy and operational training units	plan for Mobil													PM	PM, Mtete	JE :Tokunaga		
1.3.1	Review and update the Strategic Plan (2009-2014)	The Plan approved by PM by**													PM	PM, Mtete	JE :Tokunaga (Ogawa)		
1.4	To implement the annual training	ng programme													Mtete		JE :Tokunaga (Ogawa)		
1.4.1	Implement ILO training in Mtwara	X paricipants from LGA and private sector trained													Given	Given	JE :Tokunaga		
1.4.2	Supervise Trial Contracts of PMO- RALG training periodically	sector trained													Mtete		JE :Tokunaga		
а	Trial sites in Mbeya	Trial contracts in 4 disticts supervised			<b>+</b> -	-		-							Mtete	Mtete, Mkatasa,Henry Sango	JE :Tokunaga		
b	Trial sites in Tabora	Trial contracts in 4 disticts supervised							•						Mtete	Mtete, Sango	JE :Tokunaga		
С	Trial sites in other 3 Regions	Trial contracts in ***		<u> </u>	+	†									n/a	n/a	JE :Ogawa		
1.4.3	Implement 15th Regular training (Road Technician's Cours	20 participants trained													Mtete	Mtete, Mkatasa, Henry	JE :Tokunaga, Ogawa		Only 8 people participated in the training
1.4.4	Implement Mobile training in Bagamoyo	X gang leaders trained						_							Kasimba	Kasimba	JE :Tokunaga		
1.4.5	Plan and implement ILO training (2) in Lindi	X participants trained													n/a	n/a	JE :Ogawa		
1.4.5	Plan and implement PMO- RALG/LBT Training programme(2)	X participants trained													n/a	n/a	JE :Ogawa		
1.4.6	Implement 16th Regular Training (Bituminous)	20 participants trained													n/a	n/a	JE :Tokunaga, Ogawa		

### **RM D** Tentative PO(APO) for the Extended Period proposed by the Project

Activi	iesof the PDM and its sub-Activities	Expected results	TI	FY 2		hedu 9/10	le fo	r the			ed Pe		t		Person in charge	Implementers (Tanzanian			
		for the Extended Period		Ĺ					-Y20	)10	. 5 101				(Tanzanian side)	side)	Other major	inputs	Remarks
				1	Т	Calle	П	П	1	П			t	011					
1.5	To develop a monitoring and evalua	tion system	Mar	Ap	Ма	y Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	ditto		Japanese JE: Umiguchi,	Tanzanian	
	which includes feedback from actual construction works, and make the sy functioned well by updating the train	field of LBT road stem well													ditto		Tokunaga, Ogawa		
1.5.1	Review and simplify the M& E formats for premonitoring, ongoing monitoring and post monitoring	A set of formats approved by the Principal													Mtete	Mtee	JE: Umiguchi, Ogawa		
1.5.2	Review and improve a format for post-monitorig	Improved format approved by the Principal							_						Mtete	Mtee	JE :Ogawa		
1.5.3	Develop M & E plan for TFY 2010/11	M &E plan developed										Г			Mtete	Mtee	JE :Ogawa		
	Monitor the ILO training in Mtwara (1) based on the manual														Mtete	Mtee	JE :Tokunaga		
а	Ongoing monitoring				1										Mtete	Given	JE :Tokunaga		Monitoring conducted in old
b	Post-monitoring			<b></b>				<b></b>		<u> </u>	 !	†	ļ		Mtete	Given	JE :Ogawa		ways
1.5.5	Monitor PMO-RALG training Phase 1						<b></b>			<b></b>		<b></b> -			Mtete		JE: Umiguchi, Tokunaga, Ogawa	<b></b>	
а	Ongoing monitoring at trial sites in Mbeya and Tabora			ļ		-				ļ		ļ			Mtete	Mtete, Mkatasa,Henry Sango	JE: Umiguchi		
	Post-monitoring of the ex-trainees of Mbeya and Tabora														ditto	ditto	JE: Umiguchi		
С	Ongoing monitoring at trial contract sites in other 3 Regions									-					ditto	ditto	JE :Ogawa		
d	Post-monitoring in other 3 Regions									<b></b>		<b>†</b>	_		ditto	ditto	JE :Ogawa		
1.5.6	Monitor 15th Regular training														Mtete		JE: Umiguchi, Tokunaga, Ogawa		ditto
а	Pre-monitoring			<b>†</b>	<b> </b>	<del> </del>	<b></b> -	<b> </b>		†		†	<b>†</b>		Mtete	<b></b>	JE: Umiguchi		
b	On-going monitoring									ļ					ditto	Mtete	JE: Umiguchi, Tokunaga, Ogawa		Post-monitoring would be conducted in March 2011
1.5.7	Monitor 14th Regular training														Mteet		JE :Ogawa		
а	Post-monitoring														Mtete	Mtete	JE :Umiguchi		
	Monitor Mobile Training in Bagamoyo														Mtete		JE: Umiguchi, Tokunaga, Ogawa		
	Pre-monitoring														Kasimba	Kasimba	JE: Umiguchi		
b	On-going monitoring														ditto	Kasimba	JE: Umiguchi, Tokunaga		Post-monitoring would be conducted in March 2011
	Conduct post assessment through Pilot Projects at Rungwe and Mbozi in Mbeya Region														Mtete		JE: Tokunaga (Ogawa)		
а	Develop a post assessement form on ex-trainees performance in actual work	Post assessment form developed													Majaruwa	Majaruwa, Mkatasa, Henry	JE (Fukubayasi) LAC (Local consultant)		Post assessment form is developed based on the assessment form of practical training
b	Conduct post assessement (Maintenance) in Rungwe	Post assessment conducted using the form		ļ		T						ļ			ditto	Majaruwa, Mkatasa, Henry	ditto		
С	Develop a Pilot Project Report (Post-assessment Report) on Maitenance	Report developed in one month after completion of the Pilot Project													ditto	Majaruwa, Mkatasa, Henry	ditto		Report includie recommendations for improvement o training courses
d	Conduct post assessement through Pilot Project (Rehabilitation) in Rungwe	Post assessment conducted using the form		ļ		<b>†</b>		<b></b> -		F	 	<u> </u>			ditto	Majaruwa, Mkatasa, Henry	JE (Takahashii) LAC (Local consultant)		
е	Develop a Pilot Project Report (Post-assessment Report) on Rehabilitation	Report developed in one month after completion of the Pilot Project				<u> </u>						-		<u> </u>	ditto	Majaruwa, Mkatasa, Henry	ditto		Report includie recommendations for improvement of training courses
	Prepare Training Evaluation Report based on the monitoring results, technical review (Activity1.2.1) and telephone advice (Activity 1.6.6)	Report approved by the Principal by Feb													Mtete	Mtete, Given, Kshimba	JE : Umiguchi, Tokunaga, Ogawa		Report include the recommendations for imrovement of the training courses
	Improve the training programme based on the reccomencation of the Training Evaluation Report														Mtete				
a	Improve Curriculum and syllabus	All curriculem/syllabus updated (6 in total)							•••					İ	Mtete	Mtete,Given, Kashimba	JE: Tokunaga, Ogawa		
b	Improve texts	All standard texts updated (7 in total)		1	Τ	1	Ī	<u> </u>				ļ	F	$\vdash$	Mtete	ditto	ditto		

### **RM D** Tentative PO(APO) for the Extended Period proposed by the Project

Activi	tiesof the PDM and its sub-Activities	Expected results			Sche		for t	the E							Person in charge	Implementers (Tanzanian			
		for the Extended Period	Ti	FY 2	009/1	)		JF	• •	Y 20	010/	11			(Tanzanian side)	side)	Other major	inputs	
		T CHOC			Cal	lende	or V						20	11	Side)			·	Remarks
				Г		T	Т	1	_ T			Г							
			Mar	Ap	May J	un J	ul /	Aug S	Sep	Oct	Nov	Dec	Jan	Feb			Japanese	Tanzanian	
	To develop a function in M&E system technical support to the stakeholders practical utilization of the knowledge acquired in the training in ATTI	s of LBT for the													РМ	Mtete	JE (Tokunaga)		
	consultation service	(1)Unit/section in charge identified by Aug (2)Contact persons identified by Aug					-								РМ		JE :Tokunaga)		
	format for advice record	format developed by Sep													Mombo/Mtet e	Mombo/Mtete	JE :Ogawa		
1.6.3	Compile the data of the ex-trainees	Data compiled by Sep													Mombo	Mombo	JE :Ogawa		
1.6.4	service to ex-trainees	(1) Information on telephone advice service included in the news letters (2) Telephone advice service promoted at each training							1	•••	•••		••		Mombo	Mombo	JE :Ogawa, Tokunaga		
1.6.5		Each consultation recorded in prescribed format								•••	•••				Mombo	Mombo	ditto		
	the regular meetings of ATTT	to regular meetings													е		ditto		
	Prepare a report on telephone advice as part of the Training Evaluation Report														е	Mombo/Mtete	JE (Umiguchi)		
1.6.8	Modify the manual and format as needed														Mombo/Mtet e	Mombo/Mtete	JE (Tokunaga, Ogawa)		

### **RM D** Tentative PO(APO) for the Extended Period proposed by the Project

Activi	tiesof the PDM and its sub-Activities	Expected results			Sch	edul	e fo	the	Exte	ende	d Pe	eriod			Person in charge	Implementers (Tanzanian			
		for the Extended Period	TF	FY 2	009/	10		15		FY 2	010/	11			(Tanzanian side)	side)	Other major	inputs	
		1 Cilou			С	aller	nder		r 20′	_			20	11	side)				Remarks
			Mar	Ар	Г	Jun			Sep		Nov	Dec		Feb			Japanese	Tanzanian	
Outpu	it 2: ATTI takes a leading role to pr	omote LBT			_										Emmanuel W.		JE(Tokunaga)		
aware in Tar	ness and become a focal point of azania.	related partners													Raphael				
2.1	To assist in setting up an unit for LB ATTI.	T promotion in																	
2.2	To coordinate and strengthen the re relevant authorities and institutions ( educational institutions, registered o private sector, accreditation authority	technical rganization in the													Mombo		JE(Tokunaga、 Ogawa) JOCV		
2.2.1	Participate in the National Exhibition in Mwanza														Mombo	Mombo+JOCV	JE(Tokunaga Ogawa)		
2.2.2	Participate in the National Exhibition in Dodoma														Mombo	Mombo+JOCV	JE(Tokunaga Ogawa)		
2.3	To collect and accumulate knowledge experiences on LBT utilization within country																		
2.3.1	Purchase LBT related documents from ILO														Mombo	Mombo	JE (Tokunaga)		
2.4	To prepare publicity material for the sector partners	public and private													ditto		JE (Tokunaga)		
	Publish semi-annual news letters														Mombo		JE (Tokunaga)		
а	Prepare news letters	Draft approved by **								•					Mombo	Mombo	JE (Ovawa)		
b	Distribute news letters to the stakeholders	Distributed to ****													Mombo	Mombo	JE (Ovawa)		
2.4.2	Produce the second promotion DVD on LBT														Mombo	Mombo	JE (Tokunaga)		
а	Plan for production of DVD					F									Mombo	Mombo	JE (Tokunaga)		
b	Produce DVD	30-minute DVD produced		 	<b></b>	<u> </u>			<u> </u>						Mombo	Mombo	JE (Tokunaga)		
С	Distribute copies of DVD at the final roll out seminar	200 copies disributed to LGAs and ohters		<u> </u>		<u> </u>				<u> </u>					Mombo	Mombo	JE (Tokunaga),		
2.5	To carry out targeted awareness campaigns and sensitization seminars														ditto				
2.5.1	Prepare for a roll out seminar on LBT									• • •	•••				Mombo	Mombo	JE (Ogawa)		
2.5.2	Conduct the seminar	Seminar conducted													Mombo	Mombo	JE (Tokunaga, Ovawa)		
2.5.2	Prepare a seminar report	Seminar report submitted to PM													Mombo	Mombo	ditto		
2.6	Conduct a case study on LBT equip ATTI through Pilot Projects implmen 1.5.9														PM		JE (Tokunaga,/Ovawa)		
2.6.1	Develop an action plan on equipment lease system at ATTI	1	_												Mahango	Mahango	JE (Uzawa)		
	Counduct a case study through Pilot Project on maintenance														Majaruwa	Majaruwa	JE (Tokunaga/Ovawa)		
	Prepare a case study report as part of the Pilot Project Report														Majaruwa	Majaruwa	JE (Ogawa)		
	Conduct a case study through Pilot Project on rehablitation														Majaruwa	Majaruwa	JE(Iwasa)		
	Prepare a case study report as part of the Pilot Project Report														Majaruwa	Majaruwa	JE (Tokunaga, Ovawa)		
2.5.6	Disseminate the results of the case studies at the final semina														Majaruwa	Majaruwa	ditto		
	ivities related to Project gement																JE(Tokunaga)		
0.1	Organize JCC at least once a year														PM (Raphael)	Emmanuel W. Raphael	JE(Tokunaga, Ogawa)		
0.2	Prepare progress report and annual report of ATTI														Given	Given	JE (Tokunaga, Ogawa, Umiguchi)		
	Prepare progress report for TFY 2009/10													_	Given	Given	JE (Tokunaga, Ogawa, Umiguchi)		
0.2.2	Prepare annual report for TFY 2009/10			<u> </u>		• • •		•••							Given	Given	JE (Tokunaga,Ogawa )	}	

### APPENDIX-IV: PDM ver 3

1. Project Period: 4 years and 10months (May 2006 - February 2011)
2. Supervising Organization: Ministry of Infrastructure Development, Implementing Organization: Appropriate Technology Training Institute (ATTI), Ministry of Infrastructure Development
3. Project Location: ATTI in Rungwe District, Mbeya Region
4. Target Group: (1) Direct Target: ATTI staff, ATTI trainees (from LGA. Contractors, Consultants, TANROADS, Community Groups (1) Direct Target: ATTI staff, ATTI trainees (from LGA. Contractors, Consultants, TANROADS, Community, Groups, 1) Direct Target: ATTI staff, ATTI trainees (from LGA. Contractors, Consultants, TANROADS, Community, Groups, 1) Direct Target: ATTI staff, ATTI trainees (from LGA. Contractors, Consultants, TANROADS, Community, Groups, 1) Direct Target: ATTI staff, ATTI trainees (from LGA. Contractors, Consultants, TANROADS, Community, Groups, 1) Direct Target: ATTI staff, ATTI trainees (from LGA. Contractors, Consultants, TANROADS).

<ol> <li>Target Group: (1) Direct Target: ATTI staff, ATTI trainees (from LGA, Contractors,</li> </ol>	ainees (from LGA, Contractors, Consultants, TANROADS, Community Groups, etc), (2)Indirect Target: People in the community around the LBT road work sites	(2)Indirect Target : People in the community arou	and the LBT road work sites
Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important
SuperGoal  The Project will contribute to economic development and poverty reduction through the proper construction and maintenance of rural road and by creating employment in infrastructure investments and optimizing the uses of local resources with emphasis on LB	a : Number of employment created by the construction and maintenance of infrastructure works using LBT b: Total number of kilometers of rural road improved, maintained or constructed using LBT c: Optimized utilization of local resources (such as stone, sand, etc) d: Activation of villages and rural community through rural road construction and maintenance e: Community contribution (such as manpower, materials, etc) f: Impacfunfluence toward boverty reduction	* NSGRP (National Strategy for Growth and Reduction of Poverty) Implementation Reports * Interview and Questionnaire to Stakeholders including LGAs * Policy documents	
Overall Goal  LBT trainees (e.g, LGA, Contractors, Consultants, TANROADS, Community Groups, etc) are able to plan, design and implement infrastructure works using LBT	a: The ex-trainees can adapt the skills and knowledge to different situation and transmit it to the people he/she has to work with.) b: Xkilometers rural road constructed, and/or maintained using LBT	* Interview and Questionnaire to Stakeholders including LGA * NRTP Reports (Road improvement adopted LBT) * Policy documents (e.g., TULS Reports) * Training Programme Evaluation Reports	Road Fund provides the road maintenance budget substantially and timely to TANROADS and PORALG.
Project Purpose  ATTI has an appropriate capacity for training provision and overall coordination as a national training institute for LBT in Tanzania	a: Number of courses and participants trained by ATTI increased compared with the one before the Project c: Evaluation from related stakeholders on ATTI improved b: Number of visitors to the Principal's Office of ATTI increased compared with the one in TFY 2006 d: Standardizing training curriculum and module for LBT e: Evaluation of ATTI in "Taking the use of LBT to Scale" report	*Training Record  * Annual Report of ATTI  * ATTI Visitor Book  * Interview and Questionnaire to Trained Personnel/Stakeholders including LGA  * Evaluation Reports (Study on customer satisfaction)  * Training curriculum, module, syllabus  * Report of "Taking the use of LBT to Scale"  * Reports on ex-trainees' performance	Local Government Transport Programme (LGTP) is implemented as scheduled, particularly PMO-RALG well coordinatee the stakeholders.
Output 1:  The function of executing qualified LBT training is ready at ATTI and the practical training implements regularly.	<ul> <li>1a: Training curricula and syllabuses for ATTI developed &amp; reviewed</li> <li>1b: Training materials and standard documents developed and disseminated</li> <li>1c: Number of various training courses and trainees at ATTI</li> <li>1d: ATTI Trainers/Instructors' ability increased through TOTs</li> <li>1e: ATTI's institutional function strengthened</li> <li>1f: Establishment of Training Monitoring and Evaluation System at ATTI, gr. Implementation of M&amp;E analysis on trainees' performances both during training courses and in the post-training period</li> <li>1h: Developed function for provision of technical support on LBT</li> <li>1i: Evaluation from the trainees become higher compared with the one in the beginning of the Project.</li> <li>1j: Upgrading on ATTI Facility and Equipment as a Training Institute</li> </ul>	* Annual Report of ATTI * Organizational & Training Structure on ATTI ATTI * Annual Training Plan * Training Record, Training curriculum, Training Materials * Interview and Questionnaire to Trained Personnel / Stakeholders including LGA * Training Programme Evaluation Reports * Record of ATTI Facility & Equipment	Trained personnel remain in their working organization and can utilize the training results.  Local Government Transport Programme (LGTP) is implemented as scheduled, particularly the intension and role of PMO-RALG is clarified and PMO-RALG well coordinates

### APPENDIX-IV: PDM ver 3

Output 2:  ATTI takes a leading role to promote LBT awareness and become a focal point of related partners in Tanzania.	2a: Various promotion of L LBT Publicity by media, 2b: Reference related to L increased 2c: Awareness to Decision on LBT raised numbers organized by ATTI etc) 2d: ATTI certificate be consid LBT contractors.	2a: Various promotion of LBT derived from ATTI (e.g., ATTI Website, LBT Publicity by media, etc) conducted 2b: Reference related to LBT and LBT Training from related Institutions increased 2c: Awareness to Decision Makers, Public and Private Sector Partners on LBT raised numbers of people attending campaign & seminar organized by ATTI etc) 2d: ATTI certificate be considered as one of the necessary conditions to register LBT contractors.	* ATTI Website  * Public Relation Record  * Media programme on LBT promotion  * Annual Report of ATTI  * Interview and Questionnaire to Stakeholders including LGA & Private Contractors  * Policy documents (e.g., TULS Report)	stakeholders.
Activities  1. To restructure the organization and enhance capacity of the staff in order to provide qualified training.  1.2 To review and develop curriculum, syllabus and training programme and prepare training materials through identifying the target group of the training and training partners.  1.3 To prepare strategy and operational plan for Mobile training units  1.4 To implement the annual training programmes  1.5 To develop a monitoring and evaluation system, which includes feedback from actual field of LBT road construction works, and make the system well functioned well by updating the training program.  1.6 To develop a function in M&E system to provide technical support to the stakeholders of LBT for the practical utilization of the knowledge and skills acquired in the training in ATTI.  2.1 To assist in setting up an unit for LBT promotion in ATTI.  2.2 To coordinate and strengthen the relationship with relevant authorities and institutions (technical educational institutions, registered organization in the private sector, accreditation authority, etc)  2.3 To collect and accumulate knowledge and experiences on LBT utilization within and out of the country  2.4 To prepare publicity material for the public and private sector partners  2.5 To carry out targeted awareness campaigns and sensitization seminars  2.6 To conduct a case study on LBT equipment lease at ATTI through Pilot Projects in the private in the partners.	ance capacity of the bus and training last through identifying last through identifying last through identifying last through identifying manes system, which includes onstruction works, and rupdating the training provide technical provide technical last practical utilization of training in ATTI omotion in ATTI omotion in ATTI.  Inship with relevant ucational institutions, ctor, accreditation and experiences on LBT ic and private sector gins and sensitization ent lease at ATTI err Activity 1.5	<ul> <li>Linputs</li> <li>C.Japanese Side&gt; <ul> <li>(1) Assignment of experts</li> <li>The expected subjects are as follows;</li> <li>Institutional management</li> <li>Curriculum and Teaching Material development</li> <li>Training Monitoring and Evaluation</li> <li>(2) Necessary equipment, machinery, materials and vehicles with storage for LBT training at ATTI staff</li> <li>(4) Supplemental operational cost</li> </ul> </li> <li>**Canzanian Side&gt; <ul> <li>Canzanian Side&gt;</li> <li>Canzanian Side&gt;</li> <li>Canzanian Side&gt;</li> <li>Canzanian Side&gt;</li> <li>Canzanian Side&gt;</li> <li>Colpiect Manager</li> <li>(1) Project Director</li> <li>(2) Project Director</li> <li>(3) Other Project Staffs (Training staff &amp; Administrative and clerical personnel)</li> <li>(2) Project Manager</li> <li>(3) Other Project Staffs (Training staff &amp; Administrative and clerical personnel)</li> <li>(3) Other facilities and equipment</li> <li>(4) Land, buildings, and facilities necessary</li> <li>(5) Project Brities of the Japanese experts</li> <li>(6) Office space and necessary facilities for the Japanese experts</li> <li>(7) Office space and necessary facilities for the Japanese experts</li> <li>(8) Running expenses for ATTI management</li> <li>(9) Running expenses for ATTI management</li> <li>(1) Including staff salary, other administrative and operational costs, and training cost for all the relevant equipment, machinery, materials, vehicles and facilities</li> <li>(5) Contact with relevant organizations and its coordination (including set up and manage JCC of the Project)</li> </ul> </li> </ul>	ment  nd vehicles with storage for LBT training at  inistrative and clerical personnel)  or the implementation of the Project he Japanese experts nd operational costs, and training cost oment, machinery, materials, vehicles and ordination (including set up and manage JCC	The finance and budget for attending on LBT training at ATTI are secured in LGA.  Continuous budgetary supports to the ATTI, and highest priority and secure implementation for the Project is ensured by government.  Necessary number of ATTI staff keeps employed.
A I I - Appropriate Technology Training Institute GoT - Government of Tanzania JCC - Joint Coordination Committee LBT - Labour-Based Technology LBTU - Labour-Based Technology Unit LGA - Local Government Authority M&E - Monitoring & Evaluation		MoW - Ministry of Works NSGRP - National Strategy for Growth and Reduction of Poverty NRTP - National Rural Transport Programme PORALG - President's Office - Regional Administration and Local Government R/D - Research and Development TANROADS - Tanzanian National Roads Agency TULS - "Taking the Use of Labour Based Technology to Scale"	Reduction of Poverty e ministration and Local Government gency	

2/2

Activi	tiesof the PDM and its sub-Activities	Expected			Sch	nedu	le fo	r the	Exte	ende	d Pe	erioc	1		Person in	Implementers			
	results for the Extended		TI	FY 2	009	/10			TF	FY 2	010/	11			charge (Tanzanian	(Tanzanian side)	Other major inputs		
	Period			JFY2010  Callender Year 2010 2011											side)		Other major inputs		Remarks
					(	Calle	nder	Yea	r 20	10			20	)11					
			Mar	Ap	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb			Japanese	Tanzanian	
	ut 1: The function of executing														PM( Raphael)		JE:Tokunaga		
	training is ready at ATTI and t ing implements regularly.	the practical																	
						<u> </u>									PM (Raphael)	/	JE: Tokunaga		
1.1	To restructure the organization and of the staff in order to provide qualifi																(Ogawa)		
1.1.1	Conduct TOT for trainers														PM		JE :Tokunaga		
а	TOT on quallity control at Dar es Salam	(1)All trainers trained (13 in total) (2)A TOT report prepared in one month													РМ	PM	JE :Ogawa LAC :Training fee for TANROAD		
b	TOT on Do-nou in Mbeya	ditto				Ī				F					PM	PM	JE :Fukubayasi		
c	OJT through Pilot Project on maintenance in Rungwae conducted under 1.5.9	(1) X ATTI trainers trained (2) OJT report developed as part of the Pilot Project Report	1 <del></del>				ı			•					PM	PM	JE :Fukubayasi		OJT on planning and design, contract management, supervision and insepction
d	OJT through Pilot Project on rehabilitation in Mbozi conducted under 1.5.9	ditto													PM	PM	JE:Takahashi		ditto
	To review and develop curriculum, s training programme and prepare trai through identifying the target group training partners.	ining materials																	
1.2.1	Conduct technical review of the curriculm/text developed by the Project	All the curriculum (6) and texts (7) reviewd													Given	Given	JE :Tokunaga (Ogawa)		
1.3	To prepare strategy and operational training units	plan for Mobil													PM	PM, Mtete	JE :Tokunaga		
1.3.1	Review and update the Strategic Plan (2009-2014)	The Plan approved by PM by**				F									РМ	PM, Mtete	JE :Tokunaga (Ogawa)		
1.4	To implement the annual training	ng programme													Mtete		JE :Tokunaga (Ogawa)		
1.4.1	Implement ILO training in Mtwara	X paricipants from LGA and private sector trained													Given	Given	JE :Tokunaga		
1.4.2	Supervise Trial Contracts of PMO- RALG training periodically														Mtete		JE :Tokunaga		
а	Trial sites in Mbeya	Trial contracts in 4 disticts supervised						-							Mtete	Mtete, Mkatasa,Henry Sango	JE :Tokunaga		
b	Trial sites in Tabora	Trial contracts in 4 disticts supervised				[									Mtete	Mtete, Sango	JE :Tokunaga		
С	Trial sites in other 3 Regions	Trial contracts in ***				Ī									n/a	n/a	JE :Ogawa		
1.4.3	Implement 15th Regular training (Road Technician's Cours	20 participants trained													Mtete	Mtete, Mkatasa, Henry	JE :Tokunaga, Ogawa		Only 8 people participated in the training
1.4.4	Implement Mobile training in Bagamoyo	X gang leaders trained													Kasimba	Kasimba	JE :Tokunaga		
1.4.5	Plan and implement ILO training (2) in Lindi	X participants trained													n/a	n/a	JE :Ogawa		
1.4.5	Plan and implement PMO- RALG/LBT Training programme(2)	X participants trained										L			n/a	n/a	JE :Ogawa		
1.4.6	Implement 16th Regular Training (Bituminous)	20 participants trained													n/a	n/a	JE :Tokunaga, Ogawa		

Activities of the PDM and its sub-Activities		Expected results for the Extended Period	TI	Schedule for the Extended Period   Person												Implementers (Tanzanian side)	Other major inputs		
		Period			(	Calle	nder		r 20				20	)11	side)				Remarks
			Mar	Ар	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb			Japanese	Tanzanian	
1.5	To develop a monitoring and evalua which includes feedback from actua construction works, and make the sy functioned well by updating the train	I field of LBT road stem well				Г									ditto		JE: Umiguchi, Tokunaga, Ogawa		
1.5.1	Review and simplify the M& E	A set of formats				-		_	┢					┢	Mtete	Mtee	JE: Umiguchi,		
	formats for premonitoring, ongoing monitoring and post monitoring	approved by the Principal															Ogawa		
1.5.2	Review and improve a format for post-monitorig	Improved format approved by the Principal							_						Mtete	Mtee	JE :Ogawa		
1.5.3	Develop M & E plan for TFY 2010/11	M &E plan developed													Mtete	Mtee	JE :Ogawa		
1.5.4	Monitor the ILO training in Mtwara (1) based on the manual														Mtete	Mtee	JE :Tokunaga		
а	Ongoing monitoring														Mtete	Given	JE :Tokunaga		Monitoring conducted in old ways
b	Post-monitoring									_					Mtete	Given	JE :Ogawa		
1.5.5	Monitor PMO-RALG training Phase 1														Mtete		JE: Umiguchi, Tokunaga, Ogawa		
а	Ongoing monitoring at trial sites in Mbeya and Tabora					_									Mtete	Mtete, Mkatasa,Henry Sango	JE: Umiguchi		
b	Post-monitoring of the ex-trainees of Mbeya and Tabora					<u></u>									ditto	ditto	JE: Umiguchi		
	Ongoing monitoring at trial contract sites in other 3 Regions														ditto	ditto	JE :Ogawa		
d	Post-monitoring in other 3 Regions														ditto	ditto	JE :Ogawa		
1.5.6	Monitor 15th Regular training														Mtete		JE: Umiguchi, Tokunaga, Ogawa		ditto
а	Pre-monitoring		<b> </b> -	ļ	†	_		<b>†</b>	<b>†</b>	<b> </b>	<b>†</b>				Mtete		JE: Umiguchi		
b	On-going monitoring	***************************************				<b></b>		<u> </u>	-	<b></b> -					ditto	Mtete	JE: Umiguchi, Tokunaga, Ogawa		Post-monitoring would be conducted in March 2011
1.5.7	Monitor 14th Regular training														Mteet		JE :Ogawa		iii Maloii 2011
а	Post-monitoring														Mtete	Mtete	JE :Umiguchi		
1.5.8	Monitor Mobile Training in Bagamoyo														Mtete		JE: Umiguchi, Tokunaga, Ogawa		
а	Pre-monitoring					F	Г								Kasimba	Kasimba	JE: Umiguchi		
b	On-going monitoring							F	•						ditto	Kasimba	JE: Umiguchi, Tokunaga		Post-monitoring would be conducte in March 2011
1.5.9	Conduct post assessment through Pilot Projects at Rungwe and Mbozi in Mbeya Region														Mtete		JE: Tokunaga (Ogawa)		iii warcii 2011
а	Develop a post assessement form on ex-trainees performance in actual work	Post assessment form developed													Majaruwa	Majaruwa, Mkatasa, Henry	JE (Fukubayasi) LAC (Local consultant)		Post assessment form is developed based on the assessment form of practical trainin
b	Conduct post assessement (Maintenance) in Rungwe	Post assessment conducted using the form				<b></b>		<u> </u>			<b></b> -				ditto	Majaruwa, Mkatasa, Henry	ditto		
	Develop a Pilot Project Report (Post-assessment Report) on Maitenance	Report developed in one month after completion of the Pilot Project													ditto	Majaruwa, Mkatasa, Henry	ditto		Report includie recommendations for improvement training courses
d	Conduct post assessement through Pilot Project (Rehabilitation) in Rungwe	Post assessment conducted using the form										F			ditto	Majaruwa, Mkatasa, Henry	JE (Takahashii) LAC (Local consultant)		
е	Develop a Pilot Project Report (Post-assessment Report) on Rehabilitation	Report developed in one month after completion of the Pilot Project							1					•	ditto	Majaruwa, Mkatasa, Henry	ditto		Report includie recommendations for improvement training courses
1.5.10	Prepare Training Evaluation Report based on the monitoring results, technical review (Activity1.2.1) and telephone advice (Activity 1.6.6)	Report approved by the Principal by Feb												F	Mtete	Mtete, Given, Kshimba	JE : Umiguchi, Tokunaga, Ogawa		Report include the recommendations for imrovement of the training courses
	Improve the training programme based on the reccomencation of the Training Evaluation Report														Mtete				
	Improve Curriculum and syllabus	All curriculem/syllabus updated (6 in total)							• • •		•••				Mtete	Mtete,Given, Kashimba	JE: Tokunaga, Ogawa		
b	Improve texts	All standard texts updated (7 in total)						_			•••	٠		H	Mtete	ditto	ditto		]

### Tentative Annual Plan of Operation

Activities of the PDM and its sub-Activities   Expected   Schedule for the Extended Period   Person in   Implementers																			
Activi	Activities of the PDM and its sub-Activities Expected results for the Extended Period				Sch	edul	le fo	r the	Exte	ende	d Pe	riod			Person in charge	Implementers (Tanzanian			
			TFY 2009/10 TFY 2010/11												(Tanzanian	side)	Other major inputs		
			JFY2010												side)		Other major	Demorts	
					С	aller	nder	Yea	r 201	10			20	11					Remarks
										Ė									
			Mar	Ap	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb			Japanese	Tanzanian	
1.6	To develop a function in M&E syster technical support to the stakeholders practical utilization of the knowledge	s of LBT for the													PM	Mtete	JE (Tokunaga)		
	acquired in the training in ATTI																		
	consultation service	(1)Unit/section in charge identified by Aug (2)Contact persons identified by Aug													PM		JE :Tokunaga)		
1.6.2	Develop a simple manual for telephone adive service with a format for advice record														Mombo/Mtet e	Mombo/Mtete	JE :Ogawa		
	compile are data of the ox damese	Data compiled by Sep													Mombo	Mombo	JE :Ogawa		
1.6.4	Promote the telephone advice service to ex-trainees	(1) Information on telephone advice service included in the news letters (2) Telephone advice service promoted at each training											•••	•	Mombo	Mombo	JE :Ogawa, Tokunaga		
1.6.5	Record the telephone advice in the format	Each consultation recorded in prescribed format								• • •	•••				Mombo	Mombo	ditto		
	the regular meetings of ATTT	to regular meetings									•••			••	е		ditto		
1.6.7	Prepare a report on telephone advice as part of the Training Evaluation Report														е	Mombo/Mtete	JE (Umiguchi)		
1.6.8	Modify the manual and format as needed	-													Mombo/Mtet e	Mombo/Mtete	JE (Tokunaga, Ogawa)		

### Tentative Annual Plan of Operation

Activi	tiesof the PDM and its sub-Activities	IENTATIVE ANNUAL Plan of Operation  sub-Activities																	
	results for the Extended		TF	Y 2	009/		1	0			010/				charge (Tanzanian	(Tanzanian side)			
		Period							Y20						side)		Other major	inputs	Remarks
					С	aller	nder	Yea	r 20 <sup>-</sup>	10	1		20	11					
			Mar	Ap	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb			Japanese	Tanzanian	
	Output 2: ATTI takes a leading role to promote LBT														Emmanuel W. Raphael		JE(Tokunaga)		
	eness and become a focal point of examia.	related partners																	
2.1	To assist in setting up an unit for LB	T promotion in																	
	ATTI.																		
2.2	To coordinate and strengthen the re relevant authorities and institutions (														Mombo		JE(Tokunaga、 Ogawa)		
	educational institutions, registered o	rganization in the															JOCV		
	private sector, accreditation authority	y, etc)																	
2.2.1	Participate in the National Exhibition in Mwanza					,									Mombo	Mombo+JOCV	JE(Tokunaga、 Ogawa)		
2.2.2	Participate in the National														Mombo	Mombo+JOCV	JE(Tokunaga		
	Exhibition in Dodoma																Ogawa)		
2.3	To collect and accumulate knowledge experiences on LBT utilization within																		
	country	. and out of the													$\vee$			// I	
2.3.1	Purchase LBT related documents														Mombo	Mombo	JE (Tokunaga)		
2.4	from ILO														-114-		IE /T   \		
2.4	To prepare publicity material for the sector partners	public and private													ditto		JE (Tokunaga)		
2.4.1	Publish semi-annual news letters														Mombo		JE (Tokunaga)		
а	Prepare news letters	Draft approved by **							_						Mombo	Mombo	JE (Ovawa)		
b	Distribute news letters to the	Distributed to ****					ļ		<b></b> -			ļ			Mombo	Mombo	JE (Ovawa)		
	stakeholders																		
2.4.2	Produce the second promotion DVD on LBT														Mombo	Mombo	JE (Tokunaga)		
а	Plan for production of DVD					_									Mombo	Mombo	JE (Tokunaga)		
b	Produce DVD	30-minute DVD					ļ		ļ		ļ	ļ	ļ		Mombo	Mombo	JE (Tokunaga)		
		produced										<u> </u>							
С	Distribute copies of DVD at the final roll out seminar	200 copies disributed to LGAs and ohters												_	Mombo	Mombo	JE (Tokunaga),		
2.5	To carry out targeted awareness														ditto				
	campaigns and sensitization seminars																		
2.5.1	Prepare for a roll out seminar on LBT									• • •	•••	•••			Mombo	Mombo	JE (Ogawa)		
2.5.2	Conduct the seminar	Seminar conducted													Mombo	Mombo	JE (Tokunaga,		
2.5.2	Conduct the Seminar	Serminal conducted														WOITIDO	Ovawa)		
2.5.2	Prepare a seminar report	Seminar report submitted to PM													Mombo	Mombo	ditto		
2.6	Conduct a case study on LBT equip	ment lease at													PM		JE (Tokunaga./Ovawa)		
	ATTI through Pilot Projects implmen 1.5.9	ited under Activity															(Tokunaga,/ Ovawa)		
2.6.1	Develop an action plan on											$\vdash$			Mahango	Mahango	JE (Uzawa)		
250	equipment lease system at ATTI											L			Major	Majaruwa	JE		
2.5.2	Counduct a case study through Pilot Project on maintenance							_	Н						Majaruwa	iviajaruwa	(Tokunaga/Ovawa)		
2.5.3	Prepare a case study report as part									F					Majaruwa	Majaruwa	JE (Ogawa)		
2.5.4	of the Pilot Project Report  Conduct a case study through Pilot											_			Majaruwa	Majaruwa	JE(Iwasa)		
2.0.4	Project on rehabilitation											H							
2.5.5	Prepare a case study report as part														Majaruwa	Majaruwa	JE (Tokunaga, Ovawa)		
2.5.6	of the Pilot Project Report  Disseminate the results of the case			-								$\vdash$		_	Majaruwa	Majaruwa	ditto		
	studies at the final semina			L								L							
	ivities related to Project																JE(Tokunaga)		
0.1	Organize JCC at least once a year														PM (Raphael)	Emmanuel W. Raphael	JE(Tokunaga, Ogawa)		
0.2	Prepare progress report and annual											$\vdash$		_	Given	Given	JE (Tokunaga,		
024	report of ATTI Prepare progress report for TFY											_			Given	Given	Ogawa, Umiguchi) JE (Tokunaga,		
	2009/10										• • •	<b></b>	• • •	_	- GIVOII	G. VOI1	Ogawa, Umiguchi)		
0.2.2	Prepare annual report for TFY 2009/10								_			<u> </u>	Ī		Given	Given	JE (Tokunaga,Ogawa		***************************************
	2009/10																)		

