

タンザニア国  
ダルエスサラーム都市交通改善能力向上プロジェクト  
プロジェクト業務完了報告書

平成25年1月  
(2013年)

独立行政法人  
国際協力機構 (JICA)

株式会社 国際開発センター  
株式会社 オリエンタルコンサルタンツ  
株式会社 エイト日本技術開発

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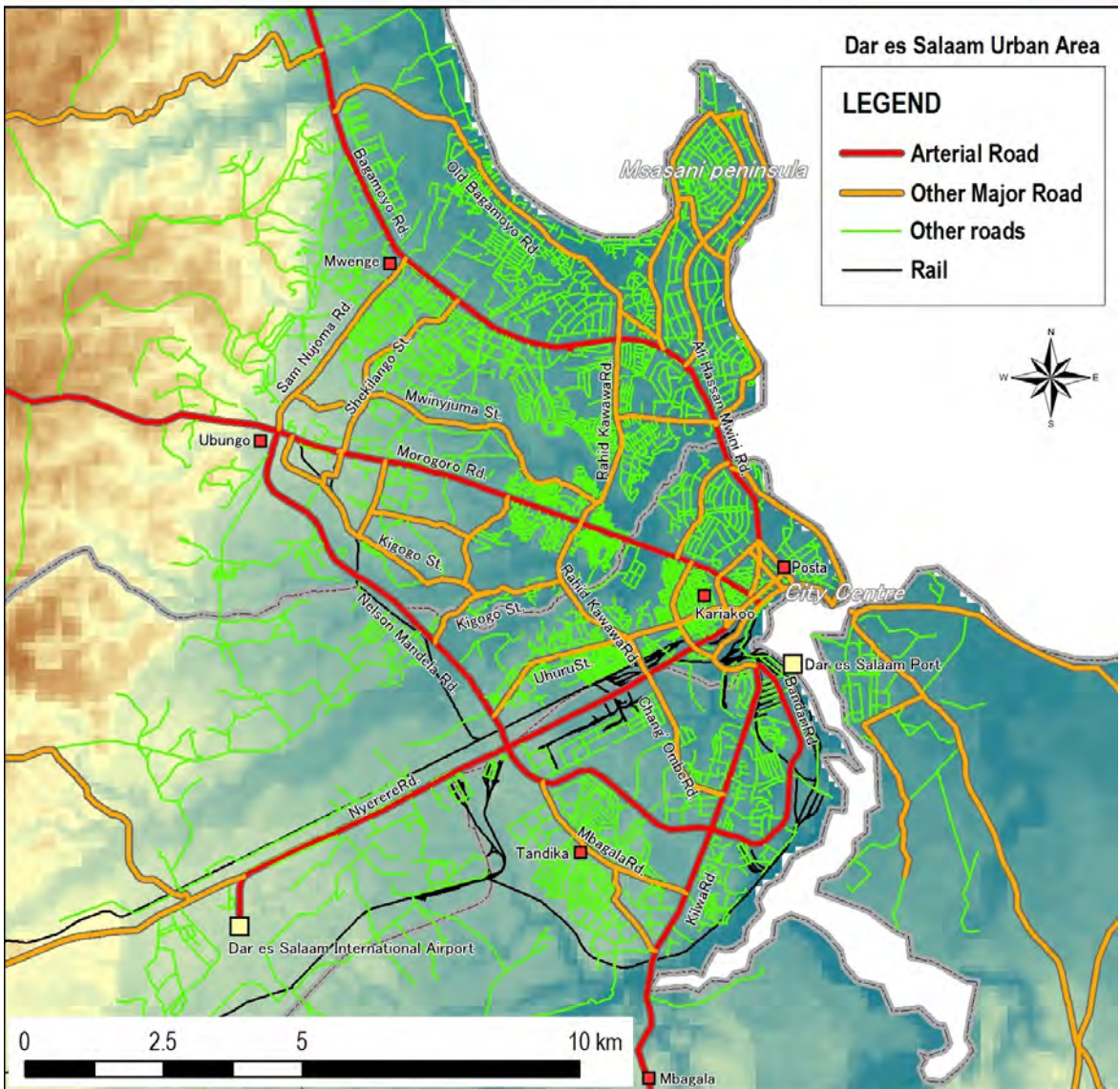
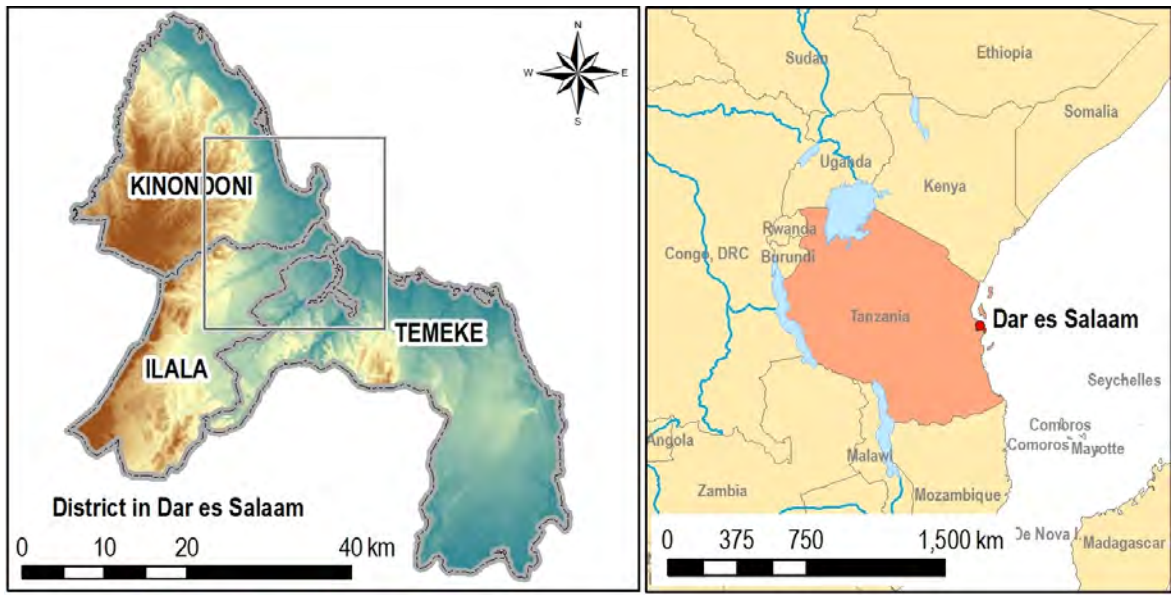
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通貨換算率

通貨	交換レート (/US\$)
タンザニア・シリング (Tshs)	1,579
日本円	82.11

(2012年12月)



プロジェクト対象位置図



DCCにおける事務局会議（問題分析ワークショップ）の様子



NITにおける交通計画研修の様子



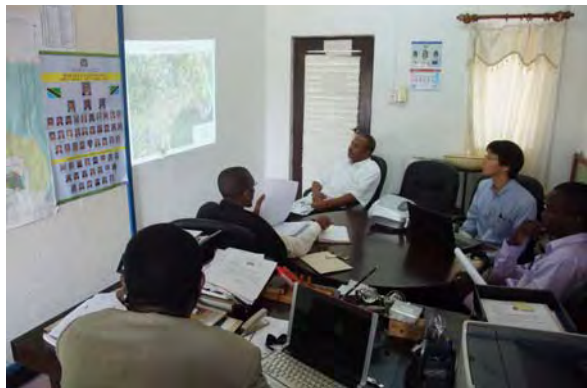
第1回協議会の様子



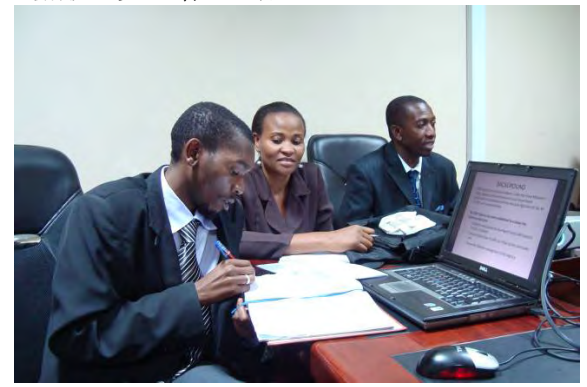
州道路会議の様子  
プロジェクト活動写真



NIT における OJT の様子



中心市街地の交通改善計画の協議と現地踏査の様子



DART におけるプロジェクト周知活動の様子



ヨハネスブルグ市における第 3 国研修の様子 (1)

プロジェクト活動写真



ヨハネスブルグ市における第3国研修の様子 (2)



NITにおける交通政策研修の様子



プロジェクトの関係者会議の様子 (左: バス関連機関、右: 世銀、地方自治省)



第2回協議会の様子  
プロジェクト活動写真



世銀の DMDP ワークショップの様子



中心市街地の交通改善計画の現地踏査の様子



OJT による交通調査の様子



第 4 回協議会の様子



DCC から専門家チームへのメダル授与  
プロジェクト活動写真



# タンザニア国ダルエスサラーム都市交通改善能力向上プロジェクト

## プロジェクト業務進捗報告書

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## 略語集

BRT	Bus Rapid Transit
CBD	Central Business District
C/P	Counterpart
DART	Dar es Salaam Rapid Transit
DCC	Dar es Salaam City Council
DMDP	Dar es Salaam Metropolitan Development Project
DSM	Dar es Salaam
DSM-RAS	Dar es Salaam - Regional Administrative Secretary
DUTA	Dar es Salaam Urban Transport Agency
ERB	Engineer Registration Board
HQ	Headquarter
JICA	Japan International Cooperation Agency
JCC	Joint Coordination Committee
MOF	Ministry of Finance
MOHAS	Ministry of Home Affairs and Security
MOLHSD	Ministry of Lands, Housing and Human Settlement Development
MOT	Ministry of Transport
MOW	Ministry of Works
M/M	Man / Month
M/M	Minutes of Meetings
M/P	Dar Es Salaam Transport Policy and System Development Master Plan
NIT	National Institute of Transport
PDM	Project Design Matrix
PMO	Prime Minister's Office
PMO-RALG	Prime Minister's Office – Regional Administration and Local Government
PO	Plan of Operation
RAS	Regional Administrative Secretary
R/D	Record of Discussions
RFB	Road Fund Board
STRADA	System for Traffic Demand Analysis
SUMATRA	Surface and Marine Transport Regulatory Authority
TANROADS	Tanzania National Roads Agency

## 添付資料

### 資料①PDM

資料②協議会協議資料・議事録

資料③ディスカッションペーパー

第1巻 ダルエスサラーム市都市交通政策案

第2巻 ダルエスサラーム市交通庁の組織制度案

第3巻 中心市街地交通改善計画案

第4巻 市道路改良計画案

資料1 北部バス導入計画案

資料2 民間資金によるターミナル整備計画案

# 第 1 章 プロジェクト概要

## 1.1 プロジェクトの背景・目的・対象地域

### 1.1.1 プロジェクトの背景

かつてタンザニア国の首都であったダルエスサラーム市は、現在も東アフリカの主要な玄関口として機能している。同市の経済生産活動はタンザニア全国の 70% を占め、人口は 300 万人を超えている。他の大都市と同じく都市人口の急速な増加とモーターライゼーションの進展により市内の交通量が増加しており、ダルエスサラーム市の交通混雑の緩和は市の持続的な発展を実現する上での喫緊の課題となっている。

タンザニア政府からの要請を受け、JICA は 2008 年に「ダルエスサラーム総合都市交通体系策定調査」（以降、マスタープランと略す）を実施した。マスタープランで抽出された交通に係る諸問題を以下に整理する。

- ダルエスサラーム市の人口は 2007 年で約 300 万人、70 万世帯（2007 年）であり、今後年平均 2.9% で増加すると予想され、2030 年には 580 万人、150 万世帯に達する。
- ダルエスサラーム市の自家用車の保有台数は 2007 年で 82 千台を数え、自家用車を保有する世帯の割合は全体の 10% である。自家用車の保有率は年平均 8.4% と急激に増加すると予想され、2030 年には市内の自家用車の台数は 52 万台に達すると見込まれる。
- 放射状の幹線道路に沿って進展する都市のスプロール化は、郊外と CBD の間の通勤・通学の交通需要を生み、放射状の幹線道路での深刻な交通混雑を招く。都市交通インフラの不足により、自動車交通混雑や地域経済への負の影響は一層悪化すると思われる。
- 交通需要予測の結果から、2007 年に 25.8km/h であった自動車交通の平均旅行速度は、何ら対策を講じなかった場合、2030 年には 8.5km/h まで低下する。また、マスタープランで提案されたプロジェクトを実施することにより、平均走行速度は 2007 年の水準を維持できると推測された。
- ダラダラの利用客は 2007 年では 180 万人/日以上であり、2030 年にはこのほぼ倍になると予測されている。自動車交通の混雑は悪化し、これに伴い現在の公共交通システム（ダラダラ）ではこの旅客需要を捌ききれない。結果、BRT（高速バスシステム）の導入が、ダルエスサラーム市の公共交通ネットワークの基幹となる。

マスタープランでは、都市交通インフラ整備プロジェクト、交通管理計画および提案された都市交通プロジェクト・施策の実現に必要な能力開発計画を提案している。

ドナーとタンザニア政府は、マスタープランで提案されたプロジェクトに従って、ダルエスサラーム市の道路交通・公共交通のインフラ整備の改善に尽力している。しかしながら、これらのプロジェクトにより改善される交通基盤のキャパシティの増加は、人口や交通量の増加に追いついていないのが現状であり、このため交通混雑は年々悪化する傾向にある。予算



制約の下、関係省庁は、交通混雑の緩和のために、ハードウェアの整備と共に利用可能なインフラを最大限活用するソフトコンポーネントについても検討を始めるべきであり、またこれらのハード・ソフト両面に対応策は、整合性を確保しながら実施する必要がある。タンザニア政府は、これまでも都市交通プロジェクトを積極的に実施してきた。しかしながら、これらのプロジェクトは計画の妥当性や関係機関の調整に問題があり、期待された成果をあげられないでいる。

マスタープランでは、能力開発の一環として、DUTA (Dar es Salaam Urban Transport Authority) の設立が議論、提案された。この広域行政体の設立は、ダルエスサラーム市の都市交通政策・計画の組織横断的な管理と実施促進に貢献すると期待される。しかしながら、DUTA の設立には、関係機関の職掌および予算の再編成が必要であり、現在もなお DUTA の設立には至っていない。

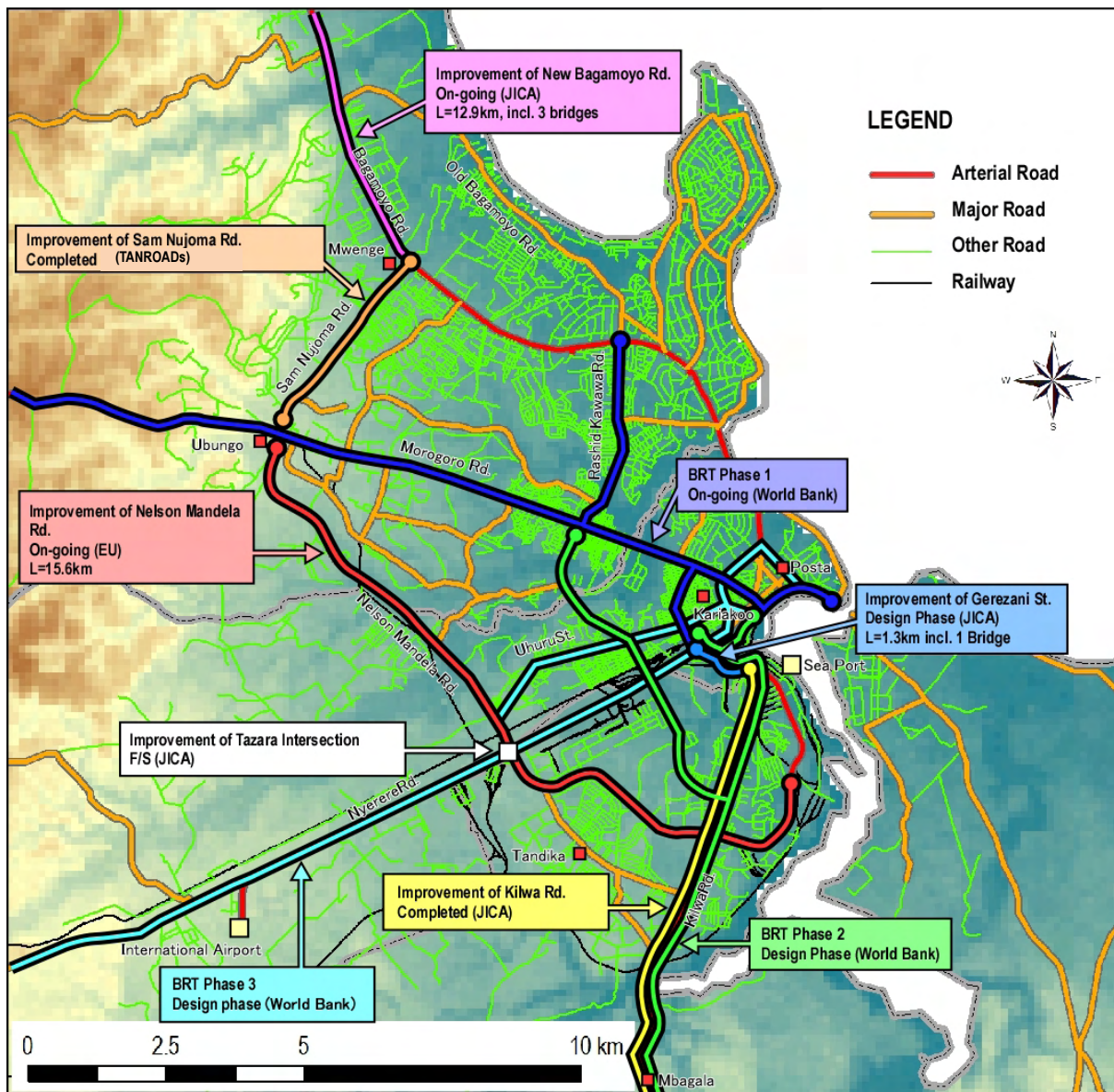


図 1-1 実施中及び計画プロジェクト位置図

## 1.1.2 プロジェクトの目的

「ダルエスサラーム市において都市交通に係る行政体／事業体が、整合性のある計画を立案し、交通プロジェクトを実施できるようになる」こと、その結果「同市において交通渋滞等の都市交通問題が緩和される」ことを上位目標として、都市交通政策と事業の調整機関を設立し、その能力を向上するために、本プロジェクトを実施するものである。

## 1.1.3 プロジェクトの対象地域

本プロジェクトはダルエスサラーム市を対象とする。巻頭に対象位置図を添付した。

# 1.2 プロジェクト目標及び成果指標

## 1.2.1 PDM 及びその変遷

詳細計画策定調査時（2009年12月）に日本国及びタンザニア国政府間で、本プロジェクトの目標や活動を含めたプロジェクトデザインマトリックス（PDM）に係る協議を行い、議事録（RD: Record of Discussion）で合意した。同PDMの概要は以下の通りである。

表 1-1 詳細計画策定調査で合意した PDM

<b>上位目標</b> 1. ダルエスサラーム市の関連機関の交通施策が調整・調和される。 2. ダルエスサラーム市の交通混雑が緩和される。
<b>プロジェクト目標</b> ダルエスサラーム市において都市交通プロジェクトを調整、進捗モニタリングし、その結果をフィードバックするための体制が設立され、機能する。
<b>期待される成果</b> 1) 事務局が都市交通プロジェクトの具体的な調整結果をパイロットプロジェクト（案）として協議会に提案する。 2) 協議会が承認したパイロットプロジェクトの実施を事務局がモニタリング、フィードバックする。 3) プランニング能力を強化する。 4) 行政体／交通事業者がプランニング能力を実際のプロジェクト策定に活用する。
<b>活動の概要</b> 1) 事務局が都市交通プロジェクトの具体的な調整結果をパイロットプロジェクト（案）として協議会に提案する。 1-1) 事務局が行政体／事業者による具体的な実施計画が立てられた都市交通プロジェクトにかかる情報を収集する。 1-2) 事務局がパイロットプロジェクト（案）のために、収集した情報の蓄積、データベース化を行う。 1-3) 事務局がデータベースから行政体／事業者間の調整を必要とするプロジェクト事例を複数選定の上調整し、パイロットプロジェクト（案）として作成する。 1-4) 事務局が協議会を召集し、パイロットプロジェクト（案）を提案する。 2) 協議会が承認した各行政体／事業者によるパイロットプロジェクトの実施を事務局がモニタリング、フィードバックする。 2-1) 協議会においてパイロットプロジェクト（案）を議論する。 2-2) 協議会においてパイロットプロジェクト（案）を承認する。 2-3) 事務局は、各行政体／交通事業者によるパイロットプロジェクト実施を促進、モニタリングし、協議会に成果をフィードバックする。 3) 事務局及び協議会の需要予測能力を強化する。 3-1) 需要予測能力向上のためのテキストを作成する。 3-2) 指導ツールを作成する。

- 3-3) 需要予測能力強化のための講師育成研修を実施する。
- 4) 行政体／交通事業者がプランニング能力を実際のプロジェクト策定に活用する。
  - 4-1) 交通調査ニーズを把握し、不足している交通調査を実施する。
  - 4-2) 交通調査にかかるデータベースを更新する。
  - 4-3) 行政体／交通事業者において都市交通計画が実施できるよう支援する。

第2回、3回のワークショップを通して、事務局メンバーは都市交通問題について議論し、都市交通問題の主要問題と要因の関連性を示した「問題ツリー」を作成し、都市交通問題の階層構造を確認した。ダルエスサラーム市の交通混雑の主要問題として4つの要因が抽出された。最もクリティカルな問題として、制度面の欠陥、特に都市政策の欠如、関連する組織間でのバラバラな職掌事項、開発予算の不足が挙げられた。二番目の問題は、交通インフラの供給量と質の問題、三番目の問題としては、既存インフラの非効率な利用または運用、四番目の問題は、増加する自動車交通需要を管理する手段が無いことである。従って、中期的な都市交通政策と、整備優先順位の高い短期的な都市交通計画の立案が本プロジェクトの成果として不可欠であると判断された。2011年4月19日に関連機関から23名のメンバーを招集して第1回協議会が開催され、本プロジェクトの実施手法と実施計画を確認し、PDMの修正版についても協議会メンバーの合意を得ることが出来た。PDMの修正版（バージョン1）を下表に整理する。

表 1-2 本プロジェクトで合意した PDM（バージョン 1）

<p><b>上位目標</b></p> <ol style="list-style-type: none"> <li>1. ダルエスサラーム市の関連機関の交通施策が調整・調和される。</li> <li>2. ダルエスサラーム市の交通混雑が緩和される。</li> </ol>
<p><b>プロジェクト目標</b></p> <p>ダルエスサラーム市において都市交通プロジェクトを調整、進捗モニタリングし、その結果をフィードバックするための体制が設立され、機能する。</p>
<p><b>期待される成果</b></p> <ol style="list-style-type: none"> <li>1. 関係機関の役割分担を明確にしなが、調整機関（事務局、協議会）を設立する。</li> <li>2. トレーニングの必要性を確認・評価し、本プロジェクトに係る個人の交通計画に関する能力を向上させる。</li> <li>3. 一連の交通政策に係る勧告を交通政策として編纂する。</li> <li>4. 優先度が高く、関連機関間で調整されたプロジェクトを計画し、短期アクションプランとして採択される。</li> </ol>
<p><b>活動の概要</b></p> <ol style="list-style-type: none"> <li>1-1. 協議会、事務局の設立</li> <li>1-2. 一連の協議会・事務局会議の開催</li> <li>1-3. ステークホルダーへの協議会・事務局会議の告知、会議の結果・合意事項の内容の報知、必要に応じてプロジェクト・デザインの修正</li> <li>1-4. プロジェクト成果の周知</li> <li>1-5. プロジェクトの進捗管理と関係機関への報告</li> <li>2-1. トレーニングの必要性、ギャップとトレーニング候補者の評価</li> <li>2-2. トレーニング候補者の選定</li> <li>2-3. プロジェクト期間を通じたトレーニングプログラムの立案</li> <li>2-4. トレーニングセッションの実施</li> <li>2-5. 事務局メンバーのトレーニング受講者の役割設定</li> <li>3-1. 既存の関連組織のレビュー（役割と職掌、能力など）</li> <li>3-2. 横断的な組織・制度・規定の問題の認識と組織への勧告による解決</li> <li>3-3. 既存、進行中あるいは計画段階の交通インフラと交通サービスの評価</li> <li>3-4. 交通インフラと交通サービスに関する問題点の確認と評価</li> <li>3-5. 総合都市交通施策（案）の提案</li> <li>3-6. 関連組織の活動に係る勧告</li> </ol>

- 4-1. 都市交通問題と重要な交通プロジェクトの認識と評価
- 4-2. 優先的な交通改善プログラムの作成
- 4-3. 短期施策のプロジェクト・プロファイルおよび TOR 作成支援
- 4-4. 短期施策に係る必要な調査の支援
- 4-5. 組織間の調整を通して確立された統合的な解決手法の提案

2012年6月3日から6月16日に本プロジェクトの終了時評価が実施された。機構及び民間コンサルタントの4名で構成される終了時評価調査団と本プロジェクト専門家チームが協議を行い、当初上位目標の一つであった「ダルエスサラーム市の交通混雑の緩和」は他の都市の発展経緯を鑑みてもプロジェクト終了後3～5年に達成することは非現実的であり、スーパーゴールに変更することでタンザニア側と調整することを合意した。

2012年8月24日に関連機関から23名のメンバーを招集して第3回協議会が開催され、上記のPDMの変更を協議し、協議会メンバーの合意を得ることが出来た。PDMの最終版を下表に整理する。

詳細計画策定調査及び本プロジェクトで合意したPDMの詳細は資料①に整理する。

表 1-3 本プロジェクトで合意した PDM (最終版)

<b>スーパーゴール</b> ダルエスサラーム市の交通混雑が緩和される。
<b>上位目標</b> ダルエスサラーム市の関連機関の交通施策が調整・調和される。
<b>プロジェクト目標</b> 変更なし
<b>期待される成果</b> 変更なし
<b>活動の概要</b> 変更なし

## 1.2.2 PDM 指標

第1回協議会では、PDMの変更に合わせて、プロジェクト成果のモニタリング指標の変更について議論し、モニタリング指標の変更についても協議会メンバーの合意を得た。第1回協議会で合意されたモニタリング指標を下表に整理する。

表 1-4 本プロジェクトで合意したモニタリング指標 (バージョン1)

プロジェクト要約	プロジェクト評価指標
<b>上位目標</b> 1. ダルエスサラーム市の関連機関の交通施策が調整・調和される。 2. ダルエスサラーム市の交通混雑が緩和される。	1. 意志決定者が本プロジェクトについて認識を持っている。 2. 関連する組織はプロジェクトの過程で提案された政策/計画/プロジェクトを実行する。 3. 実施された施策は都市交通環境の改善に貢献する。
<b>プロジェクト目標</b> ダルエスサラーム市の関連機関の交通プロジェクトを調整し、また進捗をモニタリングす	1. 調整機関は2010年12月までに設立される。 2. 調整機関は本プロジェクト期間を通じて一連の内部ミーティングと普及セミナーを行う。

プロジェクト要約	プロジェクト評価指標
る機構を設立し、そのキャパシティを強化する。	3. 調整機関のメンバーは本プロジェクト期間を通じて交通計画能力の向上のためのトレーニングを受講する。 4. 調整機関は、本プロジェクト完了までに 2013 年の都市交通政策を立案して、長期の政策を提案する。 5. 調整機関は都市交通問題に係る実行可能かつ緊急性の高いプロジェクトを提案する。
<b>期待される成果</b> 1. 関係機関の役割分担を明確にしながら、調整機関（事務局、協議会）を設立する。	1. 協議会は、事務局と協議会のメンバーを確認し、メンバー間の連絡体制を確立する。 2. 事務局メンバーは隔週のミーティングを開催し、協議会メンバーは数度の協議会を開催する。 3. 協議会メンバーは事務局に対してリコメンドし、事務局メンバーは各組織にフィードバックする。 4. 事務局はプロジェクトの成果を周知する。 5. 事務局はプロジェクトの進捗をモニターし、協議会に報告する。
2. トレーニングの必要性を確認・評価し、本プロジェクトに係る個人の交通計画に関する能力を向上させる。	1. JICA 専門家は各組織のトレーニング参加候補の履歴書を収集し、現在の職掌を把握する。 2. JICA 専門家はトレーニングの参加者を選定する。 3. JICA 専門家は交通計画能力向上のための適切なトレーニングプログラムと資料を作成、周知する。 4. トレーニング参加者は一連の交通計画業務を行う。 5. タスク・フォースに選定された事務局のトレーニング参加者は、実際の交通計画業務に参画する。
3. 一連の交通政策に係る勧告を交通政策として編纂・周知する。	1. 事務局メンバーが、組織を横断的に制度上・規定上の問題を認識する。 2. 事務局メンバーが、交通インフラと交通サービスに係る問題を認識する。 3. 事務局メンバーが、関連する組織やドナーを含めた一連のステークホルダー会議を開催する。 4. 事務局メンバーが、総合都市交通政策（案）を立案する。 5. 協議会メンバーが、総合都市交通政策（案）にリコメンドを行い、（案）を承認する。
4. 優先度が高く、関連機関間で調整されたプロジェクトについては調査を行い、短期アクションプランとして採択される。	1. 事務局メンバーが、最新の都市交通に係る情報を収集し、分析する。 2. 事務局メンバーが、重要な都市交通問題と緊急の都市交通プロジェクトを認識する。 3. 事務局メンバーが、緊急性の高い都市交通プロジェクトの予備調査実施を促進する。 4. 事務局メンバーが協議会に短期のアクションを提案する。 5. 協議会メンバーが短期のアクションに対してリコメンドし、短期アクションを承認する。

2012年6月3日から6月16日に本プロジェクトの終了時評価が実施された際に、終了時評価調査団により、プロジェクトの成果を評価する代替指標を用いることが提案された。代替指標が提案された理由は、PDM（バージョン1）の評価指標は、アウトプットを細かい活動に分割した内容となっており、アウトプットの達成状況を測る指標としては適当でないと考えられたためである。

2012年8月24日に関連機関から23名のメンバーを招集して第3回協議会が開催され、上記のPDMの変更を協議し、協議会メンバーの合意を得ることが出来た。モニタリング指標の最終版を下表に整理する。

表 1-5 本プロジェクトで合意したモニタリング指標（最終版）

プロジェクト要約	プロジェクト評価指標
<b>上位目標</b> ダルエスサラーム市の関連機関の交通施策が調整・調和される。	(プロジェクト目標の評価指標と同様)
<b>プロジェクト目標</b> ダルエスサラーム市の関連機関の交通プロジェクトを調整し、また進捗をモニタリングする機構を設立し、そのキャパシティを強化する。	調整機関で合意された都市交通政策（案）及び緊急性の高いプロジェクトを関係機関の政策・予算へ反映するための取組が調整機関メンバーによって行われる。
<b>期待される成果</b> 1. 関係機関の役割分担を明確にしながら、調整機関（事務局、協議会）を設立する。	調整機関を通じて関係機関の役割分担が明確にされる。
2. トレーニングの必要性を確認・評価し、本プロジェクトに係る個人の交通計画に関する能力を向上させる。	本プロジェクトに係る個人の交通計画に関する能力が向上する。
3. 一連の交通政策に係る勧告を交通政策として編纂・周知する。	調整機関の合意のとれた都市交通政策（案）が作成される。
4. 優先度が高く、関連機関間で調整されたプロジェクトについては調査を行い、短期アクションプランとして採択される。	1.調整機関の合意のとれた短期アクションプランが作成される 2.予備調査を実施した短期アクションプランが作成される

### 1.3 プロジェクト実施期間

本プロジェクト詳細計画策定調査の RD での合意事項に従って、現地アサイン期間は 2 年間（2010 年 12 月から 2012 年 12 月）である。

### 1.4 プロジェクト実施体制・投入実績

#### 1.4.1 プロジェクト実施体制

プロジェクトの初期段階として、第 1 回協議会で事務局および協議会の組織・責務を確認し、関係機関の合意を得た。事務局および協議会の組織・責務は次の通りである。

- 事務局は DCC と DSM・RAS を含む 11 の公共団体（本プロジェクトのためにフルタイムのメンバーを割り当てる）と、3 つの自治都市、MOT、MOW、DART Agency、TANROADS、交通警察、PMO-RALG（本プロジェクトのためにパートタイムのメンバーを割り当てる）で構成されている。事務局は JICA 専門家チームからの技術的なサポートの受けながらプロジェクトの進捗を計画・モニターする。
- 協議会（合同調整委員会）は PMO・RALG、MOT、MOW、MOLHSD、MOHAS、PMO、MOF、RFB、SUMATRA を含めた 17 の公的機関で構成される。協議会（合同調整委員会）は本プロジェクトの全体的な進歩をレビューおよび評価を行う。

JICA 専門家チームは、事務局および協議会に対して、プロジェクトに係る行政上あるいは技術的な助言する。次図に本プロジェクトの実施体制を示す。

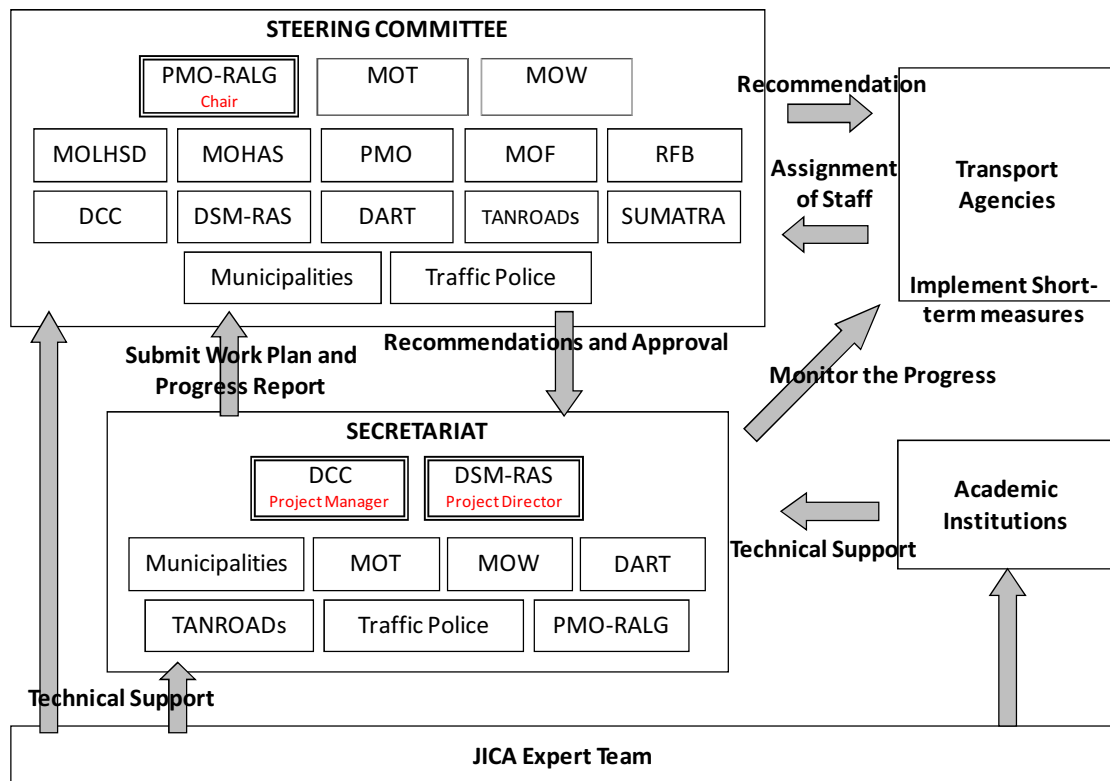


図 1-2 プロジェクトのステークホルダーとその役割

#### 1.4.2 専門家派遣実績

JICA 専門家チームは「総括／交通行政」、「交通計画」、「人材育成ファシリテーター(1)」、「人材育成ファシリテーター(2)」、「交通需要予測／データベース管理(1)」、「交通需要予測／データベース管理(2)」、「公共交通計画」、「業務調整／道路計画」、「道路設計／施工監理」の 9 専門家で構成された。

表 1-6 JICA 専門家チームの構成メンバー

担当分野	氏名	所属	主な業務内容
総括／交通行政	高橋 君成	IDCJ	専門家チームの統括、「タ」国関係機関との協議・折衝、業務全体の技術移転の計画・実施、他ドナーとの調整
交通計画	柴田 純治	柯コン	都市交通政策策定支援のためのワークショップの企画・実施、交通政策研修の企画・実施
人材育成ファシリテーター(1)	徳永 達己	EJEC	キャパシティギャップ評価、技術移転計画
人材育成ファシリテーター(2)	井澤 徹郎	EJEC	キャパシティギャップ評価、技術移転計画
交通需要予測／データベース管理(1)	有田 禎之	IDCJ	交通計画策定能力向上支援のための研修計画・教材作成・研修実施
交通需要予測／データベース管理(2)	宮尾 佳予子	IDCJ	交通計画策定能力向上支援のための研修計画・教材作成・研修実施
公共交通計画	フリッツ オスラジヤ	柯コン	都市交通政策策定支援のためのワークショップの企画・実施、短期施策（公共交通計画）の計画及び承認支援

担当分野	氏名	所属	主な業務内容
業務調整／道路計画	森本 博行	オゾン	専門家チームの業務調整、短期施策（道路計画）の計画及び承認支援
道路設計／施工監理	松本 公紀	オゾン	短期施策（道路計画）の計画及び承認支援

注) IDCJ：(株)国際開発センター、オゾン：(株)オリエンタルコンサルタンツ、EJEC：(株)エイト日本技術開発

第1年次の現地業務は27.53人月、国内作業0.2人月の合計27.73人月、第2年次の現地業務は22.36人月、国内作業0.13人月の合計22.49人月であり、2年間のプロジェクト期間の専門家の投入量は50.09人月であった。



表 1-7 JICA 専門家チームの投入量 (第1年次)

担 当	氏 名	所 属	計画・実績	第1年次												人 月			
				2010年		2011年										現地	国内		
				11月	12月	1月	2月	3月	4月	5月	6月	7月	8月	9月	10月			11月	12月
総括/交通行政	高橋 君成	IDCJ	計画	(25)	(30)	(55)	(35)	(50)	(25)							7.33	0.20		
			実績	(25)	(26)	(30)	(27)	(50)			(29)		(49)			7.87	0.20		
交通計画	柴田 純治	コロン	計画	(21)		(30)		(30)		(30)						4.50	0.00		
			実績	(4)		(13)		(13)		(15)	(8)		(9)	(10)	2.40	0.00			
人材育成ファシリテーター	徳永 達己	EJEC	計画						(45)			(36)			2.70	0.00			
			実績					(30)		(30)			(28)	2.93	0.00				
交通需要予測/データベース管理	有田 禎之	IDCJ	計画	(25)	(30)	(35)		(30)		(30)					5.00	0.00			
			実績	(21)	(34)	(35)		(30)		(30)		(25)		5.83	0.00				
公共交通計画	フリップ ホスジジャー	コロン (Trans Tech)	計画			(20)		(30)				(30)		2.67	0.00				
			実績			(20)		(30)				(26)		2.53	0.00				
業務調整/道路計画	森本 博行	コロン	計画		(30)		(30)		(30)			(45)		(25)	5.33	0.00			
			実績		(30)		(25)		(12)	(30)	(3)	(42)	(18)	(19)	5.97	0.00			
報告書				△ 業務計画書		△ ワークプラン(第1年次)								△ プロジェクト進捗報告書					
			計画	[Bar chart showing cumulative planned input]												27.53	0.20		
			実績	[Bar chart showing cumulative actual input]												27.53	0.20		
			計画	<input type="checkbox"/>															27.73
			実績	<input type="checkbox"/>															27.73

注) IDCJ: 国際開発センター、コロン: 株式会社エントナルコンサルタンツ、EJEC: 株式会社日本技術開発

表 1-8 JICA 専門家チームの投入量 (第 2 年次)

担当	氏名	所属	計画・実績	第2年次												人月		
				2012年												現地	国内	
				2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月	2013年 1月			
総括/交通行政	高橋 君成	IDCJ	計画		(35)			(55)									5.33	0.13
			実績		(32)		(33)		(29)									5.47
交通計画	柴田 純治	オコソ	計画				(30)							(15)			3.00	0.00
			実績				(20)		(16)									1.20
人材育成ファシリテーター①	徳永 達己	EJEC	計画					(30)									1.00	0.00
			実績				(19)		(30)									1.63
人材育成ファシリテーター②	井澤 徹郎	EJEC	計画														1.63	0.00
			実績				(19)		(30)									1.63
交通需要予測/データベース管理①	有田 積之	IDCJ	計画		(30)												2.00	0.00
			実績		(24)				(36)									2.00
交通需要予測/データベース管理②	宮尾 佳子	IDCJ	計画														1.47	0.00
			実績				(19)		(31)									2.67
公共交通計画	フロッグオオスガノキ	オコソ (Trans Tech)	計画														2.63	0.00
			実績				(19)		(27)									4.00
業務調整/道路計画	森本 剛行	オコソ	計画		(30)			(30)									4.80	0.00
			実績		(26)			(28)										5.00
道路設計/施工監理	松本 公紀	オコソ	計画														2.16	0.00
			実績															2.16
報告書			業務計画書															
			ワークプラン (第2年次)															
報告書			業務計画書															
			プロジェクト完了報告書															
計画			計画														24.63	0.13
			実績															24.76
実績			実績														22.36	0.13
			報告書															22.49

注) IDCJ : (株)国際開発センター、オコソ : (株)オリエンタルコンサルタンツ、EJEC : (株)エイト日本技術開発

## 1.5 業務実施スケジュール

第1回協議会では、PDMの変更に合わせて、業務実施スケジュール(PO: Plan of Operation)の変更について議論し、POの変更についても協議会メンバーの合意を得た。以下に第1回協議会で合意されたPOを整理する。

表 1-9 本プロジェクトで合意した PO

Project Output/Activities	FY2010						FY2011						FY2012											
	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
<b>1. Coordinating groups (i.e., Secretariat and Steering Committee) are established with charter of operations.</b>																								
1-1. Establish the Steering Committee/Secretariat.	Steering Committee																							
1-2. Organize a series of Steering Committee/Secretariat meetings.	Steering Committee																							
1-3. Inform all stakeholders of meeting outcomes and agreements and amend project design if necessary.																								
1-4. Disseminate the output of the Project.																								
1-5. Monitor the progress of the Project and report it to the organizations concerned.																								
<b>2. Training needs are identified and assessed and transport planning capabilities of individuals involved in the Project are improved.</b>																								
2-1. Assess training needs, gaps and potential training candidates																								
2-2. Select a limited number of candidates for training (who are expected to contribute to project activities of the Secretariat)																								
2-3. Design training programs covering the project period.																								
2-4. Provide a series of training sessions.																								
2-5. Design practical role for trainees within the secretariat.							OT																	
<b>3. A series of policy recommendations are provided and compiled into a policy document.</b>																								
3-1. Review of existing organizations; roles responsibilities and capabilities.																								
3-2. Identify cross-cutting organizational/institutional/regulatory issues and resolve through organizational recommendations.																								
3-3. Assess the existing transport infrastructure and services and ongoing and planned project.																								
3-4. Identify and assess issues related to transport infrastructure and services.																								
3-5. Draft integrated urban transport policies (which is expected to be reflected to 2013 National Transport Policy).	Urban Transport Policies												Investment Plan											
3-6. Provide recommendations to relevant organizations for their actions.																								
<b>4. Coordinated and prioritized plans/projects are studied/approved for immediate actions.</b>																								
4-1. Identify and assess urban transport problems and critical projects.																								
4-2. Prioritize and develop into a transport improvement program.																								
4-3. Facilitate to develop the project profile of the short-term measures and TOR for the supplementary works.																								
4-4. Support to conduct necessary studies on short-term measures.																								
4-5. Prepare solutions in an integrated manner through coordination amongst the organizations.							CBD Traffic Improvement Plan Urban Road Improvement Plan Northern Busway PPP for Bus Terminal Development																	

注) 青は実績、白は計画

## 1.6 業務の実施方法

### 1.6.1 第1年次

#### 項目【1】: ワーク・プラン (第1年次原案) の作成・協議

2008年の総合都市交通体系策定調査(マスタープラン)、2009年の詳細計画策定調査を踏まえてプロジェクトの全体像および期待される成果を把握し、本プロジェクトの基本方針・方法・業務工程計画表を含めたワーク・プランの原案を作成した。

## **項目【2】：都市交通改善機関の設立および業務内容確定の支援に係る業務**

本プロジェクトでは、都市交通計画に係る技術移転に先立ち、技術を移転する組織設立に係る支援を行った。

### **項目【2-1】：事務局の設立支援**

本プロジェクトの C/P の役割を担う事務局の設立を支援するために、事務局の構成メンバーに想定している 6 行政体と 4 交通事業体を召集してキックオフミーティングを開催し、本プロジェクトのインセプションレポートを説明するとともに、メンバーの任命、所属機関への説明と協力の取付けを依頼した。

### **項目【2-2】：事務局の業務内容確定**

詳細計画策定調査では、事務局の業務内容として、(i) 都市交通プロジェクトに係る必要な情報を収集・分析すること、(ii) 実施計画、進捗を事務局に対して報告すること、(iii) 関連機関に助言することを合意している。専門家チームは事務局スタッフに対してワーク・プラン（原案）を説明・協議し、具体的な業務内容やそのスケジュールに係る助言を行いながら業務内容を確定することを支援し、議事録に記録として残した。

### **項目【2-3】：協議会の設立支援**

2011 年 4 月 19 日に第 1 回協議会を開催し、協議会メンバーにより本プロジェクトの実施計画や実施体制が確認・合意され、本プロジェクトの実施機関である PMO-RALG 事務次官を協議会の議長とすることを確認した。

### **項目【2-4】：協議会の業務内容確定**

詳細計画策定調査では、協議会の業務内容として(i)事務局の実施計画、進捗報告を協議し、承認すること、(ii)事務局の作業進捗を評価すること、(iii)ダルエスサラーム市における都市交通プロジェクトの調整のために必要な機関に対して提言を行うことに合意している。関係機関の合意を促すとともに、合意内容を議事録に記録として残した。

## **項目【3】：ワーク・プラン（第 1 年時）の合意**

事務局において協議、意見交換し、評価指標を含め、PDM を更新した上でワーク・プランを協議会にて合意した。プロジェクト活動のうち、特にパイロットプロジェクトの実施は関係機関の予算措置が必須であるため、タンザニア国の予算プロセスに合わせた合計 5 回の協議会を提案し、その開催時期と協議内容を関係機関間で合意した。

表 1-10 協議会の開催時期と協議内容

回	開催時期	協議内容
第 1 回	2011 年 4 月	・ ワーク・プラン（第 1 年次）の合意
第 2 回	2011 年 12 月	・ プロジェクトの進捗確認
第 3 回	2012 年 3 月	・ ワーク・プラン（第 2 年次）の合意 ・ プロジェクトの進捗確認

回	開催時期	協議内容
第4回	2012年8月	・ プロジェクトの進捗確認
第5回	2012年11月	・ プロジェクト完了報告

#### **項目【4】：事務局による基本情報収集の支援に係る業務**

市内道路改良計画の検討・立案に際して、関係機関からプロジェクトリストを収集し、それらをGISデータに格納した。GISデータの構築に際しては総合都市交通体系策定調査（マスタープラン）で構築したGISデータベースを活用し、同データを交通需要予測のインプットデータに活用した。

#### **項目【5】：交通需要予測を含めたプランニング能力の強化に係る業務**

都市交通行政の能力向上を達成するために、実務者と研究機関の双方の技術力向上を目的とした研修を実施した。

##### **項目【5-1】：プランニング能力強化実施方法に係る現状把握**

プランニング能力強化の実施にあたり、関連する行政体/事業体について、ヒト（プランニング能力が必要とされる場面や必要とされるスキル、現在の対応状況と担当者の能力）とモノ（ハードウェアの保有、管理状況）のキャパシティに係るベースライン調査を行った。

##### **項目【5-2】：プランニング能力強化のための教材作成**

関係機関のニーズや技術レベルを鑑みて、研修教材を作成した。特に、交通調査、需要予測手法に係る基礎知識とともに実際の適用事例を教材に取りまとめた。

##### **項目【5-3】：交通需要予測講師育成研修の実施**

研修の受講者は、事務局メンバーを含めた実施機関と研究機関（NIT、Ardhi Institute、ダルエスサラーム大工学部、DIT）から参加者を募り、事務局の選定作業を支援した。

研修内容は、①交通調査から需要予測とその結果の活用方法までのプランニングの基礎技術の習得、②プランニングに用いられるツール（STRADA、GISなど）の基本的な使用方法の習得の2つの講習を行った。講習期間はのべ8日間（週2コマの講習で1カ月間）、講習時間は研修員が参加しやすい土曜日に開催した。

表 1-11 講師向け講習スケジュールと概要

講習内容		概要
交通需要予測の基礎	交通計画の基礎	交通計画の一般的なフローを実例を交えながら説明し、各ステップのインプット、アウトプットの理解を深める。
	交通調査の計画と実施	種々の交通施策に応じた交通調査の種類や手法、妥当な調査規模などを説明し、施策に対して適切な調査規模・内容の交通調査のTORを準備出来るようにする。
	交通需要予測の基礎	コンベンショナルな四段階推定法を簡単なデータを用いてツールを使わない演習を含めながら習得する。

講習内容		概要
	交通施策評価の基礎	一般的な経済分析手法を用いて社会経済的な効果を算出する手法を演習により習得し、プロジェクトの優先度を定める際の指標の一つとして理解を深める。
交通需要予測ツールの基礎と応用	STRADA の基本と操作 1	道路・トランジットネットワークの構築、修正方法をダルエスサラーム都市交通データベースを用いて実習する。
	STRADA の基本と操作 2	発生集中モデル、分布モデル、機関分担モデルの操作をダルエスサラーム都市交通データベースを用いて実習する。
	STRADA の基本と操作 2	交通量配分とアウトプットの解釈、利用方法をダルエスサラーム都市交通データベースを用いて実習する。
	GIS の基本と STRADA との連携	GIS の概略と「タ」国他都市の GIS データ等を活用した STRADA ネットワークへの変換を実習する。
	その他計画ツールの紹介と適用	フライオーバーや交差点改良など STRADA では再現できない施策に対して有効なマイクロシミュレーションの実演を踏まえて概要を説明し、施策の応じたツールの使い分けやインプット・アウトプットのイメージを理解する。
	ダルエスサラーム交通データベースの説明	マスタープランで構築したデータベースの説明および時間価値、道路容量等の指標の設定方法と更新方法を実習を交えて講習する。
	STRADA を利用したダルエスサラーム都市交通モデルの再現と応用 1	パイロットプロジェクト対象外の既定計画など本プロジェクトで収集した情報を元に、時間価値などの指標の更新、プロジェクトのネットワークなどへの反映など実務と同じ作業を行う。
STRADA を利用したダルエスサラーム都市交通モデルの再現と応用 2	既定計画の配分結果を元に、経済分析を行い、プロジェクトの妥当性の検証を行う。	

#### **項 目【6】：交通調査能力の強化に係る業務**

2008年の総合都市交通体系策定調査（マスタープラン）を参考に交通調査や交通需要予測に係る「交通計画マニュアル（案）」を作成した。同マニュアルは、1)交通計画概要、2)交通調査ガイドライン、3)交通需要予測ガイドライン、4)プロジェクト評価ガイドラインの4部構成であり、うち1~3のドラフトが完了した。また、同マニュアルを使って事務局メンバーが中心市街地の交通改善計画のための各種交通調査を実施した。

#### **項 目【7】：パイロットプロジェクト（案）の作成支援に係る業務**

事務局は市道路改良計画を策定する際に、現在実施中および計画中の都市交通プロジェクトに関する情報を収集するとともに、これらのプロジェクトを経済性、自然及び社会環境等の指標で評価し、優先プロジェクトを選定した。専門家チームはパイロットプロジェクト（案）の作成に際して、事務局に対してプロジェクトの技術的妥当性、プロジェクトの実施手法等に係る助言や支援を行った。

#### **項 目【8】：協議会開催の支援に係る業務**

「項目【3】ワーク・プラン（第1年時）の合意」に示した通り、本プロジェクトではパイロットプロジェクトの実施を促進するために、タンザニアの予算サイクルに合わせて協議会を開催する。協議会の開催は事務局が主体となっていくが、専門家チームはパイロットプロジェクト（案）の策定等に係る協議会資料の作成の支援・助言を適宜行った。

#### **項 目【9】：パイロットプロジェクト（案）承認の支援に係る業務**

パイロットプロジェクト（案）の承認を支援するために、第 2 回協議会の開催を支援した。具体的には、事務局が中心市街地の交通改善計画、市内道路改良計画の策定を行い、第 2 回協議会に同計画案を提案し、協議を行い、合意形成を図った。

#### **項 目【10】：パイロットプロジェクトの実施促進、モニタリング、フィードバックの支援に係る業務**

事務局が行うパイロットプロジェクトの実施促進およびモニタリングおよび協議会への報告にかかる業務を専門家チームが支援した。特に、市道路改良計画及び中心市街地交通改善計画の実施を促進するために実施機関での承認、年次計画・予算計画への反映を確実に行うことを支援した。

#### **項 目【11】：本邦課題別研修を活用した中核人材の育成支援**

貴機構が実施する本邦研修に本プロジェクトの C/P である事務局から 2 名が参加した。事務局との協議の上、参加メンバーおよび研修内容を確定した。

### 1.6.2 第 2 年次

#### **項 目【12】：ワーク・プラン（第 2 年次）の合意**

業務計画書（2 年次）に基づき、基本方針、具体的方法等を記載したワーク・プラン（2 年次案）を作成し、関係機関と協議、意見交換し、第 2 年次の活動をワーク・プランとして合意した。

#### **項 目【13】：事務局による基本情報収集の支援に係る業務（継続）**

2011 年 12 月に中心市街地交通改善計画、2012 年 7 月に市道路改良計画の優先プロジェクトの選定のためのベースラインデータを収集するために事務局及び研究機関（NIT）が実施する交通量調査を支援した。

#### **項 目【14】：交通需要予測を含めたプランニング能力の強化に係る業務（継続）**

プランニング能力を持続的に向上するために NIT が実施する予定の自主講座の開催の支援を行った。具体的には、カリキュラムの計画や研修教材の作成、TOT による講師のプランニング能力の向上、同自主講座のタンザニア国の技術者登録協会（Engineers Registration Board）への登録の支援を行った。

#### **項 目【15】：交通調査能力の強化に係る業務（継続）**

本プロジェクトではパイロットプロジェクトの評価を行うために交通調査を実施した。事務局メンバーを交通調査の企画・実施・取りまとめの全てに関与させる等 OJT による能力強化を行った。

項目【13】に記載した通り、2011 年 12 月に中心市街地交通改善計画、2012 年 7 月に市道路

改良計画の優先プロジェクトの選定のためのベースラインデータを収集するために事務局及び研究機関（NIT）が実施する交通量調査の計画、実施、取りまとめを支援した。

**項 目【16】：パイロットプロジェクト（案）の作成支援に係る業務（継続）**

第1年次に実施したパイロットプロジェクト（案）の策定に係る事務局の能力をマスタープランの提言内容の理解度、関係機関との調整能力、選定されたパイロットプロジェクト（案）の合理性・妥当性などの側面から評価し、必要に応じてスコープの見直しを促した。

**項 目【17】：協議会開催の支援に係る業務（継続）**

本プロジェクトではパイロットプロジェクトの実施を促進するために、タンザニアの予算サイクルに合わせて、パイロットプロジェクトの予算が承認され、実施機関の役割を分担する目的で第3回協議会を2012年8月に開催し、次年度のプロジェクトの合意形成を図る目的で第4回協議会を2012年12月に開催した。

表 1-12 協議会の開催時期と協議内容

回	開催時期	協議内容
第1回	2011年4月	・ ワーク・プラン（第1年次）の合意
第2回	2011年12月	・ パイロットプロジェクト（概略計画）の合意形成
第3回	2012年8月	・ パイロットプロジェクト（詳細計画）の合意形成
第4回	2012年12月	・ 優先プロジェクト（概略計画）の合意形成 ・ プロジェクト完了報告

**項 目【18】：パイロットプロジェクト（案）の承認の支援に係る業務**

第1年次に実施した市道路改良計画及び中心市街地交通改善計画の詳細計画を策定するとともに、第3回協議会で議論し、メンバーの合意形成と実施機関の役割分担の明確化を図った。

**項 目【19】：パイロットプロジェクト実施促進、モニタリング支援（継続）**

第1年次に実施した市道路改良計画及び中心市街地交通改善計画の詳細計画を策定するとともに、これらの実施を促進するために実施機関での承認、年次計画・予算計画への反映を確実にを行うことを支援した。

**項 目【20】：本邦課題別研修を活用した中核人材の育成（継続）**

貴機構が実施する本邦研修に本プロジェクトのC/Pである事務局から1名が参加した。事務局との協議の上、参加メンバーおよび研修内容を確定した。

**項 目【21】：事務局協議会機能の自立的発展性確保のための行動計画（案）作成**

2年間の活動結果を踏まえ、事務局、協議会が自立的に発展するために必要な行動計画（案）を策定した。行動計画（案）は第4回協議会において議論し、メンバーの合意を得た。



## **項 目【22】：プロジェクト業務完了報告書の作成**

プロジェクトの活動内容をプロジェクト業務完了報告書に取りまとめた。第 4 回協議会において、プロジェクトの成果、課題、教訓、事務局、協議会が自立的に発展するために必要な行動計画（案）を協議し、メンバーの合意を得た。

## 第2章 プロジェクト活動内容

### 2.1 事務局及び協議会の設立支援

#### 2.1.1 キックオフミーティング

2010年12月13日、DCC会議室にてDCC、PMO-RALG、DSM-RAS、Municipalities、Traffic Police、DART、NIT、Ardhi Institute、JICA事務所から合計16人の参加を得て、キックオフミーティングを開催した。同ミーティングに先だってインセプションレポートを関係機関に提出した。同ミーティングで協議会、事務局の構成員、協議会、事務局の情報伝達、ワーク・プラン策定に向けた作業内容とスケジュールを確認し、出席者の合意を得た。

#### 2.1.2 事務局会議

キックオフミーティングを含め合計38回の事務局会議の開催を支援した。事務局会議では、①ワーク・プランに係る協議、②都市交通政策に係るワークショップ、③中心市街地交通改善計画や市内道路改良計画等の短期施策にかかる協議、④各種研修に係る協議を行った。

表 2-1 事務局会議の概要

番号	日付	会議名	出席者	概要
1	2010年12月13日	キックオフミーティング	16	<ul style="list-style-type: none"> <li>インセプションレポートの説明</li> <li>プロジェクトの概要・組織構成・スケジュールに係る協議</li> </ul>
2	同年12月21日	ダルエスサラーム市の交通問題に係るワークショップ	15	<ul style="list-style-type: none"> <li>問題ツリーの作成</li> <li>核心問題の抽出</li> </ul>
3	2011年1月11日	ダルエスサラーム市の交通問題に係るワークショップ	10	<ul style="list-style-type: none"> <li>特に交通が混雑する地点の抽出と解決方策</li> </ul>
4	同年1月18日	ワークプラン（案）	13	<ul style="list-style-type: none"> <li>ワークプラン（案）の説明</li> </ul>
5	同年2月18日	ワークプラン（案）	9	<ul style="list-style-type: none"> <li>ワークプラン（案）に係る協議</li> <li>プロジェクト目標、成果、活動内容、モニタリング指標、スケジュールの確認</li> <li>技術移転トレーニングの概要に関する協議</li> <li>短期施策に係る議論</li> </ul>
6	同年3月15日	都市交通政策に係るワークショップ	12	<ul style="list-style-type: none"> <li>DUTAの説明と議論</li> <li>TANROADSによる交差点改良の説明</li> </ul>
7	同年3月29日	短期施策に係るワークショップ	11	<ul style="list-style-type: none"> <li>短期施策の対象地域、施策の選定</li> <li>信号最適化の説明</li> </ul>
8	同年4月12日	短期施策に係るワークショップ	10	<ul style="list-style-type: none"> <li>TANROADSによる信号機導入プロジェクトの説明</li> </ul>
9	同年5月10日	人材育成に係るワークショップ	12	<ul style="list-style-type: none"> <li>人材育成計画の説明</li> </ul>
10	同年5月31日	都市交通政策に係るワークショップ	7	<ul style="list-style-type: none"> <li>都市交通政策の討議論文の説明とそれに係る議論</li> </ul>
11	同年6月7日	都市交通政策に係るワークショップ	10	<ul style="list-style-type: none"> <li>都市交通政策のお討議論文の説明とそれに係る議論</li> </ul>
12	同年6月10日	都市交通政策に係るワークショップ	10	<ul style="list-style-type: none"> <li>都市交通政策のお討議論文の説明とそれに係る議論</li> </ul>

番号	日付	会議名	出席者	概要
13	同年 6 月 29 日	短期施策に係るワークショップ	6	<ul style="list-style-type: none"> <li>CBD 交通管理の説明と協議</li> </ul>
14	同年 7 月 5 日	短期施策に係るワークショップ	7	<ul style="list-style-type: none"> <li>CBD 交通改善計画に係る説明と協議</li> <li>第三国研修に係る協議</li> </ul>
15	同年 7 月 6 日	短期施策に係るワークショップ	7	<ul style="list-style-type: none"> <li>CBD 交通改善計画の説明と協議</li> </ul>
16	同年 7 月 13 日	短期施策に係るワークショップ		<ul style="list-style-type: none"> <li>CBD 交通改善計画とパイロットプロジェクトの説明と協議</li> </ul>
17	同年 9 月 13 日	短期施策に係るワークショップ	12	<ul style="list-style-type: none"> <li>CBD 交通改善計画とパイロットプロジェクトの説明と協議</li> <li>DMDP および道路改良計画に係る説明と協議</li> <li>第三国研修に係る協議</li> </ul>
18	同年 10 月 4 日	研修ツアーの事前セミナー	8	<ul style="list-style-type: none"> <li>ヨハネスブルグの都市交通環境と問題点、BRT 導入の説明</li> </ul>
19	同年 11 月 10 日	短期施策に係るワークショップ	11	<ul style="list-style-type: none"> <li>CBD 交通改善計画とパイロットプロジェクトの説明と協議</li> <li>交通調査に係る協議</li> </ul>
20	同年 11 月 11 日	短期施策に係るワークショップ	10	<ul style="list-style-type: none"> <li>CBD 交通改善計画とパイロットプロジェクトの説明と協議</li> </ul>
21	同年 11 月 19 日	短期施策に係るワークショップ	10	<ul style="list-style-type: none"> <li>交通調査の TOR、調査票の説明と協議</li> </ul>
22	同年 11 月 25 日	短期施策に係るワークショップ	9	<ul style="list-style-type: none"> <li>交通調査の TOR、調査票の説明と協議</li> </ul>
23	2012 年 3 月 20 日	短期施策に係るワークショップ	14	<ul style="list-style-type: none"> <li>交通調査結果サマリー</li> <li>CBD 交通改善計画の実効性・効果に係る協議</li> <li>各実施機関の予算計画の進捗</li> </ul>
24	同年 4 月 3 日	短期施策に係るワークショップ	10	<ul style="list-style-type: none"> <li>CBD 交通改善計画案</li> <li>各実施機関の予算計画の進捗</li> </ul>
25	同年 4 月 25 日	短期施策に係るワークショップ	10	<ul style="list-style-type: none"> <li>CBD 交通改善計画案の実施計画</li> </ul>
26	同年 5 月 29 日	終了時評価にかかるブリーフィング	9	<ul style="list-style-type: none"> <li>終了時評価にかかるブリーフィング</li> <li>次期案件にかかる協議</li> </ul>
27	同年 6 月 12 日	終了時評価結果	16	<ul style="list-style-type: none"> <li>終了時評価の概要</li> <li>プロジェクトの概要と進捗報告</li> <li>終了時評価のインタビュー調査概要</li> </ul>
28	同年 7 月 3 日	終了時評価及び継続案件にかかる協議	9	<ul style="list-style-type: none"> <li>継続案件（交通技プロ・フェーズ 2）の要請書に係る協議</li> </ul>
29	同年 7 月 17 日	短期施策に係るワークショップ	8	<ul style="list-style-type: none"> <li>継続案件（交通技プロ・フェーズ 2）の要請書に係る協議</li> <li>CBD 交通改善計画（短期施策）に係る協議</li> <li>道路改良計画に係る協議</li> </ul>
30	同年 8 月 7 日	協議会にかかるブリーフィング	12	<ul style="list-style-type: none"> <li>第 3 回協議会の議事次第案の協議</li> <li>都市交通政策案にかかる協議と進捗報告</li> <li>道路改良計画案にかかる協議と進捗報告</li> </ul>
31	同年 8 月 14 日	短期施策に係るワークショップ	12	<ul style="list-style-type: none"> <li>CBD 交通改善計画に係る協議</li> </ul>
32	同年 8 月 16 日	短期施策に係るワークショップ	10	<ul style="list-style-type: none"> <li>CBD 交通改善計画に係る協議</li> </ul>
33	同年 9 月 4 日	短期施策に係るワークショップ	11	<ul style="list-style-type: none"> <li>CBD 交通改善計画に係る協議</li> </ul>
34	同年 10 月 9 日	短期施策に係るワークショップ	11	<ul style="list-style-type: none"> <li>CBD 交通改善計画の各実施機関の進捗報告</li> <li>第 3 回協議会議事録案の確認</li> </ul>

番号	日付	会議名	出席者	概要
35	同年 10 月 23 日	短期施策に係るワークショップ	12	<ul style="list-style-type: none"> <li>CBD 交通改善計画の詳細実施スケジュールの確認・合意</li> </ul>
36	同年 11 月 6 日	短期施策に係るワークショップ	17	<ul style="list-style-type: none"> <li>CBD 交通改善計画の各実施機関の進捗報告</li> <li>北部バス導入計画の需要予測・財務分析</li> </ul>
37	同年 11 月 20 日	短期施策に係るワークショップ	13	<ul style="list-style-type: none"> <li>CBD 交通改善計画の各実施機関の進捗報告</li> <li>CBD 交通改善計画の広報計画</li> <li>道路改良計画の国道優先プロジェクト</li> </ul>
38	同年 12 月 4 日	協議会にかかるブリーフィング	17	<ul style="list-style-type: none"> <li>第 4 回協議会の議事次第案の協議</li> <li>プロジェクト全体の進捗報告</li> </ul>

### 2.1.3 第 1 回協議会

2011 年 4 月 19 日、PMO-RALG（事務次官）、DSM-RAS、MOW、MOT、SUMATRA、PMO-RALG、DCC、DART Agency、MOLHSD、MOF、RFB、TANROADs、Municipalities（Temeke、Ilala）、日本大使館、JICA 事務所から合計 23 人の参加を得て、第 1 回協議会を開催した。同協議会に先だってワーク・プランを関係機関に提出した。

同協議会ではワーク・プラン及び PDM に係る協議を行い、出席者の合意を得るとともに、プロジェクトの進捗を報告した。

### 2.1.4 第 2 回協議会

2011 年 12 月 16 日、PMO-RALG（事務次官）、DSM-RAS、MOT、SUMATRA、PMO-RALG、DART Agency、MOLHSD、MOF、TANROADs、DCC、Municipalities、JICA 事務所から合計 17 人の参加を得て、第 2 回協議会を開催した。同協議会に先だってプログレスレポートを関係機関に提出した。

同協議会ではプロジェクトの進捗を報告するとともに、特に短期プロジェクト（中心市街地の交通改善計画及び市内道路改良計画と各計画の優先プロジェクト(案)にかかる関係機関の合意形成を図り、同プロジェクトの実施を促進するために議長である PMO-RALG の事務次官の号令の下、関係機関に対して次年度予算への同プロジェクトの予算計上を促すことを合意した。

### 2.1.5 第 3 回協議会

2012 年 8 月 24 日、PMO-RALG、DSM-RAS、MOHAS、MOLHSD、MOT、RFB、DCC、TANROADs、Municipalities（Ilala、Kinondoni、Temeke）、DART Agency、Traffic Police、SUMATRA、JICA 事務所から合計 23 人の参加を得て、第 3 回協議会を開催した。

同協議会では、プロジェクトの進捗を報告するとともに、短期プロジェクト（中心市街地の交通改善計画）の詳細計画にかかる関係機関の合意形成を図り、PMO-RALG が道路維持管理基金を使って同プロジェクトを速やかに実施することで関係機関の合意を図ることができた。

## 2.1.6 第4回協議会

2012年12月17日、PMO-RALG、DMS-RAS、MOHAS、MOLHSD、MOW、MOT、RFB、DCC、TANROADs、Municipalities (Ilala、Kinondoni、Temeke)、DART Agency、Traffic Police、SUMATRA、NIT、JICA 事務所から合計 29 人の参加を得て、第4回協議会を開催した。

同協議会では、プロジェクトの達成度の評価結果と合わせて完了報告を行うとともに、今後タンザニア側でプロジェクトを継続するための行動計画（関係機関のタスクとそのスケジュール）に係る協議を行い、関係機関の合意を得ることができた。また、短期プロジェクト（中心市街地の交通改善計画、交通管制システム）にかかる進捗を報告するとともに、同プロジェクトの実施促進のために、PMO-RALG 及び事務局が迅速にフォローアップを行うことで関係機関の合意を図ることができた。

協議会の協議資料、議事録は資料②を参照のこと。

## 2.2 交通計画策定能力向上支援

### 2.2.1 交通計画研修

交通需要予測やプロジェクト評価等交通プロジェクトの計画にかかる基礎知識の習得、交通需要予測ツール（JICA STRADA）の活用とツールを使った計画能力の強化を目的に研修を行った。

第3回、第4回事務局会議で、研修計画案（受講生、研修内容、開催場所・時期等）について協議を行い、NIT で研修員が参加しやすい週末に研修を開催することで合意を得た。当初、TOT を目的に研究機関に対して研修を行う予定であったが、事務局から「研究機関のみならず、実務者の参加も認めること」、「事務局メンバーが優先的に受講できるよう人選に配慮すること」等の要請があり、研究機関と実務機関合同で研修を行うことにした。第1回研修は2、3月、第2回研修は6、7月に実施し、各回4日間の研修に研究機関と実務機関から合計30人の研修生の参加を得て、交通計画研修を実施した。2、3月の研修概要は以下の通り。

表 2-2 交通計画研修の概要（2、3月の研修を例として）

番号	日付	時間	テーマ
1	2011年2月26日 土	9:00-10:30	交通計画と交通需要予測
2	2011年2月26日 土	11:00-12:30	交通計画のための交通調査の計画
3	2011年3月5日 土	9:00-10:30	四段階推定法（その1）：トリップ発生集中モデル
4	2011年3月5日 土	11:00-12:30	四段階推定法（その2）：トリップ分布モデル
5	2011年3月12日 土	9:00-10:30	四段階推定法（その3）：機関分担モデル
6	2011年3月12日 土	11:00-12:30	四段階推定法：配分ネットワークと交通配分モデル
7	2011年3月14日 月	16:00-17:30	プロジェクト評価
8	2011年3月14日 月	17:30-19:00	ダルエスサラーム交通データベースの説明

## 2.2.2 交通政策研修

他国の都市交通政策や都市交通問題へのアプローチ等の事例を紹介しながら、本プロジェクトのアウトプットの一つである都市交通政策の策定プロセスに係る知識を習得することを目的に交通政策研修を行った。研修場所や研修員は交通計画研修と同様に、NIT で研究機関と実務機関を対象に研修を行った。11、12月の週末（土曜日）に研修を実施し、各回4日間の研修に研究機関と実務機関から合計13人の研修生の参加を得て、交通政策研修を実施した。研修概要は以下の通り。

表 2-3 交通政策研修の概要

モジュール	内容	日付
モジュール1： イントロダクション 都市交通政策・計画	1) 都市交通政策のアプローチ：ビジョン、ポリシー、戦略、アクション 2) ダルエスサラーム市都市交通マスタープランの提言	11月12日 11月19日
モジュール2： 都市交通政策の歴史 日本の都市交通政策	1) 日本の都市の発展 2) 日本の都市交通の変遷 3) 日本の近年の都市交通 4) 日本の都市交通の関連政策・予算	11月26日
モジュール3： 都市交通計画のトレンド	1) 他国の都市交通計画の概観 2) 統合都市交通計画	12月3日

## 2.2.3 第3国研修

第9回事務局会議で都市交通計画に実施機関の能力とその強化策について協議を行い、能力強化の一環として第3国研修の実施に係る協議を行った。協議の結果、都市交通を含む関係機関の調整機関としてヨハネスブルグ開発公社が設立されたヨハネスブルグ市にて第3国研修を実施することを企画・提案し、JICAの承認を受けた。2011年10月10日から4日間、事務局メンバー4人の参加を得て、ヨハネスブルグ市にて以下の概要で第3国研修を実施した。

表 2-4 第3国研修の概要

項目	内容
研修目的	<ul style="list-style-type: none"> <li>2つの市の連絡体制の構築</li> <li>ヨハネスブルグの都市交通政策、交通計画の実践の理解、これらの政策・計画のダルエスサラームの都市交通問題解決への寄与</li> <li>BRTのインフラ整備、運行・運営面での実践の理解</li> <li>ダルエスサラーム市の都市交通問題解決を目的とした実践の紹介とヨハネスブルグ市の政策・計画からの学び</li> </ul>
研修期間	4日間（10月10日～13日）
スケジュール	10月10日（月）：移動（ダルエスサラーム→ヨハネスブルグ） 10月11日（火）：ヒアリング（ヨハネスブルグ市交通局） ヒアリング（ヨハネスブルグ市交通局 BRT 部(Rea Vaya)） 10月12日（水）：ヒアリング（市議会議員 Ms. Rehana Moosajee） 現地踏査（BRT 試乗、バス車庫見学） 10月13日（木）：移動（ヨハネスブルグ→ダルエスサラーム）
研修内容	<ul style="list-style-type: none"> <li>各訪問先での都市交通政策・計画・プロジェクトにかかる情報収集、都市交通問題への取り組みに係る意見交換</li> <li>見学（BRT 実車、交通管制システム見学）</li> </ul>
研修員	DART, Tanroads, DCC, Municipality (Kinondoni) から各1名合計4名

## 2.2.4 都市交通計画ハンドブック作成

都市交通関連機関の実務者が、2008年の都市交通マスタープランで実施した交通調査、データベース、計画手法を理解し、かつ自らアップデートするために活用することを目的としたマニュアルを作成した。同マニュアルは、1)交通計画概要、2)交通調査ガイドライン、3)交通需要予測ガイドライン、4)プロジェクト評価ガイドラインの4部構成であり、うち1~3のドラフトが完了した。また、同マニュアルを使って事務局メンバーが中心市街地の交通改善計画のための各種交通調査を実施した。

表 2-5 都市交通計画ハンドブックの構成と内容

構成	内容
イントロ	目的と概要
都市交通計画概論	計画の手順 将来フレームの設定 交通需要予測の手順
交通需要予測手法	現況交通量の推計 四段階推計法 将来交通量の予測
交通調査手法	交通調査の概要 パーソントリップ調査 走行速度調査 トリップ原単位調査 交差点方向別交通量調査 公共交通調査 交通意向調査 事業所・貨物調査

## 2.2.5 OJTによる交通調査実施

第19回から22回事務局会議で、中心市街地の交通改善計画のインプットデータや社会実験の効果分析を目的に①交通量調査、②駐車場調査、③公共交通調査、④建物調査、⑤測量調査の実施について協議を行った。2011年12月、事務局メンバー及びNITが上述した都市交通計画ハンドブック（案）を活用しながら、仕様書案、調査票案の作成、調査員の訓練・監督、データの照査と分析、各交通調査の調査レポートの作成・取りまとめ作業を行った。

2012年7月、市道路改良計画の策定と優先プロジェクトの選定に必要な現況及び将来OD表の更新を目的として、2008年に実施した総合都市交通体系策定調査に倣い、NITがスクリーンライン調査及びコードンライン調査を実施し、同調査結果を調査レポートに取りまとめた。

表 2-6 中心市街地交通改善計画と各種交通調査の関係

交通改善計画の施策	交通量調査	駐車場調査	公共交通調査	建物調査	測量調査
駐車場マネジメント	✓	✓		✓	✓
バスターミナル改良計画			✓		
バス路線再編計画	✓		✓		
交差点改良計画	✓				✓
交通流改善計画	✓			✓	✓
道路マーキング	✓	✓			✓
道路拡幅計画	✓				✓
歩行者道整備計画		✓		✓	✓

## 2.3 都市交通政策策定支援

### 2.3.1 都市交通政策ワークショップ

NIT、ダルエスサラーム大学、Ardhi 大学と協議を重ね、都市交通政策の方向性や内容を確認し、専門家チームとカウンターパートが都市交通政策に係るディスカッションペーパーに取りまとめた。第 10 回、第 11 回、第 12 回事務局会議でダルエスサラームの都市交通政策・戦略にかかるワークショップを開催した。

### 2.3.2 関係者会議

国家運輸政策の策定作業を進める運輸省と協議を行い、上記ディスカッションペーパーの一部を同政策に反映した。具体的には、当初の国家運輸政策のビジョン、ポリシー案は国全体の政策に焦点が当てられているため、都市、特にダルエスサラーム市の交通問題とその解決のためのアプローチとなるポリシーや戦略に対する言及がなかった。そこで、運輸省との協議の結果、ディスカッションペーパーから需要管理（駐車マネジメント、交通需要マネジメント等）等に係るポリシーや具体のインフラ計画に係る政策が国家運輸政策案に反映された。

### 2.3.3 都市交通政策案の作成・協議

2008 年に実施した総合都市交通体系策定調査をレビューするとともに、上述した関係機関や研究機関との協議を行いながら、都市交通政策案を策定し、ディスカッションペーパーに取りまとめた。

表 2-7 都市交通政策案の構成と内容

構成	内容
イントロ	ダルエスサラーム市の都市交通現況
計画の原理原則	継続性の確保 民間参入の促進 交通需要管理の導入 受益者負担の原則 参加型アプローチの導入 社会的平等の原則 多モード間の統合



構成	内容
政策と戦略	調整機能の強化 交通管理と交通安全の向上 代替移動手段の確保 移動機会の平等の確保 新たな料金制度の導入 魅力ある都市空間の創造 環境にやさしい交通機関の提供 ハードインフラの整備促進 開発予算の多様化と財源の確保

### 2.3.4 DUTA 設立に向けた支援

PMO-RALG では 2015 年のダルエスサラーム市交通庁（DUTA: Dar es Salaam Urban Transport Authority）の設立を目指しており、現在、PMO-RALG は同交通庁の組織体制や財源を検討し、同庁の設立に必要な法令を起草を行う等設立に向けた作業を行っている。PMO-RALG は第 3 回協議会でこれらの作業の進捗を報告した。

専門家チームは PMO-RALG からの要請により、2008 年に実施した総合都市交通体系策定調査をレビューし、DUTA の組織体制や財源にかかる検討を行うとともに、これらをディスカッションペーパーに取りまとめた。

表 2-8 DUTA にかかる検討の内容

構成	内容
背景と現況	組織制度の現状と制度上の課題 DUTA の必要性 過年度調査のレビュー
DUTA の概要	DUTA 設立の目的 DUTA のミッションと戦略的目的 DUTA の役割と機能 DUTA の役割・機能の評価
DUTA の組織	法制度の現状 組織構成 役員会の役割・機能 各事業部の役割・機能 DUTA 設立に要する投入量（人員、予算）
DUTA の立法化	DUTA 設立にかかる条例案

## 2.4 短期施策の計画及び承認支援

### 2.4.1 中心市街地交通改善計画

現在整備が進められている BRT の導入効果を最大化し、中心市街地における交通渋滞を緩和することを目的に、第 13 回事務局会議以降、事務局メンバーと中心市街地の交通改善計画に係る協議を行った。2010 年に Ilala 区は DART の計画に則り中心市街地の一方通行化プロジェクトを予算化し、2011 年から道路標識の設置を始めた。本プロジェクトでは、過年度のマスタープランの結果や本プロジェクトで実施した交通調査の結果を使いながら、一方通行化による交通混雑の改善は限定的であり、駐車マネジメント計画、バス路線再編計画、交差点

改良計画等と一体となって実施する必要があると判断し、同計画の策定を支援している。この結果を、2011年12月16日の第2回協議会（具体的には交通改善計画の概略計画）、2012年8月24日の第3回協議会（交通改善計画の詳細実施計画）で協議し、関係機関と情報共有をするとともに、現在、協議会での合意事項をもとに各関係機関が優先プロジェクトの予算化に向けて調整を行っているところである。

中心市街地交通改善計画（案）は資料③に取りまとめた。

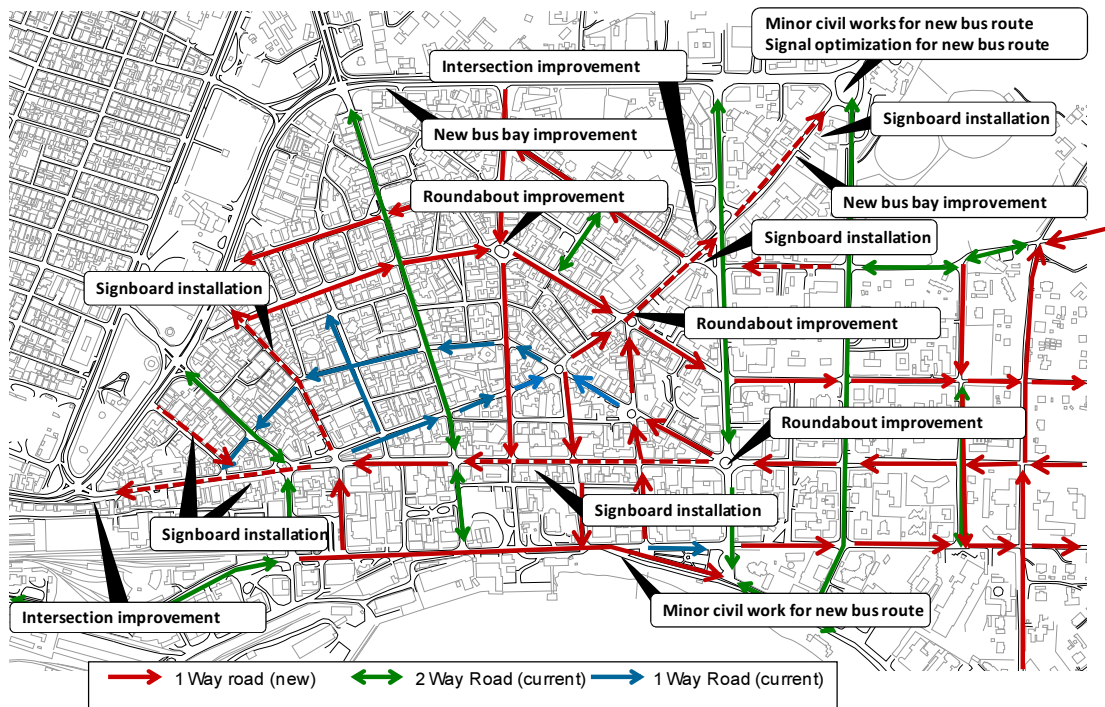
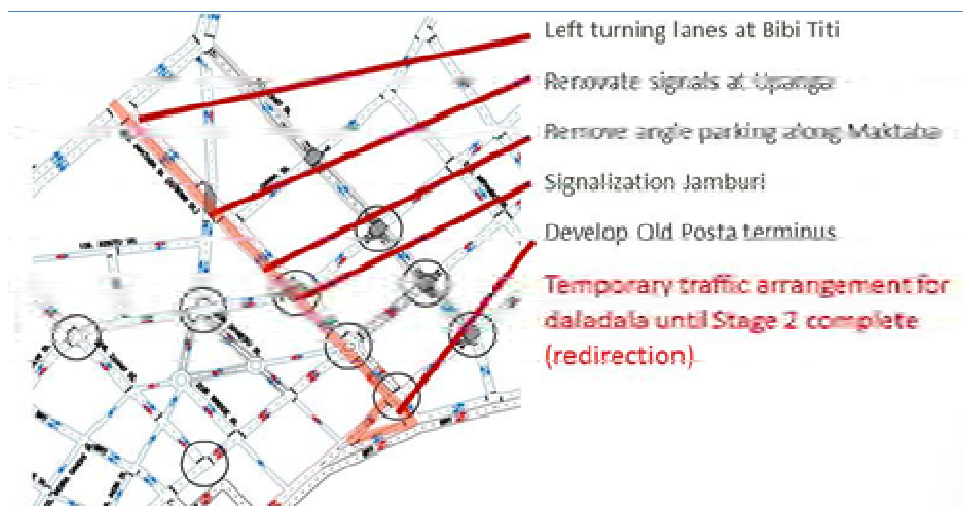


図 2-1 中心市街地交通改善計画（概略計画）



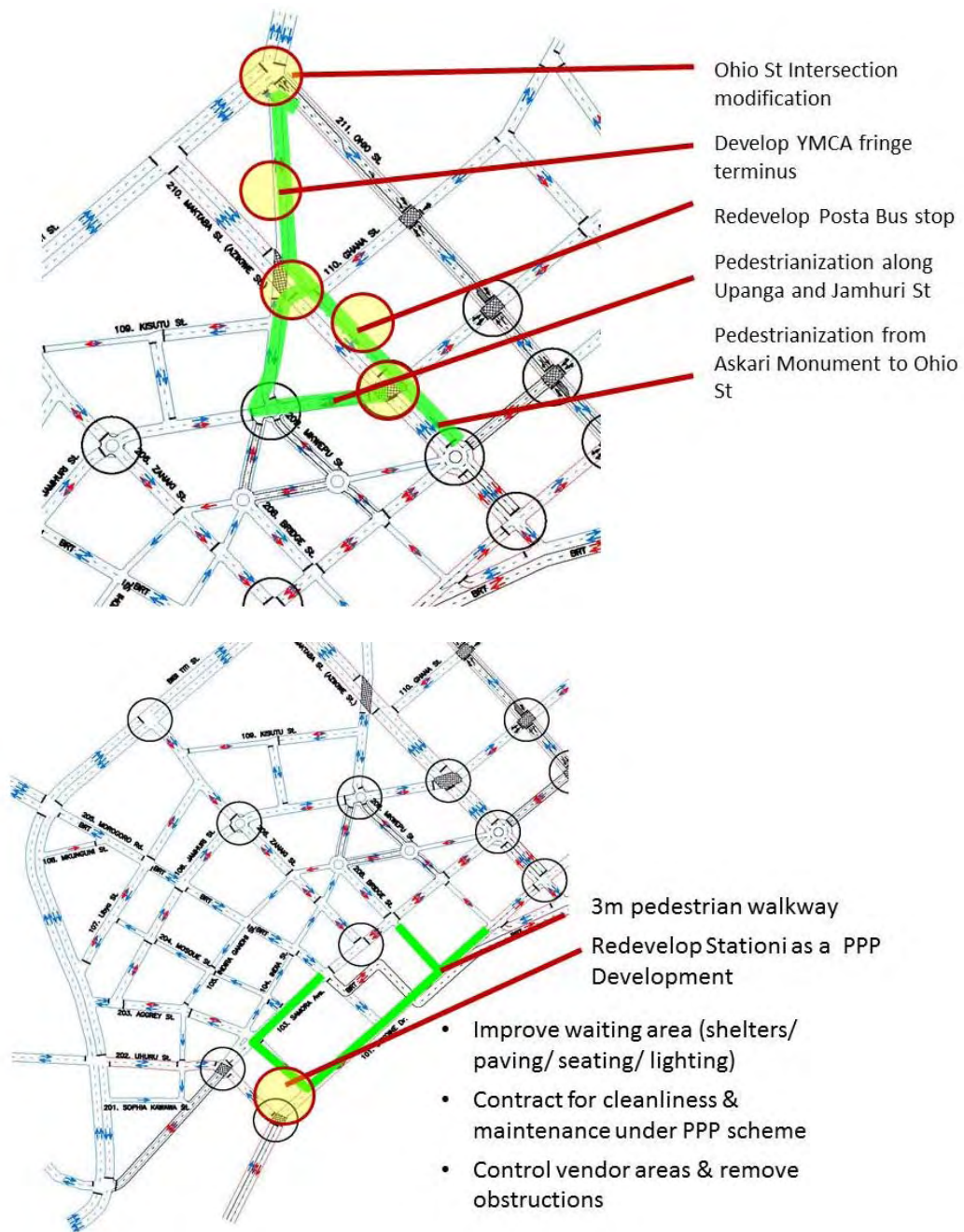


図 2-2 中心市街地交通改善計画（詳細計画）

#### 2.4.2 バス路線再編計画

中心市街地の一方通行化に伴い、現在のバス（ダラダラ）路線を抜本的に変更する必要があった。そこで、第17回事務局会議でバス路線の再編に係る協議を行い、その後、SUMATRA や DARCOBOA（ダラダラ所有者協会）と協議を重ね、事務局メンバーと協働してバス路線再編計画（案）を作成した。

Old Route	New Route
Ubungo – Kivukoni	Ubungo – Kivukoni
Kimara – Kivukoni	Kimara – Kivukoni
Sinza – Kivukoni	Sinza – Kivukoni

New Route Map:

Note: Before its implementation, following works should be completed;

- (1) Traffic flow at Kivukoni Front/Azikiwe intersection and Sokoine Drive/Azikiwe intersection should be carefully studied, to reduce collision with traffic along Sokoine Drive.
- (2) BRT design should be modified along Kivukoni front between Azikiwe Street and Magogoni Street to accommodate two-way mixed traffic instead of one way.

図 2-3 バス路線再編計画案（一部）

### 2.4.3 市内道路改良計画

世銀は DMDP（Dar es Salaam Metropolitan Development Program）のもと、2012 年から 5 年間で 75 百万ドルを拠出し、ダルエスサラーム市内の道路（地方道）改良、ごみ処理事業、排水施設整備事業等を支援する。世銀 DMDP 担当と協議し、DMDP で支援するプロジェクトは合理的な方法で選定する必要があることを双方確認した。専門家チームは DMDP の優先プロジェクトの選定作業の支援（GIS や交通需要予測を利用した論理的な短期施策のショートリスト化）を行う必要があると判断した。そこで、第 17 回事務局会議以降、事務局メンバーと協働して、道路改良計画のロングリスト作成、交通需要予測や GIS によるネットワーク評価、プロジェクト評価指標の選定と優先プロジェクトの選定作業を行った。この結果を、2011 年 12 月 3 日に世銀が主催するステークホルダー会議にて発表した。

2011 年 12 月 16 日の第 2 回協議会（具体的には市道路改良計画と優先プロジェクト案）、2012 年 8 月 24 日の第 3 回協議会（優先プロジェクトの DMDP での実施状況）で協議し、関係機関と情報共有をするとともに、協議会での合意事項をもとに各自治体が優先プロジェクトを確定した。

市道路改良計画案（案）は資料③に取りまとめた。

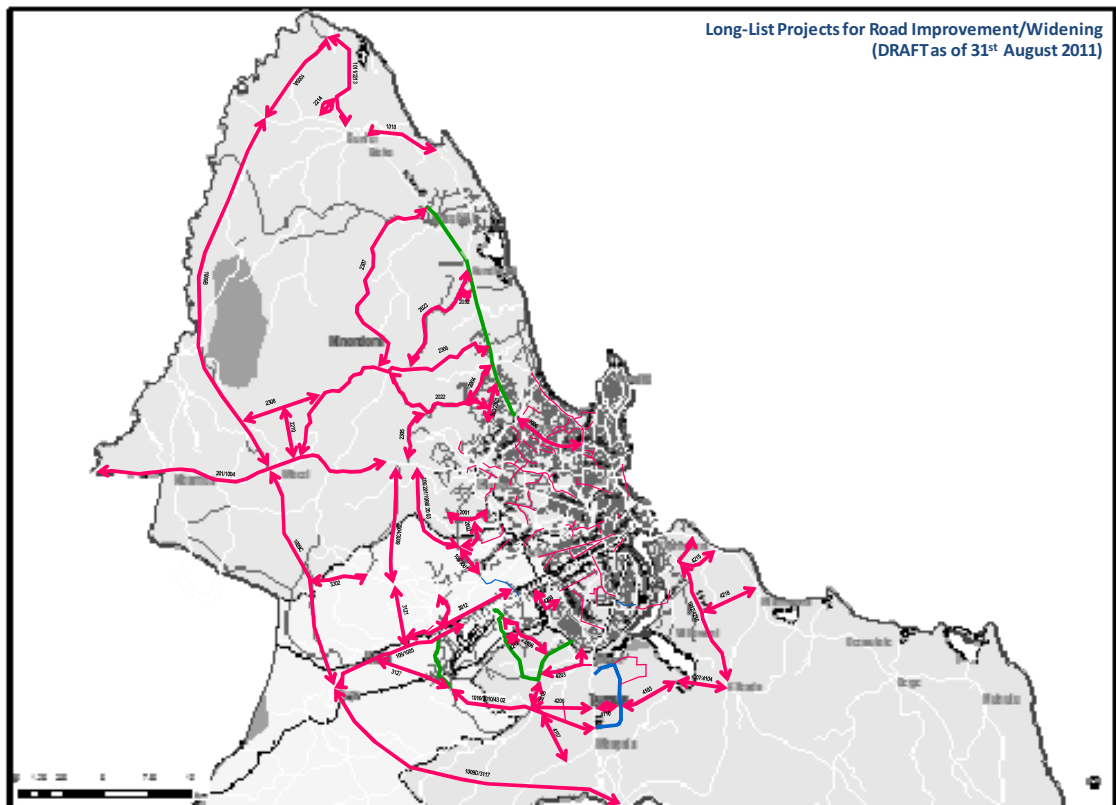


図 2-4 道路改良計画プロジェクトロングリスト

表 2-9 道路改良計画の評価指標

1st level criteria	2nd level criteria	3rd level criteria	Evaluation items
Economic criteria	Workability	Project size	Project cost
	Sustainability	Reliable traffic service	All weather traffic
	Economy	Traffic demand	Daily traffic volume
		Cost effectiveness	Volume capacity ratio
Environmental criteria	Pollution	Regional development and logistics network	Cost/traffic volume
		Noise and vibration	External trip rate
	Social Environment	Air quality	Connectivity
		Involuntary resettlement	Heavy vehicular traffic volume
Basic need criteria	Poverty Reduction	Impact to the regional economy	Traffic volume and travel speed
		Impact to the poverty reduction	Resettlement and land acquisition
		Availability of road	No. of population in project site
			No. of population in poverty in project site
			Road length/households

## 2.4.4 北部バス導入検討

中心市街地における交通渋滞の緩和策の一環として、ムウエンゲ～モロコ～中心市街地を連絡するバス専用レーンの導入とバス及び運行システムの導入に係る検討を行った。検討にあたっては、本プロジェクトで実施した交通調査の結果を利用し、概略設計、運行計画の検討、財務分析を行い、ディスカッションペーパーに取りまとめた。また、プロジェクトの実施を支援するために、関連する実施機関（PMO-RALG、TANROADs、Kinondoni 区、DART）と協議を行った。特に、DART が実施中の BRT 導入計画ではフェーズ 1（モロゴロルート、カワワ・カリアコルート）の運行計画や財務分析の検討を行う必要があり、北部バスで同様の検討を行っていることから、DART に対する技術的支援を行った。

北部バス導入計画（案）は資料③に取りまとめた。

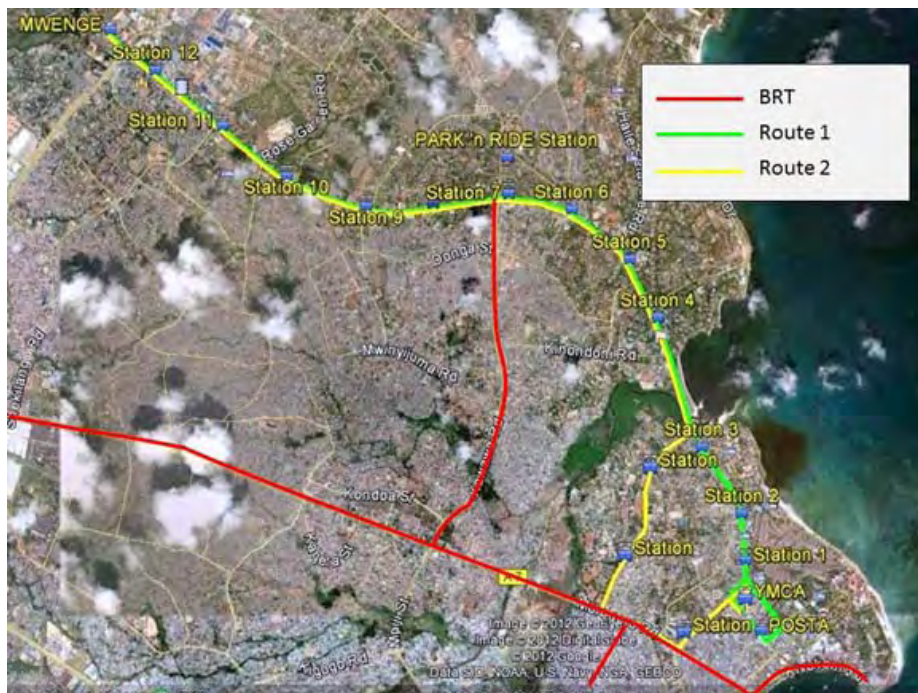


図 2-5 北部バスの導入ルート案

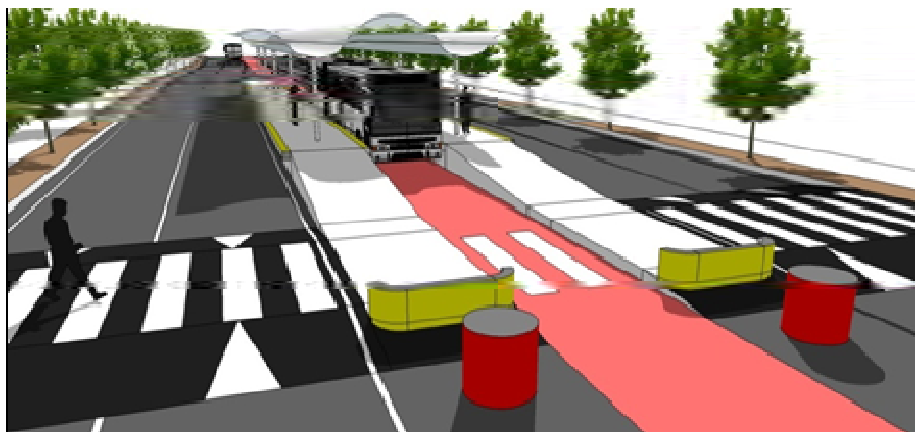


図 2-6 北部バスの導入イメージ

#### 2.4.5 民間資金によるターミナル整備

中心市街地交通改善計画では、ステーション、オールドポスタ、ニューポスタ、YMCA におけるターミナル整備を提案した。同プロジェクトの実施を促進するために、民間資金によるターミナル整備の可能性を検討し、ディスカッションペーパーに取りまとめるとともに、民間コントラクターとの契約書案を作成した。プロジェクトの実施を支援するために、関連する実施機関（民間広告会社、Ilala 区）と協議を行った。

民間資金によるターミナル整備計画（案）は資料③に取りまとめた。



図 2-7 民間資金によるターミナル整備のイメージ

#### 2.4.6 その他の短期プロジェクト

プロジェクト期間を通じて、事務局及び専門家チームは関係機関からの要請のもと短期プロジェクトに係る検討や関係者協議の支援を行った。以下に事務局及び専門家チームが関係した短期プロジェクトの一例を整理する。

- 民間資金を活用した交通管制システムの導入を目的に民間コントラクターがパイロットプロジェクトを実施しようとしていた。関係機関が多岐に亘るため、意思決定が複雑でかつ関係機関の調整に時間がかかり、特定交差点でのパイロットプロジェクトでの同システムの運用がとん挫していた。事務局は民間コントラクターからの要請を受けて交通管制システムの導入可能性に係る関係者協議を支援した。
- DCC、DART はウブンゴの長距離バスターミナルをムベジ（ウブンゴ交差点から 10 キロ郊外）に移設することで合意しており、ウブンゴ～ムベジ間のアクセス性を向上するための検討を事務局及び専門家チームに要請した。専門家チームは①ゼロオプション、② BRT（一般道利用）のムベジまでの延伸、③4 車線拡幅+BRT（一般道利用）のムベジまでの延伸、④6 車線拡幅+BRT（専用道）のムベジまでの延伸を比較検討し、③4 車線拡幅+BRT（一般道利用）のムベジまでの延伸を最適案として提案した。
- TANROADs、DART はウブンゴ交差点の改良をデザインビルドで実施することを検討しており、ウブンゴ交差点の改良方針の検討及び最適案の提案を事務局及び専門家チームに要請した。専門家チームは①ゼロオプション、②モロゴロ道路の立体交差、③モロゴ

ロ道路のアンダーパス、④マンデラ（サムンジョマ）道路の立体交差化、⑤マンデラ道路のアンダーパスを比較検討し、③モロゴロ道路のアンダーパスを最適案として提案した。



## 第3章 プロジェクト実施運営上の課題・工夫・教訓

### 3.1 本プロジェクトの達成度及び実施運営上の課題

本プロジェクトのPDMに示されたプロジェクト成果について、下表に各プロジェクト成果の達成度とプロジェクト実施運営上の課題を整理した。

1. 関係機関の役割分担を明確にしながら、調整機関（事務局、協議会）を設立する。

プロジェクト成果（詳細）	達成度	実施運営上の課題
1. 協議会は、事務局と協議会のメンバーを確認し、メンバー間の連絡体制を確立する。	<ul style="list-style-type: none"> <li>2011年4月19日の第1回協議会において本プロジェクトの実施体制及び構成メンバーを確認した。</li> <li>協議会において協議会はPMO-RALG事務次官、事務局会議はDSM-RASが議長として会議を招集することを確認した。</li> <li>事務局メンバーの連絡網を構築し、SMSによる事務局会議の開催の連絡やメールによる議事録の回覧を行った。</li> </ul>	<ul style="list-style-type: none"> <li>プロジェクトの進捗を事務局メンバーの所属機関内で共有すること。事務局メンバーが上長に対して報告を行うことを要請するとともに、関係機関に個別に進捗報告を行うことで対応。</li> <li>DSM-RASが本プロジェクトのオーナーとなり、州から各事務局メンバーに指示を行うこと（DCCは3区から実施機関として認識されているため）。</li> </ul>
2. 事務局メンバーは隔週のミーティングを開催し、協議会メンバーは数度の協議会を開催する。	<ul style="list-style-type: none"> <li>合計38回（月平均2回）の事務局会議、2011年4月、12月、2012年8月、12月に合計4回の協議会を実施した。</li> <li>DCCは協議会及び事務局開催等にかかる費用を2011/12年度予算に計上し、協議会の開催費にかかる予算が承認された。</li> <li>建設省、運輸省、交通警察等1年次に参加していなかった関係機関が2年次に積極的に参加する等事務局メンバーの参加数が増えた。</li> </ul>	<ul style="list-style-type: none"> <li>タンザニア側が左記の活動を継続して実施すること。</li> <li>事務局メンバーの活動を継続して実施するために、PMO-RALGが資金的な支援を行うこと。</li> </ul>
3. 協議会メンバーは事務局に対してリコメンドし、事務局メンバーは各組織にフィードバックする。	<ul style="list-style-type: none"> <li>第1回協議会にて、ワーク・プラン案にかかる協議を行い、協議会が実施体制等に対して勧告した。準備調査で合意したプロジェクト成果の変更についても同協議会で合意した。</li> <li>第2回、第3回協議会にて短期施策に関する協議を行い、協議会が事務局に対して予算計画の策定を指示した。</li> <li>事務局が合意された短期施策を各関係機関の来年度の予算計画案に反映するようモニタリングした。</li> </ul>	<ul style="list-style-type: none"> <li>タンザニア側が左記の活動を継続して実施すること。</li> </ul>
4. 事務局はプロジェクトの成果を周知する。	<ul style="list-style-type: none"> <li>四半期毎に地方道路会議にてプロジェクト概要の説明及び進捗報告を行った。</li> <li>ダルエスサラーム市長、Ilala 区長、Temeke 区長等政策意思決定者に対してもプロジェクト概要の説明を行った。</li> </ul>	<ul style="list-style-type: none"> <li>地方道路会議に加えて、DSM-RASのRegional Consultative Committeeや政策意思決定者への進捗報告を行うこと。</li> </ul>
5. 事務局はプロジェクトの進捗をモニターし、協議会に報告する。	<ul style="list-style-type: none"> <li>第2回～第4回協議会にて事務局が協議会に対してプロジェクトの進捗報告を行った。</li> </ul>	<ul style="list-style-type: none"> <li>タンザニア側が左記の活動を継続して実施すること。</li> </ul>

2. トレーニングの必要性を確認・評価し、本プロジェクトに係る個人の交通計画に関する能力を向上させる。

プロジェクト成果（詳細）	達成度	実施運営上の課題
1. JICA 専門家は各組織のトレーニング参加候補の履歴書を収集し、現在の職掌を把握する。	<ul style="list-style-type: none"> <li>事務局メンバー機関及び4研究機関から各機関1～2名の選出を依頼した。選出基準は関連する学科の学位取得者以上、エクセルやGIS等のソフトウェアの利用経験があること。</li> </ul>	
2. JICA 専門家はトレーニングの参加者を選定する。	<ul style="list-style-type: none"> <li>研修員の選定は各機関が実施した。</li> <li>研究機関の中からNITの講師（オランダにて交通計画学を修了）を選定し、第2回研修から共同して講義を実施した。</li> </ul>	<ul style="list-style-type: none"> <li>活動の持続発展性を高めるため、ダルエスサラーム大学工学部、Ardhi 大学等の研究機関で交通計画能力を向上すること。</li> </ul>
3. JICA 専門家は交通計画能力向上のための適切なトレーニングプログラムと資料を作成、周知する。	<ul style="list-style-type: none"> <li>交通計画概論、交通調査、需要予測、プロジェクト評価を中心に8コマの基礎講座（合計12時間）のプレゼン資料及びマニュアル案を作成し、関係機関に配布した。</li> <li>NITの交通計画学講座の教材作成及び講座の共同開催を支援した。</li> <li>第3回国研修を企画し、南アヨハネスブルグにて研修を実施した。</li> <li>NITは通常授業（交通計画概論）の中で本プロジェクトで作成した教材を活用した。</li> <li>NITは高等教育・科学省に対して交通計画学科の設立を申請し、承認された模様。</li> </ul>	<ul style="list-style-type: none"> <li>NITが主催し、民間や政府機関を対象とした交通計画学トレーニングコース（有料）を実施すること。</li> <li>NITにおいて交通計画学科が交通計画学部に格上げされ、研究・実務の双方でより交通計画にかかる能力（講師の数、質、業務・研究委託）が向上すること。</li> </ul>
4. トレーニング参加者は一連の交通計画業務を行う。	<ul style="list-style-type: none"> <li>2011年2/3月、6/7月、11/12月の合計3回の研修を実施した。</li> <li>各回講座後にアンケート票を使って研修の評価を実施した。概ね良い評価を得ているものの、需要予測等更なる演習への要望が高かった。</li> <li>2011年12月、2012年7月に事務局メンバーやNITを対象にOn-the-job トレーニングとして各種交通調査（①交通量調査、②駐車場調査、③公共交通調査、④建物調査、⑤測量調査）を実施した。</li> </ul>	<ul style="list-style-type: none"> <li>事務局メンバーが継続して交通計画能力を向上するためにNITでトレーニングを行うこと。</li> </ul>
5. タスク・フォースに選定された事務局のトレーニング参加者は、実際の交通計画業務に参画する。	<ul style="list-style-type: none"> <li>2011年12月、2012年7月に実施した各種交通調査の結果を短期施策（中心市街地交通改善計画）の計画に活用した。</li> </ul>	<ul style="list-style-type: none"> <li>タンザニア側が左記の活動を継続して実施すること。</li> </ul>

### 3. 一連の交通政策に係る勧告を交通政策として編纂する。

プロジェクト成果（詳細）	達成度	実施運営上の課題
1. 事務局メンバーが、組織横断的な制度上・規定上の問題を認識する。	<ul style="list-style-type: none"> <li>事務局メンバーと都市交通の現況分析、課題抽出を行い、問題マップに整理した。問題マップの結果を本プロジェクトのPDMに反映した。</li> <li>2011年3月にEUの技プロチームからの依頼で都市交通政策にかかる方針、戦略にかかるディスカッションペーパーを作成した。</li> <li>2011年7/8月に事務局会議で、ワークショップを行い、都市交通政策案を最終化した。</li> </ul>	
2. 事務局メンバーが、交通インフラと交通サービスに係る問題を認識する。	<ul style="list-style-type: none"> <li>(同上)</li> </ul>	
3. 事務局メンバーが、関連する組織やドナーを含めた一連のステークホルダー会議を開催する。	<ul style="list-style-type: none"> <li>2011年7/8月に都市交通政策にかかる事務局会議を開催した。</li> <li>運輸省及びEUの技プロチーム（旧インフラ省の国家運輸政策の策定業務他を受注）に対して、政策案のプレゼンを行う等プロジェクトの進捗にかかる情報交換を行った。</li> <li>Ardhi 大学及びダルエスサラーム大学 (PMO-RALG 都市開発政策の策定業務を受注) と協議を行い、都市交通政策にかかる方針、戦略の意見交換を行った。</li> </ul>	
4. 事務局メンバーが、総合都市交通政策（案）を立案する。	<ul style="list-style-type: none"> <li>C/P と共同して都市交通政策、戦略、アクションにかかるレポートを作成した。</li> <li>運輸省及びEUの技プロチームと定期的に協議を行い、運輸省が策定する国家運輸政策のホワイトペーパー（ビジョン及び政策）の都市交通政策に反映された。</li> </ul>	<ul style="list-style-type: none"> <li>PMO-RALG が都市交通政策を策定し、同政策に則り関係機関に短期の優先施策の実施を促すこと。</li> <li>政策（長期）－投資計画（中期）－優先プログラム・プロジェクト（短期）を PMO-RALG が承認し、関係機関の実施状況をモニタリングすること。</li> </ul>
5. 協議会メンバーが、総合都市交通政策（案）にリコメンデーションを行い、（案）を承認する。	<ul style="list-style-type: none"> <li>2011年7/8月に都市交通政策にかかる事務局会議を開催した。</li> <li>第4回協議会で調整機能をシステム化するための都市交通政策案の必要性について協議し、タンザニア側と合意形成を図った。</li> </ul>	<ul style="list-style-type: none"> <li>更に調整機能を強化するために DUTA が設立されること。</li> </ul>

4. 優先度が高く、関連機関間で調整されたプロジェクトを計画し、短期アクションプランとして採択される。

プロジェクト成果（詳細）	達成度	実施運営上の課題
1. 事務局メンバーが、最新の都市交通に係る情報を収集し、分析する。	<ul style="list-style-type: none"> <li>中心市街地の交通改善、市内の道路改良を目的としたプロジェクトの計画づくりのため、On-the-job トレーニングにより事務局が各種交通調査を企画、実施した。</li> <li>道路プロジェクトの優先施策を選定するために、事務局がプロジェクトロングリストを作成した。</li> </ul>	
2. 事務局メンバーが、重要な都市交通問題と緊急の都市交通プロジェクトを認識する。	<ul style="list-style-type: none"> <li>中心市街地の交通改善のために現在実施中の一方通行化規制に加えて、駐車場対策、バス路線再編、交差点改良等の優先プロジェクトを選定した。</li> <li>交通需要予測やマスタープランで作成した GIS を使って、優先プロジェクトを選定した。</li> </ul>	
3. 事務局メンバーが、緊急性の高い都市交通プロジェクトの予備調査実施を促進する。	<ul style="list-style-type: none"> <li>中心市街地の交通改善計画については、交差点改良、道路マーキング、バスターミナル整備、路上駐車場整備等の概略設計と概略積算を行った。</li> <li>市道路改良計画については、今後世銀の支援のもと優先プロジェクトを最終化し、各プロジェクトについて事業実現性調査、詳細設計調査が実施される予定。</li> </ul>	
4. 事務局メンバーが協議会に短期のアクションを提案する。	<ul style="list-style-type: none"> <li>第2回、第3回協議会にて事務局が中心市街地交通改善、市内道路改良計画等の短期施策にかかる提言を行った。</li> <li>事務局が世銀や地方道路会議、省庁関係者会議等で中心市街地交通改善、市内道路改良計画等の短期施策にかかる提言を行い、特に中心市街地交通改善計画の予算化のために関係機関の調整を行った。</li> </ul>	
5. 協議会メンバーが短期のアクションに対してリコメンドし、短期アクションを承認する。	<ul style="list-style-type: none"> <li>中心市街地交通改善計画のうち道路マーキングについては DCC の 2011/12 年の予算計画に反映され、同予算が承認された。</li> <li>第2回、第3回協議会にて短期施策に関する協議を行い、協議会が事務局に対して予算計画の策定を指示し、同計画に則り実施機関に対して短期施策の実施を指示した。</li> </ul>	

## 3.2 実施運営上の工夫

### 3.2.1 調整機能のシステム上の欠点の理解

ダルエスサラーム市の都市交通の関連機関は大別して4つの省（PMO-RALG、MOT、MOW、MOHAS）と9つの実施運営機関（DSM-RAS、DCC、DART、TANROADs、SUMATRA、Traffic Police、Ilala区、Temeke区、Kinondoni区）が各々所管する地域の交通モードの政策立案、計画、実施・運営にあたっている。下図に示す通り、例えば全国の運輸交通セクターでは、運輸省が政策レベルの国家運輸政策を策定し、同政策に倣って投資計画を策定し、優先プロジェクトを計画的に実施するシステムが構築されている。一方、ダルエスサラーム市の都市交通はPMO-RALGが運輸省と同様の役割を担うことが期待されているものの、政策策定→投資計画→優先プロジェクト実施を促進するシステムが存在していないため、現時点ではダルエスサラーム市の都市交通に特化した政策、予算計画、優先プロジェクトリスト等はない。

そこで、本プロジェクトでは、多岐に亘る関係機関（の政策や計画）と調整しながら、ダルエスサラーム市の都市交通政策、優先プロジェクトの計画策定を支援し、関係機関の調整機能を強化することを目指した。

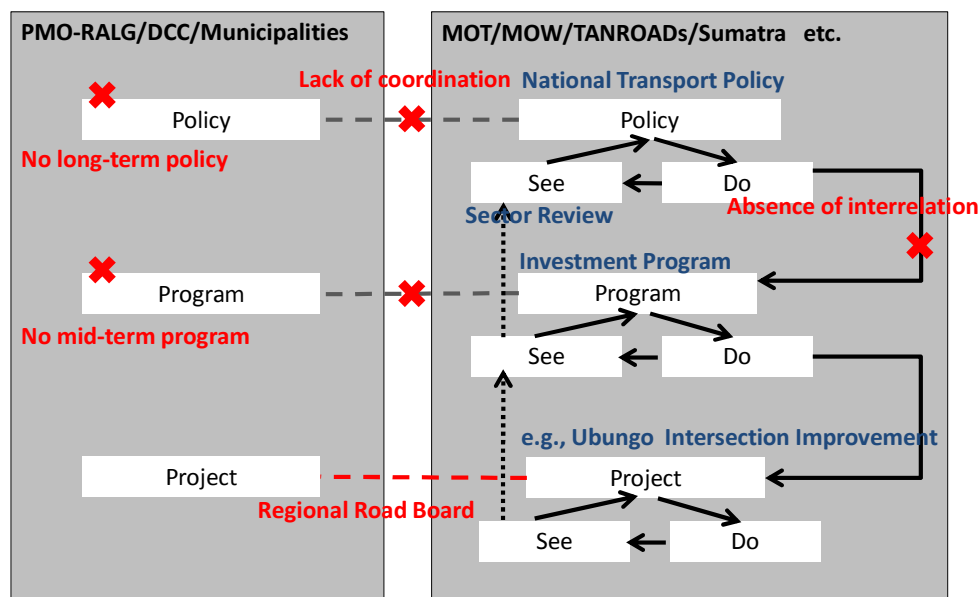


図 3-1 交通セクターにおけるポリシー、プログラム、プロジェクトの現状と課題

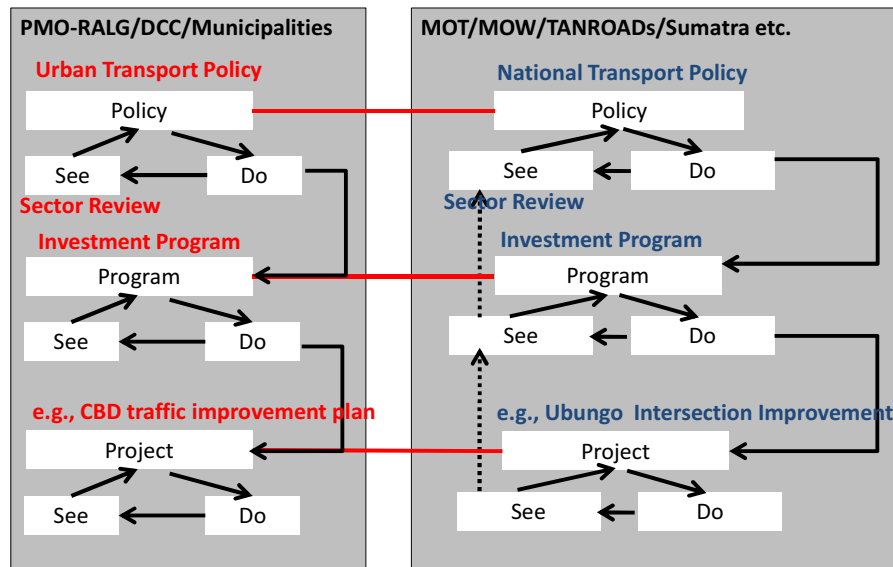


図 3-2 都市交通セクターのポリシー、プログラム、プロジェクトの計画策定支援と調整機能の強化

### 3.2.2 予算プロセスに配慮したプロジェクト運営計画

短期施策の実施にあたっては、関係機関の予算執行が必要になることから、タンザニア国の予算サイクルを考慮しながら、短期施策の実施を支援する必要がある。ダルエスサラーム市を例にすると、3月に市の年次計画が策定され、その後年次計画を基に予算計画が作成され、5月に州議会により予算案の承認を受けて、PMO-RALGおよび財務省に提出される。その後、8月以降にPMO-RALGを経由して4期に分割して市に予算が配賦される。これを踏まえ、2011年12月に第2回協議会を開催し、短期施策の概略計画に係る協議を行い、関係機関の合意形成を図るとともに実施機関に短期施策の次年度予算計画への反映を促した。2012年8月に第3回協議会を開催し、短期施策の詳細計画に係る協議を行い、実施機関に事務局の提案に則り短期施策の実施の促進を図った。

Month/ Year	Budget Cycle (e.g., DCC)	Project Activities
Dec/2011		Build consensus on proposed program/projects and assign responsibilities (2 <sup>nd</sup> SC)
Jan/2012	Request of preparation of annual plan by PMO-RALG	
March	Preparation of annual plan by DCC	
April	Approval of annual plan by regional assembly	
May	Submission of annual plan and budget plan to PMO-RALG	
June	Approval of national budget plan by national assembly	
Aug		Monitor progress of proposed program/projects and assign responsibilities (3 <sup>rd</sup> SC)

図 3-3 ダルエスサラーム市の予算プロセスと本プロジェクトの活動

### 3.2.3 関連プロジェクトとの相乗効果の発現

本プロジェクトのアウトプットの一つである優先プログラム・プロジェクトの選定に際しては、関係機関の調整の結果、プロジェクトの有効性や相乗効果が期待されるテーマを選定した。優先プログラム・プロジェクトとして中心市街地交通改善計画と市内道路ネットワーク改良計画が選定された理由と各計画の進捗状況は以下の通りである。

- 中心市街地交通改善計画：2010年にIlala区はDARTの計画に倣って中心市街地の一方通行化プロジェクトを予算化し、2011年から道路標識の設置を始めた。本プロジェクトでは、過年度のマスタープランの結果や本プロジェクトで実施した交通調査の結果を使いながら、一方通行化による交通混雑の改善は限定的であり、駐車マネジメント計画、バス路線再編計画、交差点改良計画等と一体となって実施する必要があると判断し、同計画の計画づくりを支援している。結果として、関係機関が一方通行化の実施の延期を決定し、事務局が実施する交差点改良計画等の実施を待って、一方通行化を導入することで関係機関のコンセンサスを得た。第2回、第3回協議会で同計画の概略計画、詳細計画を協議し、議長であるPMO-RALGの指揮のもと事務局が作成した交差点改良他の事業計画を関係機関が協議し、同時に予算確保に向けた調整を行った。
- 市内道路網改良計画：世銀はDMDP (Dar es Salaam Metropolitan Development Program)のもと、2012年から5年間で75百万ドルを拠出し、ダルエスサラーム市内の道路(地方道)改良、ごみ処理事業、排水施設整備事業等を支援する。世銀DMDP担当と協議し、短期施策の合理的な選定が必要であることを双方確認し、専門家チームがDMDPにインプット(GISや交通需要予測を利用した論理的な短期施策のショートリスト化)する必要があると判断した。TANROADs、DCC、Municipalityから集めた案件ロングリストの作成と優先プロジェクトの選定作業(GIS作成、需要予測、ネットワーク評価)を行い、関係機関が事務局の作業結果をもとに、DMDPで支援すべき優先プロジェクトの選定作業を行った。第2回、第3回協議会で優先プロジェクトの合意形成を図り、議長であるPMO-RALGの指揮のもと地方自治体が本プロジェクトで提案した優先プロジェクトをDMDPで実施することで関係機関の調整・合意形成を図った。

### 3.2.4 調整機能を強化するためのアウトプットやスキルの明確化

上述した通り、本プロジェクトを通じてダルエスサラーム市の都市交通政策、優先プロジェクトの計画策定を支援することを提案し、第1回協議会で関係機関が合意したものの、事務局メンバーが具体的に関係機関の調整機能を果たすために何をすべきかが明確でなかった。そこで、本プロジェクトを通じてダルエスサラーム市の都市交通政策、優先プロジェクトの計画策定を支援するうえで、具体的なアウトプットや個人レベルに必要な知識やスキルを明確にした。例えば、プロジェクトレベルの計画策定には、交通調査、交通需要予測、プロジェクト評価手法等の知識やスキルが必要であることを提案し、それらを研修計画に反映した。同時に、都市交通計画ハンドブックを作成し、交通調査の実施の際に、同マニュアルを活用して、事務局が実施する調査の企画、実施、調査結果の分析、取りまとめ作業の支援を行っ



た。

表 3-1 本プロジェクトのアウトプットの概要

Outputs	Target year	Contents
Draft Urban Transport Policy	20-year transport policy	<ul style="list-style-type: none"> <li>✓ Contexts, issues to be addressed</li> <li>✓ Vision, policies</li> <li>✓ Short, mid and long-term strategies</li> <li>✓ Roles and responsibilities of concerned agencies</li> <li>✓ Monitoring and evaluation indicators and policy evaluation process</li> </ul>
Draft Investment Program	10-year investment program	<ul style="list-style-type: none"> <li>✓ Investment schedule consistent to policy/strategies</li> <li>✓ Source of the fund including external/internal funds</li> <li>✓ New revenue generation scheme</li> </ul>
Urban Transport Improvement Program	5-year improvement program	<ul style="list-style-type: none"> <li>✓ Contexts, critical issues to be addressed</li> <li>✓ Policies/related project</li> <li>✓ Long and short-listed projects</li> <li>✓ Necessary inputs and anticipated outcomes</li> </ul>
Project Profile	Short-term measures	<ul style="list-style-type: none"> <li>✓ Scope of the project</li> <li>✓ Implementation plan</li> <li>✓ Evaluation of the project</li> <li>→ Uniform format for evaluation of the different projects</li> </ul>

表 3-2 本プロジェクトのアウトプットを達成するために必要な知識・スキル

Outputs	Knowledge /skills required	Project products (manuals and guidelines)
Draft Urban Transport Policy	<ul style="list-style-type: none"> <li>✓ Advanced concepts, principles, techniques, and institutional aspects, pertaining to urban transport policy/program</li> <li>✓ Advanced interdisciplinary practices, analytic tools and recent trends affecting urban transport policy/program</li> <li>✓ Principles of stakeholder engagement and involvement</li> </ul>	Urban transport policy/program database Policy evaluation guideline (SEA guideline)
Draft Investment Program		
Urban Transport Improvement Program		
Project Profile	<ul style="list-style-type: none"> <li>✓ Principles of data collection and complex analysis of traffic data to design and evaluate urban transport plan/projects</li> <li>✓ Advanced methods and techniques of transport and traffic demand modeling</li> <li>✓ Basic traffic engineering principles, including engineering design manuals and guidelines</li> <li>✓ Principles of stakeholder engagement and involvement</li> </ul>	Traffic survey manual Traffic demand forecast manual Project evaluation manual (Engineering manuals/guideline) (EIA guideline)

### 3.3 実施運営上の教訓

#### 3.3.1 交通問題・課題とその対応策の共通理解

2010年にIlala区はDARTの計画に則り中心市街地の一方通行化プロジェクトを予算化し、2011年から道路標識の設置を始めた。本プロジェクトでは、過年度のマスタープランの結果や本プロジェクトで実施した交通調査の結果を使うとともに、事務局で協議を重ねながら、駐車マネジメント計画、バス路線再編計画、交差点改良計画等と一体となった中心市街地交通改善計画を策定した。

一方通行化による交通混雑の改善は限定的であるばかりか、逆に交通渋滞を悪化させることが予想された。限られた予算を効果的に交通渋滞の解消に活用するために、事務局メンバー間で交通問題とその対応策の共通理解を得ることが重要である。

#### 3.3.2 信頼性の高い交通データや交通モデル

世銀はDMDPのもと、2012年から5年間で75百万ドルを拠出し、ダルエスサラーム市内の道路（地方道）改良、ごみ処理事業、排水施設整備事業等を支援する。世銀DMDP担当と協議し、DMDPで支援するプロジェクトは合理的な方法で選定する必要があることを双方確認した。事務局メンバーと協働して、道路改良計画のロングリスト作成、交通需要予測やGISによるネットワーク評価、プロジェクト評価指標の選定と優先プロジェクトの選定作業を行い、協議会での協議を経て本プロジェクトの提案に則り、各自治体が優先プロジェクトを確定した。

事務局、協議会、実施機関で優先プロジェクトの合意形成を図るためには、信頼性の高い交通データやモデルや合理的なプロジェクト評価手法を採用することが重要である。

#### 3.3.3 OJTとしてのパイロットプロジェクトの活用

On-the-Job Training (OJT)として交通調査を実施したことは、事務局や研究機関の能力向上に重要な役割を果たした。事務局メンバーは中心市街地交通改善計画を策定するにあたり、駐車場調査、公共交通調査、建物調査、測量調査を行い、調査結果を同計画の詳細計画とパイロットプロジェクトの策定に活用した。

このように事務局メンバーの実践的なりサーチ・事業運営スキルを培い、プロジェクトの持続性の担保にも貢献したと認められるところ、今後の類似案件においても同様の試みをプロジェクト内に組み込むことが望ましい。

#### 3.3.4 幅広いステークホルダー間の指揮系統の確立

プロジェクト開始当初はDCCがプロジェクトを主導し、プロジェクト活動（事務局・協議会の開催、関係機関への合意事項の伝達や実施促進）の指揮は全てDCCが行っていた。しかし、関係機関の中にはDCCがIlala、Kinondoni、Temeke区と同様に実施機関と認識している機関もあり、プロジェクトの円滑な実施に支障をきたすことがあった。第2回協議会で

DSM-RAS がプロジェクトのオーナーとなることを関係機関が合意し、同協議会以降、州がプロジェクト活動の指揮を執り、関係機関の調整を図り、短期施策の実施を促進している。

タンザニア側の関係機関は多岐に亘るところ（事務局で 11 機関、協議会で 17 機関）、幅広いステークホルダーのパワーバランスを理解し、適切にステークホルダーの調整役を選定し、各実施機関に役割を分担することはプロジェクトを円滑に進めるために必須である。

### 3.3.5 社会実験や広報活動の活用

ダルエスサラーム市では、過去に都市交通関係機関が渋滞緩和を目的に数々の交通マネジメント施策を試行してきた。それらの施策は、事業計画、運用方法、広報、モニタリング・評価等で問題があり、渋滞緩和効果は限定的であった。こうした過去の失敗の経験を踏まえ、本プロジェクトでは中心市街地の交通改善計画の一部（一方通行化、バス路線再編）を社会実験として実施することを提案した。同提案に則り、事務局会議で実験計画の策定、実施体制の構築、広報、実験実施にかかる協議を行い、第 4 回協議会で関係機関の合意形成を図った。

タンザニアの実施機関のインフラ整備を目的とした開発予算は限定的であり、今後も交通マネジメント施策を試行する必要がある。同施策を効果的に実施するためには社会実験や広報活動が重要である。

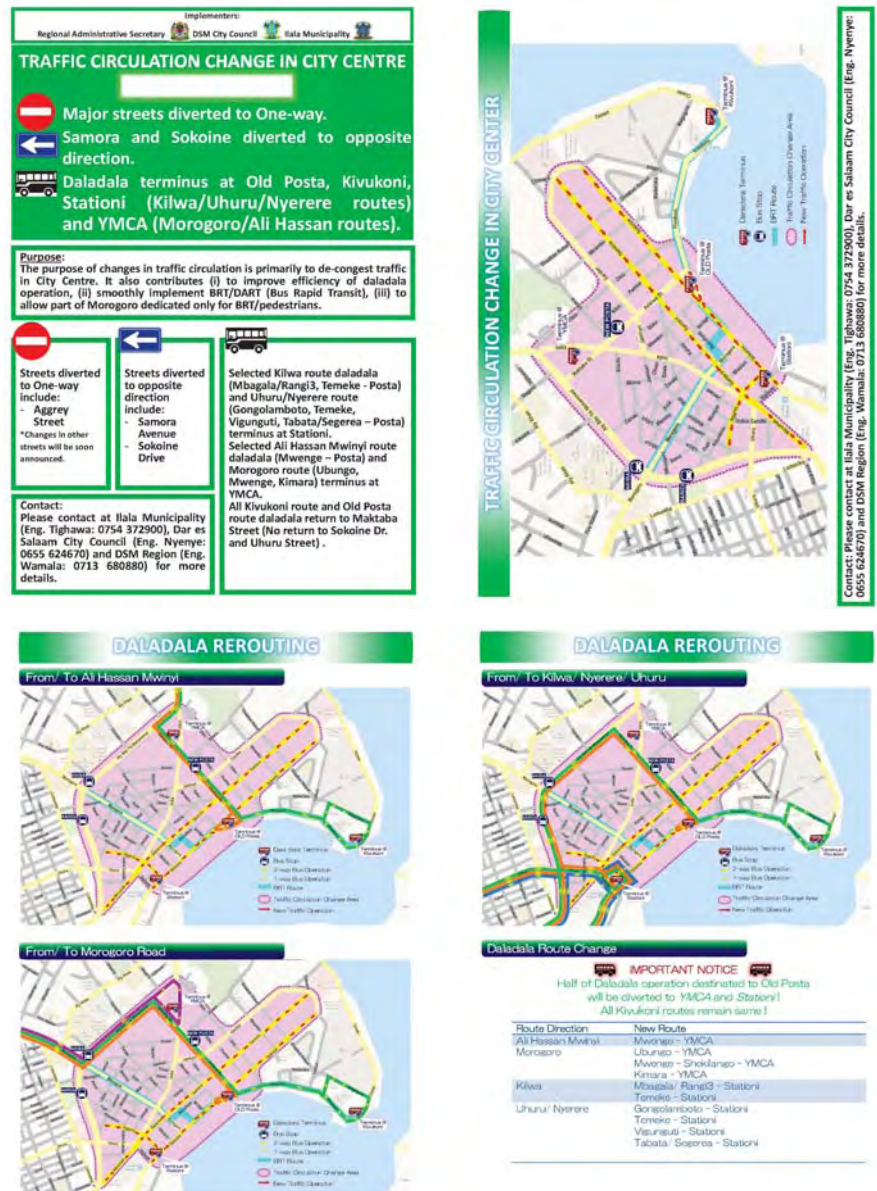


図 3-4 社会実験の広報の一例（広報用ビラ）

### 3.3.6 意思決定機関やドナーのコミットメントと調整

本プロジェクトの成功のためには、他のドナーとの協調が不可欠であった。プロジェクト実施期間中、世銀が支援する DMDP と調整した結果、世銀は DMDP の交通プロジェクトの選定のため、本プロジェクトの調整の枠組みを使用することになった。

プロジェクトの設計段階や実施段階において他のドナーとの協調することは、プロジェクトの持続性を担保し、かつ上位目標を達成するために、資金面での支援が不可欠であるインフラ整備を促進することができる。

## 第4章 プロジェクト成果・目標の達成度

2012年6月3日から6月16日に本プロジェクトの終了時評価が実施された。機構及び民間コンサルタントの4名で構成される終了時評価調査団は、タンザニア側関係機関に事前に質問票を配布・回収するとともに、現地にてヒアリング調査を行った。

同調査団が取りまとめた終了時評価調査報告書をもとに、以下に同調査団の評価結果及び提言の内容（具体的には、プロジェクト成果及び目標の達成度、終了時評価結果、結論と提言）を整理する。

### 4.1 プロジェクト成果の達成度

アウトプット1：「関係機関の役割分担を明確にしながら、調整機関（事務局、協議会）を設立する。」

アウトプット1は、十分に達成されている。第1回協議会において、事務局・協議会の構成・機能が決定された。また、パイロットプロジェクトである中心市街地交通改善計画において、関係機関の役割が調整され、役割分担が明確になった。同計画では、DART、DCC、TANROADS及びIlala区が事務局を通じてそれぞれの役割を明確にした。

アウトプット2：「トレーニングの必要性を確認・評価し、本プロジェクトに係る個人の交通計画に関する能力を向上させる」

アウトプット2は、概ね達成されている。交通計画研修が、専門家チームとNITによって合同で実施された。関係機関及び研究機関から計30名の参加があった。研修終了時のアンケートによると、研修を通じて「理解できた」または「良く理解できた」と回答した受講生は70%程度であった。また、交通政策研修が、日本人専門家とNITによって合同で実施された。関係機関及び研究機関から計13名の参加があった。研修終了時のアンケートによると、研修を通じて「理解できた」または「よく理解できた」と回答した受講生は75%程度であった。事務局は、上記の研修で得た知識を活用するために、中心市街地改善計画のための様々な調査（交通量調査、駐車場調査、公共交通調査、建物調査、測量調査）を実施した。一方、交通計画能力を確固たるものにするために、今後も継続的な研修が必要であることも確認された。

アウトプット3：「一連の交通政策に係る勧告を交通政策として編纂・周知する」

アウトプット3は、十分に達成されている。事務局会合で実施されたワークショップを通じて、事務局メンバーの合意に基づいた都市交通政策（案）が作成された。また、都市交通政策（案）を現在作成中の新国家運輸政策に反映させる活動として、関係機関及びドナーとの協議が行われた。

アウトプット4：「優先度が高く、関連機関間で調整されたプロジェクトについては調査を行い、短期アクションプランとして採択される」

アウトプット4は、概ね達成されている。事務局は、事務局メンバーによって作成されたロ

ングリストから優先プロジェクトを選定し、プロジェクト案（中心市街地交通改善計画及び市道路改良計画）を作成した。特に、市道路改良計画の優先プロジェクトの選定には、経済性、自然及び社会環境といった分析基準を用いて、ロングリストのプロジェクトの優先順位づけを行った。また、事務局は、中心市街地交通改善計画のための様々な調査（駐車場調査、交通調査、建物調査、測量調査）を実施し、その結果を同交通改善計画に反映した。

## 4.2 プロジェクト目標及び上位目標達成見込み

プロジェクト目標：「ダルエスサラーム市の関連機関の交通プロジェクトを調整し、また進捗をモニタリングする機構を設立し、そのキャパシティを強化する」

プロジェクト目標は、本プロジェクト終了までに達成され则认为られる。プロジェクト目標は、「調整機関で合意された都市交通政策（案）及び緊急性の高いプロジェクトを関係機関の政策・予算へ反映させるための取組が調整機関メンバーによって行われる」によってその達成度が測られた。終了時評価までに、既に事務局メンバーの合意に基づいて作成された都市交通政策（案）及び緊急性の高いパイロットプロジェクトの国家政策及び関係機関の予算へ反映される取組が事務局メンバーによって行われている。

予算への反映に関しては、DCCのように緊急性の高いパイロットプロジェクトを市の予算案に反映できた関係機関もあった。

## 4.3 プロジェクト終了時評価結果

### 4.3.1 妥当性

本プロジェクトの妥当性は高いと考えられる。

終了時評価時点においても、プロジェクト目標と上位目標は、MKUKUTAI（貧困削減戦略2011-2015）や国家運輸政策（2003）といったタンザニアの国家政策と整合性があることが確認された。MKUKUTAIは、運輸分野の優先課題に都市交通を掲げ、国家運輸政策（2003）は都市部の移動性を重点分野として掲げている。また、運輸分野は、日本の対タンザニア国別援助計画の重点支援分野の一つになっている。また、事業展開計画の支援政策には、都市部の交通渋滞を緩和するための支援を継続的に実施すると記載されている。

本プロジェクトはダルエスサラーム市の開発ニーズと整合性があると考えられる。本プロジェクト開始時に、事務局は都市交通の問題に関して協議するワークショップを開催し、分裂した関係機関の職掌がダルエスサラーム市の都市交通における重要な課題の一つとしてあげられた。

また、本プロジェクトは他ドナーの支援とよく協調され、実施されている。ダルエスサラーム市の都市交通を支援するドナーは、JICAの支援で作成されたマスタープランに沿って支援を行っている。また、世界銀行は、DMDP（ダルエスサラーム市の道路改良、ごみ処理事業、排水施設整備事業を支援するプロジェクト）で支援するプロジェクトを選定する際に事務局・協議会の調整機能を活用する予定である。

### 4.3.2 有効性

本プロジェクトの有効性は高いと考えられる。

プロジェクト目標の達成見込みを測る評価指標は終了時評価時点で達成されている。また、終了時評価までに事務局・協議会で調整された政策やプロジェクトが関係機関の政策やプロジェクトに反映されたケースが確認されている。

プロジェクト目標とアウトプットの関係に関しては、日本人専門家及び事務局メンバーへのインタビューから、4つのアウトプットはプロジェクト目標達成に十分であると考えられる。インタビュー結果から、実践を通じた活動（アウトプット3の都市交通政策（案）の作成及びアウトプット4のパイロットプロジェクト（案）の選定及び作成）がプロジェクト目標の達成に貢献している。

### 4.3.3 効率性

本プロジェクトの効率性は高いと考えられる。

全てのアウトプットは、ほぼ計画通り達成されている。

インプットに関しては、日本人専門家、第三国研修を除いては、ほぼ計画通りのインプットが実施された。日本人専門家に関しては、本プロジェクト終了までに当初計画よりも4.99M/Mが多く投入される予定であるが、これは、パイロットプロジェクトの実施を支援する活動に従事する計画、つまりプロジェクトの進捗状況に合わせて追加された活動に対して活用されるものである。また、日本人専門家の派遣の時期もアウトプットを達成するタイミングに合わせて実施された。なお、第三国研修に関しては、他国の都市交通における関係機関の調整機関から直接学ぶ機関を提供することを通じてアウトプット達成に貢献した研修であることが確認された。

### 4.3.4 インパクト

上位目標のうち「ダルエスサラーム市の関連諸機関の交通施策が調整・調和される」については、達成される見込みは高い。終了時評価までに都市交通政策（案）が国家運輸政策（作成中）に一部反映されたこと、またパイロットプロジェクトがDCCの予算案に反映されたこと等が確認された。Ilala区やTANROADsもパイロットプロジェクトの予算化に向けて作業をしている。

一方、上位目標のうち、「ダルエスサラーム市の交通混雑が緩和される」は、プロジェクト目標との間に論理的ギャップがあるために達成されることは難しい。同上位目標に関しはスーパーゴールとすることがタンザニア側と合意された。

### 4.3.5 持続性

政策面において、MKUKUTAI（2011-2015）は、運輸分野の優先課題の一つに都市交通をあげている。また、本プロジェクト実施機関中に、事務局で合意された都市交通政策(案)の一

部が 2012 年 10 月に最終化される国家運輸政策に反映されている。

組織面において、事務局は、終了時評価までに計 27 回（月 2 回）開催され、協議会は 2 回開催された。しかし、事務局メンバーへのインタビューにおいて、本プロジェクト終了後も事務局・協議会を持続させるためには、両組織の構成及び行動憲章を協議し、合意する必要があると確認された。事務局に関しては、現在は DCC が事実上の調整役となっているが、DSM-RAS が DCC の補助を受けて調整を行う必要性が確認された。協議会に関しては、協議会による決定事項を関係機関が実施する義務を持たせるための体制の必要性が確認された。

財務面に関して、事務局・協議会を継続するための予算及びパイロットプロジェクト以降のプロジェクト実施のための予算が不足していることが事務局・協議会の持続性の阻害要因としてあげられた。しかし、パイロットプロジェクト、特に DMDP 関連プロジェクトは、予算化される可能性が高いため、引き続き DMDP と関係機関が協議を行う場として事務局が必要になるとの声も聞かれた。

技術面に関して、事務局会合及び協議会を通じて、都市交通政策（案）が作成され緊急性の高いパイロットプロジェクト（案）が都市交通研修の知識を活用して作成された。技術面の能力の持続性確保のため、NIT によって研修コース（都市交通計画）が開催される計画である。NIT は、同都市交通計画の研修コースがタンザニアにおけるエンジニア及びエンジニアリング会社登録のための唯一の法的機関である技術者登録協会（ERB）に認証を受けるべく取り組んでいる。

## 4.4 効果発現に関する貢献要因

### 4.4.1 計画内容に関わること

タンザニア政府の予算サイクルに沿ったプロジェクトの計画及び実施：本プロジェクトは、タンザニア政府の予算サイクルに沿って活動が計画されていたため、関係機関の年次計画・予算に反映ができるタイミングでアウトプットが達成された。その結果、パイロットプロジェクトの関係機関の予算案への反映が一部達成された。

OJT の機会（パイロットプロジェクト（案）の作成）：本プロジェクトは、都市交通政策、計画における調整機関の活動（プロジェクトの調整、関係機関の調整、プロジェクトの計画、予算への反映等）を実際に経験する機会を提供することを通じて、調整機関の能力向上（関係機関の調整能力、交通計画能力）に貢献した。

### 4.4.2 実施に関わること

2 年次における事務局会議へのタンザニア側ステークホルダーの積極的な参加：本プロジェクトにおいては、タンザニア側ステークホルダーの積極的な参加が効果発現に貢献した。例えば、2 年次より事務局に参加した建設省によるパイロットプロジェクトの予算化に向けた活動は、プロジェクト目標の達成に貢献した。

他ドナーのプロジェクトとの協調：本プロジェクトは、世界銀行の DMDP と効果的に協調す



ることで、プロジェクトの持続性のうち、特に組織、財政面に貢献した。

## 4.5 結論と提言

### 4.5.1 結論

プロジェクト目標やアウトプットは概ね達成され、プロジェクトの実施プロセスも適切であったと考えられる。また、5項目（妥当性、有効性、効率性、インパクト、持続性）の観点から当プロジェクトを検証した結果、特に持続性の項で指摘されたような課題は残されているものの、プロジェクトそのものは評価チームに高く評価された。以上より、本プロジェクトは、事務局や協議会の活動を通じ、ダルエスサラームの都市交通改善能力向上に貢献していると言えよう。

### 4.5.2 提言

#### (1) 短期的提言

- ① 関係機関が、事務局への積極的な参加を継続すること
- ② 事務局及び協議会が、関係機関の計画及び予算を調整する権限を持った組織となるような行動憲章を作成すること
- ③ DMDP との継続的な調整が行われること
- ④ NIT での研修コースが技術者登録委員会（ERB）へと登録されること

#### (2) 長期的提言

- ⑤ 事務局・協議会が適切な省庁内に位置づけられ、ダルエスサラームの都市交通プロジェクトの計画及び予算調整の権限の法令化がなされること
- ⑥ NIT による都市交通計画研修が継続されること
- ⑦ 事務局・協議会の運営費用が確保されること

#### (3) その他の提言

上位目標であるダルエスサラーム市内の交通渋滞の緩和については、スーパーゴールに格上げすること。年々深刻化する同市内の交通渋滞の緩和は究極の目標であることは疑いようがないものの、現時点で上位目標として本内容を達成することは現実的ではないため、これをスーパーゴールとすることが妥当。

## 第5章 上位目標の達成に向けての提言

本プロジェクトの上位目標である「ダルエスサラーム市の関連機関の交通施策が調整・調和される」ためには、タンザニア側により本プロジェクト活動が継続される必要がある。これを達成するためには、「第3章 プロジェクト実施運営上の課題・工夫・教訓」や「第4章 プロジェクト成果・目標の達成度」でも言及した通り、関係機関の調整機能がシステム（制度）として強化される必要がある。具体的には、

- PMO-RALG がダルエスサラーム市都市交通政策を策定し、同政策に則り関係機関に個別の施策の実施を促すこと
- 政策（長期）－投資計画（中期）－優先プログラム・プロジェクト（短期）を PMO-RALG が承認し、関係機関の実施状況をモニタリングすること
- 更に調整機能を強化するために PMO-RALG が DUTA を設立すること
- DSM-RAS は多機関に跨るダルエスサラーム市の都市交通関連機関の調整役としての役割を担うこと。
- 事務局メンバーやその活動が既存の意思決定メカニズム（例えば、州道路会議や州調整委員会）に取り込まれること
- 事務局メンバーは継続して個々人のプランニング能力を向上すること

また、関係機関の調整機能をシステムとして強化するために、PMO-RALG、DSM-RAS、事務局の今後の活動内容とその活動スケジュールを以下に提案する。2012年12月17日に開催された第4回協議会で協議を行い、専門家チームの提案に則り、関係機関が継続してプロジェクト活動を実施し、将来的には DUTA の設立を含めて調整機能の強化を行うことを合意した。

表 5-1 プロジェクト活動を継続するための主要な関係機関と今後の活動

主な関係機関	今後の活動
PMO-RALG	<ul style="list-style-type: none"> <li>• （最低限年2回）協議会の開催</li> <li>• 協議会で合意された事項に対する実施機関への役割の分担</li> <li>• 協議会で合意された事項に対する地方自治体への予算他必要なリソースの配賦</li> <li>• 事務局の活動に対する財政的支援</li> <li>• ドナーとの調整</li> <li>• 都市交通政策・予算計画の策定</li> <li>• DUTA の設立に向けた活動の実施</li> </ul>
DSM-RAS	<ul style="list-style-type: none"> <li>• 定期的な事務局会議の開催</li> <li>• 地方自治体を含む実施機関の役割の調整</li> <li>• 協議会で承認された事項に対する各実施機関の実施状況のモニタリング</li> </ul>
事務局	<ul style="list-style-type: none"> <li>• 優先プログラム・プロジェクトの計画</li> <li>• 各実施機関が策定する優先プロジェクトの詳細計画の支援</li> <li>• 事務局会議での合意事項に対する各実施機関への報告・実施促進</li> <li>• 交通計画能力の向上のためのトレーニングへの参加</li> </ul>

表 5-2 プロジェクト活動を継続するための事務局及び協議会の活動スケジュール

予定	事務局の活動	協議会の活動
2012年12月	・優先プログラム・プロジェクトの概略計画及びその概略予算計画の協議会への報告	・優先プログラム・プロジェクト及びその予算計画の承認 ・優先プログラム・プロジェクトの実施に向けた実施機関との役割の分担
2013年1月 ～6月	・各実施機関への優先プログラム・プロジェクトの詳細計画の策定支援 ・各実施機関の優先プログラム・プロジェクトの予算計画への反映状況のモニタリング	
2013年7月	・優先プログラム・プロジェクトの詳細計画及びその予算計画の協議会への報告	・優先プログラム・プロジェクト及びその予算計画の承認 ・優先プログラム・プロジェクトの実施に向けた実施機関との役割の分担
2013年8月 ～11月	・次年度の優先プログラム・プロジェクトの概略計画及びその概略予算計画の策定 ・本年度の優先プログラム・プロジェクトの実施状況のモニタリング、実施促進	

## 添付資料一覧

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資料①PDM

資料②協議会協議資料・議事録

資料③ディスカッションペーパー

第1巻 ダルエスサラーム市都市交通政策案

第2巻 ダルエスサラーム市交通庁の組織制度案

第3巻 中心市街地交通改善計画案

第4巻 市道路改良計画案

資料1 北部バス導入計画案

資料2 民間資金によるターミナル整備計画案

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添付資料①  
PDM

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詳細計画策定調査時の PDM  
第 1 回協議会にて承認された PDM  
第 3 回協議会にて承認された PDM

Project Title: Capacity Building Project for the Improvement of Dar es Salaam Transport

Target Area: Dar es Salaam

Target Group: The Secretariat and the members of the "Improvement of Dar es Salaam Transport" Steering Committee

Date prepared: 10th December, 2009

NARRATIVE SUMMARY			
OVERALL GOAL	INDICATORS		IMPORTANT ASSUMPTIONS
1. Transport policies of relevant organizations in Dar es Salaam are coordinated and harmonized. 2. Traffic congestion in Dar es Salaam is mitigated.	(a) Rolling plans for Dar es Salaam transport approved by the Steering Committee are followed up by relevant organizations. (b) The length of congestion queues in Dar es Salaam is shortened.	(a) Interviews to relevant organizations, records of Steering Committee meetings (b) Results of traffic surveys	
<b>[PROJECT PURPOSE]</b> A mechanism to coordinate transport projects of relevant organizations in Dar es Salaam and monitor their implementation is established with its capacity being strengthened.	(a) The Secretariat has developed capability to report the status of transport projects in Dar es Salaam with analysis. (b) The Steering Committee makes recommendations to relevant organizations and receive feedbacks from them.	(a) Progress reports (monitoring records of transport projects) prepared by the Secretariat (b) Meeting records of the Steering Committee and the status of feedbacks	Relevant organizations have strong willingness to coordinate with each other. Budget to implement projects is ensured.
<b>[OUTPUT]</b> 1. The Secretariat's capacity to analyze the status of transport projects in Dar es Salaam and report it to the Steering Committee is strengthened.	(a) Secretariat members have become able to collect and compile the status of the progress of transport projects. (b) Secretariat members have become able to analyze the problems and suggest solutions about transport projects in Dar es Salaam.	(a), (b) Monitoring sheets for capacity development to be prepared by JICA experts, Secretariat's reports for Steering Committee	
2. The "Improvement of Dar es Salaam Transport" Steering Committee makes recommendations to relevant organizations.	(a) The Steering Committee agrees upon recommendations toward relevant organizations. (b) The recommendations of the Steering Committee are sent out to relevant organizations and the Steering Committee receives feedbacks.	(a) Meeting records of the Steering Committee (b) Meeting records of the Steering Committee, Interviews to relevant organizations	
3. Transport-related organizations have become able to utilize STRADA (System for Traffic Demand Analysis) for traffic projections.	(a) User-friendly textbooks and teaching materials for STRADA. (b) Number of government officials who have become capable of using STRADA. (c) Number of the trainers who have become capable of conducting training of STRADA independently	(a) Training records (b) Training records (c) List of textbooks and teaching materials and their quality	
4. The results of traffic demand analysis are incorporated into transport policies of relevant organizations.	(a) Transport database updated or created (b) Results of STRADA used for transport planning	(a) Database (b) Interviews with relevant organizations	
<b>[ACTIVITIES]</b> 1-1 Collect information about the status of projects from transport-related organizations. 1-2 Compile the collected information into a dataset. 1-3 Analyze the relationships of projects and prepare Action Plans and Progress Reports. 2-1 Discuss the Action Plans and Progress Reports presented by the Secretariat and prepare recommendations toward relevant organizations. 2-2 Submit recommendations to relevant organizations. 2-3 Receive and follow up feedbacks from relevant organizations. 3-1 Prepare textbooks for STRADA. 3-2 Prepare teaching materials for STRADA. 3-3 Conduct training and TOT for STRADA at NIT. 4-1 Identify the needs for traffic counts and conduct them. 4-2 Update or create traffic database. 4-3 Support transport-related organizations in analyzing traffic by using STRADA and making policies.	<b>[INPUT]</b>		
	<p>&lt;Tanzanian Side&gt;</p> <p>1. Personnel</p> <p>1) Project Director : Dar es Salaam Regional Administrative Secretary</p> <p>2) Project Manager : City Director of DCC</p> <p>3) Counterparts of Secretariat (DSM-RAS, DSM City Council, Municipalities, MOID, TANROADS, PMO-RALG, DART, Traffic Police)</p> <p>4) Counterparts of National Institute of Transport</p> <p>2. Office Space</p> <p>Office spaces at DSM City Council and National Institute of Transport</p> <p>3. Local cost</p> <p>Budget (salary for counterparts, electricity etc.)</p>	<p>&lt;Japanese Side&gt;</p> <p>1. Personnel</p> <p>(1) Experts</p> <p>1) Chief Advisor</p> <p>2) Transport Engineer</p> <p>3) Other Experts (1-2 persons/year)</p> <p>2. Counterpart Training programme: 5-10 persons/year (Training in Japan and/or other countries)</p> <p>3. Equipment</p> <p>IT equipment and software</p> <p>4. Local cost</p> <p>Budget related to the Project management.</p>	<p><b>[Pre-condition]</b></p> <p>(1) Transport-related organizations agree to join the Steering Committee.</p> <p>(2) The Secretariat is formed by the representatives from relevant organizations. DSM City Council assigns two, DSM-RAS assigns one full time technical staff.</p>

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PDM Ver.1

Project Title: Capacity Building Project for the Improvement of Dar es Salaam Transport

Target Area: Dar es Salaam

Target Group: The Secretariat and Steering Committee

NARRATIVE SUMMARY	INDICATORS	MEANS	IMPORTANT ASSUMPTIONS
<b>OVERALL GOAL</b>			
<ul style="list-style-type: none"> <li>- Transport policies of relevant organizations in Dar es Salaam are coordinated and harmonized.</li> <li>- Traffic congestion in Dar es Salaam is mitigated.</li> </ul>	<ol style="list-style-type: none"> <li>1. Decision makers are well aware of the Project.</li> <li>2. The relevant organizations implement the policies/plans/projects proposed during the course of the Project.</li> <li>3. The measures taken contributes to improvement of urban transport environment.</li> </ol>	<ol style="list-style-type: none"> <li>1. List of participants of Steering Committee and other meetings</li> <li>2. Progress report</li> <li>3. Preliminary study report, progress report</li> </ol>	
<b>PROJECT PURPOSE</b>			
A mechanism to coordinate transport projects of relevant organizations in Dar es Salaam and monitor their implementations is established with its capacity being strengthened.	<ol style="list-style-type: none"> <li>1. Coordination groups are established by December 2010.</li> <li>2. Coordination groups hold a series of internal meetings and dissemination seminars throughout the project period.</li> <li>3. Members of the coordination groups are trained to gain transport planning capabilities throughout the project period.</li> <li>4. Coordination groups suggest long-term policy, drafting 2013 Urban Transport Policy by the end of the Project.</li> <li>5. Coordination groups suggest feasible and urgent plans/projects to address urban transport problems.</li> </ol>	<ol style="list-style-type: none"> <li>1. Minutes of Steering Committee meeting.</li> <li>2. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings.</li> <li>3. Training program, training materials, number of trainees, evaluation report, progress report.</li> <li>4. Records of discussion, Draft 2013 Urban Transport Policy, progress report.</li> <li>5. Records of discussion, preliminary study report, progress report.</li> </ol>	Organizational structure and responsibilities of organizations concerned remain unchanged. Budget is secured for implementation of urgent plans/projects
<b>OUTPUT</b>			
1. Coordinating groups (i.e., Secretariat and Steering Committee) are established with charter of operations.	<ol style="list-style-type: none"> <li>1. Steering Committee confirms members of the Secretariat/Steering Committee and line of communications amongst them.</li> <li>2. The Secretariat members organize a series of weekly meetings and Steering Committee members organize several meetings.</li> <li>3. Steering Committee members are to provide recommendations to the Secretariat and give feedback to each home organization.</li> <li>4. Secretariat is to disseminate the output of the Project, e.g., at the Regional Road Board.</li> <li>5. Secretariat is to monitor the progress of the Project and report it to the Steering Committee.</li> </ol>	<ol style="list-style-type: none"> <li>1. Minutes of Steering Committee meeting.</li> <li>2. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings.</li> <li>3. Records of discussion</li> <li>4. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings.</li> <li>5. PDM, WBS</li> </ol>	Members of Secretariat/Steering Committee share motivations to participate in this Project.
2. Training needs are identified and assessed and transport planning capabilities of individuals involved in the Project are improved.	<ol style="list-style-type: none"> <li>1. JICA Experts are to collect curriculum vitae and current duties of candidates of each organization/institutes.</li> <li>2. JICA Experts are to select individuals involved in training program.</li> <li>3. JICA Experts are to prepare and provide appropriate program and materials for the improvement of transport planning capacity.</li> <li>4. Individuals involved in training program are to conduct a series of transport planning works (e.g., traffic demand forecast).</li> <li>5. Individuals involved in task-force for the Secretariat are to work for actual transport planning.</li> </ol>	<ol style="list-style-type: none"> <li>1. CV's of candidates.</li> <li>2. List of participants of training program.</li> <li>3. Summary of impression and opinion of individuals involved in training program.</li> <li>4. Homework at the end of each stage of training program.</li> <li>5. Preliminary study or impact assessment of short-term project proposed in the Project.</li> </ol>	The number of drop-out trainees is small.

<p>3. A series of policy recommendations are provided and compiled into a policy document.</p>	<p>1. Secretariat members are to identify cross-cutting organizational/institutional/regulatory issues.  2. Secretariat members are to identify issues related to transport infrastructure and service.  3. Secretariat members are to organize a series of stakeholder meetings, involving concerned organizations and donors.  4. Secretariat members are to draft integrated urban transport policies.  5. Steering Committee members are to provide recommendations to the draft urban transport policies and approve this draft policy.</p>	<p>1. List of data collected, meeting records, progress report on existing organizational capabilities and capacity assessment  2. List of data collected, meeting records, progress report on existing infrastructure and service and problem identification  3. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings.  4. Draft report on urban transport policy.  5. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings.</p>	<p>The decision makers acknowledge importance of long-term urban transport policy, incorporating into policy document.</p>
<p>4. Coordinated and prioritized plans/projects are studied/approved for immediate actions.</p>	<p>1. Secretariat members are to collect and analyze relevant info. of current urban transport conditions.  2. Secretariat members are to identify critical urban transport problems and urgent urban transport projects.  3. Secretariat members are to facilitate to conduct preliminary study on urgent urban transport projects.  4. Secretariat members are to provide recommendations for immediate actions to the Steering Committee members.  5. Steering Committee members are to provide recommendations for implementation of the immediate actions and approve proposals from Secretariat.</p>	<p>1. List of data collected, meeting records, progress report on existing road/public transport/traffic conditions.  2. Progress report on problem analysis and selection of urgent urban transport projects.  3. Draft preliminary study report on urgent urban transport projects.  4. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings.  5. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings.</p>	<p>Budget is secured for implementation of urgent plans/projects</p>
<b>ACTIVITIES</b>		<b>INPUT</b>	
<p>1-1. Establish the Steering Committee/Secretariat.</p> <p>1-2. Organize a series of Steering Committee/Secretariat meetings.</p> <p>1-3. Inform all stakeholders of meeting outcomes and agreements and amend project design if necessary.</p> <p>1-4. Disseminate the output of the Project.</p> <p>1-5. Monitor the progress of the Project and report it to the organizations concerned.</p> <p>2-1. Assess training needs, gaps and potential training candidates</p> <p>2-2. Select a limited number of candidates for training (who are expected to contribute to project activities of the Secretariat)</p> <p>2-3. Design training programs covering the project period.</p> <p>2-4. Provide a series of training sessions.</p> <p>2-5. Design practical role for trainees within the secretariat.</p> <p>3-1. Review of existing organizations' roles responsibilities and capabilities.</p> <p>3-2. Identify cross-cutting organizational/institutional/regulatory issues and resolve through organizational recommendadtions.</p> <p>3-3. Assess the existing transport infrastructure and services and ongoing and planned project.</p> <p>3-4. Identify and assess issues related to transport infrastructure and services.</p> <p>3-5. Draft integrated urban transport policies (which is expected to be reflected to 2013 National Transport Policy).</p> <p>3-6. Provide recommendations to relevant organizations for their actions.</p> <p>4-1. Identify and assess urban transport problems and critical projects.</p> <p>4-2. Prioritize and develop into a transport improvement program.</p> <p>4-3. Facilitate to develop the project profile of the short-term measures and TOR for the supplementary works.</p> <p>4-4. Support to conduct necessary studies on short-term measures.</p> <p>4-5. Prepare solutions in an integrated manner through coordination amongst the organizations.</p>		<p>&lt;Tanzanian Side&gt;</p> <p>1. Personnel</p> <p>1) Project Director: DSM- RAS</p> <p>2) Project Manager: City Director of DCC</p> <p>3) Counterparts of Secreariat: (DSM-RAS, DCC, Municipalities, MOT, MOW, TANROADS, PMO-RALG, DART, Traffic Police)</p> <p>2. Others</p> <p>Office space and local cost</p> <p>&lt;Japanese Side&gt;</p> <p>1. Personnel</p> <p>1) Team Leader/Transport Administration</p> <p>2) Transport Planning</p> <p>3) Human Resource Development</p> <p>4) Traffic Demand Forecast/Database Management</p> <p>5) Public Transport Planning</p> <p>6) Road Planning/Project Coordination</p> <p>2. Others</p> <p>IT equipment and local cost</p>	



PDM Ver.2

Project Title: Capacity Building Project for the Improvement of Dar es

Salaam Transport

Target Area: Dar es Salaam

Target Group: The Secretariat and Steering Committee

NARRATIVE SUMMARY	INDICATORS	MEANS	IMPORTANT ASSUMPTIONS
<b>SUPER GOAL</b>			
- <u>Traffic congestion in Dar es Salaam is mitigated.</u>			
<b>OVERALL GOAL</b>			
- Transport policies of relevant organizations in Dar es Salaam are coordinated and harmonized.	- <u>The relevant organizations implement the policies/ plans/ projects proposed during the course of the Project.</u>	1. List of participants of Steering Committee and other meetings 2. Progress report 3. Preliminary study report, progress report	
<b>PROJECT PURPOSE</b>			
A mechanism to coordinate transport projects of relevant organizations in Dar es Salaam and monitor their implementations is established with its capacity being strengthened.	- <u>Actions to incorporate Draft Urban Transport Policy and urgent projects agreed among the coordinating group into the policy and budget of the concerned organizations are taken by the coordinating group members.</u>	1. Minutes of Steering Committee meeting. 2. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings. 3. Training program, training materials, number of trainees, evaluation report, progress report. 4. Records of discussion, Draft 2013 Urban Transport Policy, progress report. 5. Records of discussion, preliminary study report, progress report.	Organizational structure and responsibilities of organizations concerned remain unchanged. Budget is secured for implementation of urgent plans/projects
<b>OUTPUT</b>			
1. Coordinating groups (i.e., Secretariat and Steering Committee) are established with charter of operations.	- <u>Role of the concerned organizations become clear through the coordinating group.</u>	1. Minutes of Steering Committee meeting. 2. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings. 3. Records of discussion 4. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings. 5. PDM, WBS	Members of Secretariat/Steering Committee share motivations to participate in this Project.
2. Training needs are identified and assessed and transport planning capabilities of individuals involved in the Project are improved.	- <u>Capacity for transport planning is improved for individuals in this Project.</u>	1. CV's of candidates. 2. List of participants of training program. 3. Summary of impression and opinion of individuals involved in training program. 4. Homework at the end of each stage of training program. 5. Preliminary study or impact assessment of short-term project proposed in the Project.	The number of drop-out trainees is small.

3. A series of policy recommendations are provided and compiled into a policy document.	- <u>Draft Urban Transport Policy agreed in the coordinating groups is made.</u>	1. List of data collected, meeting records, progress report on existing organizational capabilities and capacity assessment 2. List of data collected, meeting records, progress report on existing infrastructure and service and problem identification 3. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings. 4. Draft report on urban transport policy. 5. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings.	The decision makers acknowledge importance of long-term urban transport policy, incorporating into policy document.
4. Coordinated and prioritized plans/projects are studied/approved for immediate actions.	- <u>Plans for immediate actions agreed in the coordinating groups are made.</u> - <u>Plans for immediate actions with completed preliminary study are made.</u>	1. List of data collected, meeting records, progress report on existing road/public transport/traffic conditions. 2. Progress report on problem analysis and selection of urgent urban transport projects. 3. Draft preliminary study report on urgent urban transport projects. 4. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings. 5. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings.	Budget is secured for implementation of urgent plans/projects
<b>ACTIVITIES</b>		<b>INPUT</b>	
<p>1-1. Establish the Steering Committee/Secretariat.</p> <p>1-2. Organize a series of Steering Committee/Secretariat meetings.</p> <p>1-3. Inform all stakeholders of meeting outcomes and agreements and amend project design if necessary.</p> <p>1-4. Disseminate the output of the Project.</p> <p>1-5. Monitor the progress of the Project and report it to the organizations concerned.</p> <p>2-1. Assess training needs, gaps and potential training candidates</p> <p>2-2. Select a limited number of candidates for training (who are expected to contribute to project activities of the Secretariat)</p> <p>2-3. Design training programs covering the project period.</p> <p>2-4. Provide a series of training sessions.</p> <p>2-5. Design practical role for trainees within the secretariat.</p> <p>3-1. Review of existing organizations: roles responsibilities and capabilities.</p> <p>3-2. Identify cross-cutting organizational/institutional/regulatory issues and resolve through organizational recommendadtions.</p> <p>3-3. Assess the existing transport infrastructure and services and ongoing and planned project.</p> <p>3-4. Identify and assess issues related to transport infrastructure and services.</p> <p>3-5. Draft integrated urban transport policies (which is expected to be reflected to 2013 National Transport Policy).</p> <p>3-6. Provide recommendations to relevant organizations for their actions.</p> <p>4-1. Identify and assess urban transport problems and critical projects.</p> <p>4-2. Prioritize and develop into a transport improvement program.</p> <p>4-3. Facilitate to develop the project profile of the short-term measures and TOR for the supplementary works.</p> <p>4-4. Support to conduct necessary studies on short-term measures.</p> <p>4-5. Prepare solutions in an integrated manner through coordination amongst the organizations.</p>		<p>&lt;Tanzanian Side&gt;</p> <p>1. Personnel</p> <p>1) Project Director: DSM- RAS</p> <p>2) Project Manager: City Director of DCC</p> <p>3) Counterparts of Secreariat: (DSM-RAS, DCC, Municipalities, MOT, MOW, TANROADS, PMO-RALG, DART, Traffic Police)</p> <p>2. Others</p> <p>Office space and local cost</p> <p>&lt;Japanese Side&gt;</p> <p>1. Personnel</p> <p>1) Team Leader/Transport Administration</p> <p>2) Transport Planning</p> <p>3) Human Resource Development (1)</p> <p>4) Human Resource Development (2)</p> <p>5) Traffic Demand Forecast/Database Management</p> <p>6) Public Transport Planning</p> <p>7) Road Planning/Project Coordination</p> <p>8) Road Design/ Construction Supervision</p> <p>2. Others</p> <p>IT equipment and local cost</p>	

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添付資料②  
協議会協議資料・議事録

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- 第 1 回協議会協議資料・議事録
- 第 2 回協議会協議資料・議事録
- 第 3 回協議会協議資料・議事録
- 第 4 回協議会協議資料・議事録



## Capacity Building Project for the Improvement of Dar es Salaam Transport

- 1<sup>st</sup> Joint Coordinating Committee -

19<sup>th</sup> April, 2011

Secretariat for Capacity Building Project  
JICA Expert Team



## Agenda

1. Registration
2. Self Introduction
3. Welcome Remarks/Tanzania side
4. Welcome Remarks/Japanese side
5. Opening Remarks
6. Presentation 1 (Draft Work Plan and PDM)  
– Coffee Break –
7. Presentation 2 (Overall progress of the Project)
8. Discussions and Approval of the Work Plan/PDM
9. Any Other Business
10. Closing Remarks

– Lunch –

2



## Contents of Presentation

Presentation 1: Draft Work Plan and PDM

Presentation 2: Overall progress of the Project

3



## Presentation 1: Draft Work Plan and PDM

4

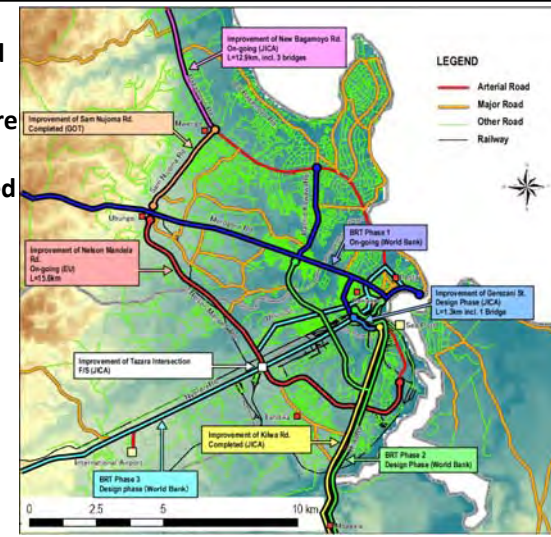


## 1.1 Project Background

- Dar es Salaam Urban Transport Policy and System Development Master Plan (2008, JICA)
  - Infrastructure development plan:
    - Priority projects (Tazara Flyover, Gerezani Road Widening)
      - further studied by JICA
  - Capacity development plan:
    - Dar es Salaam Urban Transport Authority (DUTA)
      - preliminary feasibility study conducted by EU
    - National Centre for Transport Studies (NCTS)
      - requested by GOT for technical cooperation

5

## Ongoing and Planned Infrastructure Projects - Coordinated Efforts



## 2007/10 Average Travel Speed – Issues becoming Serious



Source: JICA Preparatory Survey on Tazara Intersection Improvement

7

## Typical bottlenecks



Narrow bridge, roundabout, mixed traffic



Broken down car, enough parking spaces?, selfish driving

8



## 1.1 Project Background

- Preparatory Survey for Capacity Building Project (2009 and 2010, JICA)
  - Project Framework (implementing agency, project implementation structure, project schedule/period)
  - Project Design Matrix (overall goal, purpose and output/activities, monitoring indicators)

9



## 1.1 Project Background

### PDM designed by Preparatory Survey

#### Project Purpose

A mechanism to coordinate transport projects of relevant organizations in Dar is established with its capacity being strengthened.

#### Project Output

1. The Secretariat's capacity to analyze the status of transport projects in Dar and report it to Steering Committee is strengthened.
2. The Steering Committee makes recommendations to relevant organizations.
3. Transport-related organizations become able to utilize STRADA for traffic projection.
4. The Results of traffic demand analysis are incorporated into transport policies of relevant organizations.

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## 1.2 Draft Work Plan – Contents

Contents of Work Plan (see the details in Draft Work Plan Report)

1. Project Background
2. Project Design Matrix (PDM)
  - Project goal and purpose
  - Project activities
  - Project monitoring indicators
3. Project Implementation Plan
  - Project implementation structure
  - Work schedule
  - Staffing schedule

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## 1.2 Draft Work Plan – Revision of PDM

- Project implementation plan, including implementing agency project implementation structure, project period, remains almost same, agreed during Preparatory Survey.
- Project Design Matrix is reviewed and revised through a series of discussions/workshops.



Kick-off meeting and Workshops

12

Preparatory Works of PDM		
Meetings	Date	Agenda
Kick-off Meeting	13/Dec/2010	Presentation of project outline Confirmation of project implementation plan
1 <sup>st</sup> Workshop	21/Dec/2010	Discussion on urban transport problems Preparation of the problem tree
2 <sup>nd</sup> Workshop	11/Jan/2011	Discussion on urban transport issues Confirmation of the problem trees
3 <sup>rd</sup> Workshop	18/Jan/2011	Presentation on Draft Work Plan Discussion on short-term measures Discussion on training for transport planning
4 <sup>th</sup> Workshop	18/Feb/2011	Presentation on Draft Work Plan
5 <sup>th</sup> Workshop	15/March/2011	Presentation on institutional framework Presentation on Intersection improvement project Evaluation report on the training course
6 <sup>th</sup> Workshop	29/March/2011	Preparation of proposed short-term measures Presentation on Signal optimization scheme
7 <sup>th</sup> Workshop	12/April/2011	Discussion on Signal optimization scheme

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## 1.2 Draft Work Plan – Revision of PDM

### Summary Result of Workshop (Problem Tree)

- Assuming a core problem as severe traffic congestion in Dar, 4 direct causes are identified.
  - The first and most critical issue identified is lack of institutional capability, especially absence of urban policy paper and fragmented responsibilities among concerned agencies.
  - Other issues are raised towards quantities and quality of infrastructure provided, inefficient use of infrastructure, and absence of the control on the increasing vehicular traffic.
- Preparation of mid-term urban transport policy and short-term urban transport plan, which prioritizes projects and channels the limited budget to these projects, is confirmed essential as one of the outputs of the Project.

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## Draft PDM – Project Goal, Purpose and Output

### Project Purpose

A mechanism to coordinate transport projects of relevant organizations in Dar is established with its capacity being strengthened.

### Project Output

1. Coordinating groups (i.e., Secretariat and Steering Committee) are established with charter of operations.
2. Training needs are identified and assessed and transport planning capabilities of individuals involved in the Project are improved.
- ➡ 3. A series of policy recommendations are provided and compiled into a policy document.
- ➡ 4. Coordinated and prioritized plans/projects are studied and approved for immediate actions.

15

## Draft PDM – Project Output 1 and Activity

### Project Output

1. Coordinating groups (i.e., Secretariat and Steering Committee) are established with charter of operations.

### Project Activities

- i. Establish the Steering Committee/Secretariat.
- ii. Organize a series of Steering Committee/Secretariat meetings.
- iii. Inform all stakeholders of meeting outcomes and agreements and amend project design if necessary
- iv. Disseminate the output of the Project.
- v. Monitor the progress of the Project and report it to the organizations concerned.

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### Draft PDM – Project Output 2 and Activity

#### Project Output

2. Training needs are identified and assessed and transport planning capabilities of individuals involved in the Project are improved.

#### Project Activities

- i. Assess training needs and gaps of potential training candidates.
- ii. Select a limited number of candidates for training (who are expected to contribute to project activities of the Secretariat)
- iii. Design training programs covering the project period.
- iv. Provide a series of training sessions.
- v. Design practical role for trainees within the Secretariat.

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### Draft PDM – Project Output 3 and Activity

#### Project Output

3. A series of policy recommendations are provided and compiled into a policy document.

#### Project Activities

- i. Review of existing organizations; roles responsibilities and capabilities
- ii. Identify cross-cutting organizational/institutional/regulatory issues and resolve through organizational recommendations.
- iii. Review of the existing transport infrastructure and services and ongoing and planned project
- iv. Identify and assess issues related to transport infrastructure and services
- v. Draft integrated urban transport policies (which is expected to be reflected to 2013 National Transport Policy)
- vi. Provide recommendations to relevant organizations for their actions.

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### Draft PDM – Project Output 4 and Activity

#### Project Output

4. Coordinated and prioritized plans/projects are studied and approved for immediate actions.

#### Project Activities

- i. Identify and assess urban transport problems and critical projects.
- ii. Prioritize and develop into a transport improvement program.
- iii. Facilitate to develop the project profile of the short-term measures and TOR for the supplementary works.
- iv. Support to conduct necessary studies on short-term measures.
- v. Prepare solutions in an integrated manner through coordination amongst the organizations.

19

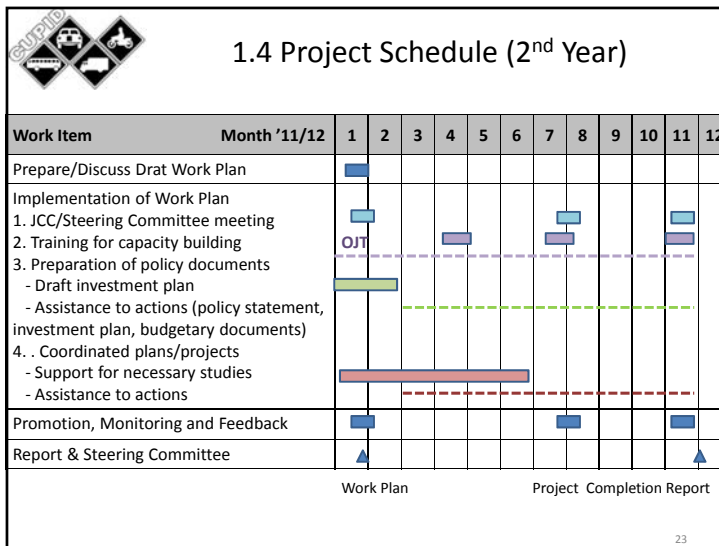
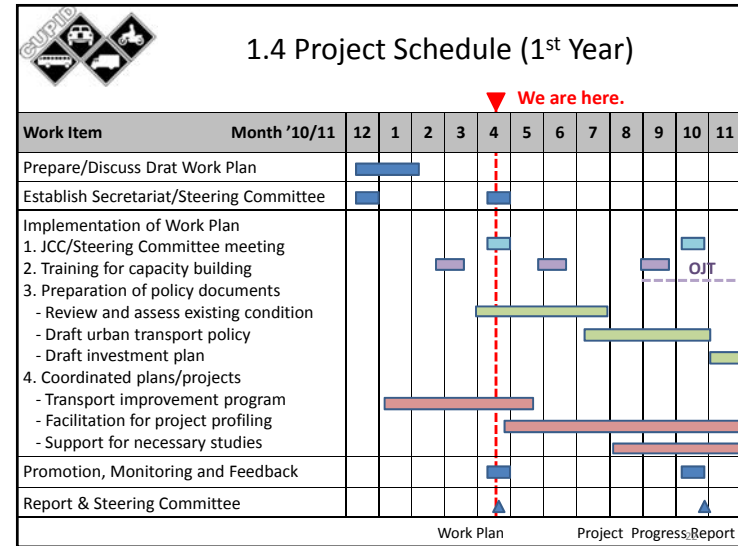
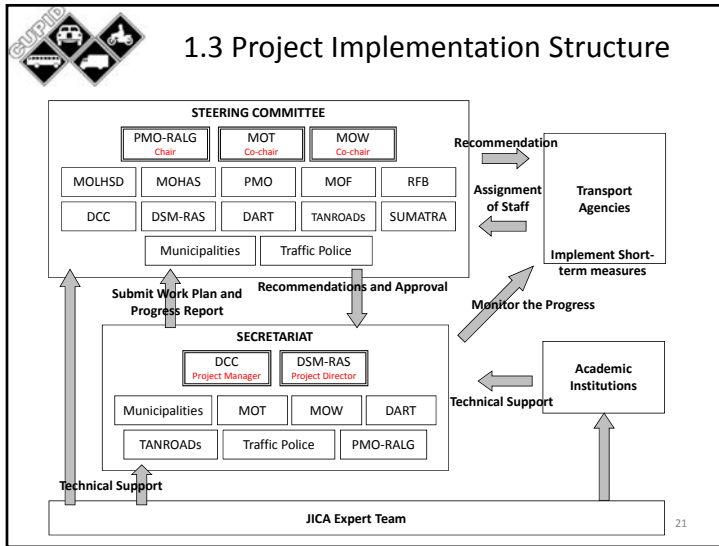
### Draft PDM – Monitoring Indicators

#### Means of Monitoring Indicators:

1. Minutes of Steering Committee meeting, records of discussion, presentation materials.
2. Training program, training materials, number of trainees, evaluation report.
3. Draft 2013 Urban Transport Policy, draft investment plan.
4. Transport improvement program, project profile of short-term measure, preliminary study report.

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### 1.5 JCC/Steering Committee

No.	Schedule	Agenda
1st	April 2011	1 <sup>st</sup> Year Draft Work Plan • Approval of 1st Year Work Plan
2nd	Oct 2011	Project progress report • Recommendation on capacity building plan/draft urban transport policies/draft transport improvement program & short-term measures
3rd	Jan 2012	2 <sup>nd</sup> Year Draft Work Plan • Approval of 2nd Year Work Plan • Consensus on proposed policies/plans/projects → Reflected into policy statement/budgetary document
4th	Aug 2012	• Monitor on progress of proposed policies/plans/projects
5th	Nov. 2012	Project completion report • Evaluation report on the project



## 1.6 JICA Expert Team and Secretariat

Name of Expert	Position Assigned	Affiliation
Mr. Kiminari Takahashi	Team Leader/Transport Administration	IDCJ
Mr. Junji Shibata	Transport Planning	OC
Dr. Tatsumi Tokunaga	Human Resource Development	EJEC
Mr. Yoshiyuki Arita	Traffic Demand Forecast/ Database Management	IDCJ
Mr. Frits Olyslagers	Public Transport Planning	OC
Mr. Hiroyuki Morimoto	Road Planning/ Project Coordination	OC

Note: International Development Center of Japan (IDCJ), Oriental Consultants Co., Ltd. (OC) and Eight-Japan Engineering Consultants Inc. (EJEC)

Name of Secretariat	Position Assigned	Affiliation
Eng. Chacha Mwita	Full-time Secretariat Member	DSM-RAS
Ms. Martha Mkupasi	Full-time Secretariat Member	DCC
Eng. Nyenye S.M	Full-time Secretariat Member	DCC

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## 1.7 Deliverables

Report	Schedule of Submission	Major Contents
Inception Report	December 2010	<ul style="list-style-type: none"> <li>Approach and methodology of the Project</li> <li>Draft project implementation plan</li> </ul>
1 <sup>st</sup> Year Work Plan (2 <sup>nd</sup> Year)	April 2011 (January 2012)	<ul style="list-style-type: none"> <li>Project Design Matrix</li> <li>Project implementation plan</li> </ul>
Project Progress Report	October 2011	<ul style="list-style-type: none"> <li>Project outline</li> <li>Project activities</li> <li>Issues and lessons from the Project</li> <li>Progress toward project goals</li> <li>Project implementation plan in the next phase</li> </ul>
Project Completion Report	December 2012	<ul style="list-style-type: none"> <li>Project outline</li> <li>Project activities</li> <li>Issues and lessons from the Project</li> <li>Progress toward project goals</li> </ul>

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## Presentation 2: Overall progress of the Project

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## Project Output 1: Better Coordination

Kick-off meeting on 13/Dec

- Draft implementation plan

Workshops in Dec/Jan

- Problem tree, draft work plan, training, short-term measures

Dissemination campaign

- Mayor (City, Temeke), City Director, DSM-RAS
- Presentation at Regional Road Board on 2/Feb
- Seminar at TANROADS on 4/March

Donor coordination

- EU, WB, EU/DfID consultants


Branding – project title, logo and catchphrase

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Kick-off meeting, Workshops and Seminars


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### Project Output 2: Planning Skill Improvement

- 1<sup>st</sup> Capacity building training
  - Objectives:
    - To develop transport planning capabilities including demand forecast and project evaluation
  - Trainees:
    - DCC, Municipalities, TANROADs, Traffic Police, NIT, Ardhi Institute, DIT, UDSM
  - Program:
    - 8 sessions in 4-day intensive training held between 26/Feb and 12/March
    - Traffic survey, demand forecast (STRADA), database management , etc.

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### Project Output 2: Planning Skill Improvement

- 1<sup>st</sup> Capacity building training - Evaluation
  - Overall evaluation results show most trainees satisfied with the training. However, the future training requires some implications – **more practical training by STRADA in the next training course in June.**
  - Also, training needs for public officers and specific goals/strategy for capacity building training for transport planner needs to be identified.
    - **Capacity building plan will be prepared.**

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### Project Output 3: Urban Transport Policies

- Coordination meetings with MOT/EU/EU&DfID consultants
  - EU/DfID support preparation of National Transport Policy.
- Review of relevant documents
  - Draft 2013 National Transport Policy – White Paper
  - Pre-FS on DUTA
- Urban transport policy will input to National Transport Policy.
  - April: Draft vision and policy statement
  - May: Stakeholder meeting, presentation to decision makers
  - June-Aug: Draft strategies and projects
  - Sep-Oct: Stakeholder meeting, finalization of NTP
  - Oct-: Revision of Transport Sector Investment Plan

32



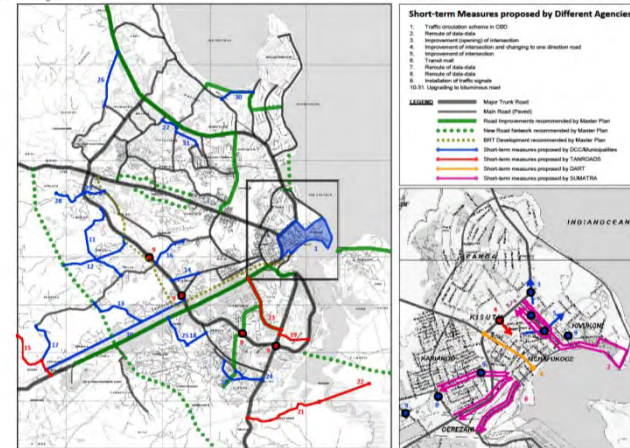
### Project Output 4: Coordinated and prioritized plans/projects

- SO MANY short-term measures exist, proposed by various studies/documents/stakeholders.
  - Wish lists without consideration of fund availability.
  - Responsible agency is unclear.
  - Priority is not stated.
- Coordinated and prioritized plans/projects are essential to maximize benefits generated.
  - Priority of the measures by specific criteria.
  - Strategic planning for each prioritized measure.

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### Short-term measures proposed by different agencies



### Project Output 4: Coordinated and prioritized plans/projects

- Short-term measures should focus on the designated area.
  - CBD, Kariakoo and trunk roads
- Short-term measures should be consistent with upper plans (e.g., investment plan, previous master plan)/related projects.
- Short-term measures should be selected by specific criteria;
  - (i) project impact, (ii) availability of the fund, (iii) coordination among different stakeholders and (iv) upper plans/related projects.

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### Project Output 4: Coordinated and prioritized plans/projects

#### Short-term measures to be studied in the project (Tentative)

What	Who initiates	Where
1. Parking management	DCC (M, TP)	CBD, Kariakoo
2. Traffic circulation	DCC (M, TP, DART, T, RAS)	CBD, Kariakoo
3. Bypass improvement	M (T)	Function as bypass
4. Bus stop/terminal improvement	M (T, S, RAS)	Trunk road
5. Traffic signal optimization	T (M, TP)	Trunk road
6. Intersection improvement	T (DART, TP, DCC, M)	Trunk road
7. Traffic management	TP (M, T, DCC)	Critically congested area
8. Traffic safety	TP (T, DCC, M)	Critically dangerous area

T: TANROADS, TP: Traffic Police, M: Municipalities, S: Sumatra

36



**C**onsensus for **U**rban Transport and  
**P**olicy **I**mprovement in **D**ar es Salaam

“Thinking and Working Together for a Livable City”



**MINUTES OF THE FIRST JOINT COORDINATING COMMITTEE  
/STEERING COMMITTEE MEETING  
ON  
CAPACITY BUILDING PROJECT  
FOR  
THE IMPROVEMENT OF DAR ES SALAAM TRANSPORT**

In response to the request from the United Republic of Tanzania (hereinafter referred to as ‘Tanzania’), the Japan International Cooperation Agency (hereinafter referred to as ‘JICA’) dispatched JICA Expert Team (hereinafter referred to as ‘the Team’), headed by Mr. Kiminari Takahashi of International Development Centre of Japan, to implement the technical cooperation project, namely ‘Capacity Building Project for the Improvement of Dar es Salaam Transport’ (hereinafter referred to as ‘the Project’).

At the initial stage of the Project after the Team arrived in Tanzania, a series of discussions were made and several workshops were organized, inviting Ministries, Public Agencies and Academic Institutions concerned for the Project. As a result of the discussions made during the first Joint Coordinating Committee/Steering Committee, held on 19<sup>th</sup> April, 2011, at the Karimjee Hall, Dar es Salaam, it was confirmed and agreed among all the members as referred to in the documents attached hereto.

Dar es Salaam, April 27<sup>th</sup>, 2011

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Mr. Hussein A. Kattanga  
Permanent Secretary  
Prime Minister’s Office Regional Administration  
and Local Government

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Mr. Yukihide Katsuta  
Chief Representative  
JICA Tanzania Office

## **1. Agenda**

The meeting was proceeded by following agenda:

- (1) Registration
- (2) Self Introduction
- (3) Welcome Remarks
- (4) Opening Remarks
- (5) Presentation 1(Draft work plan and Project Design Matrix)
- (6) Presentation 2 (Overall progress of the Project)
- (7) Discussions and Approval of the Work Plan/Project Design Matrix
- (8) Any Other Business
- (9) Closing Remarks

## **2. Self Introduction**

The Chairperson (Mr. H. Kattanga – Permanent Secretary of PMO-RALG) called the meeting to order at **10:50 hours** by welcoming all the members and thanking them for their attendance. He then invited the members for self introduction. (Please see the list of the attendees in **Attachement-1**)

## **3. Welcome Remarks**

Ms. T. Mmbando, RAS-DSM, provided welcome remarks from Tanzanian side. In her remarks, she registered her appreciation on the current efforts made by both Tanzania and development partners to improve road and public transport infrastructures in Dar es Salaam, such as Bus Rapid Transit and road improvement projects along Kilwa Road, Mandela Road and New Bagamoyo Road. She also pointed out on the need for further efforts. She argued the Government of Tanzania on the needs of an appropriate strategic planning and coordination among different agencies for the effective improvement of urban transport in Dar es Salaam. She also reiterated on the importance of the Project on the Capacity Building that will ease the urban transport issues in Dar es Salaam.

Mr. Yukihide Katsuta, Chief Representative of JICA Tanzania Office, made welcome remarks from Japanese side. In his remarks, he informed the meeting of JICA's development assistance to Tanzania that has extended for more than 40 years. Through this cooperation, several grant aid projects and technical supports were provided for the improvement of road infrastructures in Dar es Salaam. However, he also pointed out that the problem of traffic congestion in Dar es Salaam remained as a very serious issue that needs immediate actions and JICA conducted "Urban Transport Policy and System Development Master Plan in 2008" to mop out the intentions to

solve the problem. He pointed out the importance of the establishment of coordinating mechanism among transport related organization that has to take place. He finally concluded that the capacity building project for Dar es Salaam Transport Improvement would contribute to the economic development of Tanzania, East African Region as well as improvement of the livelihood of the Dar es Salaam citizens and the country in general.

#### **4. Opening Remarks**

Before opening the meeting, Mr. H. Kattanga, Permanent Secretary of PMO-RALG, informed the meeting of various efforts done on the Project. He first mentioned about the previous master plan study, saying that JICA conducted the Master Plan Study, entitled, “Study on Urban Transport Policy and System Development Master Plan for the City of Dar es Salaam” which proposed urban transport infrastructure projects, traffic management program and capacity development program to realize the proposed projects and program.

He then mentioned about the background of the Project, saying that the Government of Tanzania requested the Government of Japan to provide the capacity development program for the urban transport sector. He informed the meeting that JICA dispatched a study team in December 2010 and embarked on this “Capacity Building Project for the Improvement of Dar es Salaam Transport” being a response to the request from the Tanzanian Government.

He also mentioned about the progress of the Project, saying that the members of Secretariat for this Project met at regular basis and organized seven workshops and the Secretariat members drafted the Work Plan of this project, which contains project purpose, anticipated project outputs and its activities to accomplish the project purpose.

He finally launched the Project and opened the meeting.

#### **5. Presentation**

Mr. Kiminari Takahashi, Team Leader of the Expert Team, explained the outline of Draft Work Plan to the members of Joint Coordinating Committee/Steering Committee. The main topics presented in the meeting are listed below.

- Project Background
- Draft Work Plan (Contents, Revision of Project Design Matrix)
- Draft Project Design Matrix (Goal, Purpose, Outputs and Activities, Monitoring Indicators)
- Project Implementation Structure
- Project Schedule (1<sup>st</sup> Year, 2<sup>nd</sup> Year)
- Joint Coordinating Committee/Steering Committee
- JICA Expert Team and Secretariat members



- Deliverables

Eng. Nyenye S. M who is a member of the Secretariat explained on the progress of the Project. The main topics presented in the meeting are listed below.

- Project Output 1 (Better coordination)
- Project Output 2 (Planning skill improvement)
- Project Output 3 (Urban transport policies)
- Project Output 4 (Coordinated and prioritized plans/projects)

## 6. Discussions and Approval of the Draft Work Plan/Project Design Matrix

After the presentation, the members were requested to ask questions and provide comments. The members of the Committee made the following comments and suggestions to the Expert Team/Secretariat members;

S/No	Matters raised	Agreements/Proposals
01	Short-term measures as main project output	The outputs of the Project are not limited to the short-term measures only. Both long-term policy (as project output 3) and short-term measures (as project output 4) will be proposed in the course of the Project.
02	Project logos/project title/project catchphrase	<ul style="list-style-type: none"> <li>• Project logo needs some improvements to accommodate more modes of transport including non-motorized transport and pedestrians.</li> <li>• In the project catch-phrase, the words “Urban Transport” can be written as “Urban-Transport” to form CUPID.</li> <li>• The project catch-phrase should present what to achieve and should be changed to ‘Urban Transport and Policy Improvement Strategy in DSM’</li> <li>• The final goal of this Project is to establish a coordination mechanism amongst urban transport related agencies and therefore, the project title should remain the same.</li> </ul>
03	Change of the title of the previous master plan.	The title of the previous master plan cannot be changed because the previous master plan was completed in 2008 and the final report was produced.
04	Coordination between urban transport and urban planning	<ul style="list-style-type: none"> <li>• The Ministry of Land is currently working on to formulate the land use master plan and the said coordination meeting confirmed that the urban transport policies/programs/project, proposed in this Project would be an essential input to the land use master plan.</li> <li>• The Project already established the line of communication and the coordination meetings held with the Director of Planning of the Ministry of Land.</li> <li>• The members of the Steering Committee include the representative of the Ministry of Land.</li> </ul>
05	Structure of the steering committee	The structure of the steering committee was approved with the following amendment: there should be only one chairperson the

		co-chairperson will now join the committee as members.
06	Charter of operations	Each responsible agency ensures its commitment to the policies/program/projects proposed in the course of the Project.
07	Coordination with on-going projects	The secretariat members support the works for short-term measures including the on-going projects. The preliminary works for these on-going projects include i) preparation of the TOR for the intersection improvement projects by TANROADS and ii) preparation of the project profile of the installation of the signal and optimization of the signals by TANROADS.
08	Project implementation and land acquisition	<ul style="list-style-type: none"> <li>• The land acquisition becomes one of the obstacles to implement the project.</li> <li>• The only solution is to pay sufficient amount of compensation to the affected households though it becomes difficult, considering present economy and the Government's budget.</li> <li>• The law allows the government to acquire any land if it is compensated.</li> <li>• The government should allocate enough budgets for land acquisition.</li> </ul>
09	Coordination amongst urban transport related program/projects	The Regional Administrative Secretary is a coordinator of all transport policies/programs/projects in Dar es Salaam. All responsible agencies should plan together and provide reports and challenges to the Regional Consultative Committee (RCC) for further action.
10	Project ownership	<ul style="list-style-type: none"> <li>• Initiative should be undertaken to inform more people especially councilors of the Project. The secretariat has already informed the project outline of the members of the Regional Road Board in February.</li> <li>• It is advised that the Regional Road Board should take into account for the importance of this Project and should allocate more time at appropriate timing to present the progress of the Project.</li> </ul>
11	Development budget for improvement of urban transport infrastructure	<ul style="list-style-type: none"> <li>• It is advised to revisit the way of planning and budgeting. Dar es Salaam needs to be provided with a certain share of development budget, considering that population in Dar es Salaam accounts to 12% of population of Tanzania.</li> <li>• Dar es Salaam already enjoys considerable amount of development budgets channeled to the urban transport infrastructure, including those provided by the World Bank and JICA.</li> </ul>
12	Approval of the Work Plan/Project Design Matrix	<ul style="list-style-type: none"> <li>• Members of the Coordinating Committee/Steering Committee agreed with the contents of the Project Design Matrix, including project goal, purpose, activities and means of monitoring indicators.</li> <li>• Members of the Coordinating Committee/Steering Committee agreed that Permanent Secretary of PMO-RALG serves as the chair of the Coordinating Committee/Steering Committee and is the only chair person (no co-chair persons) amongst the members. Other than that, members of the Coordinating Committee/Steering Committee agreed with the project implementation plan of this Project.</li> </ul>
13	Agreements amongst the members	<ul style="list-style-type: none"> <li>• Members of the Coordinating Committee/Steering Committee emphasized the importance of the dissemination and branding</li> </ul>

		<p>of the Project and agreed the project catch-phrase and logo with following minor amendments: Project logo needs some improvements to accommodate more modes of transport including non-motorized transport and pedestrians to represent the current and future image of the urban transport in Dar es Salaam.</p> <ul style="list-style-type: none"> <li>• Members of the Coordinating Committee/Steering Committee emphasized the importance of implementation of the policies/program/projects, proposed in the course of the Project and commitments of each urban transport related agency. Members of the Coordinating Committee/Steering Committee agreed with the RAS-DSM as the focal point of the coordinating body both in the course of the Project and during the implementation of the proposed policies/program/projects.</li> </ul>
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The Draft Work Plan was approved with the above-mentioned comments and amendments.

#### **7. Any Other Business**

After the discussion, the members of the Coordinating Committee/Steering Committee were requested to raise any other businesses. One of the members of the Coordinating Committee/Steering Committee provided the following comments and suggestions to the chairperson of the Coordinating Committee/Steering Committee;

- As agreed during the Preparatory Survey of this Project, the undertakings of the Tanzanian side include the allocation of the budget necessary for implementation of the Project. So far, none of the budgets related to this Project has been proposed and approved, though the Project office had been provided in DCC.

The chairperson of the Coordinating Committee/Steering Committee agreed to discuss the expenses necessary to implement the Project with the Secretariat members and directed the RAS-DSM to draft the budget and send it to PS-PMO RALG as soon as possible.

#### **7. Closing Remarks**

The meeting was closed at 14:45 hours.

## **ATTACHMENT-1 (LIST OF ATTENDEES)**

Attendants of the 1<sup>st</sup> Joint Coordinating Committee/Steering Committee are listed below.

### **TANZANIAN SIDE**

1	Mr. H. Kattanga	PMO-RALG	Chair of JCC/SC
2	Ms. Theresia Mmbando	RAS-DSM	JCC/SC Member
3	Mr. Khalid H. Kachenje	Ministry of Transport	JCC/SC Member
4		Ministry of Works	JCC/SC Member
5	Mr. Conrad Shio	SUMATRA	SC Member
6	Mr. Shemangale Davis	PMO-RALG	JCC/SC Member
7	Mr. Bakari R. Kingobi	Dar es Salaam City Council	JCC/SC Member
8	Mr. Cosmas P. M. Takule	DARTA Agency	SC Member
9	Mr. Joseph Mashigala	MOLHSD	SC Member
10	Mr. John W. Mwilima	Ministry of Finance	SC Member
11	Mr. Charles R. Massawe	Road Fund Boards	SC Member
12	Mr. Ladislaus M. Bigambo	TANROADS	SC Member
13	Mr. James R. Nyabakari	TANROADS DSM Office	SC Member
14	Eng. Natty M. B	Dar es Salaam City Council	JCC/SC Member
15	Ms. Martha Mkupasi	Dar es Salaam City Council	JCC/SC Member
16	Eng. Nyenye S. M	Dar es Salaam City Council	JCC/SC Member
17	Mr. Gaston G. Paschal	Temeke Municipal Council	JCC/SC Member
18	Eng. Ogare Salu	Ilala Municipal Council	JCC/SC Member

### **JAPANESE SIDE**

1	Mr. Yukinori Seki	Embassy of Japan	JCC Member
2	Mr. Yukihide Katsuta	JICA Tanzania Office	JCC Member
3	Mr. Shin Maruo	JICA Tanzania Office	JCC Member
4	Ms. Lilian Masalu	JICA Tanzania Office	JCC Member
5	Mr. Kiminari Takahashi	JICA Expert Team	JCC Member
6	Dr. Tatsumi Tokunaga	JICA Expert Team	JCC Member

## ATTACHMENT-2 (MATTERS RAISED AND ACTIONS TAKEN)

S/No	Matters raised	Responsible Persons	Actions Taken
02 13	Project logos/project title/ project catchphrase	Secretariat	The project logo was reviewed and revised, adding passengers and bicycle which represents typical mode of transport in Dar es Salaam.
04	Coordination between urban transport and urban planning	Secretariat	<p>The secretariat had coordination meetings with the consultants, assigned for the on-going Urban Master Plan Study by MOLHSD on 11/Jan (Briefing of 2008 Urban Transport Master Plan), 4/July (Database for Traffic Demand Forecast and GIS), 11/Nov (Briefing of the progress of Urban Master Plan Study).</p> <p>These coordination meetings confirmed the consultants would follow the proposals made during 2008 Urban Transport Master Plan.</p>
06	Charter of operations	Secretariat	<p>The secretariat is currently working to formulate Road Improvement Plan, to identify priority road improvement projects. The proposed priority road improvement projects will be selected/implemented by each Municipality under the DMDP (Dar es Salaam Metropolitan Development Program).</p> <p>The secretariat is also working to formulate CBD Traffic Improvement Plan, proposing parking management plan, daladala rerouting/bus bay improvement, intersection improvement, etc. The secretariat also proposes implementation of pilot projects before the full implementation of CBD Traffic Improvement Plan. The proposed pilot project include traffic circulation plan, daladala rerouting and intersection improvement. These proposals will be followed by the responsible agencies.</p>
07	Coordination with on-going projects	Secretariat	As mentioned above (No. 06), the secretariat coordinated with on-going projects, including DMDP under the support by the World Bank, and on-going traffic circulation plan in CBD, proposed and implemented by DART Agency/Ilala Municipality.
09 10 13	Coordination amongst urban transport related program/projects Project ownership	Secretariat	<p>The secretariat presented the progress of the project on 2/Feb, 20/May and August at Regional Road Board.</p> <p>The secretariat also briefed the outline and progress of the project to the decision makers, including DSM City Council Mayor, Temeke/Ilala Municipal Council Mayor, Dar es Salaam City Director, Ilala Municipal Director, etc.</p>
12	Approval of the Work Plan/Project Design Matrix	Secretariat	The secretariat made the progress of the project and major progress of the project is summarized in the attached progress report.
-	Allocation of the budget necessary for implementation of the Project	Secretariat	The expenses necessary for implementation of the project was estimated by selected secretariat members and the draft budget was submitted to PMO-RALG (Refer to the letter with reference number of FA 74/378/01B/28 of May 18 <sup>th</sup> , 2011) .



# Capacity Building Project for the Improvement of Dar es Salaam Transport

Progress Report

Secretariat for Capacity Building Project  
and  
JICA Expert Team



## Contents

1. Summary progress of the project
2. CBD traffic improvement plan  
Appendix: Pilot project to test CBD traffic improvement plan
3. Road improvement plan

Discussion: Pilot project in CBD



## 1. Summary progress of the project

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### 1-1. Project purpose and output

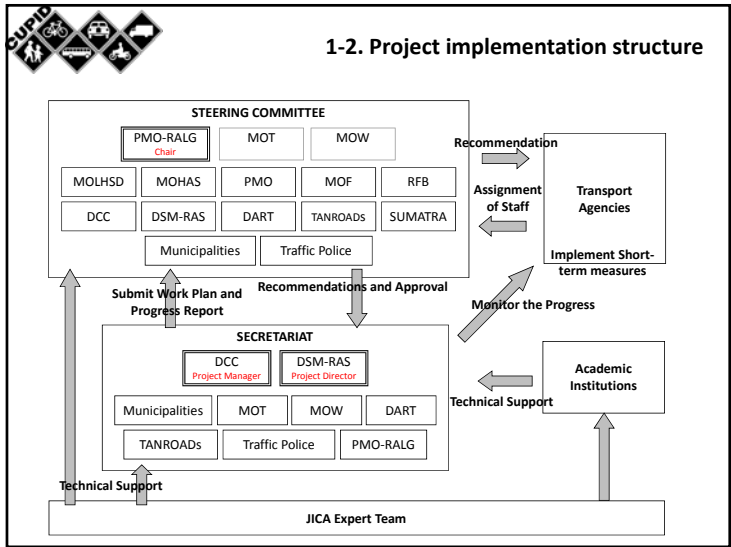
#### Project Purpose

A coordination mechanism is developed, involving relevant transport-related agencies, and their capabilities are strengthened.

#### Project Output

1. Coordinating groups (i.e., Secretariat and Steering Committee) are established with charter of operations.
2. Training needs are identified and transport planning capabilities of individuals involved in the Project are improved.
3. A series of policy recommendations are provided and compiled into a policy document.
4. Coordinated and prioritized plans/projects are studied and approved for immediate actions.

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- 1-3. Summary project progress**
- Coordination mechanism
- Steering committee and secretariat were both established.
  - 22 secretariat meetings were organized at DCC to discuss and design transport policy and priority projects.
  - 1<sup>st</sup> steering committee meeting was held on 19 April to discuss and approve a work plan.
- Technical training
- Trainings for transport planning were held in Feb/March, June/July and Nov/Dec at NIT.
  - On-the-job training (traffic survey) is currently undergoing.
- Transport policy
- A discussion paper was prepared and discussed among secretariat.
  - Coordination meetings were held with MOT/EU/DfID (input to National Transport Policy).
- Priority plan/projects
- Traffic improvement plan in CBD (Central Business District)
  - Road improvement plan
- 6



**2. CBD traffic improvement plan**

Current traffic/transport issues at CBD

### Snapshots of traffic issues in CBD (1)



Severe traffic congestion along all major streets in CBD



Illegal parking

Uncontrolled parking

### Snapshots of traffic issues in CBD (2)



Uncontrolled intersection



Mixed traffic



Small & uncontrolled bus bay



Uncontrolled development

### Tips: Findings from Traffic Survey in CBD

- **2 M square meter:** Total floor size in CBD: (0.9 M for resident and 1.1 M for office use)
- **110,000 people:** No. of workers commuting to CBD
- **16,000 vehicles:** No. of inflow cars to CBD
- **3,000 vehicles:** No. of on-street parking at 10 AM at major roads in CBD
- **400 vehicles:** No. of illegal parking at 11 AM at major roads in CBD
- **2,400 vehicles:** No. of available parking space at major roads
- **300 Tshs:** On-street parking charge/hour
- **1000 Tshs:** Off-street parking charge/hour



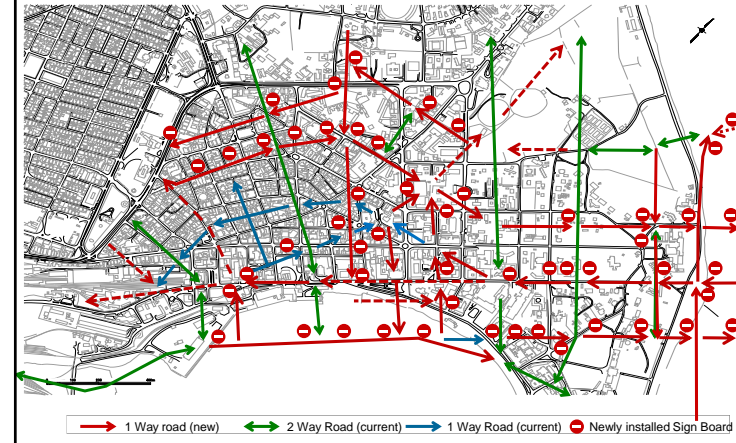
### 2-1. Proposed traffic circulation plan and its progress



**Current traffic circulation plan (One-way traffic circulation )**



**Traffic signboards currently installed (As of Nov 7)**



**2-2. Summary result of traffic simulation analysis in CBD**

**Summary of CBD traffic circulation model by JICA MP (2008)**

- Target year: Year 2009 \*Traffic circulation plan is proposed and tested under assumption BRT Phase 1 is open to public in 2009.
- Survey and input data:
  - Trip generation survey (No. of trips generated from sampled building)
  - Directional traffic count survey
  - Building survey
- Morning peak OD matrices is build, calibrated and assigned to road network by microscopic simulation software (VISSIM).



### Base network case (One-way traffic circulation)



### Result of traffic simulation analysis (One-way traffic circulation)



Average travel speed (7:00 to 9:00 AM) \*85% of traffic demand loaded

### Summary result of simulation analysis

- Proposed one-way traffic circulation can accommodate only 85% of peak traffic demand.

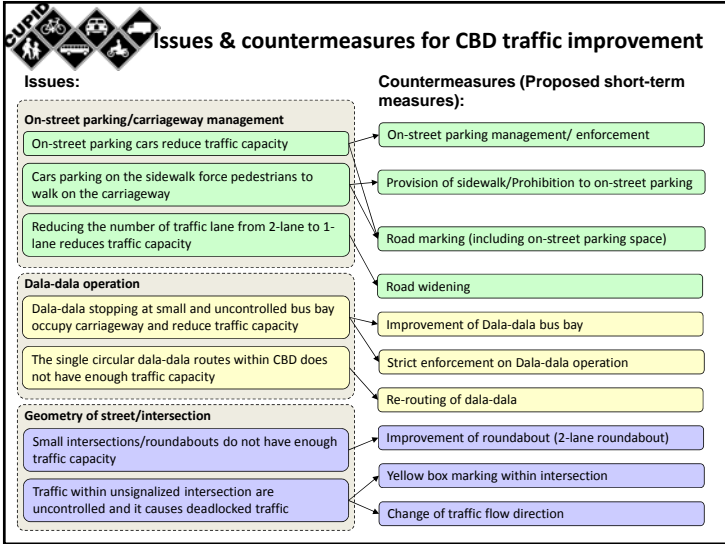
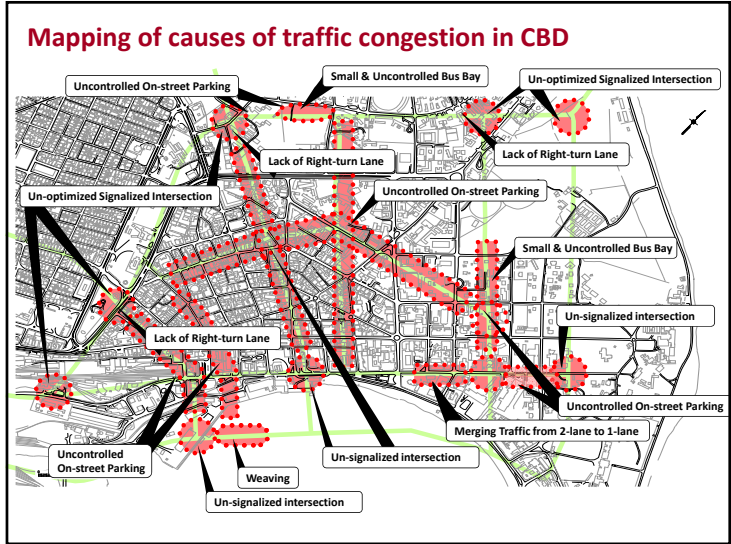
→Traffic de-congestion in CBD requires holistic/comprehensive approach: parking management, intersection improvement, road widening, daladala rerouting/bas bay improvement, etc.

Result of simulation (7:00 to 9:00 AM)

Indicators	One-way traffic circulation (loading 85% demand)
Number of vehicles	21,037
Total distance traveled (km)	45,851
Average distance traveled (km/veh)	2.18
Total travel time (hour)	1,905
Average network speed (km/h)	24.1



### 2-3. Planning principles and counter measures



### Planning principles for CBD traffic improvement plan

**Parking management**

- Manage inner city parking to improve traffic flow and balance the use of available space for all users.
- Establish well marked parking spaces and strictly enforce rules.
- Introduce new parking charge, encouraging short-time parking on streets.

**Public transport management**

- Design bus routes and bus bays to create order and a good service standard for passengers.
- Ensure safe walking accessibility to bus stops and terminals.

### Planning principles for CBD traffic improvement plan

**Traffic management**

- Accommodate BRT priority on planned BRT routes.
- Signalize turns on major corridor intersections to maintain order and sequence and program signal operation to manage traffic flow efficiently.
- Design and improve road geometry/markings/signage.

**Sustainable city design that improves quality of life**

- Improve the pedestrian environment acknowledging that use of city space must respect all users. Cars do not have automatic priority.
- Plan for safe cycleways to promote NMT as an efficient, environmentally-friendly and low cost travel means.

### Snapshots of current traffic in CBD



### Snapshots of possible countermeasures



Bus terminal (left), On-street parking/ road markings/ sidewalk (centre), Yellow-box (right)



## 2-4. On-going exercise under JICA CUPID Project

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### On-going exercise under JICA Project

- A series of **traffic surveys** are undergoing to understand current situation, identify critical issues and to provide baseline data for planning traffic improvement plan.
- These traffic survey includes;
  - Parking survey
  - Public transport survey
  - Building survey
- Introduction of **Pilot Project** is also discussed/proposed to test implementation of the plan/program and to identify critical issues before its full implementation.



## Appendix: Pilot project to test CBD traffic improvement plan

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### A-1. Contents of pilot project

Pilot project is a test, involving limited number of people to test the feasibility of the project before its full implementation.

1. Preparatory works
  - Set-up of implementation structure
  - Detailed implementation plan of pilot project
  - Civil works and other preparatory works
  - Public awareness campaign
2. Implementation (→2 step or 3 step implementation?)
3. Evaluation
  - Survey
  - Evaluation and reporting



### A-2. Draft pilot project plan (3-step implementation)

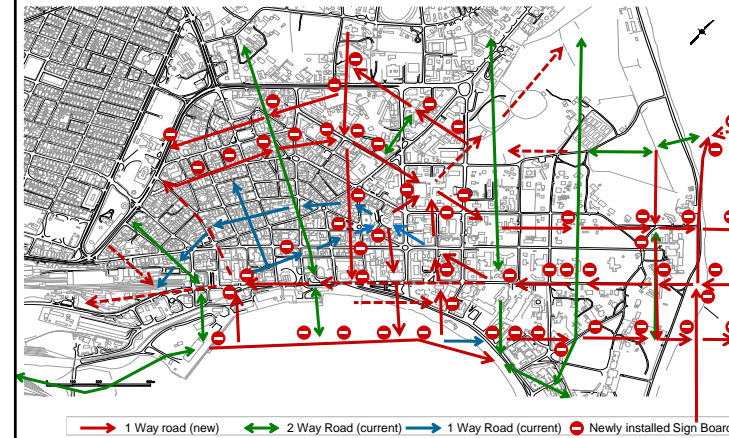
	1 <sup>st</sup> Phase	2 <sup>nd</sup> Phase
Objective	To de-congest traffic in CBD	
Target roads	Jamuhuri St., Zanaki St. etc.	In addition to 1 <sup>st</sup> phase, <b>Samora Avenue, Sokoine Drive</b>
Scope of works	1. One-way/Directional diversion 2. Minor intersection improvement	In addition to 1 <sup>st</sup> phase, 1. Bus bay improvement/ Bus rerouting 2. Parking management 3. Road marking, etc.
Implementing agency	DSM-RAS, Ilala, TANROADS, Traffic police,	DSM-RAS, Ilala, SUMATRA, Traffic police, DCC, TANROADS
Other corresponding agency	DCC, SUMATRA, DARCOBOA	DARCOBOA
Commencement	Early year 2012	Mid year 2012



### A-2. Draft pilot project plan (2-step implementation)

	1 <sup>st</sup> Phase	2 <sup>nd</sup> Phase (Full implementation)
Objective	To de-congest traffic in CBD	
Target roads	<b>Samora Avenue, Sokoine Drive,</b> Jamuhuri St., Zanaki St. etc.	
Scope of works	1. One-way/Directional diversion 2. Bus bay improvement/ Bus rerouting 3. Intersection improvement	In addition to 1 <sup>st</sup> phase, 1. Installation/optimization of traffic signal 2. Intersection/road improvement 3. Parking management 4. Road marking etc.
Implementing agency	DSM-RAS, Ilala, SUMATRA, Traffic police, TANROADS	DSM-RAS, Ilala, SUMATRA, Traffic police, DCC, TANROADS
Other corresponding agency	DCC, DARCOBOA	DARCOBOA
Commencement	Early year 2012	Mid year 2012

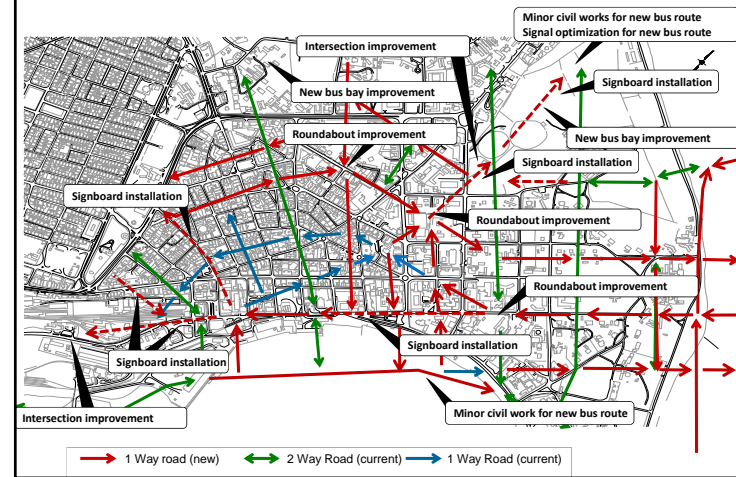
### Progress of One-way traffic circulation (As of Nov 7)



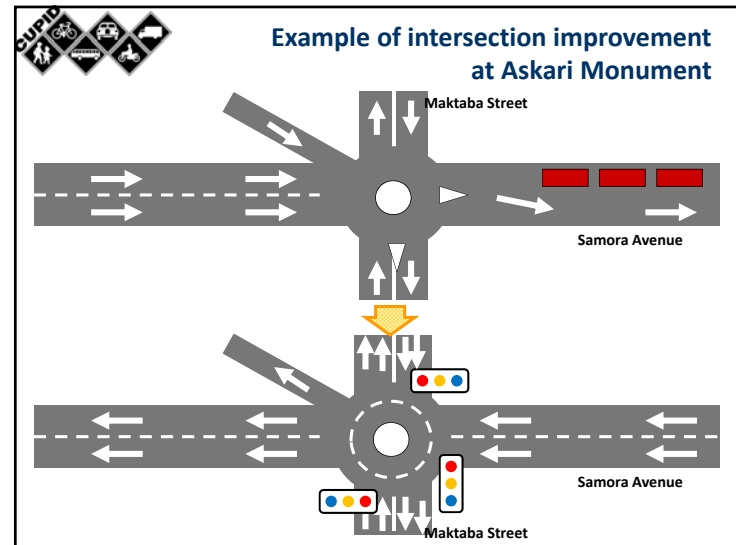
### Progress of Bus rerouting (e.g., Morogoro/Kilwa routes)

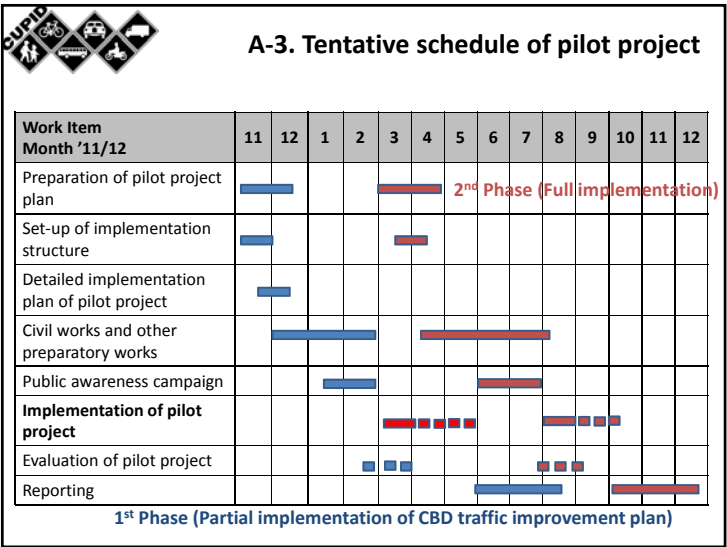
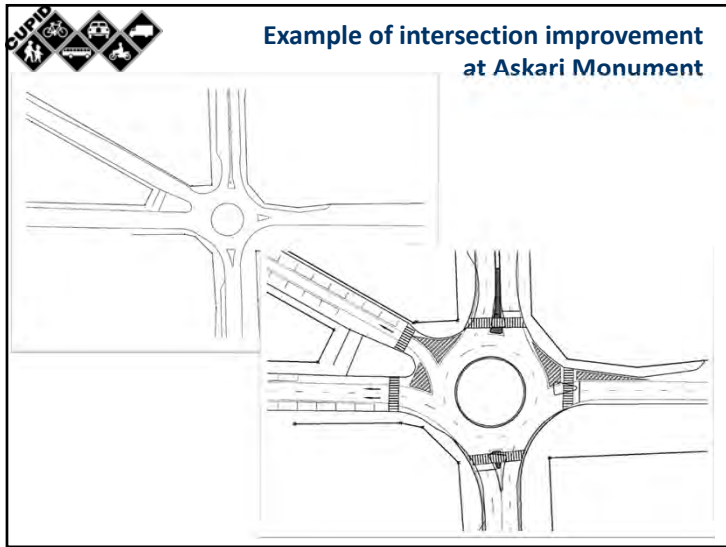


### Remaining civil works before pilot project



Civil works	Street	Contents	Corresponding agency
Signboard installation	1) India Street 2) Samora Avenue 3) Ghana Street 4) Aggrey Street		Ilala
Intersection improvement (1)	1) Bibi titi/Nkurumah intersection 2) Maktaba/India intersection	Removal of traffic islands	Tanroads?
Intersection improvement (2)	1) Askari monument 2) Jamhuri/Zanaki roundabout 3) Jamhuri/India roundabout 4) Clock tower	Enlarged roundabout and removal of islands	Ilala/Tanroads?
Bus bay improvement	1) YMCA 2) New Akiba 3) Old Posta	New bus bay U-turn lane	Ilala/ Tanroads?
Other civil works	1) Bibi titi/Upanga (Ohio) intersection	Open to new dala dala route	Tanroads?
Traffic control	1) Bibi titi/Upanga (Ohio) intersection	Change of signal operation (allows right turn traffic)	Tanroads?





**Sample of public awareness campaign**

**Sample of Signboard**

**Sample of Banner**

**Sample of Flyer**

**Sample of public awareness campaign**

**TRAFFIC CIRCULATION CHANGE IN CITY CENTRE**  
ON / /2012

- All major streets diverted to One-way.
- Samora and Sokoine diverted to opposite direction.
- Daladala terminus at Old Posta, Kivukoni, Stationi (Kilwa/Uhuru/Nyerere routes) and YMCA (Morogoro/Ali Hassan routes).

**Purpose:** The purpose of changes in traffic circulation is primarily to de-congest traffic in City Centre. It also includes (i) to improve efficiency of daladala operation, (ii) smoothly implement BRT/DART (Bus Rapid Transit), (iii) to allow part of Morogoro dedicated only for BRT/pedestrians.

**Streets diverted to One-way include:**

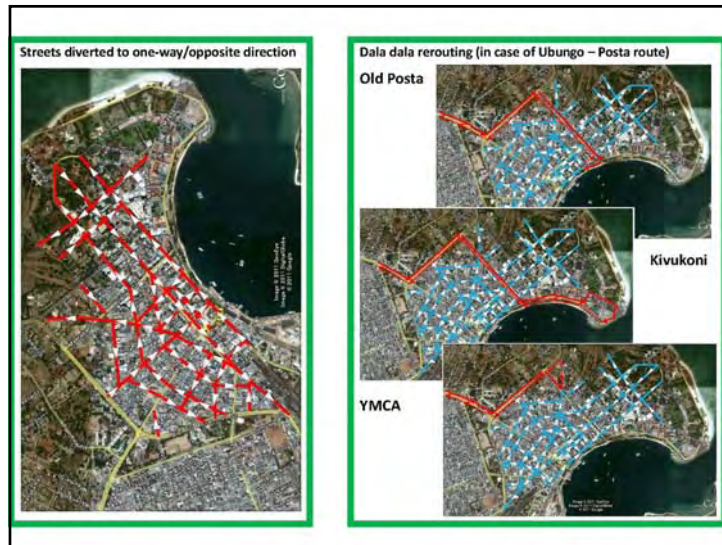
- Nkrumah Street
- Jamhuri Street
- Zanaki Street
- Libya Street
- Mirambo Street
- S/Robert Street
- Ghana Street (part)

**Streets diverted to opposite direction include:**

- Samora Avenue
- Sokoine Drive
- Mkwepu Street
- Kisutu Street
- Indira Gandhi Street

Since Sokoine Drive is diverted to opposite direction, and BRT is soon under construction/operation, no daladala operation along Sokoine. Also, to reduce congestion and improve efficiency in operation, some daladala will be diverted to YMCA. See the details in attached operation map.

**Contact:** Please contact at Ilala Municipality (Eng. Tighawa: ), Dar es Salaam City Council (Eng. Nyenye: ) and DSM Region (Eng. Chacha: ), DART Agency (Eng. Kuganda: ), SUMATRA (XXXXX: ), DARCOBOA (XXXXX: ), TANROADS DSM (XXXXX: ) for more details.



3. Road improvement plan

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**Tips: Finding/proposals by JICA urban transport master plan**

**770 km:** Road network (defined as primary to tertiary roads) in Dar in YR 2007.

**78,000 cars:** Estimated number of passenger cars in Dar in YR 2007

**10%:** Percentage of households with car(s) in 2007  
 → Dar experiences sharp increase in the number of cars (10 – 15% p.a.).

**1030 km:** Additional road network in Dar proposed by YR 2030 to maintain current level of service → annually **50 km of additional road network**

**2.0 billion USD:** Amount of investment required for road improvement in Dar upto YR 2030 → annually **100 million USD** should be channeled for road improvement!

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**3-1. Objectives of road improvement plan**

Outcome:

- Traffic de-congestion
- Creation of living environment
- Provision of public welfare

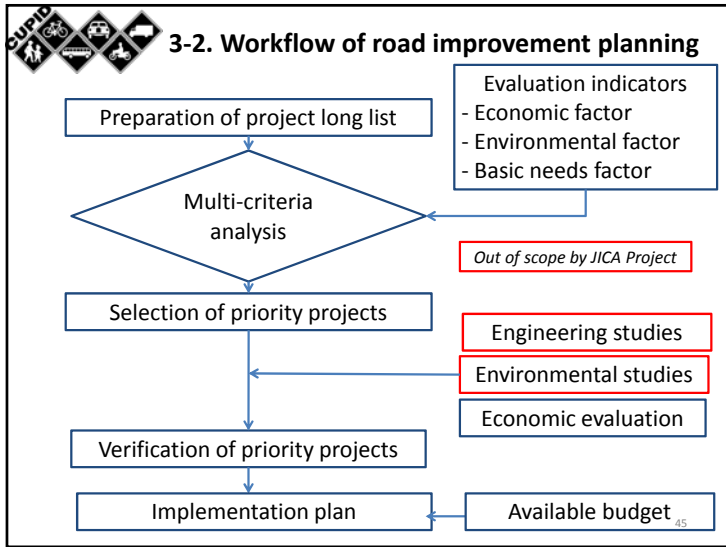
Planning principle:

- Effective investment
- Accountability
- Coordination amongst corresponding agencies

→ **A road functions when built as network!**

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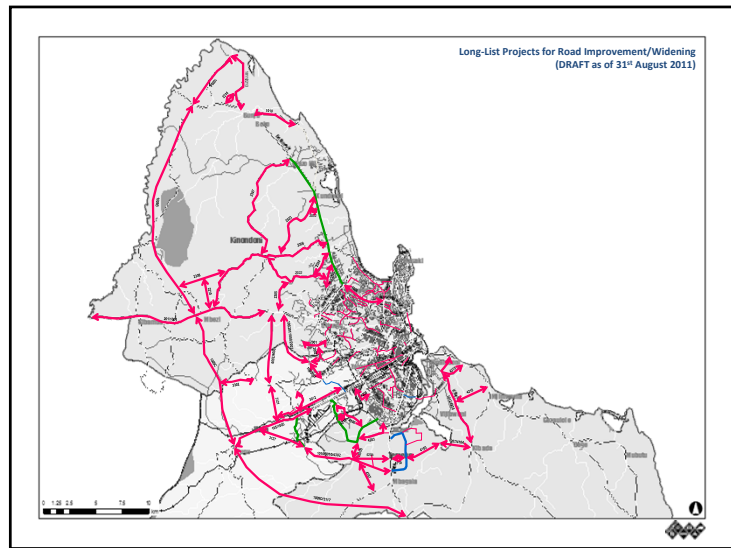
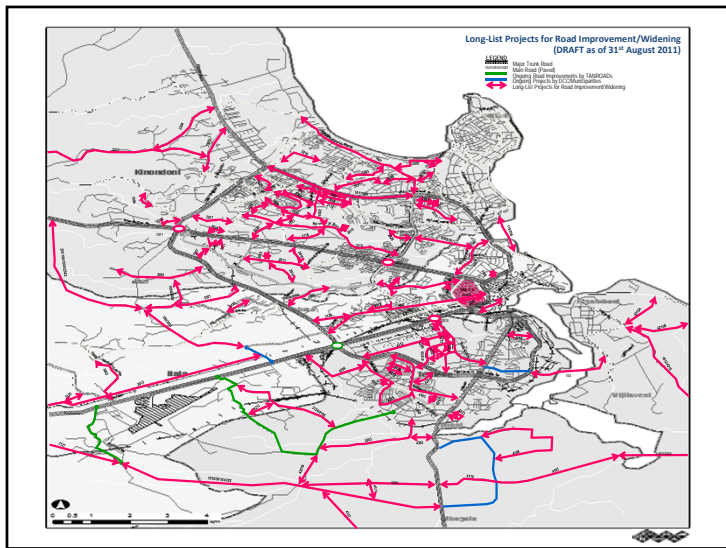
**3-3. Preparation of project long list**

Long-list of road improvement projects is prepared based on;

- Urban transport master plan (2008)
- Feasibility study/design reports
- Long-list of urgent projects, proposed for DMDP

→ **116 road improvement projects** with road length of **420 km** and total project cost of **520 M USD**, including Tanroads road network, are identified as 'urgent projects'.

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### 3-4. Multi-criteria analysis for project selection

1st level criteria	2nd level criteria	3rd level criteria	Evaluation items
Economic criteria	Workability	Project size	Project cost
	Sustainability	Reliable traffic service	All weather traffic
		Traffic demand	Daily traffic volume
	Economy	Volume capacity ratio	Volume capacity ratio
		Cost effectiveness	Cost/traffic volume
Regional development and logistics network	External trip rate	External trip rate	
	Connectivity	Connectivity	
	Heavy vehicular traffic volume	Heavy vehicular traffic volume	
Environmental criteria	Pollution	Noise and vibration	Noise and vibration
	Air quality	Air quality	Traffic volume and travel speed
Social Environment	Involuntary resettlement	Involuntary resettlement	Resettlement and land acquisition
	Basic need criteria	Poverty Reduction	Impact to the regional economy
Impact to the poverty reduction			No. of population in poverty in project site
Availability of road			Road length/households

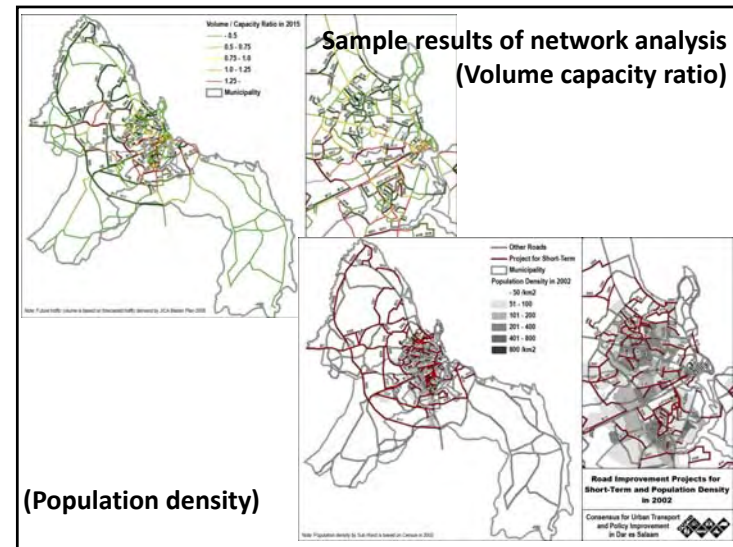
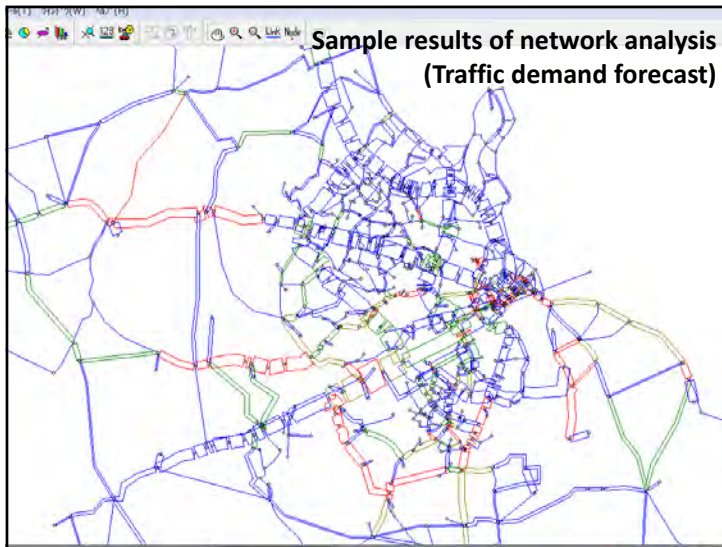
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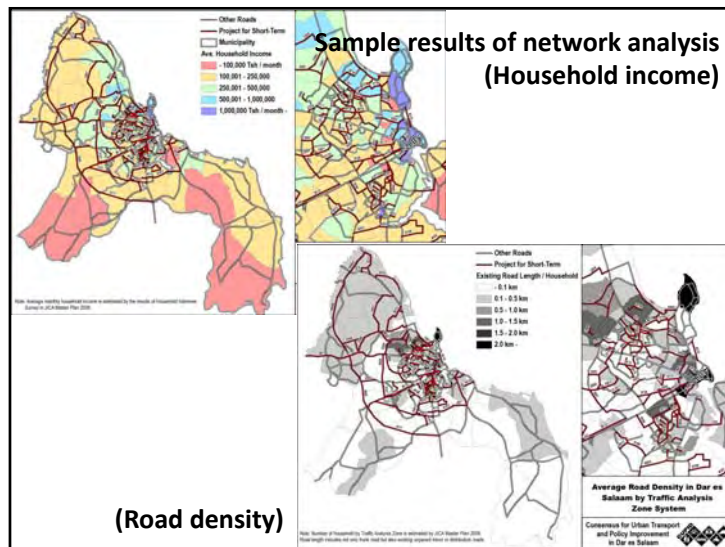


### Weights of criteria suggested by secretariat members

Evaluation items	National Roads	Local Roads
Project cost	6.3%	5.7%
All weather traffic	8.5%	6.1%
Daily traffic volume	10.0%	10.9%
Volume capacity ratio	13.9%	9.1%
Cost/traffic volume	15.9%	9.3%
External trip rate/ Connectivity	8.8%	5.9%
Noise and vibration	6.2%	5.2%
Air quality	6.2%	7.7%
Involuntary resettlement	10.1%	6.9%
No. of population in project site	5.2%	12.9%
No. of population in poverty in project site	4.1%	11.1%
Road length/households	4.6%	9.2%

50





**Worksheet of multi-criteria analysis and selection of priority projects**

1. Project profile

S/N	Project Name	Population in project site	Population in poverty	Road length/households	Score (National)	Score (Local)	Jurisdiction
101	New Bagamoyo Road Wide	3	4	2	2.90	2.94	TANROADS
103	Kigamboni Bridge and Acce	2	5	4	2.50	2.82	TANROADS
104B	Inner Ring Road/kawawa R	2	4	4	2.85	2.91	Temeke
105	Nyerere Road Widening	2	4	5	2.49	2.77	TANROADS
109B	Gereza ni Area Transport En	1	1	5	2.53	2.39	TANROADS
201	Morogoro Road Widening	1	4	4	2.37	2.39	TANROADS
207	Kigamboni Access Road De	1	4	5	2.59	2.67	Temeke
1001	Old Bagamoyo Road widen	2	2	2	2.43	2.37	TANROADS
1002	Uhuru Road widening	1	5	5	2.78	2.92	TANROADS
1003	Kigogo Road	4	4	5	2.93	3.09	TANROADS
1007		2	4	5	2.75	2.83	TANROADS
1009A		1	4	4	1.87	2.14	TANROADS
1009B		1	4	4	1.95	2.25	TANROADS
1009	Outer Ring Road	1	4	5	2.49	2.63	TANROADS
1010		1	4	4	1.44	1.85	TANROADS
2001	External	2	4	4	2.60	2.68	Kinondoni
2002	Kisuku	2	4	5	2.74	2.89	Kinondoni
2003	Kilungule	1	4	5	1.74	2.12	Kinondoni
2005	TanESCO -Soko la Samaki	3	4	4	1.96	2.38	Kinondoni

54

- 3-5. Way forward**
- Currently, secretariat members and JICA experts are working to select and confirm priority road improvement projects.
1. Preparation of long-list projects: *done*
  2. Multi-criteria analysis: *done*
  3. Selection of priority projects: *done and confirmed soon*
    - **Consultative meetings with DMDP/ Municipalities were held on 29/Nov, 8/Dec and 12/Dec.**
  4. Verification of priority projects: *undergoing*
  5. Engineering study/project evaluation on priority projects: *to be completed by corresponding agencies*
- 55

**Discussion: Pilot project in CBD**

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### Draft work items for 1<sup>st</sup> phase pilot project

Contents	Draft work items	By who	By when
One-way/Directional diversion	1. Designate target roads/plan circulation plan	DART	done
	2. Installation of traffic signboards	Ilala	almost done
	3. Notification to traffic police	RAS	- Jan
	4. Notification to local stakeholders	RAS	- Jan
	5. Design operational plan/assign law enforcement officers	Police	-Feb
Bus rerouting	1. Prepare bus rerouting plan	DART	done
	2. Notification to/consensus building among dala dala owners/drivers	SUMATRA	- Jan
	3. Design and conduct bus bay improvement works at YMCA/Old Posta	Ilala	- Jan
	4. Alternation of traffic signal operation at Ohio/Bibi titi	Tanroads	- ??
Minor intersection improvement	1. Design intersection improvement project	Ilala/Tanroads	- Dec
	2. Conduct minor intersection improvement works	Ilala/Tanroads	- Jan



### Draft work items for 1<sup>st</sup> phase pilot project

Contents	Draft work items	By who	By when
Public awareness campaign	1. Plan detailed PA plan	Secretariat?	- Dec
	2. Design PA materials, including Media (TV, radio, newspaper), Posters/flyers, Advertisement signboards, Banner	Secretariat?	- Jan
	3. PA campaign	Secretariat?	Feb
Implementation	1. Prepare detailed implementation plan	RAS/Ilala?	- Jan
	2. Establish implementation structure, lines of communications, grievance committee, etc.	RAS/Ilala?	- Jan
	3. Allocate necessary budget/logistics	Each	-Dec
	4. Monitor pilot project	RAS/Ilala?	
Evaluation	1. Design evaluation methods	Secretariat?	on-going
	2. Conduct interview/traffic surveys	Secretariat?	on-going
	3. Conduct stakeholder meetings	Secretariat?	Feb/April
	4. Evaluate and report	Secretariat?	May

## Consensus for Urban Transport and Policy Improvement in Dar es Salaam

“Thinking and Working Together for a Livable City”



**MINUTES OF THE SECOND JOINT COORDINATING COMMITTEE  
/STEERING COMMITTEE MEETING  
ON  
CAPACITY BUILDING PROJECT  
FOR  
THE IMPROVEMENT OF DAR ES SALAAM TRANSPORT**

Based on the Record of Discussions signed on 19<sup>th</sup> July, 2010 between the Government of the United Republic of Tanzania (hereinafter referred to as ‘Tanzania’) and the Japan International Cooperation Agency (hereinafter referred to as ‘JICA’), the technical cooperation project, namely ‘Capacity Building Project for the Improvement of Dar es Salaam Transport’ (hereinafter referred to as ‘the Project’) was initiated on 1<sup>st</sup> December, 2010.

In the course of the Project, a series of discussions were made and several workshops were organized, inviting secretariat members from ministries, public agencies and academic institutions. As a result of the discussions made during the second Joint Coordinating Committee/Steering Committee, held on 19<sup>th</sup> December, 2011, at the Karimjee Hall, Dar es Salaam, it was confirmed and agreed among all the members as referred to in the documents attached hereto.

Dar es Salaam, August 24<sup>th</sup>, 2012

---

Mr. Jumanne A. Sagini  
Acting Permanent Secretary  
Prime Minister’s Office Regional  
Administration and Local Government

---

Mr. Yukihide Katsuta  
Chief Representative  
JICA Tanzania Office

---

Ms. Theresia Mmbando  
Regional Administrative Secretary  
Dar es Salaam Region

---

Mr. Kiminari Takahashi  
Chief Advisor  
JICA Expert Team

Attendants of the 2<sup>nd</sup> Joint Coordinating Committee/Steering Committee are listed below.

**TANZANIAN SIDE**

1.	Mr. H. Kattanga	PMO-RALG	Chairperson
2.	Mr. E. Ntandu	RAS-DSM	Secretary
3.	Asteria L. Mlambo (Mrs)	DART Agency	Member
4.	Eng. Natty M.B.	Dar es Salaam City Council	Member
5.	Gaudence Nyamwihula	Kinondoni Municipal Council	Member
6.	Fuime G.K.B	Ilala Municipal Council	Member
7.	Margareth E. Nyalile	Temeke Municipal Council	Member
8.	Ndyamukama V.K	PMO-RALG	Member
9.	Eng. L. M. Kyombo	Ministry of Works	Member
10	Saimon N. Kyungu	Ministry of Works	Member
11	Bwigane H. Mwakalobo	PMO	Member
12	Ladislaus M. Bigambo	TANROADS HQ	Member
13	Ms. Martha Mkupasi	Dar es Salaam City Council	Member
14	Eng. Nyenye S. M	Dar es Salaam City Council	Member

**JAPANESE SIDE**

1.	Hajima Iwama	JICA	Member
2.	Kiminari Takahashi	JICA Expert	Invited
3.	Hiroyuki Morimoto	JICA Expert	Invited

**ABSENTEES WITH APOLOGY**

1.	Ministry of Finance	Member
2.	Ministry of Home Affair	Member
3.	Ministry of Land, Housing and Human Settlement Development	Member
4.	Ministry of Transport	Member
5.	Road Fund Board	Member
6.	SUMATRA	Member
7.	Zonal Traffic Police	Member

## **1. Agenda**

The meeting was preceded by following agenda:

- a) Opening remarks by chairperson
- b) Self-introduction
- c) Confirmation of minutes of previous meeting and discussion of matters raised and actions taken
- d) Presentation of project progress (CBD Traffic Improvement Plan and Road Improvement Plan)
- e) Discussion
- f) Any other business
- g) Closing of the meeting

## **2. Opening of the Meeting**

The Chairperson (Mr. H. Kattanga – Permanent Secretary of PMO-RALG) called the meeting to order at **14:00hours** after making few remarks regarding the Project. In his remarks he mentioned that the Project has impressed him thanks to the on-going efforts/planning works that were made by the secretariat members and the Expert Team. He also assured that PMO-RALG will make sure that the Project is successfully implemented for the improvement of the transport in Dar es Salaam. He also mentioned that Eng. Ndyamukama V.K. of PMO-RALG was requested to participate in the Project to fully coordinate with the World Bank-funded Dar es Salaam Metropolitan Development Project (DMDP). He then requested the members of the meeting to introduce themselves.

## **3. Confirmation of Minutes of Previous Meeting and Discussion of Matters Raised and Actions Taken**

The minutes of the previous meeting were corrected by passing through them page by page and thereafter were confirmed and signed for proper references. During correction of the minutes of the meeting, further clarifications were provided where some members requested the secretariat members and the Expert Team for their clarifications.

#### **4. Presentation of Project Progress (CBD Traffic Improvement Plan and Road Improvement Plan)**

Eng. Nyenye S. M (Secretariat member) made presentation of the project outline and the summary of the project progress. Mr.Takahashi (JICA Expert) then made presentation of CBD Traffic Improvement Plan, and Road Improvement Plan. He also briefed the Pilot Project of the CBD Traffic Improvement Plan.

##### **4.1 Summary Progress of the project**

In addition to the project purpose and output, the project progress summary was presented including provision of better coordination mechanism (where both steering committee and secretariat were established), provision of technical training for transport planning, formulation of transport policy (where a discussion paper was prepared and discussed among secretariat members) and the priority projects/plan (where CBD traffic improvement plan and road improvement plan prepared and discussed among secretariat members).

##### **4.2 CBD Traffic Improvement Plan**

CBD traffic improvement plan was prepared as part of exercises of the Project (preparation of the priority projects/plan). The presentation of the traffic improvement plan in CBD includes current traffic/transport issues at CBD, proposed traffic circulation plan and its progress, summary result of traffic simulation analysis in CBD, planning principles and counter measures, on-going exercise under JICA CUPID Project.

##### **4.3 Road Improvement Plan**

Road improvement plan was also prepared as part of exercises of the Project (preparation of the priority projects/plan). The presentation of the road improvement plan includes objectives of road improvement plan, workflow of road improvement planning, preparation of the project long list, multi-criteria analysis for project selection, selection of priority projects. It was also reported that this exercise was completed in full coordination with the World Bank funded DMDP.

##### **4.4 The Proposed Pilot Project in CBD**

Members of the secretariat proposed the pilot projects in CBD, consisting of one-way traffic operation, bus rerouting, minor intersection improvement, public awareness campaign, and implementation and evaluation. The chairperson of the meeting suggested further discussions, involving key stakeholders to set aside funding and to successfully implement the pilot projects.



## 5.0 Discussions

After the presentation, the members were requested to ask questions and provide comments. The members of the Joint Coordinating Committee/Steering Committee made the following comments and suggestions to the secretariat members/Expert Team;

- For proper project ownership and support, it is better to present the progress of the Project to the different stakeholders: *It was agreed to present the progress of the project at Regional Road Board, where a number of decision makers and directors of the implementing agencies participate.*
- Members raised a concern whether the proposed one way system can solve the problem of traffic congestion: *The traffic simulation analysis proves the one way operation, as proposed by the DART, will improve the traffic flow only if the selected intersections in CBD are improved and on-street parking is properly managed. Accordingly, the Project suggests comprehensive approach, including parking management, intersection improvement and daladala rerouting to successfully implement the one way operation.*
- Members also asked if the project will test feasibility of other modes of transport such as railway and water: *It was responded that currently the project concentrates on the priority projects/plans, including CBD traffic improvement plan and road improvement plan. And the scope of the works of these projects/plans does not include testing of other modes of transport. The revitalization of the railway and development of waterway transport are suggested for its financial supports under the DMDP. The feasibility of those projects may be tested in the course of the DMDP.*
- The proposals made by the secretariat and Expert Team have much value. These proposals should be disseminated to concerned agencies for their reference and actions.
- As suggested by the secretariat and Expert Team, the PMO-RALG or RAS should assign tasks to each implementing agency for successful implementation of one way traffic operation in CBD: *It was agreed that further discussions will be made, involving key stakeholders to set aside funding and to successfully implement the pilot projects.*
- It was proposed to look for the possible financial sources for project implementation: *It was responded that Dar es Salaam has several transport projects (DMDP, DART, CUPID) that need to work together to merge them to maximize the benefits derived from these projects. The projects need to be prioritized with clear selection criteria, like the multi-criteria analysis applied*

*in the road improvement plan, considering the limited amount of financial source.*

- It was agreed to have a budget for the operation of the Project as one of the matters raised during the previous meeting approved by the PMO-RALG. The budget is needed even after CUPID project to maintain sustainability of the coordination mechanism: *It was suggested that RAS should review the project budget and send to the PMO-RALG for further discussion with PS of the PMO-RALG. PMO-RALG should also consider a budget in line with a series of proposals made by the CUPID.*

After the discussion, it was agreed that both Road Improvement Plan and CBD Traffic Improvement Plan, as proposed by the secretariat and Expert Team, were accepted by the members and concerned implementing agencies were requested to seek for the funds for implementation of the projects, proposed in these two plans.

## **6.0 Any Other Business**

The Chairperson raised a concern on the budget of implementation of CBD road/roundabout improvement. Eng. Bigambo of TANROADS and other engineers in the secretariat volunteered to prepare and document the preliminary design and cost estimates and presented to the PS of the PMO-RALG.

## **7.0 Closing Remarks**

The meeting was closed at **16:40** hours.

## MATTERS RAISED AND ACTIONS TAKEN

S/No	Matters raised	Actions taken
1	<p>The preliminary design and cost estimates for the traffic improvement plan in the CBD should be prepared and presented to PS of the PMO-RALG for further discussions with concerned agencies.</p>	<p>The preliminary design and cost estimates on the selected intersection improvement works were prepared by the selected secretariat members and submitted to the PS of the PMO-RALG.</p> <p>The PMO-RALG and Ministry of Works organized a meeting and the Ministry of Works was requested to set aside some development budget to implement the improvement works along the Ohio Street, Sokoine Drive and Uhuru Street. Some of on-street parking management plan will be implemented by the TANROADs DSM as part of road maintenance project at Ohio Street.</p> <p>The DCC already proposed cost of the on-street management plan in the 2012/13 budget plan will set aside some budget to install road markings for on-street parking management at selected road sections in CBD.</p> <p>The secretariat members prepared a staged approach to implement the manageable package of the traffic improvement plan in CBD. <i>(Presented in the Agenda 5-IV CBD Traffic Improvement Plan.)</i></p>
2	<p>For proper project ownership and support, it is better to present the progress of the Project to the different stakeholders.</p>	<p>The progress of the Project was presented by the secretariat members at the Regional Road Board in February and June, 2012, where a number of decision makers participated.</p> <p><i>(Briefly explained in the Agenda 5-I Outline of the Project)</i></p>
3	<p>Will the one way system proposed solve the problem of traffic congestion?</p>	<p>The secretariat members prepared a staged approach to implement the manageable package of the traffic improvement plan in CBD.</p> <p>These packages include (i) Daladala route modifications, (ii) Samora/Sokoine modification/closure of Morogoro, and (iii) Inner CBD traffic modification /parking management and street pedestrianization.</p> <p>The secretariat members also empathize importance of the community consultation and public awareness campaign during the implementation of the staged approach.</p> <p><i>(Presented in the Agenda 5-IV CBD Traffic Improvement Plan.)</i></p>

S/No	Matters raised	Actions taken
4	Will the Project test feasibility of other modes of transport such as railway and water?	The scope of the Phase-2 of the Capacity Building Project, if implemented, may include the revision of the previous urban transport master plan. Accordingly, the feasibility of other modes of transport, including railway and waterway, can be tested in the Phase-2 Project. Also, pre-feasibility study of rail and waterway transport will be possibly carried out under the DMDP.
5	The proposals made by the secretariat and Expert Team have much value. These proposals should be disseminated to concerned agencies for their reference and actions.	Please refer to Action No.2.
6	As suggested by the secretariat and Expert Team, the PMO-RALG or RAS should assign tasks to each implementing agency for successful implementation of one way traffic operation in CBD.	Please refer to Action No.1.
7	We should look for the possible financial sources.	Please refer to Action No.1.
8	Was the budget for the operation of the Project as one of the matters raised during the previous meeting approved by the PMO-RALG? The budget is needed even after CUPID project to maintain sustainability of the coordination mechanism.	The Dar es Salaam City Council already proposed operational cost of the Project in the 2012/13 budget plan and will set aside some funds for operation of the Project.
9	Other major progress	PMO-RALG is now engaged in establishment of the DUTA and assigned two staff to draft the Act of the DUTA. The current implementation structure will be absorbed into the DUTA and a coordination mechanism will be enhanced under direction of the DUTA. <i>(Presented in the Agenda 9 Actions on Establishment of DUTA.)</i>

S/No	Matters raised	Actions taken
10	Other major progress	<p>The secretariat members prepared a concept paper on development of the expressway and presented it to the City Mayor and other stakeholders. The paper was submitted to the AfDB for consideration of future development projects under the AfDB.</p> <p><i>(Provided further information in AOB)</i></p> <p>The Road Improvement Plan was also presented to AfDB consultants for the same purpose.</p> <p><i>(Presented in the Agenda 5-II Road Improvement Plan.)</i></p>



# Capacity Building Project for the Improvement of Dar es Salaam Transport

3<sup>rd</sup> Joint Coordinating Committee/Steering Committee  
24<sup>th</sup> August, 2012

Secretariat for Capacity Building Project  
and  
JICA Expert Team



## Contents of the Presentation

1. Outline of the Project
2. Summary Report of the Project
  - i. Road Improvement Plan
  - ii. Urban Transport Policy
  - iii. CBD Traffic Improvement Plan – Staged Approach

2



## 1. Outline of the Project

3



## 1. Project purpose and output

### **Project Purpose:**

A mechanism to coordinate transport projects of relevant organizations in Dar is established with its capacity being strengthened.

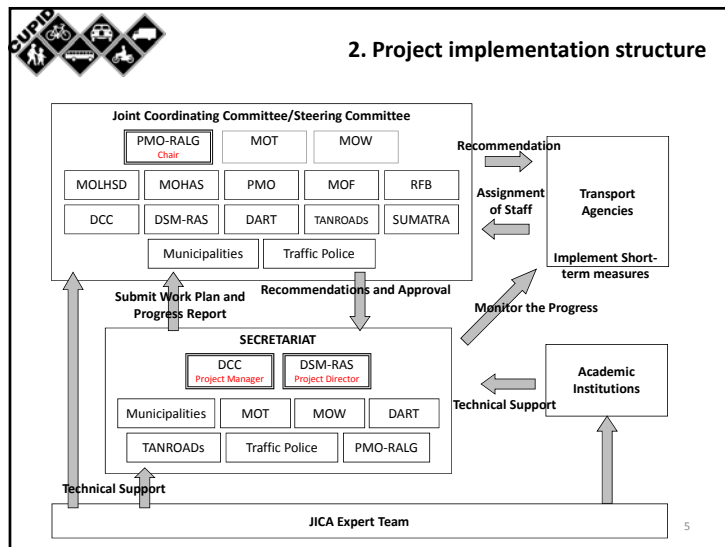
### **Project Outputs:**

1. Coordinating bodies (i.e., Secretariat and Steering Committee) are developed with charter of operations.
2. Training needs are identified and transport planning capabilities of individuals involved in the Project are improved.
3. A series of policy recommendations are provided and compiled into a policy document.
4. Coordinated and prioritized plans/projects are studied and approved for immediate actions.

### **Project duration:**

From Dec 2010 to Dec 2012

4



- 3. Summary project progress (1/2)**
- Better coordination mechanism
- Steering committee and secretariat both confirmed at 1<sup>st</sup> JCC.
  - 32 secretariat meetings held to discuss transport policy and priority plans.
  - 1<sup>st</sup> JCC held in April, 2011 to approve a work plan and 2<sup>nd</sup> JCC in Dec, 2011 to demonstrate progress of the Project.
- Technical training for transport planning
- 3 training sessions held in Feb/March, June/July and Nov/Dec, 2011 at NIT.
  - On-the-job training (traffic survey) in Dec, 2011 and July, 2012.

- 3. Summary project progress (2/2)**
- Transport policy
- A discussion paper prepared and discussed in a series of secretariat meetings.
  - Coordination meetings held with MOT/EU/DfID
  - Policies/strategies/actions explored in draft urban transport policy compiled into National Transport Policy.
- Priority plan/projects
- Traffic improvement plan in CBD developed through consultation among secretariat and accepted in the 2<sup>nd</sup> JCC. Selected proposed projects awaiting for implementation.
  - Road improvement plan developed and selected priority projects to be soon implemented under DMDP.





## 2. Summary Report of the Project

### Road Improvement Plan

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### Tips: Road and Traffic in Dar

- 770 km:** Road network (defined as primary to tertiary roads) in Dar in YR 2007.
- 78,000 cars:** Estimated number of passenger cars in Dar in YR 2007
- 135%:** Increase of sedans between 2012/2007 (**140%:** trucks, **450%:** motorbikes)
- 1030 km:** Additional road network in Dar proposed by YR 2030 to maintain current level of service → annually **50 km of additional road network!**
- 2.0 billion USD:** Amount of investment required for road improvement in Dar up to YR 2030 → annually **100 million USD** necessary for road improvement!

10



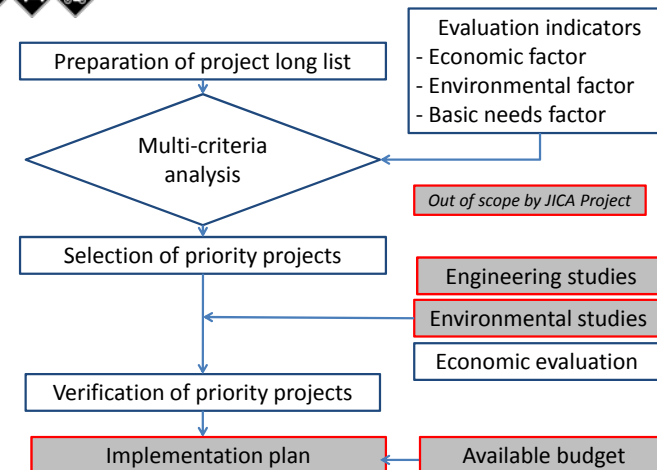
### 1. Background of road improvement plan

- **Road improvement plan**, as an exercise of capacity building project, has been under discussion since Sep, 2011.
- WB funded **DMDP provides 75 million USD** for community infrastructure development.
- Through consultative meetings with WB, JICA and counterpart agencies, the Project supported for **selection of priority road projects**.
- Members of the secretariat involved in;
  - (i) Preparation of long-list of the projects,
  - (ii) Mapping of these projects,
  - (iii) Discussion and confirmation of evaluation indicators, and
  - (iv) Confirmation of selection of the priority projects.

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### 2. Workflow of road improvement planning





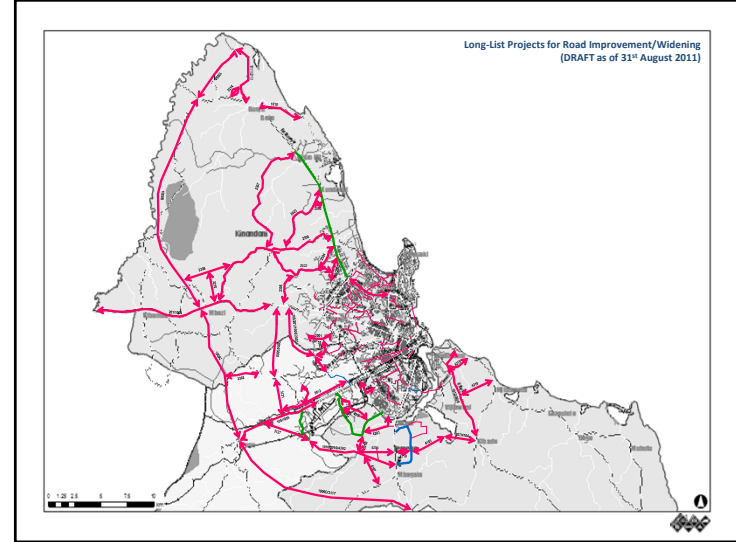


### 3. Preparation of project long list

- A long-list of road improvement projects prepared based on;
- Urban transport master plan (2008)
  - Feasibility study/design reports by different agencies
  - Long-list of urgent projects, proposed for DMDP

→ **116 road improvement projects** with road length of **450 km** and total project cost of **1,100 M USD** are identified as 'urgent projects'.

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### 4. Multi-criteria analysis for project selection (1) Evaluation criteria

1st level criteria	2nd level criteria	3rd level criteria	Evaluation items
Economic criteria	Workability	Project size	Project cost
	Sustainability	Reliable traffic service	All weather traffic
		Traffic demand	Daily traffic volume Volume capacity ratio
	Economy	Cost effectiveness	Cost/traffic volume
		Regional development and logistics network	External trip rate Connectivity
Environmental criteria	Pollution	Noise and vibration	Heavy vehicular traffic volume
		Air quality	Traffic volume and travel speed
	Social Environment	Involuntary resettlement	Resettlement and land acquisition
Basic need criteria	Poverty Reduction	Impact to the regional economy	No. of population in project site
		Impact to the poverty reduction	No. of population in poverty in project site
		Availability of road	Road length/households

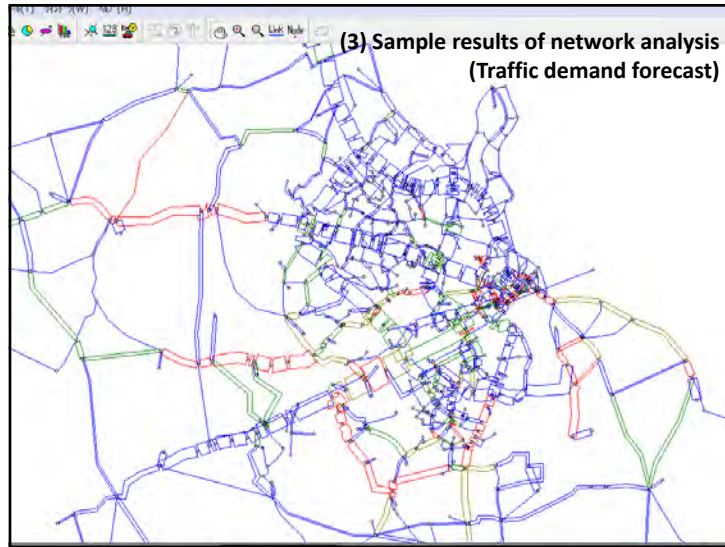
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### (2) Weights of criteria suggested by secretariat members

Evaluation items	National Roads	Local Roads
Project cost	6.3%	5.7%
All weather traffic	8.5%	6.1%
Daily traffic volume	10.0%	10.9%
Volume capacity ratio	13.9%	9.1%
Cost/traffic volume	15.9%	9.3%
External trip rate/ Connectivity	8.8%	5.9%
Noise and vibration	6.2%	5.2%
Air quality	6.2%	7.7%
Involuntary resettlement	10.1%	6.9%
No. of population in project site	5.2%	12.9%
No. of population in poverty in project site	4.1%	11.1%
Road length/households	4.6%	9.2%

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### (4) Multi-criteria analysis and selection of priority projects

S/N	Project Name	Population in project site	Population in povert	Road length/hou seholds	Score (Nation)	Score (Local)	Jurisdiction
101	New Bagamoyo Road Wide	3	4	2	2.90	2.94	TANROADS
103	Kigamboni Bridge and Acce	2	5	4	2.50	2.62	TANROADS
104B	Inner Ring Road/Kawawa R	2	4	4	2.85	2.91	Temeke
105	Nyerere Road Widening	2	4	5	2.49	2.77	TANROADS
109B	Gerezaani Area Transport En	1	1	5	2.53	2.39	TANROADS
201	Morogoro Road Widening	1	4	4	2.37	2.39	TANROADS
207	Kigamboni Access Road De	1	4	5	2.59	2.67	Temeke
1001	Old Bagamoyo Road widen	2	2	2	2.43	2.37	TANROADS
1002	Uhuru Road widening	1	5	5	2.78	2.92	TANROADS
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1009B		1	4	4	1.95	2.25	TANROADS
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2002	Kisukuru	2	4	5	2.74	2.89	Kinondoni
2003	Kilungule	1	4	5	1.74	2.12	Kinondoni
2005	Tanesco - Soko la Samaki	3	4	4	1.96	2.38	Kinondoni

### 5. Short-list of project proposed for DMDP (1/2)

Municipality	ID (JICA Analysis)	Road Name	Length (km)	Type of Improvement	Scores by JICA Analysis	High/Mid/Low Priority
Hala	3001	Vingunguti-Baracuda-kisukuru-Maji Ch	10.0	Upgrading	2.64	High
	3002	Segerea -Majumba Sita (km 3) Segerea -	3.0	Upgrading	2.71	High
	3003	Lindi St.(1Km)	1.0	Rehabilitation	2.65	High
	N.A.	Kiungani	0.7	Rehabilitation	N.A.	N.A.
	N.A.	Omari Londo	0.7	Rehabilitation	N.A.	N.A.
	N.A.	Mbaruku	0.7	Rehabilitation	N.A.	N.A.
	Temeke	4101	Chang'ombe Road	4.6	Widening/Rehabilitation	2.73
4102		Temeke - Mbagala	3.5	Widening/Rehabilitation	2.34	Mid
4203		Mtoni Mashine ya Maji Road	3.5	Upgrading	3.01	High
4209		Chaga Road	0.8	Upgrading	2.68	High
4214		Uruwila Road	0.2	Upgrading	2.77	High
4107		Nzasa-Kilungule - Makangarawe (Buza)	4.0	Upgrading	2.79	High
4208		Sandali Road (Mchicha)	1.0	Upgrading	2.83	High
4103		Mbagala kuu - Tuangoma road	1.0	Upgrading/Bridge Construction	3.08	High
N.A.		Mbagala Industrial Road	2.4	Upgrading	N.A.	N.A.
N.A.		Taifa Road	1.3	Upgrading	N.A.	N.A.
4110		Mwanamtoti Road	3.0	Upgrading	2.80	High

### 5. Short-list of project proposed for DMDP (2/2)

Municipality	ID (JICA Analysis)	Road Name	Length (km)	Type of Improvement	Scores by JICA Analysis	High/Mid/Low Priority
Kinondoni	2001	External	2.6	Upgrading	2.68	High
	2002	Kisukuru	1.9	Upgrading	2.82	High
	2003	Kilungule	3.0	Upgrading	2.12	Mid
	2005	Tanesco - Soko la Samaki	1.5	Upgrading	2.38	Mid
	2006	Sokoni - Makumbusho	1.3	Upgrading	2.59	High
	2007	MMK	1.2	Upgrading	2.31	Mid
	2008	Mabatini	1.1	Upgrading	2.24	Mid
	2017	Simu 2000	1.8	Upgrading	2.59	High
	2018	Makanya	5.1	Widening/Rehabilitation	2.71	High
	2019	Tandale Kisiwani	0.8	Upgrading	2.69	High

- WB strongly suggested Municipalities to follow the result of the analysis in selection of the priority projects.
- A short list of priority projects finalized, considering scale of the resettlement and land acquisition.



## Discussion for Successful Coordination

### Road Improvement Plan

- Municipalities facing political interventions, being requested to change priority projects, following councilors' interests.  
→ *How do or did the Municipalities deal with political interventions?*
- Lessons learnt from preparation of Road Improvement Plan, in terms of enhancement of coordination mechanism
  - **Commitment by the donor and responsibilities fulfilled by Municipal engineers**
  - **A series of workshops and stakeholder meetings**
  - **Reliable database and models to test and rank priority**
  - **Donor coordination**

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## 2. Summary Report of the Project

### Draft Urban Transport Policy

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## Summary Progress of Urban Transport Policy Formulation

- **Urban Transport Policy**, as an exercise of capacity building project, has been under discussion since July, 2011
- Involved secretariat members and academic institutions
- Coordination meetings held with MOT/EU/DfID consultants
- The policies/strategies/actions of **Draft Urban Transport Policy** compiled into **National Transport Policy**
- **National Transport Policy** is expected to guide implementing agencies to plan and budget for urban transport improvement in a coordinated manner

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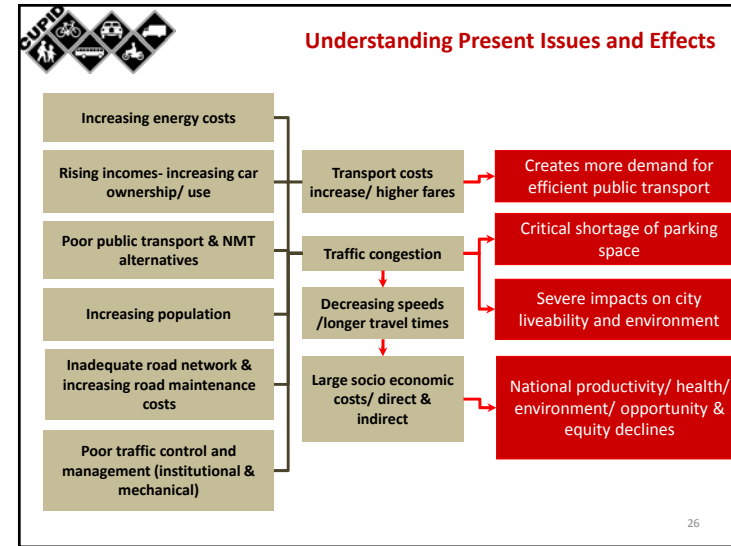
**Urban Transport is one of Dar es Salaam's greatest challenges**

**It will play a major role in defining the future of the city- its quality of life and its prosperity**

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### Vision & commitment statement

*“We will employ strategies for sustainable urban planning, with **efficient and integrated transport networks** to ensure **access and equal opportunity for all**, to safely access the benefits of education, employment, services, and social inclusion.*

*Through investment efficiency, efficient market mechanisms and efficient use of infrastructure, we will strive to **sustain and improve urban mobility and protect the environment**, while at the same time **managing the transition to a less energy and emissions-intensive economy**.*

*We acknowledge our individual and joint responsibility to uphold the rules of honesty, transparency, and good governance in managing urban transport and mobility to **improve the quality of life, and develop a productive, prosperous and liveable city**”.*

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### Developing Policy based on Strategy

*We cannot solve our problems with the same thinking we used when we created them.*  
[Albert Einstein](#)

*The planning, design, construction and management of our cities require **creative ideas and solutions** to meet the current and future challenges.*

*Our Cities, Our Future- A National Urban Policy –Australian Government Budget 2011*

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**A Strategic Planning Framework**  
 – the foundation upon which actions are agreed upon

➤ **UNDERSTAND** the present situation (constraints, risks, assumptions, resources, competitive advantage environment)

➤ **DEFINE GOALS** -what is our future vision? .....

Supported by:

- **OBJECTIVES** – what must we achieve?
- **STRATEGY** – how we tackle the task
- **ACTION** – what we will do



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**Strategic Planning Principles**

**1. Use Sustainable Mechanisms**

**Financially sustainable**

- There is competitive demand for resources
- Value for Money
- Services must be paid for
- Keep mobility as the objective
- Use commercial frameworks and develop business competency

**Economically sustainable**

- Transport drives productivity, growth & poverty reduction
- Congestion is a barrier to growth
- Maximise use of existing infrastructure

**Environmentally sustainable**

Cities play a large part in the global emissions and transport is a key area

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**Further Principles**

2. Increasing opportunity for Private Sector involvement
3. Employing Transport Demand Management
4. Implementing a User- Pays principle
5. Taking Participatory Approach
6. Managing Risks and Constraints
7. Ensuring Social Equity
7. Developing Integration

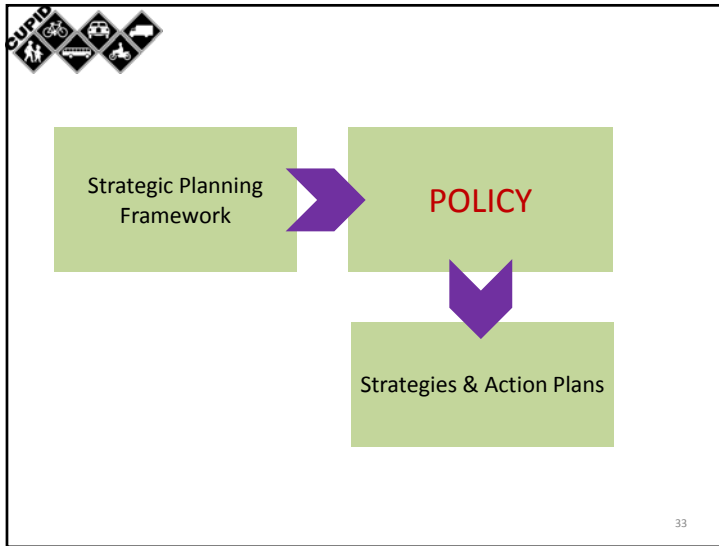
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**POLICY is not a 'wish list'....it is:**

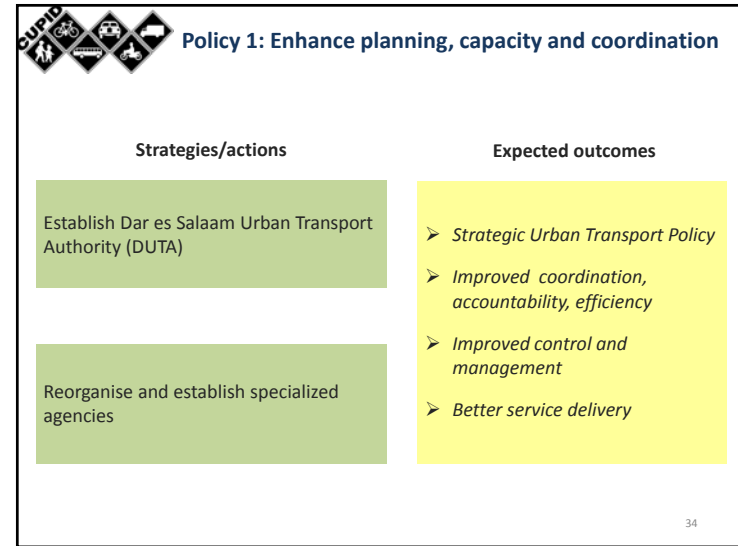
- Objectives based
- Agreed and thought out
- Being a **Point of Reference**
  - For planning and strategy and action
  - Where there is disagreement
- A measurement, a benchmark of performance

**To address the problems of Dar es Salaam we have had a major re-think on policy & planning**

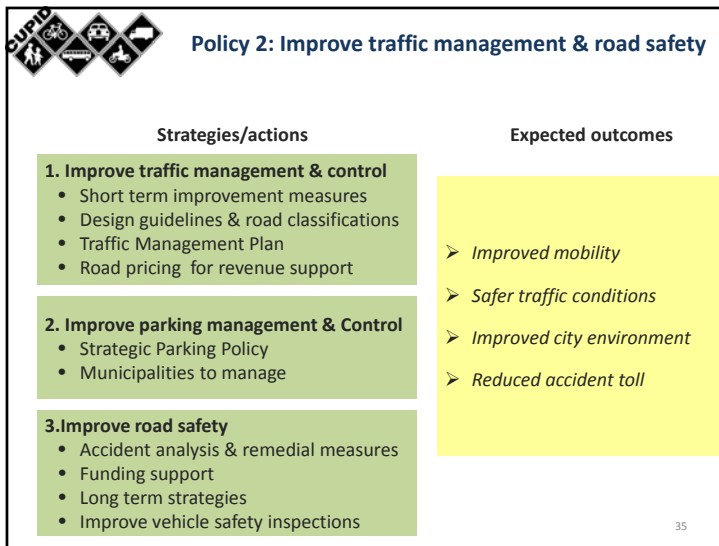
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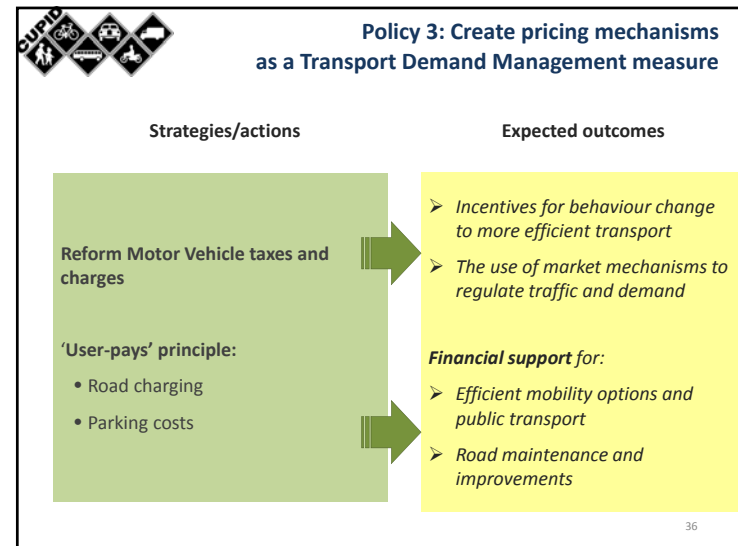
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### Policy 4: Implement TDM & TOD to address growth in private car use

Strategies/actions	Expected outcomes
<p><b>Reduce Demand</b> through:</p> <ul style="list-style-type: none"> <li>• <b>Transit-oriented development (TOD)</b></li> <li>• Increase development along transit corridors e.g. Morogoro Rd BRT corridor</li> <li>• Supporting transport networks for sub-centers: Kigamboni/ Africana/ Bunju/ Banana/ Pugu</li> </ul>	<ul style="list-style-type: none"> <li>➤ <i>Lower energy costs/ less emissions</i></li> <li>➤ <i>More efficient urban design/ better productivity</i></li> <li>➤ <i>Less pressure on infrastructure and budgets</i></li> <li>➤ <i>Safe and efficient environmentally friendly transport options available</i></li> <li>➤ <i>Revenue support for public transport</i></li> </ul>
<p><b>Implement Transport Demand Management (TDM)</b> policies:</p> <ul style="list-style-type: none"> <li>• <b>Implement Policy 5</b> Improve public transport networks including NMT options</li> <li>• <b>Implement Policy 3:</b> Pricing mechanisms to manage transport demand</li> </ul>	


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### Policy 5: Improve transport networks to improve access and social equity

Strategies/actions	Expected outcomes
<p><b>Create an Integrated Public Transport Network</b></p>	<p><b>System benefits:</b></p> <ul style="list-style-type: none"> <li>➤ <i>Commercial viability / improved management</i></li> <li>➤ <i>Aims to be subsidy free</i></li> </ul> <p><b>Social benefits:</b></p> <ul style="list-style-type: none"> <li>➤ <i>Affordable fare levels</i></li> <li>➤ <i>Improved mobility and access</i></li> <li>➤ <i>Reduced poverty</i></li> <li>➤ <i>Reorganized public transport</i></li> <li>➤ <i>Less pressure on traffic network</i></li> </ul>
<p><b>Improve public transport business models</b> to promote:</p> <ul style="list-style-type: none"> <li>• Efficiency</li> <li>• Affordability</li> <li>• Low- cost alternatives e.g. <b>NMT</b></li> </ul>	
<p><b>Improve access &amp; address disadvantage</b></p> <ul style="list-style-type: none"> <li>• Community consultation</li> <li>• Improved access design</li> <li>• Public promotion</li> </ul>	


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### Policy 6: Improve international attractiveness

Strategies/actions	Expected outcomes
<p><b>Improve quality of transport for international visitors and travellers</b></p> <ul style="list-style-type: none"> <li>• Connections to airport</li> <li>• Improve city conditions (streetscapes / amenities / city preservation etc to improve tourism)</li> </ul>	<ul style="list-style-type: none"> <li>➤ <i>Increased tourism revenue &amp; international acceptance as a tourist destination &amp; gateway</i></li> <li>➤ <i>Revitalized city environment and enhancement as harbour city</i></li> </ul>
<p><b>Improve freight efficiency</b></p> <ul style="list-style-type: none"> <li>• Improve management of freight movements</li> <li>• User-pays principle (tolls)</li> </ul>	


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### Policy 7: Improve environmental outcomes

Strategies/actions	Expected outcomes
<p><b>Improve motor vehicle standards</b></p> <ul style="list-style-type: none"> <li>• Improve MV safety inspections</li> <li>• Improve accountability and enforcement</li> </ul>	<ul style="list-style-type: none"> <li>➤ <i>Better public safety</i></li> <li>➤ <i>Reduced negative environmental effects</i></li> <li>➤ <i>Improved city environment and quality of life</i></li> </ul>
<p><b>Other measures</b></p> <ul style="list-style-type: none"> <li>• Traffic improvements</li> <li>• Cityscape improvements</li> </ul>	


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### Policy 8: Ensure good governance & probity

Strategies/actions	Expected outcomes
<p><b>Improve governance</b></p> <ul style="list-style-type: none"> <li>Remove conflicts of interest</li> <li>Ensure fair competition</li> <li>Develop checks and balances to ensure transparency and accountability and enforcement</li> </ul>	<ul style="list-style-type: none"> <li>Better governance and confidence in policy implementation</li> <li>Regulatory independence</li> <li>Efficient service delivery</li> <li>Reduces corruption</li> </ul>


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### Policy 9: Implement supporting infrastructure

Strategies/actions	Expected outcomes
<ul style="list-style-type: none"> <li>CBD traffic circulation and short term measures and urgent intersection projects</li> <li>Road improvements according to the road network plan</li> <li>Develop Bus Network Plan</li> <li>Bridge to Kigamboni</li> <li>Relocation of Intercity bus terminals</li> </ul>	<ul style="list-style-type: none"> <li>Planned infrastructure and coordinated development</li> <li>Maximise efficiency of new developments</li> <li>More efficient transport networks</li> </ul>


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### Policy 10 Diversify development funds and improve revenue collection

Strategies/actions	Expected outcomes
<p><b>Diversify Sources of Development Funds</b></p> <ul style="list-style-type: none"> <li>Prepare Long term investment plan</li> <li>Propose new sources of funds &amp; prepare requests</li> <li>Review PPP framework &amp; develop PPP proposals</li> </ul> <p><b>Enhance local revenue</b></p> <ul style="list-style-type: none"> <li>Reform Tax system &amp; identify new funding sources</li> <li>Improve tax collection</li> <li>Enact laws &amp; regulations</li> </ul>	<ul style="list-style-type: none"> <li>Improve budget situation</li> <li>More appropriate taxation system - targeted to modify behaviour</li> <li>Improved revenue collection</li> </ul>

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### Discussion for Successful Coordination

- Contents of the draft Urban Transport Policy already absorbed into the National Transport Policy.

→ Any coordination mechanism in place among concerned agencies?

→ All the stakeholders aware of and following the Policy?

- 2012 Transport Investment Plan was prepared by MOT.

→ Was National Transport Policy translated into the Investment Plan?

→ Each agency given responsibilities to manage urban traffic?

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## 2. Summary Report of the Project

### CBD Traffic Improvement Plan – Staged Approach

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#### Tips: Traffic Characteristics in CBD

- **1.7 M sq meter:** Total floor size in CBD: (0.7 M for resident and 1.0 M for office use)  
→ Increased by 20% since 2007
- **16,000 vehicles:** No. of daily inflow cars to CBD
- **3,000 vehicles:** No. of on-street parking at 10 AM at major roads in CBD
- **400 vehicles:** No. of illegal parking at 11 AM at major roads in CBD
- **1,200 vehicles:** No. of available parking space at major roads
- **300 Tshs:** On-street parking charge/hour
- **1000 Tshs:** Off-street parking charge/hour

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#### Background of CBD traffic improvement plan

- **CBD traffic improvement plan**, under discussion since Aug, 2011.
- **One way plan** accepted in early 2010 and traffic signage installed by Dec, 2011.
- The traffic simulation analysis shows one way operation slightly improves travel speed, but only if intersection improvements and on-street parking management in place.
- Thus, comprehensive CBD plan proposed, including:
  - Public transport management
  - Traffic control and management
  - Parking management
- CBD plan accepted in the previous JCC/SC meeting.

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#### Background of CBD traffic improvement plan

- Following proposals, several implementing agencies set aside some funds for implementation of CBD plan.
- Members of the secretariat engaged in:
  - i. Review of previous master plan/DART plan,
  - ii. Site visits,
  - iii. Traffic surveys in CBD and its analysis,
  - iv. Discussion on traffic management schemes in CBD and its staged plan,
  - v. Supports for budgeting CBD plan,
  - vi. Consultation with stakeholders and dissemination of the CBD plan.

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European cities promote public transport, create better spaces for cycling and walking within the public mobility network, and make car travel more difficult within cities

In doing so, they improve the standard of living, improve productivity, preserve their historical assets, and promote tourism



Berlin Cycling

Copenhagen Walking Streets

Stockholm Public Transport



## A Strategic Planning Framework for CBD Traffic Management

1. Improve **coordination of CBD management** between all stakeholders
2. Improve **traffic management** based on road classification, parking management and control and traffic rules
3. Link city development policy and transport policy
4. Improve a **public transport network** assuring access, connectivity and integration. (including NMT, walking and cycling as part of the network)
5. Diversify **development funds** and improve revenue collection
6. Prioritize **road safety and equity** for all road users

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## A Dual Approach

### 1. Demand Management

- **Structural measures** (land-use planning - TOD) –
- **Proactive measures** which provide good alternatives to motorized travel
- **Restrictive measures** such as road pricing, parking charges (but only work effectively if good alternatives are available)

### 2. Traffic Control and Parking management

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## Risks for Implementation

- Signs in place but being ignored –this presents challenges for implementation
- Full implementation of proposed CBD traffic plan requires considerable time/efforts (funding)
- ‘Big Bang’ change may cause chaos and possible conflict
- Present ‘broad’ approach - may not consider local context & impacts

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### A Staged Implementation

Secretariat proposed to adopt a staged introduction in implementation of the CBD traffic improvement plan:

- Implements manageable packages
- Concentrates on each step being successful
- Manages local impacts /less community issues
- Prioritises Daladala rerouting as an immediate positive step

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### Contents of an Intermediate CBD Plan

- Respects BRT/ enforces Distributor & Collector road classification
- Redirects Samora / Sokione as a one-way pair
- Respects pedestrian movements & creates walking streets
- Streamlines Daladala routes

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### Why re-route daladala first?

1. Improves quality of Public Transport
2. Make daladala operation more efficient
3. Reduces daladala traffic helping to reduce congestion
4. Prepares for traffic circulation changes

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### Staged Implementation of Traffic Management Measures

#### Stage 1: Daladala route modifications

- Project 1
  - Project 2
  - Project 3
- } With associated route changes

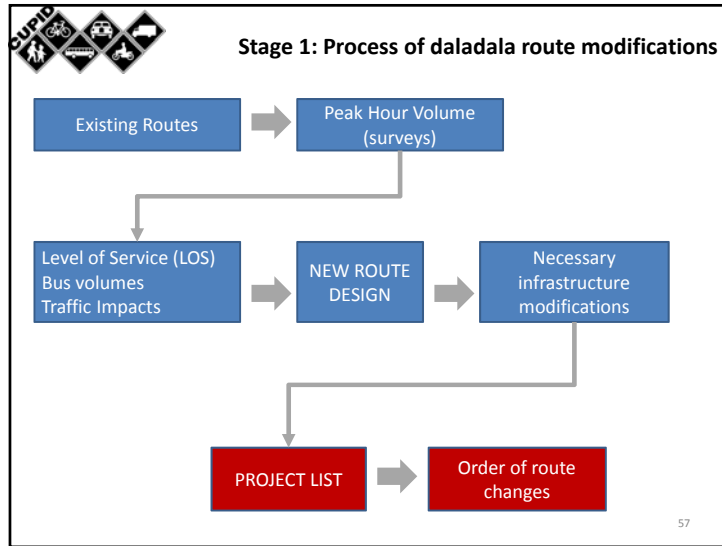
#### Stage 2: Traffic modifications

Change Samora/ Sokoine Dr direction/close Morogoro Rd

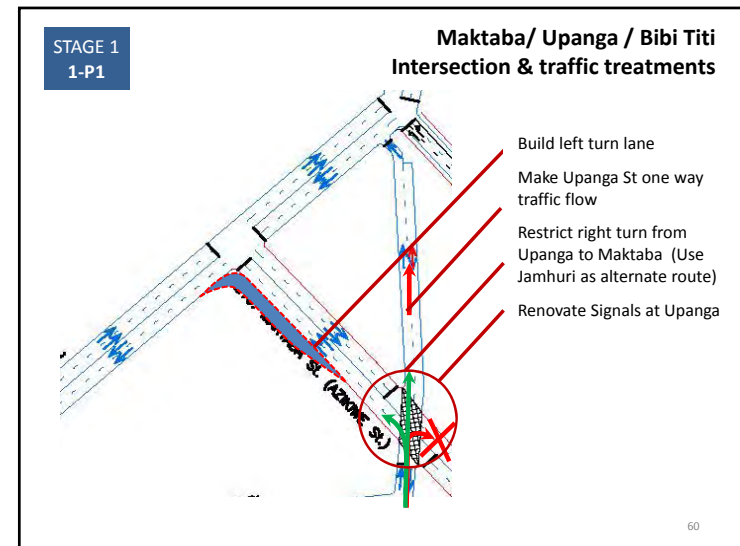
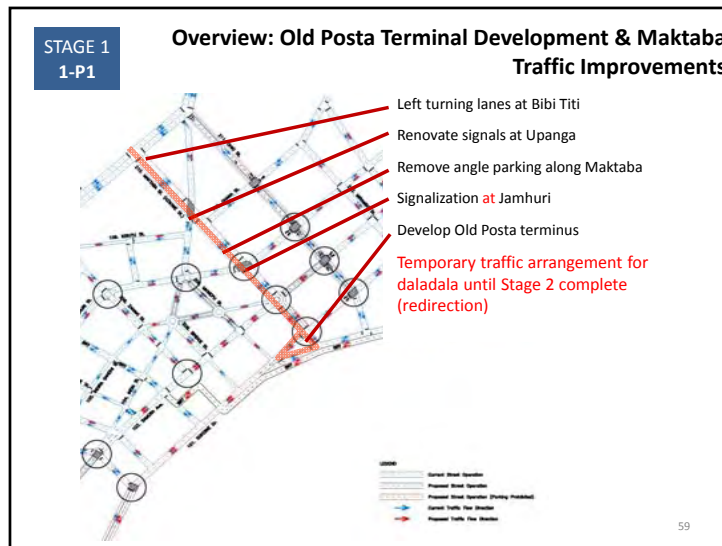
#### Stage 3: Local traffic treatments

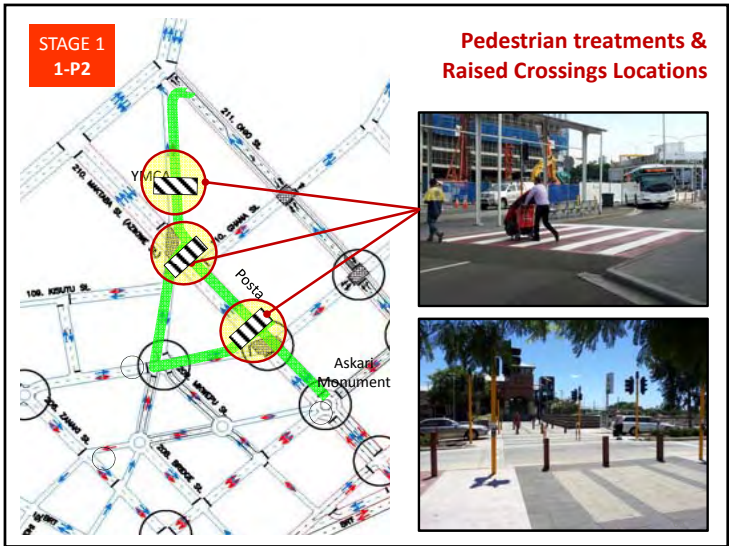
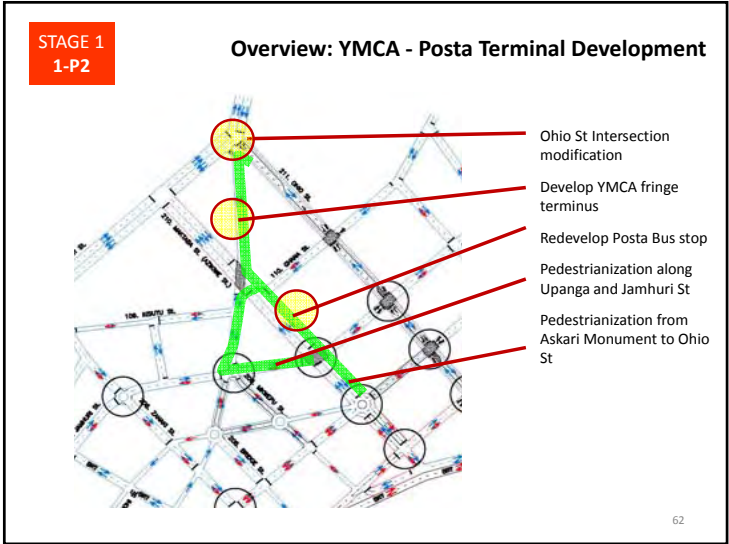
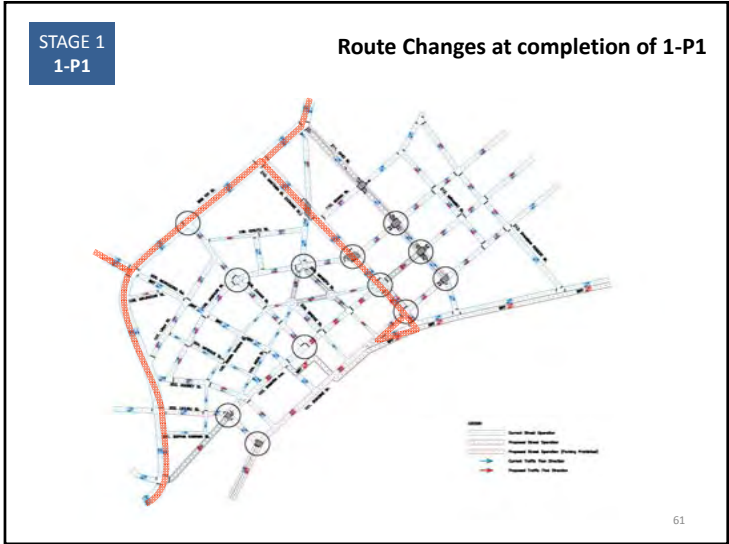
- Project 1 Zanaki St to Maktaba St area treatments
- Project 2 Mosque St area treatments

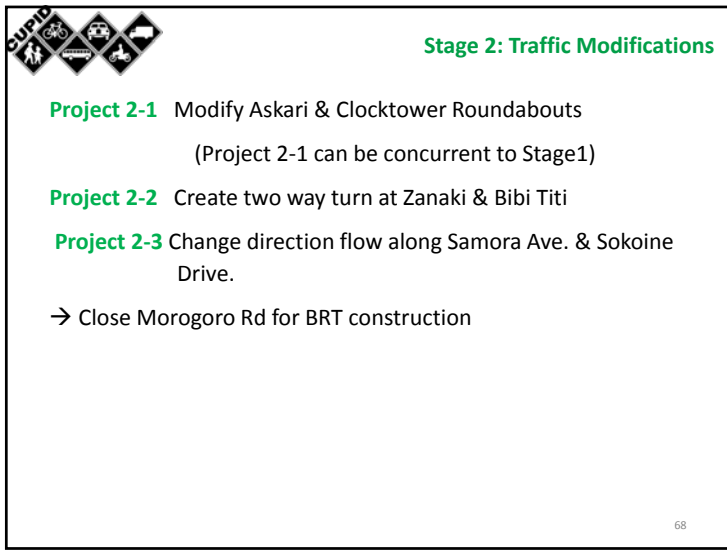
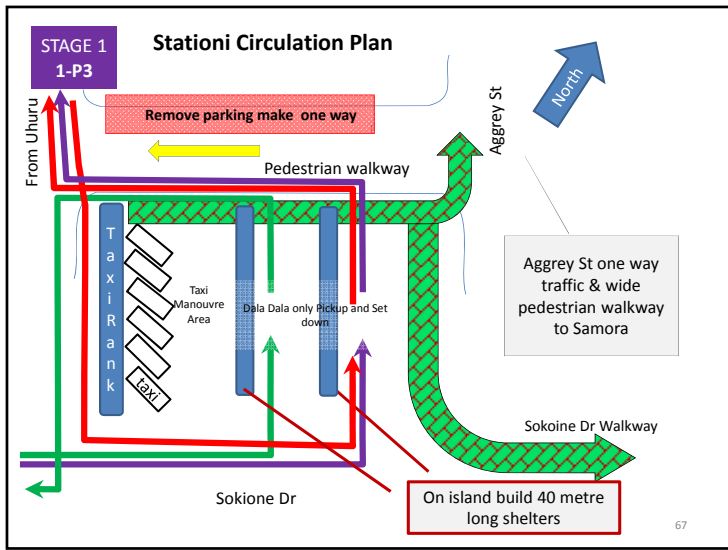
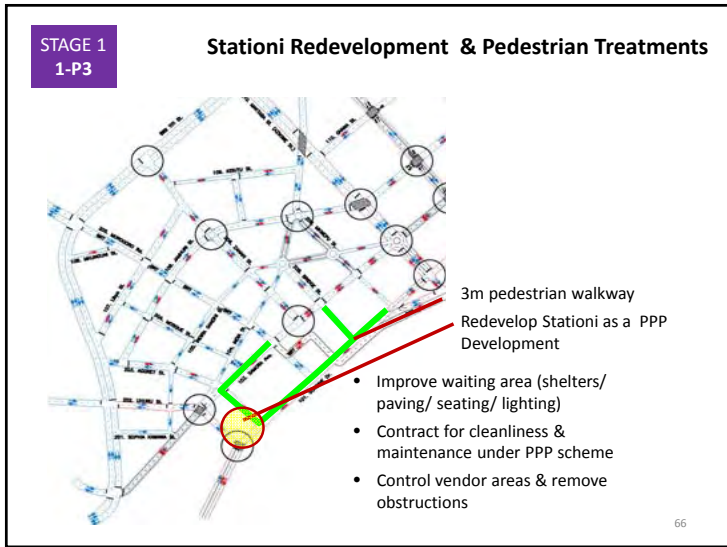
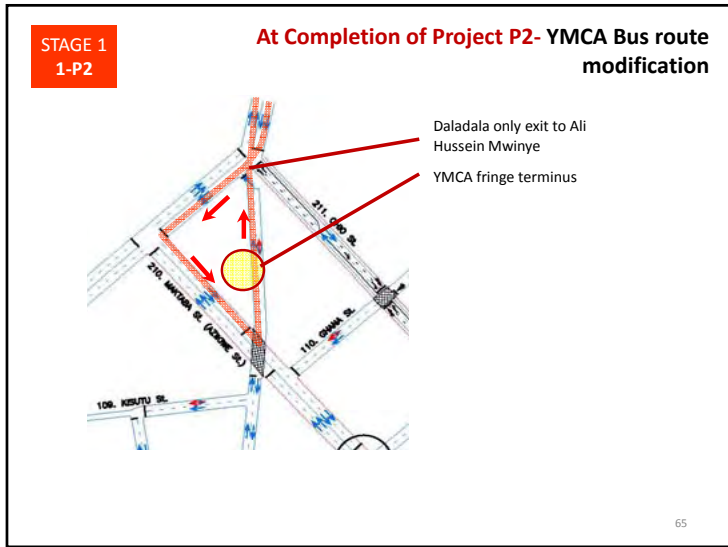
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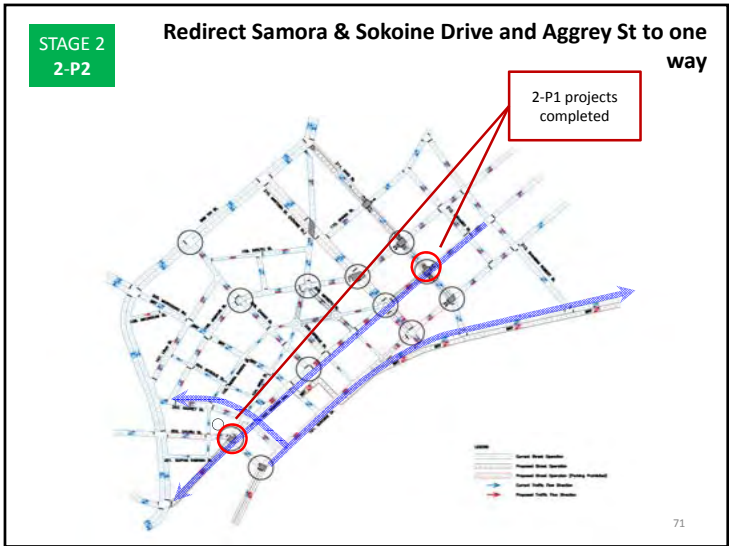
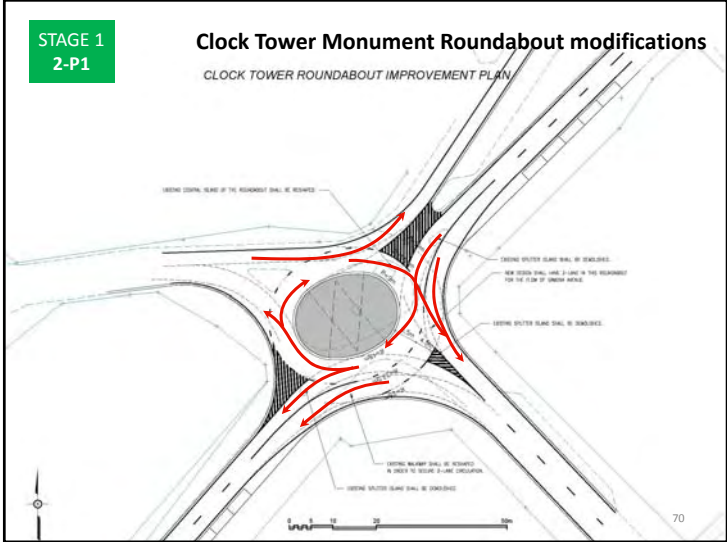
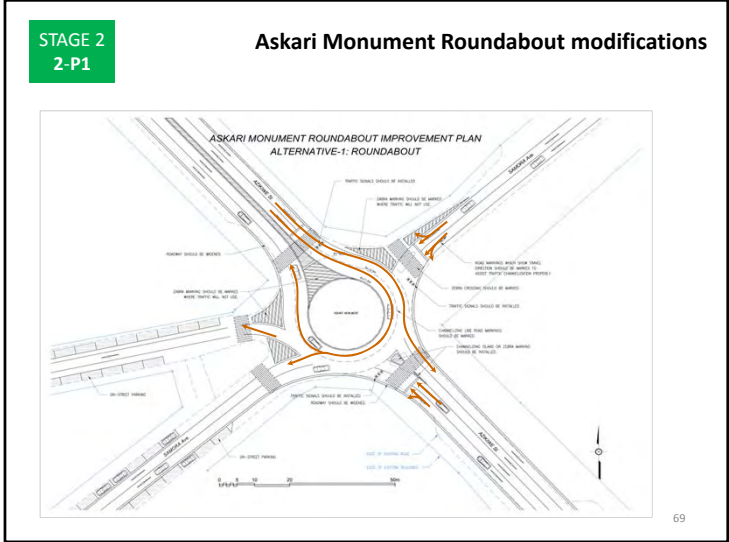


- Stage 1 Project List for Daladala Route Changes**
- 1-P1** Old Posta Terminal Development
    - Maktaba St/ Upanga St Traffic & Parking treatments
    - Renovate signals at Upanga and
    - Left turn lane at Bibi Titi
  - 1-P2** YMCA – New Posta Terminal Development
    - Redevelop New Posta bus stop
    - Pedestrian improvements to Maktaba, Upanga St, Ohio St
    - Ohio St Intersection and signal modification
  - 1-P3** Stationi Terminal Redevelopment
    - Pedestrian walkways: Aggrey St, Samora & Sokione Dr to Old Posta
- 58







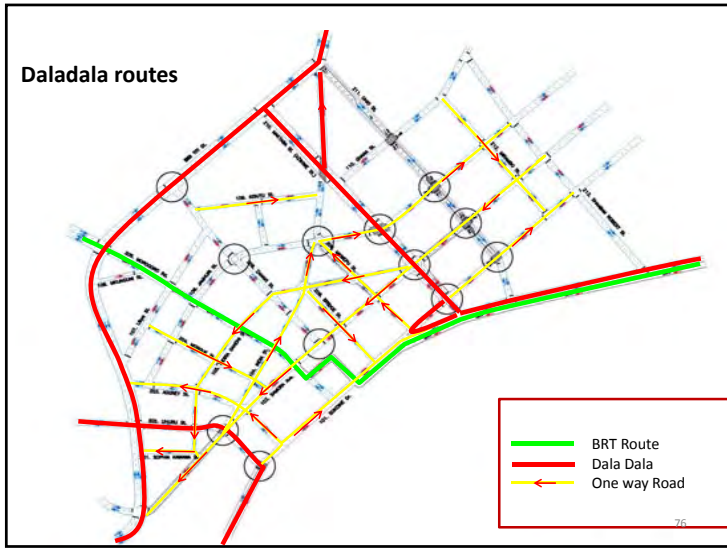
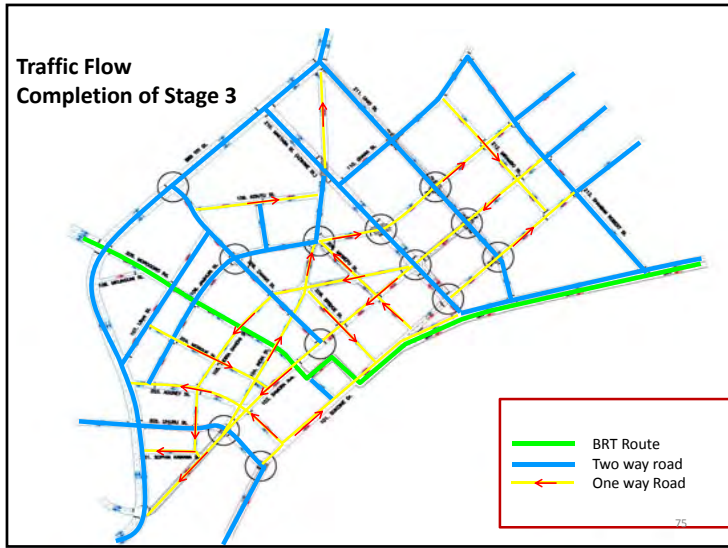
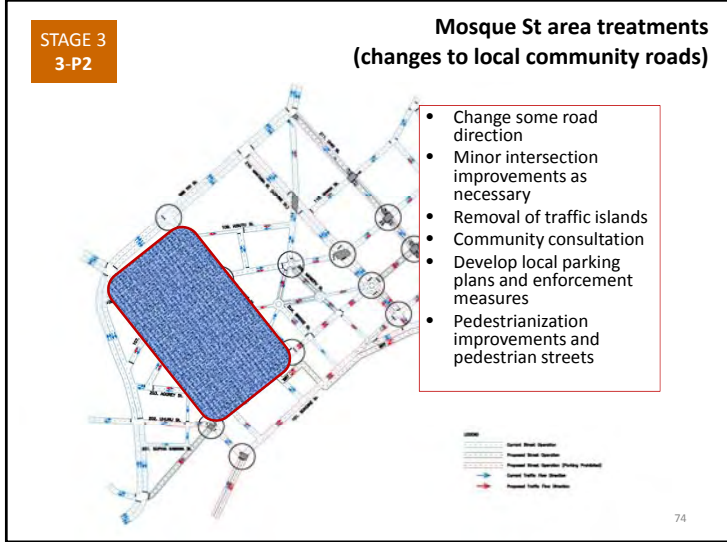
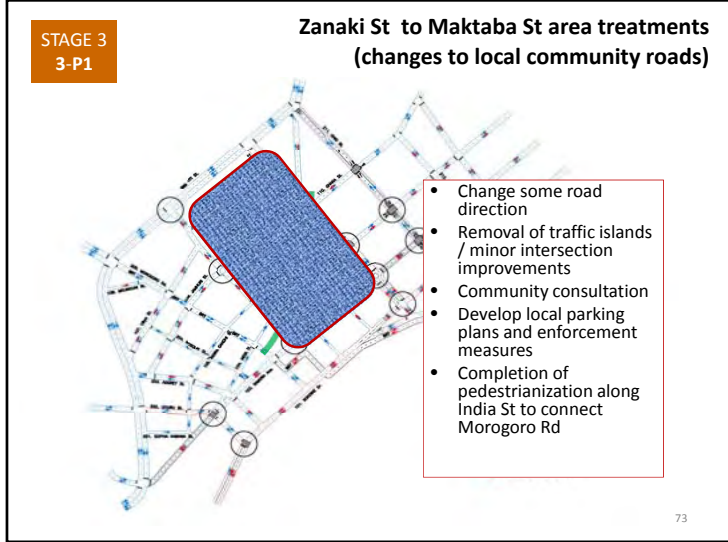


**Stage 3 Project list**

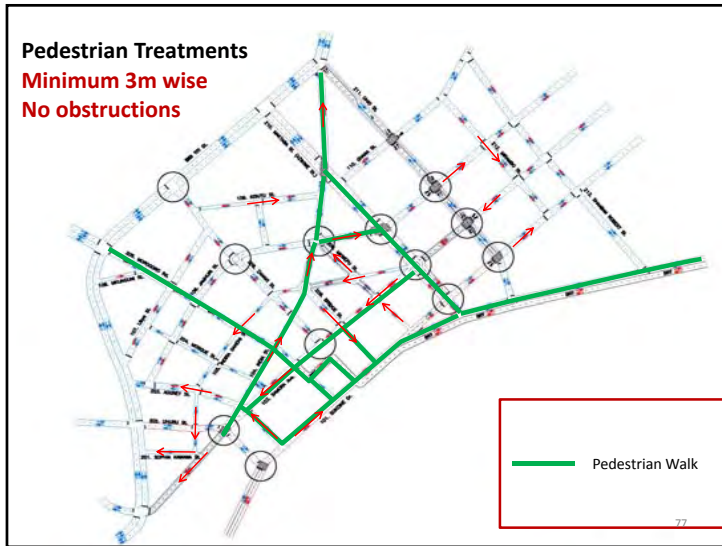
**Project 3-P1** Zanaki St to Maktaba St area treatments  
(changes to local community roads)

**Project 3-P2** Mosque St area treatments  
(changes to local community roads)

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**Using PPP for terminal redevelopment**

- Quality investment opportunity with advertising rights
- Private sector manages, cleans and maintains
- Win – win proposal

**Next steps**

- Start planning & financing first 3 stages
- PPP proposals for terminal development at 4 locations
  - Old Posta, Stationi, New Posta, YMCA
- Implement stage 1, then stage 2
- Detailed parking plans for stage 1-3
- Community consultation for stage 3
- Improve methodology for enforcement of parking rules

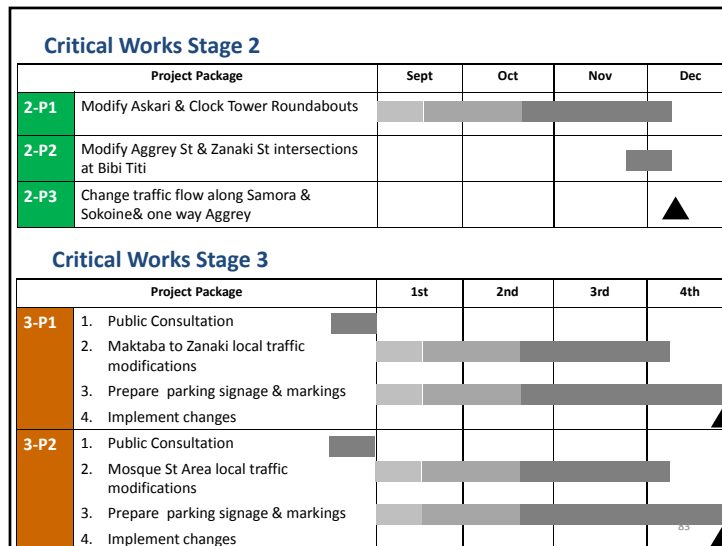
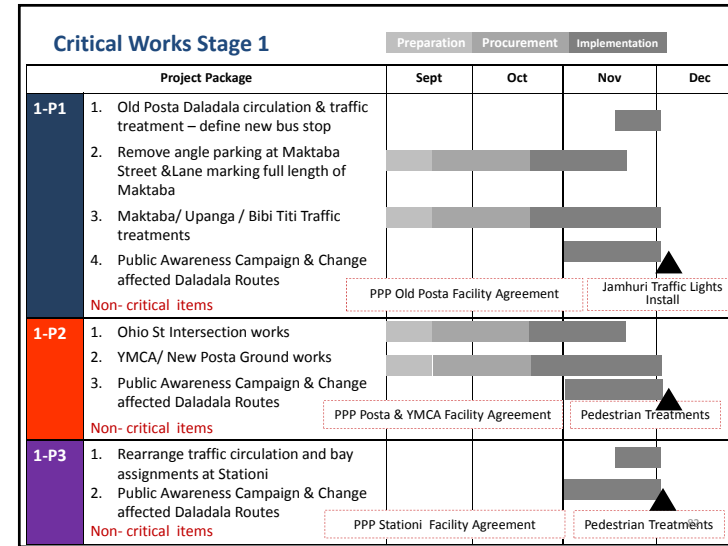
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	Task/ Work Detail	Responsibility	Funding & Source
<b>Stage 1</b>	<b>Project List for Daladala Route Changes</b>		
<b>Stage 1 General</b>	Negotiate PPP agreements for terminal facility construction & maintenance for 4 locations: Old Posta, New Posta, YMCA, Stationi	Ilala Municipality	N/A
<b>1-P1 Critical Works</b>	• Establish Old Posta waiting areas Opposite NBC bank	Engineer Sumatra / Police/ DCC parking contractor	TANROADS
	• DCC remove parking	Ilala Engineer	TANROADS/Ilala
	• Establish new daladala traffic circulation around Old Posta stop (signage & barriers)	Ilala Engineer/ Municipal Guard/DCC Parking Contractor	DCC/ Ilala
	• Remove angle parking at Maktaba Street – replace with parallel parking	Ilala Engineer	DCC/Ilala
	• Paint lane marking full length of Maktaba	Ilala Engineer	Ilala
	• Upanga St to Maktaba St (eastbound) restrict right turn	Ilala Engineer/ TEMESA	Ilala
	• Renovate signals at Upanga St	Ilala Engineer	Ilala
	• Upanga Street make one way northbound for mixed traffic	Ilala Engineer/ TANROADS	TANROADS
	• Maktaba St make new left turn to Bibi Titi	RAS/ SUMATRA/ DARCOBOA/ DCC/ Police	CUPID
	• Public Awareness Campaign	SUMATRA/ RAS/ Traffic Police/ Ilala/ DARCOBOA	N/A
• Change affected Daladala Routes	Ilala Engineer/ TEMESA	Ilala	
<b>P1-1 Non- Critical</b>	Jamhuri Traffic lights install	Ilala/ DCC/ PPP	Private
<b>1-P2</b>	Develop Old Posta Bus Stop structure (under PPP scheme)	TANROADS	TANROADS
	Ohio St Intersection works – remove bollards to create daladala only exit/ signage	Ilala	Ilala
	YMCA bus stop ground works/ crossing/ kerbside waiting areas. Road markings	Ilala	Ilala
	New Posta stop ground works/ crossing/ kerbside waiting areas. Road markings	RAS/ SUMATRA/ DARCOBOA/ DCC/ Police	CUPID
	Public Awareness Campaign	RAS/ SUMATRA/ DARCOBOA/ DCC/ Police	N/A
<b>1-P2 Non-critical</b>	Change affected Daladala Routes	Ilala	Ilala
	Develop YMCA & New Posta Bus stop structure (under PPP scheme)	Ilala	Ilala
	Develop Pedestrian Walkway Askari Monument to Ohio St (Barclays bank) & Upanga St/ Jamhuri St. Include 3 raised crossings.	Ilala	Ilala


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	Task/ Work Detail	Responsibility	Funding & Source
Stage 1-P3	Rearrange traffic circulation and bay assignments at Stationi	Ilala	Ilala
1-P3 Non-critical	Public Awareness Campaign & Change affected Daladala Routes	Ilala	Ilala
	Pedestrian Walkway Aggrey St / Samora St to Morogoro (minimum 3 m wide unobstructed)	Ilala	Ilala
	Pedestrian Walkway / Cycleway Stationi to Old Posta via Sokoine (1.5m cycle:1.5m walkway unobstructed)	TANROADS	TANROADS
	Develop Stationi Bus stop structure (under PPP scheme)	Ilala	Ilala
Stage 2	<b>Project list –Traffic Modifications</b>		
2-P1	Modify Askari Monument Roundabout & Clock Tower Roundabout	Ilala	Ilala
2-P2	Modify create 2-way turn at Zanaki St Intersection at Bibi Titi St	TANROADS	TANROADS
2-P3	Change traffic flow along Samora & Sokoine& one way Aggrey St (extra Police/ temp. marking & signs)	RAS/DCC/Police	DCC/SUMATRA/CUPID
	Public Awareness		
	Close Morogoro Rd	TANROADS/ RAS/Police	TANROADS
Stage 3	<b>Project List Local Traffic Treatments</b>		
3-P1 Maktaba to Zanaki local traffic modifications	Public Consultation	RAS/DART	DART
	Prepare parking signage & markings	DCC/Ilala	DCC
	Implement and manage change process	Ilala/ DCC Parking	RAS
3-P2 Mosque St Area local traffic modifications	Public Consultation	RAS/DART	DART
	Prepare parking signage & markings	DCC/Ilala	DCC
	Implement and manage change process	Ilala/ DCC Parking	RAS

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### Discussion for Successful Coordination

CBD Traffic Improvement Plan

- Secretariat agreed secretariat itself cannot initiate implementation of the proposed plan
- *Who should be a champion of the CBD plan?*
- Full or even partial implementation requires additional funds
- *Any possible funding sources?*
- Lessons learnt from preparation of CBD Plan
- *Understanding of complexity of traffic issues and its management scheme.*
- *Successful planning and implementation requires coordination involving wide range of stakeholders.*
- *Importance of community involvement and public awareness*

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**C**onsensus for **U**rban Transport and  
**P**olicy **I**mprovement in **D**ar es Salaam

“Thinking and Working Together for a Livable City”



**MINUTES OF THE THIRD JOINT COORDINATING COMMITTEE  
/STEERING COMMITTEE MEETING  
ON  
CAPACITY BUILDING PROJECT  
FOR  
THE IMPROVEMENT OF DAR ES SALAAM TRANSPORT**

Based on the Record of Discussions signed on 19<sup>th</sup> July, 2010 between the Government of the United Republic of Tanzania (hereinafter referred to as ‘Tanzania’) and the Japan International Cooperation Agency (hereinafter referred to as ‘JICA’), the technical cooperation project, namely ‘Capacity Building Project for the Improvement of Dar es Salaam Transport’ (hereinafter referred to as ‘the Project’) was initiated on 1<sup>st</sup> December, 2010.

In the course of the Project, a series of discussions were made and several workshops were organized, inviting secretariat members from ministries, public agencies and academic institutions. As a result of the discussions made during the third Joint Coordinating Committee/Steering Committee, held on 24<sup>th</sup> August 2012, at the Karimjee Hall, Dar es Salaam, it was confirmed and agreed among all the members as referred to in the documents attached hereto.

Dar es Salaam, 17<sup>th</sup> December, 2012

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Mr. Jumanne A. Sagini  
Acting Permanent Secretary  
Prime Minister’s Office Regional  
Administration and Local Government

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Mr. Yukihide Katsuta  
Chief Representative  
JICA Tanzania Office

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Ms. Theresia Mmbando  
Regional Administrative Secretary  
Dar es Salaam Region

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Mr. Kiminari Takahashi  
Chief Advisor  
JICA Expert Team

## **1. LIST OF ATTENDANTS**

Attendants of the 3rd Joint Coordinating Committee/Steering Committee are listed below.

### **TANZANIAN SIDE**

#### **(1) JCC/Steering Committee Members**

1.	J. A. Sagini	PMO-RALG	Chairperson
2.	Theresia Mmbando	RS-DSM	Secretary
3.	Cosmas Takule	DART Agency	Member
4.	Eng. Natty M.B.	Dar es Salaam City Council	Member
5.	Ephron P. Sanga	Ministry of Home Affairs	Member
6.	Joseph N. Mashishanga	Ministry of Lands, Housing and Human Settlement Development	Member
7.	Rashid S. Kalimbaga	Road Fund Board	Member
8.	Anna W. Mtani	PMO-RALG	Member
9.	A/Insp. Mwangowa F. C.	Police Traffic	Member
10.	Boniface J. Mallya	Ministry of Transport	Member
11.	Eng. Ndyamukama Julius	TANROADS DSM	Member
12.	John P. Wanga	Ilala Municipal Council	Member
13.	Konrad Shio	SUMATRA	Member

#### **(2) Secretariat Members**

14.	Ndyamukama V.K	PMO-RALG	Invited
15.	Eng. Chacha Mwita	PMO-RALG	Invited
16.	Ahmed Wamala	RS-DSM	Invited
17.	Ladislaus M. Bigambo	TANROADS HQ	Invited
18.	Martha Mkupasi	Dar es Salaam City Council	Invited
19.	Eng. Nyenye S. M	Dar es Salaam City Council	Invited

### **JAPANESE SIDE**

1.	Yukihide Katsuta	JICA	Member
2.	Shin Maruo	JICA	Member
3.	Kiminari Takahashi	JICA Expert	Invited
4.	Junji Shibata	JICA Expert	Invited

**ABSENTEES**

1.	Permanent Secretary	Ministry of Works	Member
2.	Municipal Director	Kinondoni Municipality	Member
3.	Municipal Director	Temeke Municipality	Member

## **2. Agenda**

The agenda of the meeting were as followings:

- a) Opening of the meeting
- b) Welcome remarks
- c) Confirmation of minutes of 2nd JCC/Steering Committee meeting
- d) Matters arising and actions taken
- e) Project progress report
  - I. Road Improvement Plan
  - II. CBD Traffic Improvement Plan
- f) Appointment of the project coordinator of CBD staged plan
- g) Report on terminal evaluation of the Project
- h) Approval of amendment of Project Design Matrix
- i) Establishment of DUTA
- j) Any other business
- k) Closing of the meeting

### **2.1 Opening of the Meeting**

The Chairperson, Mr. J. A. Sagini – Acting Permanent Secretary, PMO-RALG – called the meeting to order at **14:20hours** after making few remarks regarding the Project. In his remarks, he thanked JICA for their continuous assistance for development of the transport infrastructure in Tanzania since 1970s. He further expressed his appreciation to the on-going efforts/planning works, made by the secretariat members and the Expert Team. Following the opening remarks, the meeting was preceded by self-introduction.

### **2.2 Remarks from JICA**

Mr. Yukihide Katsuta – Chief Representative of JICA Tanzania Office – made remarks, by briefing background and objectives of the Project and extended his appreciation for active and constructive participation of the members in the meeting.

### **2.3 Confirmation of Minutes of 2nd JCC/Steering Committee Meeting**

Members of the meeting read through the minutes of the 2<sup>nd</sup> JCC/Steering Committee meeting page by page, and made some corrections on numbering and thereafter the minutes were confirmed and adopted for records.

## **2.4 Matters Arising**

Members went through the matters arising from the 2<sup>nd</sup> JCC/Steering Committee meeting with their respective actions taken. As part of actions taken by the secretariat members, it was reported that the secretariat prepared a concept paper on development of the expressway and presented it to the City Mayor and other stakeholders. It was also reported that the railway rehabilitation project is now ongoing under the Ministry of Transport. However, it was understood among the members that railway rehabilitation project seems not well informed to the concerned agencies. After discussions among the members, **it was agreed** that all transport modes need to be integrated/coordinated to ensure better outcome and therefore, RAS should always be fully informed of the on-going and planned transport projects in Dar es Salaam and take actions as a coordinator amongst concerned agencies, when necessary.

## **2.5 Project Progress Report**

The following two subjects were presented to the members.

### **2.5.1 Road Improvement Plan**

Road improvement plan for the City of Dar es Salaam was prepared as part of training exercise of the Project (preparation of the priority projects/plan). The presentation of the road improvement plan included the background of road improvement plan, workflow of road improvement planning, the project long list and short-list for project proposed for Dar es Salaam Metropolitan Development Project (DMDP). It was also reported that this exercise was completed in consultation with the World Bank.

After the presentation, the members made the following comments and suggestions to the secretariat /Expert Team;

- Although priority projects identified in the Road Improvement Plan were confirmed among the concerned public agencies, the World Bank and secretariat of the Project, it was reported that political interventions were made by councillors in Ilala and Kinondoni Municipalities with interests to change the prioritised projects.
- **It was agreed** that the prioritised projects should not be changed because they were selected based on the technical analysis and the World Bank would finance the projects as per agreed list of the priority projects. **It was also**



**agreed** that changes of the priority projects, if allowed by accepting political interventions, will create rooms for further changes in other municipalities. Therefore, RAS and/or PS, PMO-RALG should intervene to follow the agreed plan and prioritised projects as suggested by the secretariat.

### **2.5.2 CBD Traffic Improvement Plan**

CBD traffic improvement plan was also prepared as part of exercises of the Project (preparation of the priority projects/plan). The conceptual plan was agreed in the 2nd JCC/Steering Committee meeting, and the presentation focused on the staged approach toward full implementation of the CBD traffic improvement plan. The following three respective stages were discussed:

- Daladala route modification
- Traffic modifications along the Samora Street and Sokoine Drive
- Local traffic treatments in Zanaki to Maktaba Street area and Mosque Street area

After the presentation, the members made the following comments and suggestions to the secretariat and Expert Team;

- It was pointed out that CBD traffic improvement plan requires improvement of selected roundabouts, junctions and bus terminals. Members raised concern on the junction at Bibi Titi/Ohio/Ali Hassan Mwinyi Road, which may cause accidents if safety issues are not well addressed.
- It was responded that installation of a new traffic signal is essential at the said junction and a change of phasing of traffic signal needs to be considered as an alternative measure. Moreover, drivers and other road users shall be sensitized through awareness campaigns.
- **It was agreed** that all proposed projects should be implemented immediately. The chairperson mentioned that PMO-RALG has already allocated some funds to local authorities and will allocate some funds for implementation of the proposed CBD traffic improvement plan. **It was agreed** that the secretariat should involve other stakeholders to prepare an Action Plan for CBD traffic improvement within sixty (60) days. The PS of PMO-RALG instructed Ilala Municipality to use the released additional funds for implementation of the said projects.

### **2.6 Appointment of Project Coordinator of CBD Staged Improvement Plan**

Having discussed, **it was agreed** that the CBD traffic improvement should be

accomplished through the staged approach, as proposed by the secretariat. **It was also agreed** that RAS–DSM should spearhead the project implementation and for that the Regional Secretariat Engineer was appointed as a project coordinator of the CBD staged improvement plan.

## **2.7 Report on Terminal Evaluation of the Project**

A representative from JICA Tanzania Office presented the report on Terminal Evaluation. It was reported that the Project was properly and timely implemented through the efforts made by the secretariat and was likely to attain the project objectives. It was observed that through the activities and achievement made by the secretariat, a mechanism to coordinate transport projects with relevant organizations in Dar es Salaam and monitor their implementations has been established and its capacity has been strengthened.

The report provided the following conclusions and recommendations, to ensure sustainability of the Project:

### **2.7.1 Conclusion and Recommendation**

The Project is highly evaluated and is found to attain the project objectives. The on-going project activities are found relevant and suggested to continue. Also, in the long run, the coordination mechanism should be strengthened, by giving more authority to both secretariat and steering committee.

### **2.7.2 Future Cooperation**

The report earmarked areas for future cooperation, including; Institutional Strengthening, Improvement of Urban Transport Policy, Revision of 2008 Transport Master Plan, Learning Exercise through Pilot Projects, and Establishment of Transport Database and Training Center.

After the presentation, the members made the following comments and suggestions to the secretariat members/Expert Team;

- The report indicated that the Project has been managed by DCC and coordinated by RAS and members observed a concern that the Project could be better managed if the DCC continues to function as a project manager. After several comments provided by the members, **it was agreed** to continue the existing project implementing structure, having the RAS as the project director and the DCC as the project manager.
- To ensure sustainability of the Project, it was suggested that PMO-RALG should provide continuous financial support for the Project. Members requested RAS to resubmit the budget for operation of the Project. TANROADS and Road Fund Board were also requested to inject some funds to the Project.

- A basket fund for operation of the Project was also suggested to be established where different stakeholders can contribute. RAS was requested to consult with concerned agencies for establishment of the basket fund.
- It was also suggested that in the next JCC meeting, other PSs from the respective ministries should be well informed and insisted to attend the meeting in order to have a smooth implementation of the proposed projects.

## **2.8 Approval of Amendment of Project Design Matrix**

Based on the recommendation provided by Terminal Evaluation Report, it was observed that since traffic congestion in Dar es Salaam can not be mitigated within 2-3 years after completion of the project therefore the Project Design Matrix need to be amended in order to accommodate ‘mitigation of traffic congestion’ as a Super Goal. The meeting agreed and approved the amendment of the Project Design Matrix. The revised Project Design Matrix agreed among the members of JCC is attached to the Appendix 1.

## **2.9 Establishment of DUTA**

It was reported that establishment of DUTA is an essential step to implement a coordinated approach for urban transport management in Dar es Salaam. The presentation highlighted the present transport issues in Dar es Salaam and the background of the establishment of DUTA as described in the 2008 Transport Master Plan. Furthermore, the presentation highlighted the proposed organization structure, overall functions and roles and responsibilities of each concerned agency and organization.

After the presentation, the members made the following comments and suggestions to the secretariat /Expert Team;

- It was reported that PMO-RALG is currently engaged in legislating DUTA by drafting Act for establishment of DUTA, following the proposals made in the 2008 Transport Master Plan. To do so, it was proposed that members should understand the discussions made in the Master Plan and come with ideas/counter proposals in the next meeting to accelerate the process towards establishment of DUTA. Therefore, **it was agreed** that the document should be circulated to members and other key stakeholders and that PMO-RALG should call a stakeholder meeting in September to disseminate the progress of establishment of DUTA.

## **2.10 AOB**

It was suggested that agendas for the Joint Coordinating Committee and the Steering Committee meetings should be separated so as to clearly demarcate the matters on the Project and the ones to be approved by the Steering Committee members.

### **2.11 Closing of the Meeting**

Before closing the meeting the Chairperson thanked all the members for their participation. The Chair person also insisted that everybody should act on the assigned task immediately. The meeting was closed at **18:05 hours**.

NARRATIVE SUMMARY	INDICATORS	MEANS	IMPORTANT ASSUMPTIONS
<b>SUPER GOAL</b>			
- Traffic congestion in Dar es Salaam is mitigated.			
<b>OVERALL GOAL</b>			
- Transport policies of relevant organizations in Dar es Salaam are coordinated and harmonized.	<u>- The relevant organizations implement the policies/ plans/ projects proposed during the course of the Project.</u>	1. List of participants of Steering Committee and other meetings 2. Progress report 3. Preliminary study report, progress report	
<b>PROJECT PURPOSE</b>			
A mechanism to coordinate transport projects of relevant organizations in Dar es Salaam and monitor their implementations is established with its capacity being strengthened.	<u>- Actions to incorporate Draft Urban Transport Policy and urgent projects agreed among the coordinating group into the policy and budget of the concerned organizations are taken by the coordinating group members.</u>	1. Minutes of Steering Committee meeting. 2. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings. 3. Training program, training materials, number of trainees, evaluation report, progress report. 4. Records of discussion, Draft 2013 Urban Transport Policy, progress report. 5. Records of discussion, preliminary study report, progress report.	Organizational structure and responsibilities of organizations concerned remain unchanged. Budget is secured for implementation of urgent plans/projects
<b>OUTPUT</b>			
1. Coordinating groups (i.e., Secretariat and Steering Committee) are established with charter of operations.	<u>- Role of the concerned organizations become clear through the coordinating group.</u>	1. Minutes of Steering Committee meeting. 2. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings. 3. Records of discussion 4. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings. 5. PDM, WBS	Members of Secretariat/Steering Committee share motivations to participate in this Project.
2. Training needs are identified and assessed and transport planning capabilities of individuals involved in the Project are improved.	<u>- Capacity for transport planning is improved for individuals in this Project.</u>	1. CVs of candidates. 2. List of participants of training program. 3. Summary of impression and opinion of individuals involved in training program 4. Homework at the end of each stage of training program 5. Preliminary study or impact assessment of short-term project proposed in the Project.	The number of drop-out trainees is small.
3. A series of policy recommendations are provided and compiled into a policy document.	<u>- Draft Urban Transport Policy agreed in the coordinating groups is made.</u>	1. List of data collected, meeting records, progress report on existing organizational capabilities and capacity assessment 2. List of data collected, meeting records, progress report on existing infrastructure and service and problem identification 3. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings. 4. Draft report on urban transport policy. 5. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings.	The decision makers acknowledge importance of long-term urban transport policy, incorporating into policy document.
4. Coordinated and prioritized plans/projects are studied/approved for immediate actions.	<u>- Plans for immediate actions agreed in the coordinating groups are made.</u> <u>- Plans for immediate actions with completed preliminary study are made.</u>	1. List of data collected, meeting records, progress report on existing road/public transport/traffic conditions. 2. Progress report on problem analysis and selection of urgent urban transport projects. 3. Draft preliminary study report on urgent urban transport projects. 4. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings. 5. Records of discussion, meeting agenda, presentation materials, snapshot of the meetings.	Budget is secured for implementation of urgent plans/projects
<b>ACTIVITIES</b>		<b>INPUT</b>	
1-1. Establish the Steering Committee/Secretariat. 1-2. Organize a series of Steering Committee/Secretariat meetings. 1-3. Inform all stakeholders of meeting outcomes and agreements and amend project design if necessary. 1-4. Disseminate the output of the Project. 1-5. Monitor the progress of the Project and report it to the organizations concerned. 2-1. Assess training needs, gaps and potential training candidates 2-2. Select a limited number of candidates for training (who are expected to contribute to project activities of the Secretariat) 2-3. Design training programs covering the project period. 2-4. Provide a series of training sessions. 2-5. Design practical role for trainees within the secretariat. 3-1. Review of existing organizations; roles responsibilities and capabilities. 3-2. Identify cross-cutting organizational/institutional/regulatory issues and resolve through organizational recommendations. 3-3. Assess the existing transport infrastructure and services and ongoing and planned project. 3-4. Identify and assess issues related to transport infrastructure and services. 3-5. Draft integrated urban transport policies (which is expected to be reflected to 2013 National Transport Policy). 3-6. Provide recommendations to relevant organizations for their actions. 4-1. Identify and assess urban transport problems and critical projects. 4-2. Prioritize and develop into a transport improvement program 4-3. Facilitate to develop the project profile of the short-term measures and TOR for the supplementary works. 4-4. Support to conduct necessary studies on short-term measures. 4-5. Prepare solutions in an integrated manner through coordination amongst the organizations.		<Tanzanian Side> 1. Personnel 1) Project Director: DSM- RAS 2) Project Manager: City Director of DCC 3) Counterparts of Secretariat: (DSM-RAS, DCC, Municipalities, MOT, MOW, TANROADS, PMO-RALG, DART, Traffic Police) 2. Others Office space and local cost  <Japanese Side> 1. Personnel 1) Team Leader/Transport Administration 2) Transport Planning 3) Human Resource Development (1) 4) Human Resource Development (2) 5) Traffic Demand Forecast/Database Management 6) Public Transport Planning 7) Road Planning/Project Coordination 8) Road Design/ Construction Supervision 2. Others IT equipment and local cost	

## MATTERS ARISING AND ACTIONS TAKEN

S/No	Matters Arising	Actions Taken
1	Prioritized projects for the WB funded DMDP should not be changed because they were selected based on the technical analysis and the World Bank would finance the projects as per agreed list of the priority projects	The secretariat made a follow up, confirming the final list of priority projects proposed for the DMDP. The secretariat found that there was no alternation in the final list of the priority project in Kinondoni and Temeke and identically same to what the CUPID proposed. However, the secretariat also found that in Ilala 5 projects were added to the original list of the priority projects that the CUPID proposed and some projects were evaluated as low priority projects.
2	Changes of the priority projects, if allowed accepting political interventions, will create rooms for further changes in other municipalities. Therefore, RAS and/or PS, PMO-RALG should intervene to follow the agreed plan and prioritized projects, suggested by the secretariat.	The priority projects proposed for the DMDP will be screened by the Consultant hired under the DMDP and the priority project will be finalized by considering benefits generated/adverse impacts caused by the project. The secretariat will provide necessary data, including the analytical result of the evaluation to select the priority projects, to the Consultant for their review work to finalize the priority project.
3	PMO-RALG has already allocated some funds to local authorities and will initiate to allocate some funds for implementation of the proposed CBD traffic improvement plan.	The secretariat made a follow up to seek for the funds for implementation of the CBD traffic improvement plan through a series of consultative meetings with PMO-RALG, RAS, Ilala and TANROADS. The secretariat found that the funds allocated to local authorities were not available for the CBD traffic improvement plan. Thus, the secretariat made further actions, writing a request letter to PS PMO-RALG to request him to consider the CBD traffic improvement plan as an emergency project and to set aside funds for its implementation. The secretariat also attended the consultative meeting with WB and DART and requested the WB and DART to consider the CBD traffic improvement plan as part of BRT project and to secure funds for implementation of the plan. The secretariat found there is a possibility that the WB would finance the plan. Currently, the secretariat continues to discuss with the WB, submitting necessary supporting documents which outlines the CBD traffic improvement plan.
4	Secretariat should involve other stakeholders to prepare an Action Plan for CBD traffic improvement within sixty (60) days.	The secretariat prepared the preliminary design and BOQ for the CBD traffic improvement plan and estimated cost for the critical works of the plan (which amounts to around 480,000 USD). The secretariat also prepared the detailed implementation plan, which suggested to complete all the critical works by mid December and start rerouting Daladala and diverting

		Samora and Sokoine on 15 <sup>th</sup> December.
5	CBD traffic improvement should be accomplished through the staged approach, as proposed by the secretariat	Please refer to No.3 and 4.
6	RAS–DSM should spearhead the project implementation and for that the Regional Secretariat Engineer was appointed as a project coordinator of the CBD staged improvement plan.	The Regional Secretariat Engineer was heavily committed to materializing the CBD traffic improvement plan by (i) organizing meeting involving RC, Ilala Municipal Engineer and TANROADs Regional Manager, (ii) chairing the secretariat meetings and monitoring the progress of the plan, and (iii) organizing meeting with BRT contractors, consultants and TANROADs. The secretariat also organized several meetings to disseminate the plan and seek for the funds for implementation of the plan, including SUMATRA, Traffic Police, DART and WB.
7	It is essential to continue the existing project implementing structure, having the RAS as the project director and the DCC as the project manager.	Will be further discussed in the Steering Committee meeting.
8	PMO-RALG should provide continuous financial support for the Project. Members requested RAS to resubmit the budget for operation of the Project. TANROADS and Road Fund Board were also requested to inject some funds to the Project	Will be further discussed in the Steering Committee meeting.
9	Other PSs from the respective ministries should be well informed and insisted to attend the meeting in order to have a smooth implementation of the proposed projects	The invitation letter of the Steering Committee, together with discussion papers and presentation material, was issued and sent to the PSs of the respective ministries, prior to the meeting.
10	Document should be circulated to members and other key stakeholders and that PMO-RALG should call a stakeholder meeting in September to disseminate the progress of establishment of DUTA.	The selected secretariat members reviewed the previous studies on establishment of the DUTA and prepared the discussion paper on the DUTA, proposing the visions/strategies, organizational structure, responsibilities and duties. The selected secretariat members organized a meeting with PS of PMO-RALG to brief the outline and the progress of the establishment of the DUTA and confirmed that the discussion paper should be presented and discussed at the Inter-ministerial Technical Committee.



# Capacity Building Project for the Improvement of Dar es Salaam Transport

4<sup>th</sup> Joint Coordinating Committee/Steering Committee  
17<sup>th</sup> December, 2012

Secretariat for Capacity Building Project  
and  
JICA Expert Team



## Contents of the Presentation

Project Completion Report;

1. Outline of the Project
2. Overall Achievement of the Project
3. Lessons Learnt from the Project and Recommendations

Discussion/Action Plan for Sustainable Coordination  
Mechanism

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## 1. Outline of the Project

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### 1.1 Project purpose and output

#### **Project Purpose:**

A mechanism to coordinate transport projects of relevant organizations in Dar is established with its capacity strengthened.

#### **Project Outputs:**

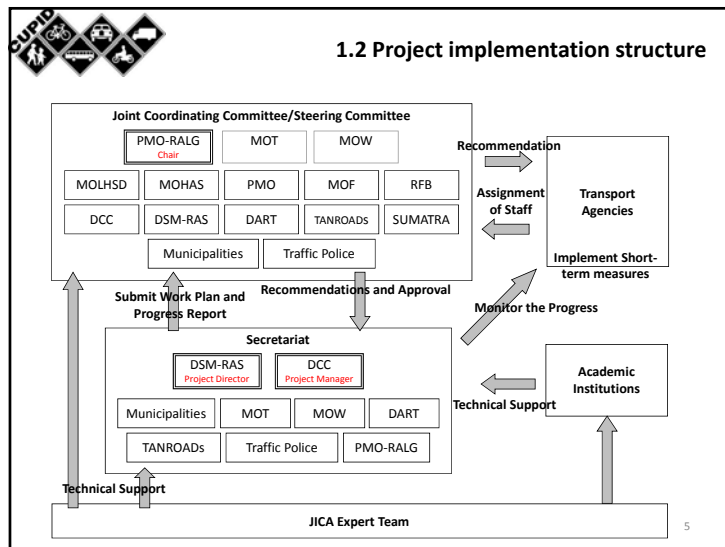
1. Coordinating bodies (i.e., Secretariat and Steering Committee) are developed with charter of operations.
2. Training needs are identified and transport planning capabilities of individuals involved in the Project are improved.
3. A series of policy recommendations are provided and compiled into a policy document.
4. Coordinated and prioritized plans/projects are studied and approved for immediate actions.

#### **Project duration:**

From Dec 2010 to Dec 2012

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- 1.3 Summary project achievement (1/2)**
- Better coordination mechanism
- Steering committee and secretariat both confirmed at 1<sup>st</sup> JCC.
  - 38 secretariat meetings held to discuss transport policy and priority plans.
  - 1<sup>st</sup> JCC held in April 2011 to approve a work plan and 2<sup>nd</sup> JCC in Dec 2011 and 3<sup>rd</sup> JCC in Aug 2012 to demonstrate progress of the Project.
- Technical training for transport planning
- 3 training sessions held in Feb/March, June/July and Nov/Dec, 2011 at NIT.
  - On-the-job training (traffic survey) in Dec 2011 and July 2012.
  - NIT to register the transport planning training course in the ERB and to provide paid training.

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- 1.3 Summary project achievement (2/2)**
- Transport policy
- A discussion paper prepared and discussed in a series of secretariat meetings.
  - Coordination meetings held with MOT/EU/DfID
  - Policies/strategies/actions explored in draft urban transport policy incorporated into National Transport Policy.
- Priority plan/projects
- Traffic improvement plan in CBD developed through consultation among secretariat and accepted in the 2<sup>nd</sup> and 3<sup>rd</sup> JCC.
  - Road improvement plan developed and selected priority projects to be soon implemented under WB funded DMDP.
  - Other projects, including Northern Busway, Intersection Improvement and Traffic Control/ Surveillance System were also discussed.

**2. Overall Achievement of the Project**

**2.1 Better Coordination Mechanism**

Proposed Project Activities	Summary of Achievement
1. Establish the Steering Committee/Secretariat.	In the 1 <sup>st</sup> JCC, organizational structure and members of Steering Committee and secretariat were confirmed.
2. Organize a series of Steering Committee/Secretariat meetings.	38 secretariat meetings and 3 Steering Committee organized to monitor the progress of the Project.
3. Inform all stakeholders of meeting outcomes and agreements and amend project design if necessary.	The progress of the Project regularly disseminated at the Regional Road Boards and to the head of concerned agencies.
4. Disseminate the output of the Project.	
5. Monitor the progress of the Project and report it to the organizations concerned	The secretariat monitored the progress of the plan/project and PMO-RALG, RAS and City called for meetings with concerned implementing agencies and potential financiers.



**2.2 Training for Urban Transport Planning**

Proposed Project Activities	Summary of Achievement
1. Assess training needs, gaps and potential training candidates	The secretariat and 4 academic institutions confirmed relevant as trainees.
2. Select a limited number of candidates for training (who are expected to contribute to project activities of the Secretariat)	Trainees selected from a list of candidates. NIT confirmed as a focal point of the training and staff of NIT trained through TOT.
3. Design training programs covering the project period.	Training program and materials prepared. 10 sets of traffic demand forecast application (STRADA) purchased. The program and materials utilized at academic institutions.
4. Provide a series of training sessions.	3 training sessions held in 2011 at NIT. On-the-job training (traffic survey) in 2011 and 2012.
5. Design practical role for trainees within the secretariat.	The secretariat conducted traffic survey and analyzed data, which contributed to planning work of the priority plan/projects.



**2.3 Formulation of Urban Transport Policy**

Proposed Project Activities	Summary of Achievement
1. Review of existing organizations; roles responsibilities and capabilities.	<p>A series of secretariat meetings were organized to discuss physical and non-physical urban transport issues and confirmed priority plans/projects to address these issues.</p> <p>A series of discussion papers (urban transport policy, traffic improvement programs, road improvement plan, DUTA, etc.) were prepared, which explored complexity of urban transport issues and possible priority solutions.</p> <p>Policies/strategies/actions explored in draft urban transport policy compiled into National Transport Policy</p> <p>National Transport Policy is expected to guide implementing agencies to plan and budget for urban transport improvement in a coordinated manner.</p>
2. Identify cross-cutting organizational/institutional/regulatory issues and resolve through organizational recommendations.	
3. Assess the existing transport infrastructure and services and ongoing and planned project.	
4. Identify and assess issues related to transport infrastructure and services.	
5. Draft integrated urban transport policies (which is expected to be reflected to 2013 National Transport Policy).	
6. Provide recommendations to relevant organizations for their actions.	

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**2.4 Coordinated and Prioritized Plans/Projects**

Proposed Project Activities	Summary of Achievement
1. Identify and assess urban transport problems and critical projects.	2 planning works, CBD Traffic Improvement Plan and Road Improvement Plan, confirmed as urgent projects.
2. Prioritize and develop into a transport improvement program.	Each planning work proposed priority projects and critical works.
3. Facilitate to develop the project profile of the short-term measures and TOR for the supplementary works.	Implementing agencies developed TOR for bidding documents (civil works for CBD and FS study for DMMP).
4. Support to conduct necessary studies on short-term measures.	The preliminary design and cost estimates were prepared for CBD plan.
5. Prepare solutions in an integrated manner through coordination amongst the organizations.	The CBD plan suggested bus rerouting, intersection improvement and parking management, of which planning/actual implementation required wide range of stakeholder involvement and consensus. Road improvement plan suggested priority projects by multi-criteria analysis and developed through donor coordination and local participation.

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- 2.5 Deliverables**
- Better coordination mechanism
- Discussion papers, Presentation, Minutes of Meeting
- Technical training for transport planning
- A guideline for urban transport planning, Teaching material, Evaluation Report
- Transport policy
- Urban Transport Policy and Strategy for Dar es Salaam (**Volume 1**)
  - The Concept and Structure of the DUTA (**Volume 2**)
- Priority plan/projects
- CBD Traffic Improvement Plan in Dar es Salaam (**Volume 3**)
  - Dar es Salaam Urban Road Improvement Plan (**Volume 4**)
  - Proposal for Northern Busway (**Appendix 1**)
  - Developing a PPP Concession for Terminal Development (**Appendix 2**)
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### 3. Lessons Learnt from the Project and Recommendations

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#### 3.1 Lessons learnt from the Project (1/2)

The key for successful implementation of urban transport project includes;

1. Understanding of **complexity of traffic issues** and its management scheme
2. Importance of **reliable database and models** to test and rank priority
3. Successful planning and implementation requires **coordination** involving wide range of stakeholders
4. Importance of **community involvement and public awareness**
5. **Commitment by the decision maker/ donor** and responsibilities fulfilled by local counterparts

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#### 3.1 Lessons learnt from the Project (2/2)

For better coordination mechanism, the Project implemented, taking into account;

1. Existing coordination mechanism at **policy level**
2. Existing decision making process and **budget cycle**
3. Existing **chain of command** among different organizations
4. Donor coordination

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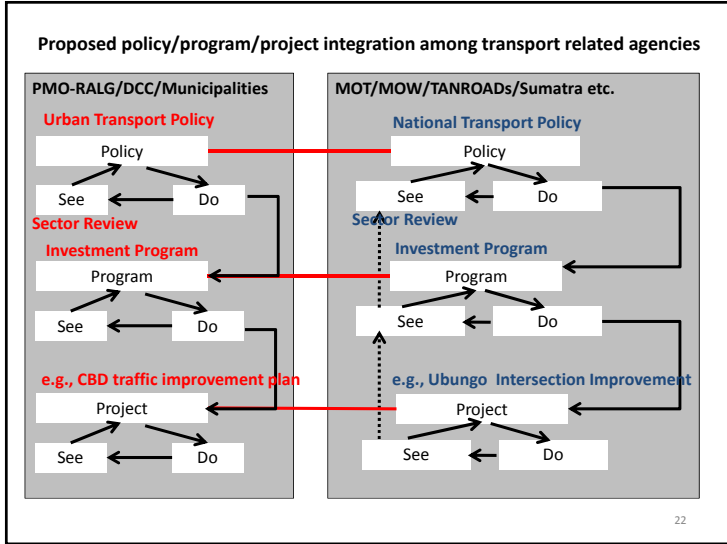
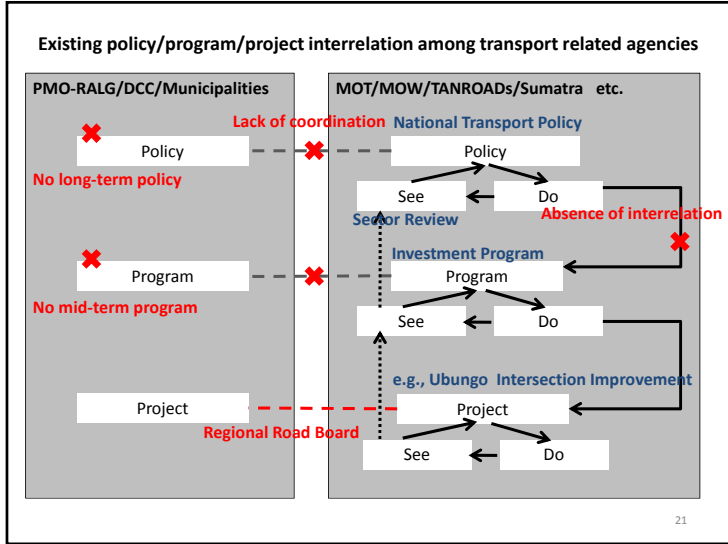
#### (1) Existing coordination mechanism at policy level

- Currently, there is **no urban transport policy** which governs strategic approach, investment plan and priority plan/program.
- Thus, the Project **developed draft urban transport policy** through a series of discussions among the secretariat.
- The contents of draft policy were already incorporated in the National Transport Policy through consultative meetings with MOT and DfD/EU consultants.

However,

- The investment plan (TSIP) was developed **with less involvement of local authorities**.
- The investment plan does not show clear correlation with the National Transport Policy.

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### (2) Existing decision making process and budget cycle

- The Steering Committee held to build consensus and assign responsibilities to concerned agencies.
- Considering timing of budgeting and coordination, the Steering Committee held in Dec 2011 and in Aug 2012.

Month/ Year	Budget Cycle (e.g., DCC)	Project Activities
Dec/2011		Build consensus on proposed program/projects and assign responsibilities (2 <sup>nd</sup> SC)
Jan/2012	Request of preparation of annual plan by PMO-RALG	
March	Preparation of annual plan by DCC	
April	Approval of annual plan by regional assembly	
May	Submission of annual plan and budget plan to PMO-RALG	
June	Approval of national budget plan by national assembly	
Aug		Monitor progress of proposed program/projects and assign responsibilities (3 <sup>rd</sup> SC)

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- ### (3) Existing chain of command among different organizations (1/2)
- At the initial stage of the Project, the DCC solely involved in the Project. Thus, **all the commands were made through the DCC.**
  - Due to decentralization, DCC considered as implementing agency, managing the parking and bus terminals and less considered as the coordinating agency.
  - The JICA's terminal evaluation and 3<sup>rd</sup> JCC suggested the **RS be a owner of the Project** and all necessary commands should be made through the RS office.
  - Under the RS, there is also coordinating mechanism, such as **Regional Road Board and Regional Coordination Committee.**
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**(3) Existing chain of command among different organizations (2/2)**

- Also, the JICA’s terminal evaluation suggested all the commands should be made **in a written form**.
- The secretariat delivered a number of discussion papers/concept papers/ design/ cost estimates.
  - Dar es Salaam Urban Transport Policy
  - Dar es Salaam Urban Transport Authority
  - CBD Traffic Improvement Plan
  - Dar es Salaam Road Improvement Plan
  - Northern Busway
  - PPP Concession for Bus Terminal Development



**3.2 Recommendations**

- 1. PMO-RALG to be a champion of urban transport policy,** developing investment plan and assigning responsibilities to implementing agencies.
- 2. RS to be a coordinating organ,** with the secretariat functioning, involving a range of implementing agencies.
- 3. Coordination mechanism to be developed as a system**
  - Policy – Investment Plan – Sector Review
  - Absorb the secretariat in existing RRB or RCC
4. Coordination mechanism to be also enhanced by legislating **DUTA**.
5. The secretariat to well function, by **improving skills/ knowledge in the urban transport planning**.



**Discussion/Action Plan for Sustainable Coordination Mechanism**



**(1) Proposed tasks for sustainable coordination mechanism**

Organization	Proposed Tasks
PMO-RALG	<ul style="list-style-type: none"> <li>• Organize and chair the Steering Committee twice a year</li> <li>• Assign responsibilities to local authorities</li> <li>• Allocate budget and resources for plans/project approved by the SC.</li> <li>• Finance operational cost of the secretariat</li> <li>• Coordinate with donors</li> <li>• Develop Dar Urban Transport Policy/Investment Plan</li> <li>• Legislate the DUTA</li> </ul>
RS	<ul style="list-style-type: none"> <li>• Co-chair the Steering Committee twice a year</li> <li>• Organize regular secretariat meetings</li> <li>• Coordinate with other Ministries/Agencies</li> <li>• Monitor the progress of the plans/project approved by the SC</li> </ul>
Secretariat	<ul style="list-style-type: none"> <li>• Discuss and agree the priority plans.</li> <li>• Conduct studies and develop detailed plans/projects/budget plan.</li> <li>• Report to and coordinate with home Ministries/Agencies</li> <li>• Skills/knowledge further trained at NIT</li> </ul>



**(2) Proposed annual schedule  
for sustainable coordination mechanism**

- Regular secretariat meetings to be continued.
- At least two SC to be held **at beginning of budgeting (Dec/Jan) and when budget approved and coordination required (July/Aug).**

Month/ Year	Secretariat	Steering Committee
Dec/2012	Report the plan and priority project and budget plan (FY 2013/14) to the SC.	Approve the proposed plan and coordinate to materialize the project, assigning responsibilities to implementing agencies.
Jan-June/ 2013	Regular meetings to develop detailed plan and project and monitor the budget plan for the priority projects in implementing agencies.	
July/2013	Report the progress (budgeting and detailed studies) of the plan/ projects .	Monitor the progress (coordination and budgeting) of proposed program/projects and assign responsibilities.
Aug-Nov/ 2013	Regular meetings to develop the draft plan with priority projects and budget plan (for FY 2014/15). Coordinate with home agencies to realize approved plan/projects (for FY 2013/14).	

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**Consensus for Urban Transport and  
Policy Improvement in Dar es Salaam**

“Thinking and Working Together for a Livable City”



**MINUTES OF THE FOURTH JOINT COORDINATING COMMITTEE  
/STEERING COMMITTEE MEETING  
ON  
CAPACITY BUILDING PROJECT  
FOR  
THE IMPROVEMENT OF DAR ES SALAAM TRANSPORT**

Based on the Record of Discussions signed on 19<sup>th</sup> July, 2010 between the Government of the United Republic of Tanzania (hereinafter referred to as ‘Tanzania’) and the Japan International Cooperation Agency (hereinafter referred to as ‘JICA’), the technical cooperation project, namely ‘Capacity Building Project for the Improvement of Dar es Salaam Transport’ (hereinafter referred to as ‘the Project’) was initiated on 1<sup>st</sup> December, 2010.

In the course of the Project, a series of discussions were made and several workshops were organized, inviting secretariat members from ministries, public agencies and academic institutions. As a result of the discussions made during the third Joint Coordinating Committee/Steering Committee, held on 24<sup>th</sup> August 2012, at the Karimjee Hall, Dar es Salaam, it was confirmed and agreed among all the members as referred to in the documents attached hereto.

Dar es Salaam, XXXX, 2012

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Mr. Jumanne A. Sagini  
Acting Permanent Secretary  
Prime Minister’s Office Regional  
Administration and Local Government

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Mr. Yukihide Katsuta  
Chief Representative  
JICA Tanzania Office

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Ms. Theresia Mmbando  
Regional Administrative Secretary  
Dar es Salaam Region

---

Mr. Kiminari Takahashi  
Chief Advisor  
JICA Expert Team



Attendants of the 3rd Joint Coordinating Committee/Steering Committee are listed below.

**TANZANIAN SIDE**

<b>SN</b>	<b>Name</b>	<b>Organization</b>	<b>Title</b>
1.	Alfayo Kidata	PMO-RALG	Chairperson
2.	Theresia Mmbando	RAS-DSM	Secretary
3.	Francis H. Kugesha	DART Agency	Member
4.	Eng. Natty M.B.	Dar es Salaam City Council	Member
5.	Joseph N. Mashigala	Ministry of Lands, Human Settlement and Development	Member
6.	Ndyamukama V.K	MOW	Member
7.	A/Insp. Mwangowa F. C.	Police Traffic	Member
8.	Boniface J. Mallya	Ministry of Transport	Member
9.	Eng. Chacha Mwita	PMO-RALG	Member
10.	Ahmed Wamala	RAS-DSM	Member
11.	Eng. Kanyenye	TANROADS DSM	Member
12.	Gabriel Fuime	Ilala Municipal Council	Member
13.	Konrad Shio	SUMATRA	Member
14.	Martha Mkupasi	Dar es Salaam City Council	Member
15.	Eng. Nyenye S. M	Dar es Salaam City Council	Member
16.	Serapion Tigahwa	Ilala Municipal Council	Member
17.	Prosper Nyaki	National Institute of Transport	Member
18.	Asanterabi sang'anoi	PMO	Member
19.	Gabriel Chiguma	Police Traffic	Member
20.	Leo Ngowi	SUMATRA	Member

**JAPANESE SIDE**

1.	Yukihide Katsuta	JICA	Member
2.	Shin Maruo	JICA	Member
3.	Kiminari Takahashi	JICA Expert	Secretariat
4.	Hiroyuki Morimoto	JICA Expert	Secretariat
5.	Kiminori Matsumo	JICA Expert	Secretariat
6.	Kayoko Miyao	JICA Expert	Secretariat

**INVITEES:**

- |    |                               |                                     |         |
|----|-------------------------------|-------------------------------------|---------|
| 1. | Dr. Khachatur (John) Sargsyan | KLAG Group                          | Invitee |
| 2. | Jorome Ringo                  | KLAG Group/Member of<br>Road Safety | Invitee |
| 3. | Dieter Schelling              | Dart Agency                         | Invitee |

**ABSENTEES**

- |    |                          |        |
|----|--------------------------|--------|
| 1. | Kinondoni Municipality   | Member |
| 2. | Temeke Municipality      | Member |
| 3. | Road fund board          | Member |
| 4. | Ministry of Home Affairs | Member |
| 5. | Ministry of Finance      | Member |

## **1. Agenda**

The meeting was proceeded by following agenda:

- a) Opening remarks – PS, PMO-RALG
- b) Remarks by JICA
- c) Confirmation of minutes of previous meeting
- d) Matters raised and actions taken
- e) Project Implementation report
  - I. Outline of the Project
  - II. Overall Achievement of the Project
  - III. Lessons Learnt from the project and recommendations
- f) Discussion on Sustainable Coordination Mechanism
- g) Overview of Progress of Short term Measures
  - I. CBD Traffic Improvement Plan
  - II. Traffic Control and Management System
- h) Discussion on Short term measures
- i) Any other Business
- j) Closing Remarks

## **2. Opening of the Meeting**

The meeting was preceded by self-introduction, and then, the Chairperson, Mr. Kadata – Acting Permanent Secretary, PMO-RALG – called the meeting to order at **10:30hours** after making few remarks regarding the Project. In his remarks he mentioned that, the traffic congestion in Dar es Salaam is a National issue which requires an immediate attention to arrest the situation. He then thanked JICA for their full commitment in infrastructure development in DSM and CUPID project for creating the coordination platform among the responsible agencies.

## **3. Welcome Remarks from JICA side**

Mr. Hajime Iwama – Senior Representative of JICA Tanzania Office – made remarks, by congratulating and expressing his sincere appreciation on the effort made by the secretariat, which creates tangible results in the short period. He also mentioned there is still a challenge on the sustainability of the coordination mechanism and the Government of Japan is going to continue to support physical and non-physical urban transport projects.

#### **4. Confirmation of Minutes of Previous Meeting**

The meeting passed through the minutes of the previous meeting page by page, and made minor corrections and thereafter the minutes were confirmed and signed for proper records.

#### **5. Matters raised and Action taken**

Members went through the matters raised from the previous meeting with their respective actions taken. However, it was realized that some of the actions taken did not directly reflect what transpired. Therefore, it was recommended that the secretariat should work to make sure all the matters raised have been worked upon. The issues raised were:

- The prioritized projects under DMDP will be funded by Government of Tanzania (GoT) through a loan from the World Bank and not funded by the World Bank.
- PMO-RALG will allocate funds (equivalent to USD 480,000) for critical works for CBD traffic improvement plan.
- The Secretariat should form a task force for preparing a paper for DUTA to be presented to Inter-ministerial Technical Committee, stakeholders and later to the cabinet and prepare an Act to be presented to the parliament during its February, 2013 session. The above documents should be ready by mid January, 2013.
- Ilala Municipal Council should cover the installed traffic control signs in order to avoid present confusion resulting from the signage by Friday 21<sup>st</sup> December, 2012.

#### **6. Project Completion Report**

Mr. Takahashi (JICA Expert) presented the project completion report by focusing on the outline of the project, overall achievement of the project, lessons learnt from the project and recommendations.

The meeting made comments on the presentation as follows:-

- RAS should be the secretary to the Steering Committee while PS-PMORALG is the chairperson.
- Urban Transport Policy should be included in the National Transport Policy so as to cater for all municipalities and upcoming cities.
- Since the budget preparations for FY 2013/14 are in the final stages, talking about the transport policy is late so the Strategic Investment plan should be in place. The Secretariat should prepare and submit the plan to PMORALG (within two weeks) to be included in the budget.

- PMORALG should instruct DLGAs to allocate a certain percentage of funds from own sources for road infrastructure development.
- DUTA should be legalized and given financial powers to implement undertake all activities under its jurisdiction.
- 

## **7.0 Overview of Progress of Short Term Measures:**

### **7.1 CBD Traffic Improvement Plan**

- The Secretariat made a presentation regarding the CBD traffic improvement plan by focusing on its background and estimated project cost for staged CBD improvement plan.
- The plan included traffic transport, traffic control and parking management. The staged plan was accepted in the 3<sup>rd</sup> JCC and focused on daladala rerouting, diversion of Samora Avenue and sokoine Drive and local traffic treatment.
- The secretariat prepared preliminary designs and cost estimates for critical works which amounts to 480,000 USD.
- PMORALG accepted the request and will seek for funds from Roads Fund Board (RFB) as an emergency request.
- Members of JCC/SC discussed parking management

### **7.2 Traffic Control and Management System (KLAD Tanzania Ltd)**

- Mr.....from KLAD Tanzania Ltd made a presentation on DSM traffic control and management system. The presentation focused mainly on traffic control, road management, speed control, fixing road violations, searching for stolen cars, traffic accidents, tracing cars without license, security control area traffic information and public information by using installed CCTV through identification of vehicle's number plates. For DSM the system needs to be installed at two hundred (200) points within road side and or junctions.
- The members of JCC/Steering committee appreciated the system and requested the secretariat to liaison with KLAD and submit recommendations to PMORALG (within two weeks) so that approvals for the use of the system are obtained.

## **8.0 AOB**

- Mr. Shin Maruo representative from JICA Tanzania informed the meeting that

the project was coming to an end. JICA Tanzania and Embassy of Japan in Tanzania have received an official request from GOT regarding the next phase project. The request has already been forwarded to the Government of Japan for processing and approval. JICA will support the project by dispatching experts during the design of the next phase in April and July.

- The JCC/SC meeting did not set the start dates for public awareness campaign and CBD traffic improvement plan because the two issues depend on the improvement of critical works which need funds. However, the meeting agreed on the tentative date for the start of CBD traffic flow improvement plan implementation to be 1<sup>st</sup> February, 2013.

## **9.0 Closing Remarks**

In closing the meeting, the chairperson thanked the Government of Japan through JICA and appreciated the efforts made by the expert team, and secretariat for their commitment to the project. He said that the local authorities are fully committed to continue supporting the coordination exercise in planning, budgeting and implementation of the project. PMORALG is committed to establish DUTA and will continue to support the secretariat to improve coordination mechanism.

The meeting was closed at **14:15hrs**.

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添付資料③  
ディスカッションペーパー

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- 第1巻 ダルエスサラーム市都市交通政策案
- 第2巻 ダルエスサラーム市交通庁の組織制度案
- 第3巻 中心市街地交通改善計画案
- 第4巻 市道路改良計画案
- 資料1 北部バス導入計画案
- 資料2 民間資金によるターミナル整備計画案

Capacity Building Project for the  
Improvement of Dar es Salaam  
Urban Transport

## Discussion Paper (Volume 1)

Urban Transport Policy and  
Strategy for Dar es Salaam

This paper has been prepared only for internal discussions amongst the designated stakeholders for this project. Discussions can explore ideas and concepts for policy development and need not be limited to current policies of the Government of Tanzania.

Secretariat for the Capacity Building Project  
and  
JICA Expert Team



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### Note:

This paper has been prepared only as a *DISCUSSION PAPER* for the members of the secretariat and relevant stakeholders involved in developing urban transport policy for Dar es Salaam. These discussions are designed to explore ideas and concepts for transport policy development as an integral part of how the city develops as a whole, based on an understanding of the present situation – its causes and effects, and develop appropriate urban transport policies that will guide the development of Dar es Salaam as a modern, sustainable, liveable and prosperous city.



## 1. Introduction

- 1.1.1. This Urban Transport Policy paper relates primarily to the City of Dar es Salaam although other regional urban centers may draw from its foundational principles, and develop their own local strategic urban transport policy and institutional frameworks. This document outlines the planning principles that underwrite the policy and strategies to achieve the transport vision.
- 1.1.2. Dar es Salaam with a present population of over 3 million residents is the principal economic driver of the national economy; an important gateway for the country and the region, and a centre for investment and growth. While the 2009-10 national GDP growth was 6.4%, Dar es Salaam recorded a GDP growth of 18.3%. Transport and mobility are two of the key elements impacting on productivity and economic growth and ensuring market efficiency.
- 1.1.3. Traffic congestion is a well-recognized problem within the city, and causes many negative impacts on the livelihood and productivity of the city. Traffic demand will increase with rising socio-economic conditions expected to triple car ownership by 2030<sup>1</sup> and a commensurate drop in average vehicular travel speed from 25.8 kph to 8.5 kph if no actions are taken.
- 1.1.4. It is important to make Dar es Salaam a liveable city; a city that provides equal opportunity to all citizens to reduce poverty and improve living conditions, health and well-being; reduces commuter stress and enables access to destinations of employment, other education and services.
- 1.1.5. Decisive policy decisions are needed to constrain the growth of private vehicle trips for daily commuting to restore an equitable balance to the city transport network. A high socio-economic cost will be borne by society if this is not managed adequately.
- 1.1.6. An integrated and holistic approach is needed, including implementing urban development policies that reduce travel demand; improve public transport networks; organize competent and coordinated institutions to manage transport; and implement effective steps to control private car use through pricing and associated measures. This includes better management and control of city car parking to reduce irregular behaviour, create order and raise parking revenues.
- 1.1.7. Presently the city has a low level of car ownership and high dependence on public transport, with 60% of all trips (including non-mechanized trips) made by public transport, but it performs poorly and rated as 'highly unsatisfactory' from the perspectives of the operators and users, and there is constant friction between cost of bus operation and passenger's affordability and ability to pay.
- 1.1.8. The government is now addressing the growing urban transport problems with the introduction of the Bus Rapid Transit (BRT) system together with key administrative and institutional reforms serving to induce a modal shift and improve mobility.
- 1.1.9. Further reform of taxation and transport pricing structures are needed, including possible implementation of road user charges. This has three benefits: 1) to meet the external costs of road infrastructure not presently borne by road users; 2) assist to manage private car use and 3) raise funds to support public transport.
- 1.1.10. The nation's international competitiveness will be significantly influenced by maximizing the efficiency of port traffic and freight movements as well as creating favourable environmental conditions to attract tourism industries. Urban transport directly affects these two important areas.

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<sup>1</sup> 25 cars per 1,000 persons in year 2007, to 89 cars per 1,000 persons by year 2030



- 1.1.11. A shortage of, and poorly maintained, infrastructure needs to be addressed as part of a comprehensive urban transport policy. This includes investment in new equipment and a proper institutional framework, including establishing a new agency Dar es Salaam Urban Transport Authority (DUTA) to be fully accountable for traffic management and control in the city.
- 1.1.12. Road safety and the environment are important areas including: safety standards; driver behaviour and vehicle emissions.
- 1.1.13. Risks to future energy security also weigh heavily on future transport scenarios with the increasing cost of fuel adding to the cost of operation as well as increasing demand on public transport.
- 1.1.14. The sustainability of the city depends on implementing sustainable transport policies that include efficient non-motorized options such as walking and cycling and public transport networks.
- 1.1.15. With a viewpoint of urban transport, housing affordability and employment are strongly connected, and these elements must be fully integrated into the broad planning framework based on locally defined and supported objectives.
- 1.1.16. An institutional framework must also be capable and coordinated, requiring that all facets of urban mobility be placed under one policymaking umbrella to promote coordination, avoid duplication, and develop synergies.
- 1.1.17. Priority also needs to be made on developing a competent local transport research and planning capacity to be able to support policymaking and implementation of transport infrastructure in Dar es Salaam.



## **2. Commitment Statement and Strategic Vision**

### **2.1. Commitment Statement**

This commitment statement focuses on transport for Dar es Salaam as a key aspiration in becoming a modern 21st century city.

*“We will employ strategies for sustainable urban transport planning and design, and efficient and integrated transport networks to ensure access and equal opportunity for all, to safely access the benefits of education, employment, services, and social inclusion.*

*Through investment efficiency, efficient use of infrastructure, and market mechanisms, we will strive to sustain and improve urban mobility and accessibility, protect the environment, and at the same time managing the transition to a less energy and emissions-intensive economy.*

*We acknowledge our individual and joint responsibility to uphold the rules of honesty, transparency, and good governance in managing urban transport and mobility to improve the quality of life, and develop a productive, prosperous and liveable city”.*

### **2.2. Strategic Vision**

2.2.1. Integrated urban transport systems will lead the development of the city, and fundamentally contribute to the production and prosperity of the city and its people.

2.2.2. Affordable urban transport systems will improve equality and opportunity – connecting people from where they can afford to live to places of work, study and community services.

2.2.3. Efficient transport infrastructure will play an important role in a series of mutually reinforcing relationships that link growth with poverty reduction. Transport, in meeting the needs of urban social and economic activities, contributes to growth and prosperity and spreads the benefits of such growth equally.

This Commitment Statement and Vision Section should be further improved via discussion among the secretariat members.



### **3. Planning Principles**

#### **3.1. Ensuring Sustainable Mechanisms**

##### **Financially sustainable**

- 3.1.1. With an expected doubling of the population by 2030, Dar es Salaam will confront many challenges to provide infrastructure and services. Competitive demands for funding between the various sectors of need (such as transport, education, drainage and sanitation and health) are intense, requiring high level of government prudence and good financial management.
- 3.1.2. It is imperative that government investments are sustainable and deliver value for money. Urban transport projects must be commercially sound and not reliant on high levels of subsidy. Ultimately all financing scenarios, all infrastructures are ultimately paid for by users.
- 3.1.3. All infrastructure projects must be part of the broader integrated transport framework with mobility as the key objective, fully integrated to provide a transport system that is more likely to meet customers' demand, win customers, and thus be more likely to be financially sustainable.
- 3.1.4. Development of compact city and sustainable urban management will be encouraged to minimize the cost of infrastructure development which is now done in some developed and developing cases.
- 3.1.5. Competent and commercially-oriented management framework will be created to manage the transport network, having the incentive and capacity to develop efficiency and a high standard of customer service to build revenues and manage costs.

##### **Economically sustainable**

- 3.1.6. Productivity is a key driver of economic growth, and the development of Dar es Salaam city will be central to improving productivity performance of the nation.
- 3.1.7. Transport infrastructure has a key role in underpinning poverty reduction, investment, and growth by providing access and competitiveness, with improved mobility as major input to production.
- 3.1.8. Congestion is both a consequence and a barrier to economic growth; with a growing economy translating directly into increased road traffic and, if unmanaged, will create bottlenecks that strangle regional growth.
- 3.1.9. Proactive measures are required to plan for future needs and introduce efficient market mechanism to transition to a less emissions-intensive economy, and to accommodate population increases while supporting growth in productivity.
- 3.1.10. To meet these challenges, Dar es Salaam must ensure adequacy of its infrastructure and a more efficient use of existing infrastructure, with a focus on mobility solutions rather than infrastructure as an end in itself.

##### **Environmentally sustainable**

- 3.1.11. Cities represent a major global impact to the environment and transport infrastructure in itself has a large impact on a range of environmental concerns. Urban transport is a high contributor to worldwide greenhouse gas generation and is the cause of many negative effects on health and well-being of the people living in cities.
- 3.1.12. All urban transport policies must be directed making Dar es Salaam a liveable city; equitable, socially inclusive, affordable, accessible, healthy, safe and resilient. Policies should aim at building



and maintaining attractive built and natural environments and provide diversity of choices and opportunities for people to live their lives, share friendships, and raise their families to the fullest potential.

- 3.1.13. BRT, by absorbing a large amount of transport capacity and reducing traffic, creates opportunity for urban renewal thereby within the city so that safety access to the BRT can be reclaimed and more areas assigned to pedestrian space and public amenity. Parts of the city now dominated with traffic, noise and parking can be revitalized, improving commercial opportunity, social and economic conditions. The city's tourism potential is also improved by creating a safe and pleasant city on the 'House of Peace'.
- 3.1.14. Dar es Salaam currently has the advantage of a low level of car ownership, and cannot afford to transition to a car-dependent city without incurring serious social, economic and environmental consequences leading to a degradation of its citizens' lives.
- 3.1.15. To sustain and improve mobility, constraints should be placed on the growth of car use. Policies should be implemented that create incentives for better outcomes including:
- Proactive measures to influence mobility choices involving a mixture of incentives and regulations and designed to make public transport a lifestyle choice through quality and convenience;
  - Actions to improve the transport balance between motor vehicles, buses, cycles and pedestrians so all users feel safe;
  - Better utilization of roads and urban spaces through the use of efficient public transport to improve capacity of major corridors; and
  - Convenient public transport options to create incentives for motorists to choose public transport.
- 3.1.16. Policy must also focus on motor vehicle standards and enforcement of proper safety checks to address the poor standards of vehicle safety and repair which affect standards of service delivery (in case of public passenger vehicles); impact on public safety and cause environmental pollution.

## **3.2. Increasing Opportunity for Private Sector Involvement**

- 3.2.1. Encouraging private sector investment into urban transport will reduce investment demands on the public sector. This will require a favourable business and regulatory environment, careful assignment of risk between public and private parties and a commercial and performance-based business culture.
- 3.2.2. Developing the management capacity of public sector managers will assist to deliver mutually beneficial outcomes and create the confidence and incentive for increased private sector investment.
- 3.2.3. Competition is necessary to develop efficiency and accountability and avoid 'rent-seeking' monopolies. Subsidy should be used carefully and targeted only to achieve social objectives and should not weaken accountability and incentives.

## **3.3. Employing Transport Demand Management (TDM)**

- 3.3.1. TDM is commonly practiced to manage the demand side of the travel equation, acknowledging that there are limited resources to satisfy the demand for road space and parking in a city where private car use is increasing. TDM measures include urban planning and design, availability of more efficient and alternative transport options, management of private car use and incentives to adjust behaviour and mobility choices.



Examples include:

- Introduce Transit oriented development (TOD) and land-use policy;
- Encourage more use of public transport by improving quality and accessibility of public transport;
- Develop Park and Ride facilities for private car users and cyclists at outer locations;
- Encourage and provide facilities for the safe use of cycling and walking as transport options;
- Pricing mechanisms such as increasing the cost of parking and road pricing as a management tool to influence motorist mobility choices especially during peak hours;
- Road use management to restrict car access altogether, or apply a curfew during peak hour periods.

### **3.4. Implementing User-pays Principle**

3.4.1. 'User-pays' is a foundational principle to guide downstream policies and strategies to ensure sustainability and adequate funding support for urban transport systems within Dar es Salaam.

3.4.2. For instance, road pricing charges motor vehicles for use of the road infrastructure and is aimed at restoring cost equity to the use of infrastructure within a city. It levies a cost against all road users to reflect the cost of providing the infrastructure and the cost of damage to assets owned by society.

3.4.3. It specifically has two main aims:

- 1) that it targets road use (not vehicle ownership) levying a charge to pay for external cost of providing road facilities (thereby reducing direct cost to society as a whole) and
- 2) that it influences behaviour and mobility choice to reduce inefficient and environmentally negative travel choices and will reduce the indirect costs of environmental damage and poor health outcomes.

3.4.4. Road charging is also a useful tool for regulators to directly influence behaviour (travel choice), regulate road use, manage traffic congestion and recoup costs of road building and maintenance. It can also provide a sustainable revenue stream for reinvestments into an efficient urban transport network such as supporting public transport and NMT forms of travel which help reduce dependency on car travel.

### **3.5. Taking a Participatory Approach**

3.5.1. Bold and innovative policies must be adopted to meet the considerable challenges of a developing city. It is critical to avoid complacency which will see development passively guided by events rather than pro-active policies designed to forge a better future.

3.5.2. While policymakers must exercise leadership, some decisions may be unpopular and will require extensive community consultation and explanation to those affected. All efforts should be made to achieve community consensus, exercising sensitivity to the impacts on vulnerable groups within society.

3.5.3. While leadership guides the way, policy implementation should be based around realistic and implementable frameworks, which can be achieved through community participation and input, which also helps to secure community goodwill and consensus.

### **3.6. Managing Risks and Constraints**

3.6.1. All planning and policymaking processes face risks and constraints, underlining the need to



plan and prepare to manage these risks. Key risks are identified as follows:

- 3.6.2. **Policy does not translate into action** – avoiding this well-known pitfall will require strong central coordination and accountability with a high degree of coordination at the local implementation level.
- 3.6.3. **Changing and unexpected circumstances frustrate the plan** – adaptive strategic plans instead of prescriptive master plans will help policymakers to adapt more readily to changing circumstances. Having a clear view of objectives in a strategic plan will help prioritize actions toward reaching goals.
- 3.6.4. **Conflict of interest/corruption** – Processes must ensure accountability, transparency and promote good governance. Political patronage should also be avoided. Large infrastructure projects may attract corruption due to factors of financial scale, political weight and monopolies. Corruption undermines a project's political sustainability, presents a reputation risk for promoters and investors and is an assault on sound planning and social responsibility. Conflicts of interest will erode project efficiency and distort sound planning principles.
- 3.6.5. **Energy security** – is a key concern for the future requiring a focused risk analysis on the impacts and effects of rising energy costs. It will impact both on where people choose to live, their travel choice (greater demand on public transport services) and on the cost of operating public transport.
- 3.6.6. **Accountability and risk management** - Accountability holds organizations accountable for their performance while risk management refers to allocating risk where it is best able to be managed. Where effective accountability and risk management are lacking, the result will be poor service delivery, financial collapse and/or one of the players shouldering obligations they cannot bear.
- 3.6.7. **Political interference** - Regulatory independence provides transparent rule that builds industry confidence (and is less influenced by discretionary power). An autonomous system manager provides an integrative body to manage the transport network in an efficient manner according to measurable (and politically set) objectives.
- 3.6.8. **Community consultation** - while governments must lead and set the agenda for reform and direction, transport infrastructure must at a local level, be demand-driven. Where changes impact local communities, these communities must become involved at an early stage in the process of developing infrastructure solutions.

### **3.7. Ensuring Social Equity**

- 3.7.1. In principle, public transport services should aim to recover costs, through operating at high efficiency and maximizing revenue opportunities. As a commercially viable business it should aim to be free of external subsidy, setting appropriate service levels and market sensitive fare levels.
- 3.7.2. However, passenger fares must be affordable for the majority of citizens to improve accessibility, to be able to capture lower income groups and allow the system to provide a greater social benefit. This can be accomplished either through an external subsidy where the operator is compensated for the proportion of revenue sacrificed under a social fare structure, or through an internal cross subsidy to support discounts applicable to disadvantaged groups.
- 3.7.3. Transport access and mobility are critical in providing opportunity for citizens at every level of society to be part of the society and its benefits. Policies must take into account respect for the elderly, the infirm and disabled; and providing essential access to education and work; services and social opportunities.





3.7.4. Under the current BRT system management model, the business-risk will be borne by government (DART Agency) where revenue is separated from operator's cost structures. Bus operators should be engaged through a commercially viable business model and held to account for standards of service delivery through a managed performance-based contract. Such a contract gives the operator a sustainable business and the system manager a strong hand to manage service quality.

3.7.5. Where the government wishes to reduce fares further (below financial viability for DART Agency) it will need to compensate any subsequent revenue shortfall. Political decisions on fare levels should not be taken in isolation from the market mechanisms that affect the cost of operations.

### **3.8. Developing Integration**

3.8.1. Integration must increase efficiency and add value and is more than the interweaving of different components so they work together; it is where multiple parts and actions working together to deliver a result which is greater than the sum of its parts.

3.8.2. A good example is the integration of urban housing and business and commercial development and transport, where transport supports the development and the development in turn, supports transport.

3.8.3. Transit oriented-development (TOD) is a term used where housing, transport and employment are integrated, reducing travel demand (by housing people close to work and services) and improving access.

3.8.4. Increasing densification of housing and mixed use development along major transit corridors is needed to create efficient travel patterns (such as the BRT along Morogoro Rd) as it places many trip origins and destinations along one corridor.

3.8.5. Areas of extensive urban sprawl along the major radial corridors are difficult and expensive to service and will significantly increase traffic density along corridors. Creating affordable housing options close to transit nodes will discourage urban fringe growth.

3.8.6. Integrated transport networks can also include safe cycling and walking options to improve access to local services and also connect to the wider public transport network.

3.8.7. Strategic policy decisions need to be made on urban transport and development; the vision, organization, coordination, sustainability, affordability and access, based on the vision and framework outlined in the Dar es Salaam Urban Development Plan (to be developed by Ministry of Lands, Housing and Human Settlement).



## 4. Policy and Strategy

Policy and Strategy	Timeline	Involved Agencies
<p><b>4.1. Policy 1: Enhance Coordination and Planning Capability</b></p> <p>To improve planning capability of the urban transport sector and coordinate development between responsible agencies and stakeholders including developers.</p> <p><b>Strategy 1(a):</b> Establish <b>Executive Planning and Coordination</b> mechanism through a single umbrella organization with representatives from key government agencies of all urban transport services.</p> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>▪ Establish the Dar es Salaam Urban Transport Authority (DUTA) to develop and implement strategic urban transport policy, to plan, coordinate and assign responsibilities and develop financial budget allocation plans.</li> <li>▪ Create a specialized institute for urban transport planning (National Centre of Transport Studies-NCTS) to assist DUTA</li> </ul> <p><b>Strategy 1(b):</b> Reorganize and establish where necessary, <u>the executing agencies</u> responsible for implementation and management.</p> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>▪ Establish a specialized unit: the <b>Dar es Salaam Roads and Traffic Agency (DRTA)</b> to take responsibility for roads management; traffic control facilities and road safety facilities under DUTA.</li> <li>▪ Establish the <b>Dar es Salaam Urban Development Agency (DUDA)</b> to guide the future urban regeneration and implement the plan for land-use, especially along BRT Corridor.</li> </ul>	<p>Short-term</p> <p>Short-term</p> <p>Mid-term</p> <p>Mid-term</p>	<p>PMO-RALG</p> <p>MOT /NIT</p> <p>PMO-RALG (DUTA), MOT, MOW, TANROADS, Traffic Police</p> <p>PMO-RALG (DUTA), MOLHSD, LGAs</p>



Policy and Strategy	Timeline	Involved Agencies
<p><b>4.2. Policy 2: Improve Traffic Management and Road Safety</b></p> <p><b>Strategy 2(a): Comprehensive Traffic Management and Control</b></p> <p>Traffic management and control will be carried out by two agencies, being: 1) the <b>Dar es Salaam Roads and Traffic Agency (DRTA)</b> to integrate this function with road management and traffic control planning; and 2) the <b>Traffic Police</b> for daily control of traffic and operation of the <b>Traffic Control Centre</b>.</p> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>▪ <b>Assess</b> the functionality of the existing traffic related facilities in Dar es Salaam.</li> <li>▪ Develop <b>Short-term Measures</b> to address urgent areas of traffic conflict; bottlenecks; road maintenance and road safety issues and estimate funding requirements in Dar es Salaam.</li> <li>▪ Develop <b>Arterial Roads and Streets Classification, Design Guidelines, and Standards</b> to include public transport and NMT provision (BRT, cycling and walking).</li> <li>▪ Develop a <b>Traffic Management Plan (TMP)</b> including signaling system improvement program to facilitate the BRT in Dar es Salaam</li> <li>▪ Develop an integrated traffic control system supported by a <b>Traffic Control Centre (TCC)</b> in Dar es Salaam.</li> <li>▪ Interactive with Policy and Strategy 4(c) develop a technically feasible <b>Road Pricing Mechanism</b>.</li> </ul> <p><b>Strategy 2(b): Parking Management and Control</b></p> <p>Use demand management and stricter controls to solve ill-discipline and irregular parking practices.</p> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>▪ Conduct Parking Demand and Facility Survey</li> <li>▪ Establish a <b>Strategic Parking Policy</b> that balances the competing forces of traffic and parking requirements.</li> <li>▪ Local municipalities will develop <b>Parking Control and Management Plans</b> based on local conditions including signage and markings to regulate parking within their local</li> </ul>	<p>Short-term</p> <p>Short-term</p> <p>Short-to term    Mid-term</p> <p>Short-to term    Mid-term</p> <p>Mid- to term    Long-term</p> <p>Long-term</p> <p>Short-term</p> <p>Short-term</p> <p>Short-term</p>	<p>PMO-RALG (DUTA), TANROADS, LGAs, Traffic Police</p> <p>PMO-RALG (DUTA), TANROADS, LGAs, Traffic Police</p> <p>PMO-RALG (DUTA), TANROADS, MOW, LGAs, DART</p> <p>PMO-RALG (DUTA), TANROADS, LGAs, Traffic Police</p> <p>DRTA, DUTA</p> <p>PMO-RALG (DUTA), TANROADS, MOW, RFB, DRTA</p> <p>DUTA / LGAs</p> <p>DUTA / LGAs</p> <p>DUTA / LGAs</p>



jurisdiction.		
<ul style="list-style-type: none"> <li>The municipalities may <b>engage private contractors</b> to manage parking revenue collection and to regulate and supervise compliance to parking regulations.</li> </ul>	Short-term	DUTA / LGAs
<p><b>Strategy 2(c): Improve road safety</b></p> <p>Adopt a complete approach to address road safety issues targeting institutional responsibility, human and behavioural factors, vehicle standards and environmental road conditions.</p> <p><b>Action:</b></p>		
<ul style="list-style-type: none"> <li>Investigate road accident records and determine causal factors and priority areas and urgent short term urgent measures to curb road accidents and improve road safety.</li> </ul>	Short-term	PMO-RALG (DUTA), TANROADS, MOW, Traffic Police
<ul style="list-style-type: none"> <li>Develop a <b>Strategic Road Safety Improvement Plan</b> and funding allocation to comprehensively address road safety issues over the longer term.</li> </ul>	Short-term	PMO-RALG (DUTA), TANROADS, MOW, Traffic Police, LGAs
<ul style="list-style-type: none"> <li>Develop a strategy to reform vehicle safety checking regime; quality of vehicle inspections, accountability and enforcement.</li> </ul>	Mid-term	PMO-RALG (DUTA), Traffic Police
<ul style="list-style-type: none"> <li>Implement <b>Human Behaviour Campaigns</b> (Road Safety Campaigns, Safety Education at schools, etc.) and <b>enforcement</b>.</li> </ul>	Short- to Mid-term	PMO-RALG (DUTA), TANROADS, MOW, Traffic Police, LGAs



Policy and Strategy	Timeline	Involved Agencies
<p><b>4.3. Policy 3: Create Pricing Mechanisms as A Transport Demand Management Measure</b></p> <p><b>Strategy:</b> Develop a road pricing scheme to create equity and balance in the modal transport mix through appropriate cost structures that reflect overall costs. Use road pricing to manage road use, recoup costs and provide revenues for reinvestments into urban transport services.</p> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>▪ Prepare a strategy for <b>reforming the motor vehicle taxation and road user related charges.</b></li> <li>▪ Develop pricing structures to the objectives of a sustainable urban transport policy and generate revenue for efficient transport options.</li> <li>▪ Implement the “<b>User Pay Principle</b>” – road charging and car parking levies, and appropriate fare structures for public transport, balancing affordability with the real cost of service provision.</li> <li>▪ Sources of funding to be considered, and to be specifically and defined in the policy include: Road pricing, Development levy (levies a cost against developers for supporting infrastructure), Increase in land &amp; property tax, Import tax (increase on cars as part of income redistribution scheme, buses can be excluded)</li> </ul>	<p>Short- to Mid-term</p> <p>Mid- to Long-term</p>	<p>PMO-RALG (DUTA), MOF, TRA</p> <p>PMO-RALG (DUTA), MOF, TRA, RFB, LGAs</p>



Policy and Strategy	Timeline	Involved Agencies
<p><b>4.4. Policy 4: Implement TDM and TOD to Address Growth in Private Car Use</b></p> <p><b>Strategy 3(a): Proactive Transport Demand Management</b>            Transport Demand Management (TDM) seeks to control the demand side of transport requiring policies which create incentives or restrictions to manage and regulate private car use. It involves a wide range of measures to improve alternative transport means and measures to influence mobility choices.</p> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>▪ Develop a proactive Transport Demand Management Plan (TDMP) which includes regulations and incentives, pricing strategies and strategies to support efficient transport alternatives such as cycling and walking to stem the car ownership increases.</li> </ul> <p><b>Strategy 3(b): Promote Transit-Oriented Development (TOD) to integrate mobility and transport</b>            Develop land-use plans and urban development guidelines to integrate mixed use development and housing with employment opportunities at transit nodes, to reduce travel demand and improve access.</p> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>▪ Revise land-use policy and associated regulations as a matter of urgency and develop <b>Urban Development Guidelines</b> to include principles of Transit-Oriented Development (TOD) to ensure all new developments are adequately served and supported by sustainable and efficient transport links and integrated with the transport network plan.</li> <li>▪ Take urgent steps to develop <b>Traffic Impact Study Guidelines</b> and conduct Traffic Impact Assessments on major present development applications.</li> <li>▪ In the urban land use plan, increase <b>affordable housing and business opportunities along designated mass transit routes (BRT)</b> to encourage densification and create efficient trip patterns.</li> </ul> <p><b>Strategy 3(c): Provide Efficient And Quality Transport Options</b>            BRT will form the ‘spine’ of the city’s urban transport system. Taking full advantage of the BRT system will require the improvement of a secondary and feeder bus network, thereby improving access and opportunity to social and economic benefits.</p> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>▪ Build BRT network within the Dar es Salaam metropolitan area as a trunk transit system.</li> <li>▪ Build the BRT Phase 1 related infrastructure (Morogoro Road).</li> </ul>	<p>Short-medium term</p> <p>Short term</p> <p>Short-term</p> <p>Mid- to Long-term</p> <p>Short- to Long-term</p> <p>Short-term</p>	<p>PMO-RALG (DUTA)</p> <p>PMO-RALG (DUTA), MOLHSD, LGAs</p> <p>PMO-RALG (DUTA), LGAs</p> <p>PMO-RALG (DUTA), MOLHSD, LGAs, DUDA</p> <p>PMO-RALG (DUTA), DART, TANROADS</p> <p>PMO-RALG (DUTA), DART</p>



<ul style="list-style-type: none"> <li>▪ Progressively develop the BRT network according to five phases of the Urban Transport Master Plan<sup>2</sup></li> <li>▪ Build and improve transit links and quality of service delivery including BRT, Bus, Taxi and NMT (walking /cycling) options including Park &amp; Ride strategy integrated with BRT</li> <li>▪ Invite the existing bus operators as part of the integrated transit services.</li> <li>▪ Improve ‘public realm’ such as streetscapes, pedestrian facilities, and community and public space facilities.</li> </ul>	<p>Mid- to Long-term</p> <p>Mid- to Long-term</p> <p>Short- to Mid-term</p> <p>Mid- to Long-term</p>	<p>PMO-RALG (DUTA), DART, TANROADS</p> <p>PMO-RALG (DUTA), DART, TANROADS, LGAs</p> <p>PMO-RALG (DUTA), existing bus operators</p> <p>PMO-RALG (DUTA), DART, TANROADS, LGAs</p>
<p><b>Strategy 3(d): Manage Transport Demand Through Market Mechanisms</b></p>		
<p>Implement measures to influence mobility choices, manage and reduce vehicular travel demand and restore balance to city transport.</p>		
<p><b>Action:</b></p>		
<ul style="list-style-type: none"> <li>▪ Adopt <b>Parking Policies</b> that restrict parking availability and apply higher costs to regulated city parking.</li> </ul>	<p>Short-to Mid-term</p>	<p>PMO-RALG (DUTA), LGAs, DRTA, Traffic Police, TANROADS</p>
<ul style="list-style-type: none"> <li>▪ Implement a <b>Road-User Charge</b> for motorists aimed at regulating traffic and provide incentives for more efficient travel modes.</li> </ul>	<p>Long-term</p>	<p>PMO-RALG (DUTA), DRTA</p>
<ul style="list-style-type: none"> <li>▪ Restrict car access to strategic locations where good alternative options exist.</li> </ul>	<p>Sort-to Mid-term</p>	<p>PMO-RALG (DUTA), DRTA, Traffic Police</p>

<sup>2</sup> The Dar es Salaam Transport Policy and System Development Master Plan 2008 JICA



Policy and Strategy	Timeline	Involved Agencies
<p><b>4.5. Policy 5: Improve Transport Networks to Improve Access and Social Equity</b></p> <p><b>Strategy 5(a): Ensure efficiency and affordability through an improved public transport business culture</b></p> <p>Transport must be affordable to ensure wide access and availability, but also reflect the cost of providing the service. This requires a commercial approach to managing public transport with built-in incentives to perform.</p> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>▪ Manage the network to high level of efficiency to create a competitive costs regime to enable affordable fares.</li> <li>▪ Operators provide services under an accountable and commercially-based business model to ensure viability and sustainability, and managed cost of operation.</li> <li>▪ Pricing policies to target disadvantaged users employing cross-subsidy where necessary.</li> <li>▪ Source funding to support social fare levels where necessary to meet the wider social or political objectives as determined by governments.</li> <li>▪ Improve NMT options to improve opportunity for alternative means of travel.</li> </ul> <p><b>Strategy 5(b): Improve local access to public transport, schools, employment and services, and address disadvantage</b></p> <p>Transport is a community issue affecting the quality of daily life. Transport improvements must be made with a clear understanding of the needs of the community and disadvantaged groups.</p> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>▪ Conduct local surveys and engage local communities close to BRT stations on access requirements, issues, and risks.</li> <li>▪ Plan and implement measures to improve the design and quality of local access roads, walkways and NMT facilities to major transit corridors and local centers.</li> <li>▪ Commence with measures to improve quality of access in areas within sphere of influence BRT stations to improve the integration with BRT and extend the reach of BRT into local communities.</li> <li>▪ Promote NMT modes and public transport with public campaigns to create public awareness and indicate policymaker's commitment to sustainable, efficient and quality public transport; including attracting car users to public transport.</li> </ul>	<p>Short- to Mid-term</p> <p>Short- to Mid-term</p> <p>Mid- to Long-term</p> <p>Mid- to Long-term</p> <p>Mid- to Long-term</p> <p>Short-term</p> <p>Short- to Mid-term</p> <p>Mid-term</p> <p>Mid- to Long-term</p>	<p>PMO-RALG (DUTA), SUMATRA, Operators</p> <p>PMO-RALG (DUTA), SUMATRA, Operators</p> <p>PMO-RALG (DUTA)</p> <p>PMO-RALG (DUTA), MOF, RMF</p> <p>PMO-RALG (DUTA), LGAs, TANROADS</p> <p>PMO-RALG (DUTA), LGAs</p> <p>PMO-RALG (DUTA), LGAs</p> <p>PMO-RALG (DUTA), LGAs</p> <p>PMO-RALG (DUTA), LGAs</p>





Policy and Strategy Detail	Timeline	Involved Agencies
<p><b>4.6. Policy 6: Improve International Attractiveness</b></p> <p><b>Strategy 6(a): Improve quality of transport services provided to international visitors and travelers</b></p> <p>Creating a favourable tourism and business environment is critical to development and growth of Dar es Salaam as an international gateway. Improving transport links to the International airport and improving transport options for overseas visitors is an important function of urban transport in the city.</p> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>▪ Assess international travel needs and connections to International Airport</li> <li>▪ Extend a BRT link from the city to the airport.</li> <li>▪ Relocate TRL railway terminal station close to the airport and redevelop the existing rail station to a multi-modal facility level</li> <li>▪ Improve public amenity and enhance the public realm in downtown Dar es Salaam including improvements to streetscapes, vegetation, pedestrian priority and a scenic cycle route within the CBD area and extended to the Msasani peninsula.</li> </ul> <p><b>Strategy 6(b): Improve Freight Efficiency</b></p> <p>Efficient freight movement is an integral part of Dar es Salaam’s role. A high level of freight movement to and from the port has significant impacts on road conditions, which requires improved heavy vehicle management.</p> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>▪ Perform a dedicated study to assess port freight movements and container management practices to determine strategies that can be employed to manage freight movement times and practices to reduce impacts on the urban environment.</li> <li>▪ Develop ICD (Inland Container Depots) and its access road/railway.</li> <li>▪ Grade separation at major intersections along Nelson Mandela Road.</li> <li>▪ Development of priority roads for heavy vehicles.</li> </ul>	<p>Short-term</p> <p>Mid-term</p> <p>Mid- to Long-term</p> <p>Mid-term</p> <p>Short-term</p> <p>Short-term</p> <p>Short- to Mid-term</p> <p>Mid- to Long-term</p>	<p>PMO-RALG (DUTA)</p> <p>PMO-RALG (DUTA), DART, TANROADS</p> <p>PMO-RALG (DUTA), TRL</p> <p>PMO-RALG (DUTA), TANROADS, LGAs</p> <p>PMO-RALG (DUTA), MOT (JICA National Freight Study)</p> <p>MOT, TRA, TAZARA, RAHCO, TANROADS, PMO-RALG (DUTA)</p> <p>TANROADS, MOW, PMO-RALG (DUTA)</p> <p>TANROADS, MOW, PMO-RALG (DUTA)</p>



<ul style="list-style-type: none"><li>▪ Develop road pricing policies to implement user-pay principle and assign revenues to improving port traffic infrastructure, specifically employing tolls and weight inspection facilities along Nelson Mandela Rd and Morogoro Rd.</li></ul>	Mid- to Long-term	TANROADS, MOW, PMO-RALG (DUTA)
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Policy and Strategy Detail	Timeline	Involved Agencies
<p><b>4.7. Policy 7: Improve Environmental Outcomes</b></p> <p><b>Strategy: Improve Motor Vehicle Standards</b></p> <p>Defective motor vehicles pose a great risk to passenger and public safety emitting smoke and fumes that degrade air quality and degrade the environment and increase the risk of serious accidents. Reform of vehicle standards and safety checks will be prioritised to improve accountability and enforcements of safe standards.</p> <p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>▪ Enhance the capacity of motor vehicle inspection by privatizing the function of periodic inspections through a performance-based contract, with the cost of inspection fully funded by vehicle owners.</li> <li>▪ Enhance roadside checking for defective vehicles and increase penalties for operating defective vehicles.</li> <li>▪ Develop appropriate policies for car import restriction and age limits on public passenger carrying vehicles.</li> <li>▪ Establish motor vehicle repair shop standards and enforce environmental regulations.</li> </ul>	<p>Short-term</p> <p>Short-term</p> <p>Short-term</p> <p>Mid- to Long-term</p>	<p>MOT, SUMATRA, MOHAS, Traffic Police</p> <p>Traffic Police</p> <p>Ministry of Industry, Trade, and Marketing MOF</p> <p>Ministry of Industry, Trade, and Marketing, Traffic Police</p>



Policy and Strategy Detail	Timeline	Involved Agencies
<p><b>4.8. Policy 8: Ensure Governance and Probity</b></p> <p><b>Strategy: Improve Standards of Governance and Accountability</b>            Serious social, economic and environmental consequences can result from practices of poor governance, lack of accountability and transparency, corruption and conflicts of interest.</p> <p>Service efficiency can also be severely eroded through distortions in accountability or sound decision-making.</p> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>▪ All public service delivery contracts, functions and business provided by the private sector will be subject to competitive tender or a transparent negotiation process where existing operators are reassigned or reorganized on services currently performed.</li> <li>▪ A system of ‘checks and balances’ will be established in all public governance structures, separating strategic policymaking and regulation from day to day management and service delivery.</li> </ul>	<p>Mid-term</p> <p>Mid-term</p>	<p>PMO-RALG (DUTA), SUMATRA</p> <p>PMO-RALG (DUTA)</p>



Policy and Strategy Detail	Timeline	Involved Agencies
<p><b>4.9. Policy 9: Implement Supporting Infrastructure</b></p> <p>Strategy: Adopt infrastructure recommendations of the 2008 Transport Policy and System Development Master Plan</p> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>▪ CBD traffic management plan and short term mitigation measures</li> <li>▪ Widening of New Bagamoyo road (including Selander bridge bypass)</li> <li>▪ Implement urgent intersection improvement projects – Ubungo intersection, Tazara intersection and Gerezani area (Bandari intersection)</li> <li>▪ Kigamboni Bridge/ ferry improvement</li> <li>▪ Bus Network Plan implementation over five phases including the reassignment of the Ubungo-Tabata Rail corridor</li> <li>▪ Heavy loaded roads (bypass behind Tabata area) and freight handling facilities &amp; tolling scheme</li> <li>▪ Refurbish the existing Central Railway Station to a BRT station and multi-modal city transport hub (Taxis/cycle hire) providing direct airport shuttle services via the BRT to the airport.</li> <li>▪ Relocate the existing TRL terminal station to outside Nelson Mandela Road (close to the existing airport) and connect to the City and Airport by BRT.</li> </ul> <p><b>Actions not listed in the Master Plan :</b></p> <ul style="list-style-type: none"> <li>▪ Relocation of Ubungo Intercity bus terminal</li> <li>▪ Rehabilitation of Dar es Salaam Corniche on Ocean Rd</li> <li>▪ Local road upgrading through DMDP</li> </ul>	<p>Short-term</p> <p>Short-term</p> <p>Short-term</p> <p>Short-term</p> <p>Short- to Mid-term</p> <p>Short-to Mid-term</p> <p>Mid-term</p> <p>Mid-term</p> <p>Short-term</p>	<p>PMO-RALG, LGAs, TANROADs, Traffic Police</p> <p>TANROADs</p> <p>TANROADs</p> <p>TANROADs, DART</p> <p>TANROADs</p> <p>PMO-RALG (DUTA), DART, TRL</p> <p>PMO-RALG (DUTA), DART, TRL</p> <p>PMO-RALG, DART, LGAs</p>



Policy and Strategy Detail	Timeline	Involved Agencies
<p><b>4.10. Policy 10: Diversify Development Funds and Improve Revenue Collection</b></p> <p><b>Strategy: Diversify Sources of Development Funds</b></p> <p>2008 Transport Policy and System Development Master Plan suggests 4,000 million USD of the road improvement project for coming two decades. Considering limited development investments by responsible agencies, a new funding mechanism should be introduced.</p>		
<p>Action:</p> <ul style="list-style-type: none"> <li>▪ Prepare a long-term investment plan for the improvement of urban transport infrastructure and authorize it by responsible agencies. (e.g., Some development projects proposed in a long-term investment plan are incorporated into the MOT’s transport sector investment plan.)</li> <li>▪ Analyze the currently available development budget for infrastructure improvement in Dar es Salaam/Tanzania and propose new source of the development funds. (e.g., soft-loan from external agencies and PPP)</li> <li>▪ (Soft-loan from external agencies) Conduct necessary studies to prepare a request form for the specific urgent development projects.</li> <li>▪ (PPP) Review the existing legal framework and propose PPP regulation and incentive mechanism for private investors.</li> <li>▪ (PPP) Enact PPP regulation and conduct necessary studies to identify PPP supported projects.</li> </ul> <p><b>Strategy: Enhance Local Revenue</b></p> <p>Considering scarce development budget by local governments, the revenue of local governments should be carefully reviewed and existing tax collection mechanism should be upgraded and new taxation scheme should be introduced.</p> <ul style="list-style-type: none"> <li>▪ Analyze the existing tax administration system and propose implications to enhance existing local revenue: property tax, city service levy and billboard tax.</li> <li>▪ Enact necessary regulations (e.g., taxpayer’s identification/registration, introduction of new payment options)</li> <li>▪ Analyze the possible source of development funds and propose new local taxation: land tax, development levy.</li> <li>▪ Enact necessary law/regulations</li> </ul>	<p>Short-term</p> <p>Short-term</p> <p>Short-term</p> <p>Short-term</p> <p>Mid-term</p> <p>Short-term</p> <p>Mid-term</p> <p>Short-term</p> <p>Mid-term</p>	<p>PMO-RALG (DUTA), MOW, MOT</p> <p>PMO-RALG (DUTA), MOW, MOT</p> <p>PMO-RALG (DUTA), MOW, MOT</p> <p>PMO-RALG (DUTA), MOF</p> <p>PMO-RALG (DUTA), MOF</p> <p>PMO-RALG (DUTA), LGAs</p> <p>PMO-RALG (DUTA), LGAs, MOF</p> <p>PMO-RALG (DUTA)</p> <p>PMO-RALG (DUTA), MOF</p>



## Appendix A: Background and Context of Urban Transport in Dar es Salaam

### Introduction

- A-1. Dar es Salaam is Tanzania's most important city for both business and government, being the nation's major commercial, administrative, transportation and industrial centre. While the national 2009- 2010 GDP growth is 6.4%, in Dar es Salaam the annual GDP growth rate is 18.3% in real terms. The city contains unusually high concentrations of trade and other services and manufacturing compared to other parts of Tanzania with about one half of Tanzania's manufacturing employment located in the city despite it holding only about ten percent of Tanzania's population. The Dar es Salaam city's economy constitutes of the formal and the informal sectors, with the latter employing the largest population of the city residents.
- A-2. Most industries in Dar es Salaam are small and medium manufacturing goods especially for domestic markets. The industries located in Dar es Salaam include: textiles, breweries, distilleries, beverages, bags, cigarettes, cement, paints, pharmaceuticals, plastic, metal products, steel, grain milling, chemicals, timber and wood products, confectionery, food products, petroleum products, edible oil, dairy products, domestic utensils, tea blenders, batteries, radiators, body building, printing and publishing, paper products, garments, electricity generation and glass, electrical contracting as well as civil works construction.
- A-3. The last national census report of 2002, recorded the city population as 2,497,940 people with a growth rate of 4.3% represented by Kinondoni 1,083,913; Ilala 634,924; Temeke 768,451.
- A-4. The National Bureau of Statistics has projected a diminishing growth rate from 4.3% in 2002 – 2003 to 3.8% in 2010 with the 2010 estimated population of Dar es Salaam being 3,118,132.

### The present urban transport economy

- A-5. The increasingly difficult urban transport situation in the metropolitan area, characterized by a high degree of traffic congestion, constrained resources for urban transport and deteriorating air quality, lies in the forefront of concerns. Urban transport problems are borne out of a set of complex and diverse environmental and economic factors and profound institutional failures.
- A-6. Due to a low level of car ownership and high dependence on public transport, the problems of public transport are synonymous with the problems of urban transport because public transport vehicles (dala dala) serve such a large proportion of total trip demand. The present public transport system is highly unsatisfactory from the perspectives of all stakeholders: the public, the city, the operators and the users.
- A-7. Fuel price and other cost increases have impacted on vehicle running costs with a flow-on to public transport fares of 20% nominal increase from 2007-2011.
- A-8. Municipalities depend largely on central government budgets for local road construction and maintenance, yet the central government has a limited budget to solve problems or address issues of transport.
- A-9. There is a constant friction between cost of bus operation and passenger's ability or willingness to pay. Where transport pricing is deemed to be 'affordable' it may be too low for the commercial operation of the daladala services, resulting in a challenging financial



position for drivers and bus owners, compelling them towards aggressive behaviour, lower standards of service and vehicle maintenance causing safety concerns and vehicle breakdowns. The large business risk and marginal returns deter operators from purchasing larger and more efficient vehicles. The labour condition under which drivers are employed or contracted also attracts low-skilled workers struggling to survive and delivering poor service levels.

- A-10. The government is now addressing the growing transport problems with the introduction of the Bus Rapid Transit (BRT) system with key administrative and institutional reforms serving to induce a modal switch and improve mobility.

### **The key role of urban transport in Dar es Salaam**

- A-11. Dar es Salaam city and the wider municipalities are the principal economic powerhouse for the national economy and is an important gateway for Tanzania and neighbouring countries to world markets.
- A-12. Transport is a key element of national and city prosperity, impacting on productivity and economic growth. Efficient and effective urban transport improves commercial and labour market efficiency through the efficient movement of goods, services and people. It also makes the city an attractive centre for investment and growth.
- A-13. Urban mobility is fundamental to making Dar es Salaam a liveable city; a city that provides access and opportunity equally to all citizens, to improve living conditions health and well-being; reduces commuter stress and provides opportunity and access to social, employment, education and services.
- A-14. Given this situation, moving people must take precedence over the need to move vehicles. Proactive efforts are needed to improve public transport and manage transport demand with steps taken to influence citizens' mobility choices; to create a modal balance and ensure efficient utilization of road space.
- A-15. A primary focus needs to be on efficient public transport networks to mitigate traffic growth, with a level of quality and accessibility that makes it a viable alternative to private car use.
- A-16. A comprehensive and holistic approach is required comprising a multi-faceted and integrated urban transport system, established on a sustainable and commercially viable footing, and governed by a competent and well coordinated institutional framework.

### **Urban governance**

- A-17. The major failure in urban transport is the lack of direct responsibility for urban transport as a function, and a lack of a defined urban transport policy.
- A-18. A fragmented and ad-hoc decision making planning process and lack of integrated planning and coordination between levels of government and departmental disciplines, creates a gap between concrete needs of society and actual development and a lack of transparency and accountability.
- A-19. Poor planning processes are also principal causes for the failure to adequately deliver on policy objectives. This failure is further worsened by unclear lines of responsibility between planning and implementation functions.
- A-20. The regulatory system governing transport providers (operators) has resulted in a flawed business model, with operators carrying disproportional risks and subsequently delivering poor service levels and poor public transport outcomes.





A-21. It is critical that the institutional framework be created to improve management and coordination of all facets of urban transport and development.

### **Road infrastructure**

A-22. All transport in Dar es Salaam is almost exclusively by road. Roads are used by mixed traffic of different dimensions (motorized and non-motorized, heavy and small) and for many purposes such as freight and commuting, etc. Only major roads are paved and access to local areas is predominantly through poor quality unpaved roads or walking tracks.

A-23. The lack of, or poorly maintained physical infrastructure in many residential areas affects safety, mobility and accessibility and results in residents walking long distances through poorly maintained access paths and roads and causes extra stress on daily life. Poor drainage and flooding during rain periods also cause traffic congestion.

A-24. Presently no toll roads exist nor is there any user-charges for road infrastructure, placing the full cost burden of infrastructure on government budgets.

A-25. Limited and poor quality bus or taxi bay facilities exist to provide safe and convenient boarding and alighting conditions.

A-26. Road Design Standards are lacking, including a road hierarchy plan to improve road prioritization and planning. A design standard for all new roads should adopt cross section dimensional standard for future BRT and improved pedestrian and cyclist friendly design standards for urban arterial roads/streets.

### **Traffic demand and congestion**

A-27. Vehicle ownership is increasing with the current 74,000 private vehicles located within the metropolitan area expected to increase to 171,000 by year 2015, and nearly 515,000 by year 2030, tripling vehicle ownership from 25 cars per 1,000 persons in year 2007, to 89 cars per 1,000 persons by year 2030.

A-28. The Household Interview Survey was conducted in Dar es Salaam Transport Policy and System Development Master Plan (2008, JICA) to understand the current urban transport demand and characteristics in Dar es Salaam. The total travel demand generated by the residents in Dar es Salaam is estimated at 2.9 million trips per day in 2007. Trip rate per resident is calculated at 1.2 (including walk trips) and 0.9 (excluding walk trips).

A-29. In Dar es Salaam, around 60% of the total trips in the city are made by public transport (80% when walk trips are excluded) with private modes of transport accounting for only 13% of the total trips (17% when walk trips are excluded).

A-30. Residents in Dar es Salaam spend on average 82 minutes per trip for commuting/travelling with average travel time of buses being significantly higher than other modes of transport (estimated at average 95 minutes), whereas average travel time by cars is estimated at average 62 minutes.

A-31. By the year of 2030, the total travel demand in Dar es Salaam is projected to double and is estimated at 7.5 million trips per day. The number of car users will significantly increase in the next 20 years and the share of trips made by private mode of transport is expected to increase to 28% of the total trips (excluding walk trips). Traffic simulation analysis indicates that the average travel speed of the vehicles in Dar es Salaam that is 25.8 km/h in 2007 and will decrease significantly to 8.5 km/h in 2030 if no improvement projects are implemented.

A-32. Recent studies indicate that a lack of capacity in the present road configuration and network patterns along with poor traffic control and management are the major causes of



the current traffic congestion problem. In addition, the increasing population and longer travel distance due to rapid expansion of housing areas in the outskirts of the city, are making traffic conditions worse, causing severe traffic congestion on the trunk roads especially in morning and evening peak periods.

- A-33. Lengthy travel times and delays are commonplace and traffic congestion is arguably the most predominant complaint of the city dwellers and has a major impact on productivity and the economic performance of the city.
- A-34. A tidal flow management technique has been implemented as a pilot project in 2007 but a large number of fatalities resulted due to poor signage and management of the traffic flow changes.

### **Parking**

- A-35. There are critical limits to the capacity of the downtown area to absorb high levels of car parking demand resulting in most urban spaces being used for unregulated and disorganized parking.
- A-36. The shortage of parking spaces forces a large number of vehicles to park on roadsides, lowering the road capacity, and irregular and disorganised parking practices hinder the smooth traffic flow in the city area. Vehicles searching for available parking cause unnecessary traffic circulation.
- A-37. Irregular parking and street vendors encroaching into pedestrian and common areas often force pedestrians to walk on the roadways, at a risk to their safety.

### **Traffic control**

- A-38. Severe congestion prevails at many intersections on the trunk road network during morning and evening peak periods due to problems related to intersection traffic control. Some traffic signals are not working or working only during a certain period due to a lack of maintenance; some are not properly controlled and some are obsolete.
- A-39. Traffic signals are not programmed to respond to demand but operate by fixed cycle time. Where demand exceeds capacity on any approach, the allocated green time remains the same, resulting in congestion.
- A-40. Non-signalised intersections now require police intervention to manage the intersection.
- A-41. Traffic roundabouts that normally act as a management mechanism for intersections are now saturated from every direction, and cease to be an effective tool to balance the flow of traffic from competing directions.
- A-42. Given the situation some roundabouts may need replacing with controlled and demand responsive signals to improve intersection management. Coordination of signals according to a traffic management plan is essential to manage the overall flow of traffic through the city.
- A-43. Improved traffic control systems are required as there are presently only a limited number of signalized intersections, some of which do not operate during certain periods. It would also alleviate the need for manual traffic control by traffic police officers who either replace non-functioning signals or attempt to crisis-manage intersection when traffic density exceeds the capacity of the signal to be effective.
- A-44. Traffic control devices, such as signs, signals, and markings, regulate, warn and guide the traffic and must be uniform and consistent and be compliant with regional and international standards. Many of the signs, pavement markings and guidance equipment in the city are in



poor condition or lacking altogether with a large effect on driver awareness, discipline and behaviour.

### **Road safety**

- A-45. Road accidents, deaths and injuries incur a heavy toll on society in terms of economic costs, lost production, social burden and poverty. The direct economic cost of roads deaths and injuries nationally is estimated at approaching \$100 mill. annually and represents a 1-2% loss to the national economy.
- A-46. Road accidents nationally are reported to be increasing by 7.2% annually since 1974 and in 2009 national statistics showed that the deaths from road accidents alone exceeded national population growth and now rivaled Malaria and HIV/AIDS as a major killers
- A-47. Dar es Salaam accounts for about half of total accidents nationwide, and for the first time since 2008 has fallen slightly in percentage terms; either due to the road safety campaign by police targeting the causes of accidents in Dar es Salaam or alternatively, that due to increasing car ownership and better roads (higher speeds), the national average has increased.
- A-48. The Ministry of Infrastructure Development has analysed several reasons for road accidents in the country citing bad roads, defective vehicles, speeding, weak law enforcement, bad driving and ignorant pedestrians as major causes.
- A-49. Alarmingly the largest proportion of persons affected by road deaths and injury are passengers and non-motorized users, being:
- Vehicle passengers, who include bus passengers, as the single largest victim group account for almost half of annual deaths.
  - Pedestrians and cyclist are the second largest group, representing near 40% of accidents.
  - Drivers, or that proportion of the participants usually noted as being at fault in police records, represent only 11% of average fatalities.
- A-50. A cohesive and integrated approach to road accident amelioration is needed in Dar es Salaam, particularly addressing the risk factors being human (behaviour, discipline awareness and education) vehicular (maintenance and safety standards) and environmental (road and traffic condition, signage and traffic management).

### **Motor vehicle standards and the environment**

- A-51. Poor standards of motor vehicle safety and repair are commonplace affecting standards of service delivery (in case of public passenger vehicles) public safety and causing environmental pollution.
- A-52. Pollution in urban areas includes emissions from vehicles, often made worse by old and poorly maintained vehicles causing respiratory illness and chronic illnesses. Noise and congestion from cars make community areas unpleasant, unsafe and oppressive places to live. Informal car repair locations and car washes often lack proper waste disposal for oils, detergents and chemicals contaminates streams and waterways.
- A-53. Presently there is a lack of attention to motor vehicle standards and enforcement of proper safety checks. Proper checking and enforcement procedures are not followed. The police carry out an annual campaign for safety checks however the requirements can be easily circumvented resulting in little impact on overall motor vehicle safety.
- A-54. Poorly maintained roads, verges and footpaths cause vehicle damage and safety risks.



## **Public passenger services**

### **Daladala and Vipanyas**

- A-55. Ninety percent of public transport services are provided by privately daladala and vipanya vehicles operating on routes assigned by SUMATRA. A proportion of these services operate illegally and often from unplanned residential areas. Legal operators presently number approximately 6,000-7000.
- A-56. Passengers pay fares according to regulations set by SUMATRA, but there is no integration of services meaning that transferring passengers pay another fare. Fare payment is a constant source of disagreement and conflict.
- A-57. The present system is characterized by poor standards of comfort and safety, convenience and dignity for bus travelers, with a negative impact on city traffic through competitive behaviour by daladala drivers (over speeding, overcrowding and accidents).
- A-58. Poor public transport infrastructure also has an impact on safety and convenience as many of the daladala terminals are in disrepair, with poor lighting, security and cleanliness.
- A-59. The present daladala operating environment causes sharp conflicts, both between employees and employers, between operators and users, and between workers and students. Women, the elderly and disabled also suffer discrimination and abuse in the competition for space and seats on buses. Students suffer discrimination as they are seen as low-value passengers causing student daily stress and increases pressure on families to ensure children can travel to school safely; often at higher cost.
- A-60. Public transport issues rate highly as a concern for citizens who suffer poor travel conditions with long waiting and commute times and high cost of travel relative to income levels (10-20% of income)
- A-61. SUMATRA's control of the industry is tenuous and difficult to regulate, due to the fragmented ownership in the bus industry resulting in it having to regulate a very large number of individual operators.

### **Paratransit modes: Taxis and Bajaji**

- A-62. Taxis operate under the control of local government (municipalities) who collect revenues through taxi license fees.
- A-63. Bajajis (three wheel vehicles that hold two passengers) operate in different localities throughout wider Dar es Salaam but operate purely on an informal basis with little control or jurisdiction. Bajaji use has not been promoted by transport authorities but do improve accessibility, especially for those unable or unwilling to walk long distances to bus stops especially during wet weather when many of the walking tracks are not conducive to easy use.
- A-64. Greater control to ensure safety is required if the Bajaji is to remain as a player in the public transport sphere.

### **Paratransit Modes: Boda Boda Motorcycles**

- A-65. With an increasing fuel costs and traffic congestion comes an increase in motorcycles and the use of motorcycles as 'boda boda' as pillion passenger public transport.
- A-66. While this mode of transport is relatively efficient and useful in areas where access is poor, they carry greater safety risks and can be disruptive to urban traffic flows.
- A-67. Some strengthened policies are required to limit the use of this mode to outer areas and



their use prohibited in the downtown area of Dar es Salaam.

### **Cycling and Pedestrian Facilities**

- A-68. Cycling is a very efficient and low cost transport option which the local population could make greater use of if the safety issues could be addressed. Cycling in mixed traffic is a major safety risk, with limited infrastructure existing for cyclists. The potential for a seafront cycling lane from Downtown Dar es Salaam north to Mbasani Peninsula would be a highly attractive option for both commuters and tourists alike.
- A-69. Walking is a common mode of mobility for many residents. It is highly efficient and has no negative environmental impacts; yet pedestrian facilities have been grossly neglected in the transport sphere. Pedestrian facilities such as footpaths, walkways and access paths are of poor quality, with poor lighting posing a risk of exposed manholes and other hazards to pedestrians.

### **Mass transit development**

- A-70. Since 2005 the city has undertaken planning of the Dar es Salaam Rapid Transit (DART) system being an integrated network of dedicated busways and feeder services that will provide new standard of affordable and high-quality mass transport. It is expected the system will provide travel time savings, improved reliability, and a superior level of customer service. Construction has commenced in 2011.
- A-71. Key features of the system include: segregated bus lanes; level boarding at median BRT stations; integrated fare system and electronic smart –card ticketing; scheduled services and private bus operations under a performance-based contract and sustainable business model supported by DART.
- A-72. The government will finance construction and maintenance of the physical infrastructure, including roads, stations, and depots. The DART Agency will be responsible for overall management of the system including BRT service development, tactical policy and associated management tools, business plan and marketing; as well as scheduling and controlling the bus service.
- A-73. DART is established as a semi-autonomous and capable agency managing the business of the BRT and in this role is a fully commercial and accountable. It effectively will assume the business risk and be able to manage it.

### **Regional transport facilities (airport & seaport)**

- A-74. The Dar es Salaam port serves the nation and the region and represents an important strategic hub and economic strength for Tanzania and the City of Dar es Salaam.
- A-75. Port traffic generates a high level of freight movements, impacting markedly on the local urban environment. The expedient and efficient movement freight from the port to the container facility at Kisarawe is also an important function within the local urban transport environment.
- A-76. The Dar es Salaam Port will continue to be an important facility within the foreseeable future with demand on the port facility continuing to increase, and is expected reach its capacity by 2018.
- A-77. The Julius Nyerere International Airport will expand its operations with runway extensions and developments to Terminal 3 indicating it will seek to develop its role as a regional hub.



A-78. Access to the airport is limited to car traffic and there needs to be consideration of improved passenger access to make the airport transfer experience more convenient and efficient for international travellers.

### **Taxation and pricing**

A-79. Presently the taxation and revenue framework relating to transport are haphazard with unclear objectives and purpose.

- Pricing of public transport fares does not reflect cost of operation and is based mainly on affordability.
- Taxation on private cars is low, and does not in any way contribute to the external costs borne by government to provide road infrastructure.
- The external costs of providing infrastructure to the freight forwarding industry (port traffic) are borne by the government instead of the users.
- An 'antidumping' charge is applied to imported cars over 10 years old but the revenue is not earmarked toward transport related infrastructure.
- No mechanism presently exists to implement road pricing measures such as tolls.

A-80. Governments must consider reforms to the taxation of motor vehicles and develop pricing mechanisms to reflect the cost of trucks and cars borne by society as a whole. A motor vehicle taxation and road use charges regime can be used to create incentives for better mobility choices and to provide the funds necessary for urban transport investment, especially quality public transport options.

Capacity Building Project for the  
Improvement of Dar es Salaam  
Urban Transport

## Discussion Paper (Volume 2)

The Concept and Structure of the Dar es Salaam  
Urban Transport Authority (DUTA)

This paper has been prepared only for internal discussions amongst the designated stakeholders for this project.

Secretariat for the Capacity Building Project  
and  
JICA Expert Team

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**Explanations:**

BRT	Bus Rapid Transit
DCC	Dar es Salaam City Council
DSM-RAS	Dar es Salaam Regional Administration Secretary
DUTA:	Dar es Salaam Urban Transport Authority
EU:	European Union
JICA:	Japan International Cooperation Agency
MOF	Ministry of Finance
MOLHSD	Ministry of Lands Housing and Human Settlement Development
MOT	Ministry of Transport
MOW	Ministry of Works
NMT	Non-Motorised transport
PMO-RALG	Prime Minister's Office, Regional and Local Government
RCC	Regional Coordination Committee
RFB	Road Funds Board
SUMATRA	Surface and marine Transport Regulatory Authority
SUTP:	Strategic Urban Transport policy
TANROADS	Tanzanian National Roads Agency
TEMESA	Tanzanian Electrical, Mechanical and Services Agency
TRL	Tanzanian Rail Limited

**Note:**

This paper has been prepared only as a *DISCUSSION PAPER* for the members of the secretariat and relevant stakeholders involved in developing the conceptual plan of the Dar es Salaam Urban Transport Authority. These discussions are designed to explore ideas and concepts for institutional development as an integral part of how the current fragmented and overlapping responsibilities among different ministries and agencies will be coordinated through institutional development.



# Part 1. The Concept and Structure of DUTA

## 1. Background and Present Situation

### 1.1. Present conditions

The establishment of DUTA has a wider purpose, beyond solely improving the coordination of urban transport. Clearly the urban transport development path in Dar es Salaam is not sustainable, given the rapid urbanization; increasing dominance of motor vehicles, particularly private cars; poor public transport outcomes and the deterioration of quality of life due to traffic congestion, with its associated impacts on the environment. Not the least is the severe (but often unseen) cost impacts on the city's economic performance and the poor social and health outcomes.

### 1.2. Present institutional failures

The root cause of many of these problems is institutional, being institutions that are unprepared to meet the modern challenges and specifically the lack of a *Urban Transport Policy* to guide decision-making and coordinate actions. Modern cities need to manage urban transport as a single 'function' not an array of responsibilities under different departments.

Analysis of the present situation shows numerous deficiencies in the governance of transport, specifically being:

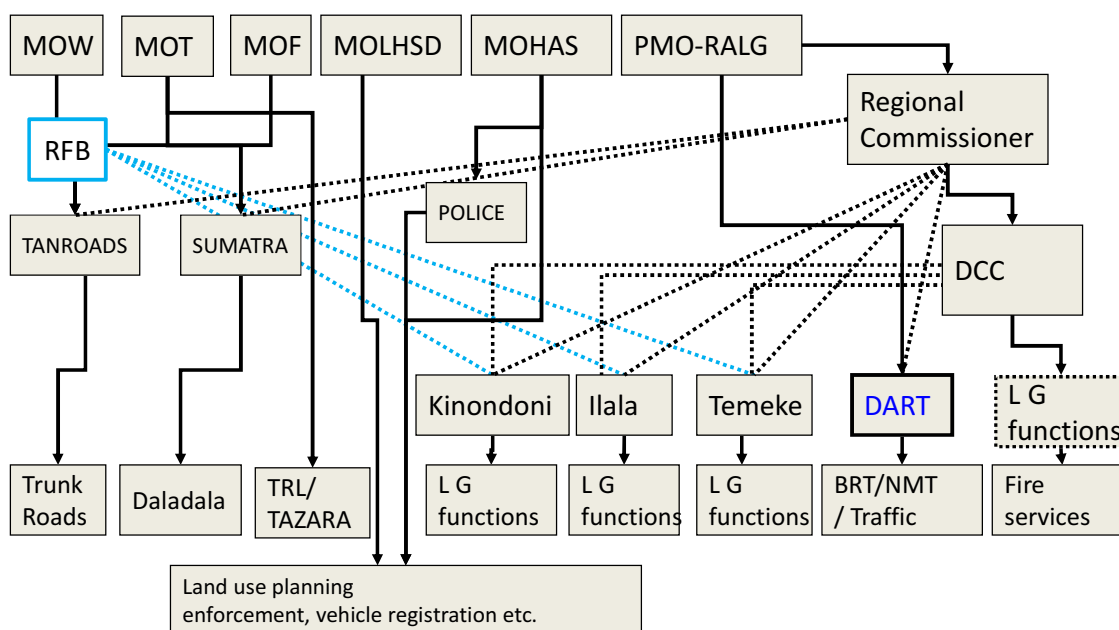
- Lack of strategic planning and coordination
- Gaps in planning and unclear responsibility
- A fragmented and ad-hoc decision making process; no coordination between vertical levels and horizontal departments and failure to deliver on policy objectives
- A 'disconnect' between planning, funding and implementation
- Reliance on 'regulation' but inadequately enforced often due to economic constraints and economic factors that drive behaviour.

### 1.3. The initial proposal for DUTA

The JICA Transport Master (2008) evaluated the situation and identified the areas of policy failure, institutional shortcomings and the need to improve coordination in Urban Transport and establish a definitive *Urban Transport Policy*.

A specific observation was that while the National Transport Policy 2003 was an aspirational document, the policy recommendations were mostly unfulfilled, showing a serious disconnect between policy and implementation. Specifically the lack of coordination between agencies was the issue most commonly identified by the stakeholders as being the cause of policy failures and problems in implementation.

In response, the JICA master Plan proposed a *Dar Es Salaam Transport Authority* as a way of addressing these problems. **Figure 1** shows a schematic view of the present players and the duplications of oversight and responsibility which typifies the present organization layout.



**Figure 1 Existing layout of organisational responsibilities**

#### 1.4. Recommendations of the EU Pre-Feasibility Study

Following the JICA recommendation for a DUTA, a feasibility study was conducted under the sponsorship of the EU, which suggested two alternative models, being:

- 1) **A Transport Authority which implements policies directly** – Where DUTA is directly responsible in Dar es Salaam for all public transport activities and regulation, for the development of major public transport infrastructures and for transport planning activities. This ‘super ministry’ would absorb all the existing implementing agencies and ‘does everything’ under a ‘full service’ approach to all activities, although it ponders whether to include the additional responsibilities for road transport infrastructure activities.
- 2) **DUTA – A Transport Authority working with the private sector** - similar to Option (1) but it contracts out implementation to Management Services Companies [MSC] who manage tendering and contracting activities to secondary organizations [mainly transport operators] to supply the services.

What the EU report did not do, is to evaluate the JICA proposal which defines the function of DUTA as an ‘umbrella’ organization above all the existing executing (implementing agencies). A large part of the EU report in fact is dedicated to resolving the problems that they have themselves created by suggesting a full service authority; namely in how to get cooperation in transferring the roles of the present agencies into one ‘super’ body. The report concedes that the “*successful implementation of DUTA is very critical to its longer term success*”, but highlights “*the challenges faced in transferring procedures and processes as well as databases and staff from existing institutions to DUTA*”.

The second option proposed by the EU report is more akin to an agency that contracts private sector operators, and the report seems uncertain as to the role of an authority in the sense that it was proposed.



### 1.5. Developed JICA recommendation

The JICA proposal on the other hand has taken an ‘objectives-based’ approach, with DUTA as an organization ‘purpose built’ to overcome the identified problems, specifically to:

- Act as a coordinating body with executive powers to coordinate and integrate all policy and planning functions that relate to urban transport
- Convene a Board of Management that is representative of all the concerned implementing agencies
- To develop Strategic Urban Transport Policy (SUTP), assign responsibility and monitor progress and performance
- To develop budgets and financial mechanisms to support the SUTP
- Provide planning and research functions to support its work.

What this in fact achieves, is an organization ‘fit for purpose’ - directly addressing identified needs of Dar es Salaam and avoids the scenario where a pre-conceived model is imported to try to fit the situation. The structural layout of the DUTA proposal is shown in the following diagram:

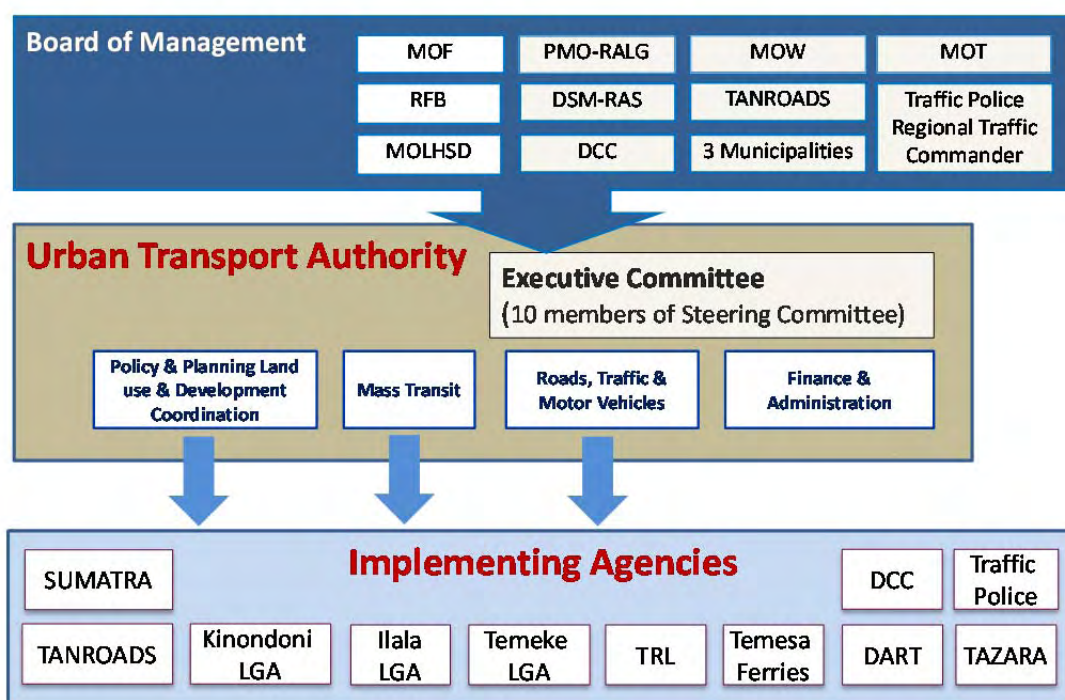


Figure 2- JICA proposed structure of DUTA

### 1.6. Resolving the issue of the type of organization

**Appendix 1** contains an overview of many cities’ experience with UTA type organizations, based on their individual specific goals needs and aspirations. What becomes evident is that there is no single model that can be effectively imposed; each city due to its different needs must design a suitable organization and there is no ‘one-size-fits-all’ solution.

The JICA proposal is purpose-designed for Dar es Salaam to address the specific identified problems and will cause little conflict. It creates few (if any) losers, as the Board of management resembles the present Regional Coordination Committee and the DUTA organization gives a high level of technical support control and monitoring. Implementing Agencies (or their immediate superiors) are represented at Board level.



The organization structure of DUTA is shown in Figure 3.

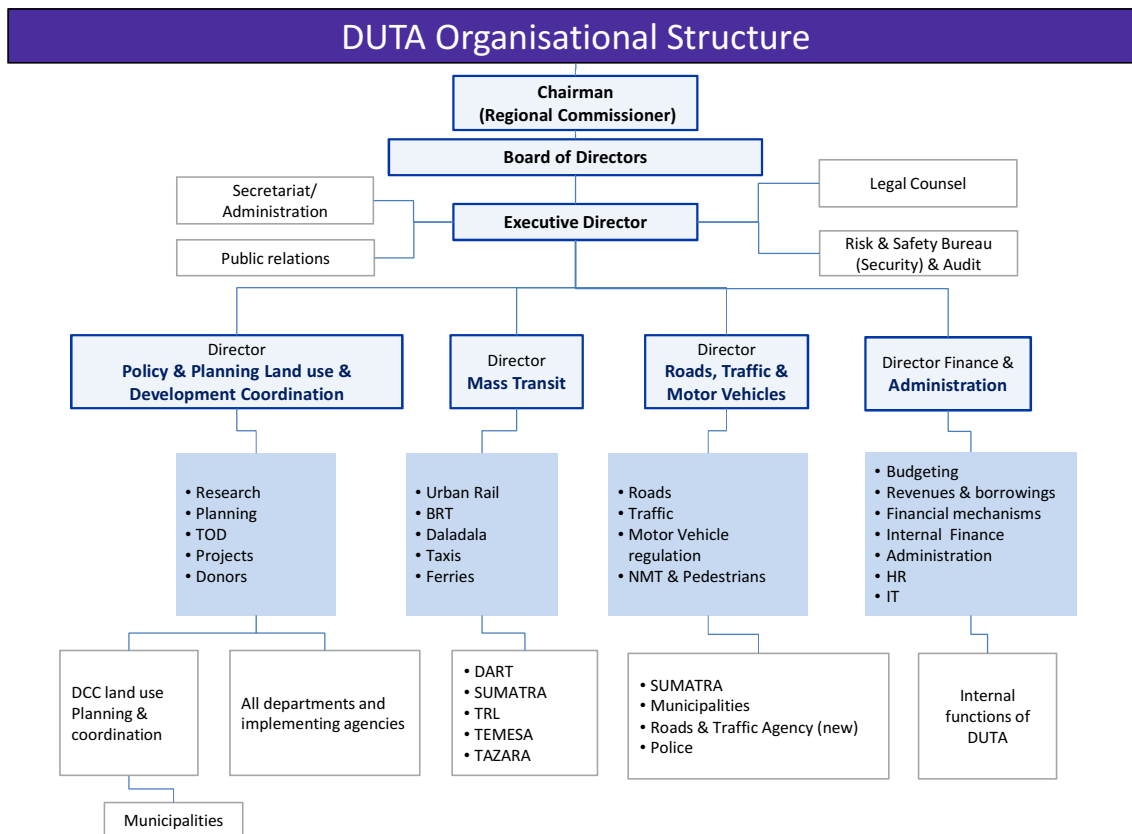


Figure 3- DUTA Organisation Chart

## 2. Planning Principles for DUTA

The JICA Master Plan (2008) identified key planning principles for DUTA as a strategic coordinating and planning body being:

- To involve key stakeholders in executive coordinating body to coordinate efforts and synergies in planning
- Create clear responsibility and accountability by separating:
  - Strategic policy level (responsible for coordination & strategic policy)
  - Management level (responsible for system management and customer service) and,
  - Operator level, (the contractor- providing services to the system)
- Improve the capacity for management as a specific function (regulation is not management)
- Develop sustainable business models (viable business case and built-in incentives to perform), such as viable PPP arrangements and concessions.
- Improve risk identification and assigning it where it is best managed.

### 2.1. Purpose of a DUTA

The purpose of establishing the DUTA is to address the poor planning and dysfunctional management of transport in Dar es Salaam; the lack of coordination; and develop a unified policy



and planning effort to address the complex problems of urban transport, not the least being unsustainable traffic congestion.

It is a mistake to think of DUTA just as a coordinating body, as it is in fact, the 'apex' body for urban transport policy; holding full responsibility for addressing urban transport issues. It is not just another layer of bureaucracy in the management of transport.

## 2.2. Mission and strategic objectives of DUTA

DUTA is fully responsible for the efficient and effective provision of urban transport for the city of Dar es Salaam. Its role is that of a strategic coordinating and management body, through the involvement of key stakeholders in the Board of Management and Executive Committee structure. It governs the implementing agencies that execute and implement policy.

The charter of DUTA encompasses its Mission, its Vision and its Core values.

### **Mission:**

*To provide strategic planning, integrated policy guidance, coordination and executive control and management for urban transport in Dar es Salaam.*

### **Vision:**

*To develop an urban transport system that is widely accessible, providing safe, reliable, effective, efficient transport, at affordable costs; and supporting government strategies for socio-economic development whilst being economically and environmentally sustainable.*

### **Core Values**

*DUTA will continually review and improve governance practices to ensure:*

*Our Integrity – in upholding ethical and professional behaviour*

*Our Transparency – conducting our affairs in an open and honest manner*

*Our Accountability - having clear roles and responsibilities with all participants answerable for their decisions and performance*

*Our Stewardship - ensuring our resources are utilised to deliver the best outcomes for all of our stakeholders.*

### **Note:**

Consideration must be given to determine the boundaries of DUTA responsibility (and interrelationships with related bodies such as maritime and air facilities).

Also the scope of DUTA needs to be clearly defined, mindful that it is a strategic planning, policymaking and coordinating body, but also fully responsible for final outcomes (meaning it may need to work closely, and even reorganize the functions of the implementing agencies).

## 2.3. Role and function of DUTA

The specific functions of DUTA will be:

- Formulate a city vision in consultation with key stakeholders and develop the SUTP through an inclusive and consultative process
- Take full responsibility for every facet of urban mobility including private transport modes, public transport, pedestrian and non-motorized transport
- Study the functioning of the transport system, identify bottlenecks and problems, and produce concrete solutions for its improvement. These solutions



will inform the strategic policy and regulatory and policy decisions to be made by DUTA

- Resolve political and jurisdictional issues
- Plan new infrastructure and plan for the maintenance of existing infrastructure
- Approve final designs of all infrastructure and service planning
- Develop budgets, investment plans and secure funds
- Approve Level of Service (LOS) for public transport and approve Operational and Business Plans
- Organize and coordinate all agencies responsible for service delivery and provide resources and budget to execute policy, and provide support and direction to the executing agencies.
- To monitor and control the performance of the implementing agencies to ensure good service delivery. Address poor performance issues where standard procedures have failed to do so.

DUTA will be authorized to make funding decisions, assign budgets, borrow funds and facilitate funding (including raising its own revenue) to support its internal funding needs as well as funding for implementing agencies. At its inception the government will need to support the initial and operational cost of DUTA (perhaps as a percentage of the gross revenue of the Road Fund).

## 2.4. Performance measurement

DUTA shall establish its own performance guidelines and standards to measure performance and effectiveness, and publish these through media such as an annual report. This self-regulatory function is deemed to be sufficiently effective to provide the necessary discipline and focus on service delivery and transport improvements. However, specific performance indicators must be set to determine quantum improvements.

## 3. Organizational Structure and Representation

### 3.1. Legal status

DUTA is established under the *(insert name of Act)* as a legal body that may:

- (a) Enter into contracts in its own name
- (b) Sue or be sued in contract
- (c) Upon approval of the *(Ministry of Finance or others)* may borrow money under its own name and hold or dispose of movable and immovable property, subject to \_\_\_(procurement rules)\_\_\_
- (d) Raise revenue to support its own operations or the funding required by implementing agencies
- (e) Carry out the necessary functions that necessary and desirable for the efficient and effective discharge of its functions.

Date of Inauguration and establishment: *(Insert here)*

### 3.2. The organizational structure

The Organisation of DUTA is designed to be an efficient and streamlines organisation with a total of less than 40 staff.



### **3.3. The Board of Management**

#### **3.3.1. Chairing the Board**

The Chairman of the Board of management shall be: Dar es Salaam Regional Commissioner with the Permanent Secretary of PMO RALG as deputy chair.

#### **3.3.2. Nomination of board members and secretariat**

The members of the Board will have full input to the development of policy. Representation must include the most senior decision-makers, who manage the responsibilities of their organisations.

Board membership can include the heads of implementing agencies but to avoid conflict of interest cannot include the heads of operating entities (such as bus operators), although such representatives, including representatives from DARCOBOA and Donor agencies may be invited to form or support Standing Committees.

The CEO of DUTA shall be a member of the Board with full voting rights.

Representation on the Board as a full Board Member shall include:

1. MOF
2. PMO-RALG\*
3. MOW\*
4. MOT\*
5. RFB
6. DSM-RAS\*
7. TANROADS
8. MOLHSD
9. DCC\*
10. Regional Traffic Commander Traffic Police\*
11. Mayor Illala
12. Mayor Temeke
13. Mayor Kinondoni
14. City Director Illala\*
15. City Director Temeke\*
16. City Director Kinondoni\*

\* These 10 Board members that will comprise the Executive Committee

#### **3.3.3. Code of Conduct**

A Draft Code of Conduct is attached as **Appendix B**.

#### **3.3.4. Attendance**

All Board members are mandated to attend officially scheduled Board Meetings. Absence shall be properly explained to the Chair, apologies properly tendered and actions taken by the absent member to mitigate their absence by nominating an ad-hoc replacement member on a case by case





basis. Such a replacement member shall inform the absent member of meeting proceedings but shall not be entitled to vote.

### **3.3.5. Removal and replacement of members**

Board Members shall retain their membership only for the period they hold office. Retirement/ transfer to non-eligible positions shall be handled with propriety, and ensuring current work of the Board is properly handed over and all responsibilities are fulfilled. The Chair can request ongoing attendance for retiring member for a set period as circumstances require, ensuring smooth transfer to a new Member.

## **3.4. The Executive Arm**

### **3.4.1. Appointment/removal of Executive Director**

The Executive Director of DUTA shall be appointed by through merit-based recruitment process managed by (PMO RALG or RC) approved by the Minister or a term of ( \_\_\_\_ ) years or shorter period as may be specified and eligible for reappointment.

He/she will have responsibility for the day to day management of DUTA's functions and control financial expenditure as approved by the Board of Management and under the scope of the \_\_\_\_ (Act) \_\_\_\_. He/ She will ensure proper management of the Authority's funds, property and business, and for the management of the organisation, its personnel, control and discipline of the employees and performance of sub-contracted parties.

*(Provide any further necessary guidelines or conditions. Detail the set process for recruitment and employment review etc., or a set civil service procedure)*

### **3.4.2. Planning departments of DUTA**

DUTA shall establish a number of planning departments which act as the executive arms of DUTA. Each of these executive departments will be headed by a Director who shall be appointed through a merit-based recruitment process managed by the Executive Director and (approved by the Board?) to ensure skills and competence in these positions. Each Director is responsible for their specific portfolio in planning, control and oversight of their assigned implementing agencies.

The planning departments are:

1. Policy & Planning, Land use and Development Coordination
2. Mass Transit
3. Roads, Traffic and Motor Vehicles
4. Finance and Administration

## **3.5. Portfolio descriptions for planning departments**

The functions of these departments are:

### **Policy & Planning, Land Use and Development Coordination**

Tasks include research and planning, developing projects and interacting with Donors. Specific responsibilities for Transit-oriented development and coordination with the DCC on urban development policy to ensure transport and land-use planning are fully integrated.

### **Mass Transit**



Includes Dar commuter trains, DART BRT, Buses, daladala, Taxis, NMT and ferries including the planning and design of related infrastructure, service integration (physical treatments as well as integrated ticketing) public information and standards of service delivery and passenger safety.

### **Roads, Traffic and Motor Vehicles**

Includes the oversight of roads and traffic within Dar es Salaam to ensure proper traffic management strategy, and road conditions such as safety and guidance systems including signage, for all road users including NMT and pedestrians.

It is also responsible for road safety and awareness including public information and education etc. working with the relevant executing agencies.

Motor vehicle policy relates to strategic policymaking and regulatory matters such as import controls, ownership, roadworthiness inspection policy and any matter relating to registration fees/ taxes/ charges on motor vehicles including strategic parking policy. This planning unit will liaise with SUMATRA on these policies.

### **Finance and Administration**

This department is responsible for the internal management of finance and administration including:

- Financial mechanisms, revenues & borrowings
- Budgeting
- Internal Finance and Administrative functions
- HR & IT

## **3.6. Staffing**

The organisation of DUTA shall be lean and efficient. It is expected to develop a high standard of technical competence with each department capable of doing the necessary research and planning to develop policy guidance in the area of responsibility.

In some cases such as the Mass Transit and Roads and Traffic department some staff will conduct monitoring and inspection to ensure service delivery is meeting the required standards.

**Table 1** shows indicative staffing for DUTA.

**Table 1 DUTA Staffing**

<b>Executive Director</b>	<b>1</b>
Secretariat	2
Public Relations	2
Legal Counsel	Outsourced
Security & Audit	2
<b>Policy &amp; Planning Land use &amp; Development Coordination</b>	
Director	1
Staffing strength	4
<b>Mass Transit</b>	
Director	1
Staffing strength	6
<b>Roads, Traffic &amp; Motor Vehicles</b>	
Director	1
Staffing strength	10



<b>Finance &amp; Administration</b>	
Director	1
Staffing strength	6
<b>TOTAL</b>	<b>37</b>

### 3.7. Realignment of responsibilities for line agencies

It is within the power of DUTA to realign responsibilities at Implementing Agency level to streamline service delivery, or to create new agencies to fill gaps in responsibility. A case in point is the development of a new Roads and Traffic Agency (perhaps as a unit of TANROADS) to take on the overall responsibility for the integration of road and traffic management.

### 3.8. Specific responsibility for land-use and development

There is a critical need to integrate transport policy with land-use policy which will require a body with a greatly strengthened Development Authority role, perhaps a under a strengthened DCC to carry out this function. Such an Authority would develop Master Plans and Land Use regulations for the city with its planning closely coordinated with DUTA planning and policy.



## Part 2. Developing the Legal Provision for DUTA

### 4. Powers and Proceedings of DUTA

#### 4.1.1. General Powers

DUTA carries the full and ultimate responsibility for the improvement of urban transport, access to transport and to ensure the objectives of the Strategic Urban Transport Policy are met. This implies a wide-ranging power to ensure anticipated deliverables, outputs and outcomes are realised.

#### 4.1.2. Powers to formulate and authorize urban transport policy and develop the investment plan

DUTA shall be given the responsibility to develop the Urban Transport Policy with supporting budget recommendations and assign responsibilities and tasks to the executing agencies. DUTA is not empowered to carry out its own business. This is the responsibility of the executing agencies.

#### 4.1.3. Powers and financial provisions to manage revenue and funding and budget disbursement to implementing agencies

DUTA will be authorized to make funding decisions, assign budgets, and facilitate funding to support and enable implementation of policy (giving it the power to implement).

The financial mechanism to allow this function is the channeling of budget funds through DUTA to the executing agencies to support its policy implementation.

Sources of funds can be from multiple sources, such as:

- Disbursement of the government transport budget through DUTA to executing Agencies
- Earmarking national revenue (such as the road fund for supporting DUTA's transport projects)
- Revenue sourced from through parking fees, road charging fees etc. where DUTA is permitted to levy its own charges
- It can act as a 'clearing house' for revenue sourced from various avenues and directed to executing agencies.

Linking the development of policy and the facilitation of funding is the mechanism to support accountability in implementation, where no executing agency can claim lack of resources to carry out their task.

#### 4.1.4. Powers to coordinate key stakeholders

DUTA has the power to provide direction and coordination to the executing agencies, which have the responsibility to the Board of DUTA to carry out their assigned functions, a responsibility not diminished or diluted by line responsibility to their own relevant ministries.

DUTA does not have authority over subcontractors engaged under the executing agencies or over agents employed by agencies.

#### 4.1.5. Procurement Policy



All procurement managed by DUTA is under the guidelines and rules of the Public Procurement Regulatory Authority. DUTA is authorized to purchase infrastructure or equipment (for example buses) to issue to an implementing agency to manage and operate.

#### **4.1.6. Review and Appeals Procedures**

Any appeal or action by any party against DUTA or requests for review shall be submitted the Board via the office of DUTA and the CEO.

Any complaint or dispute shall be similarly managed.

#### **4.1.7. Enforcement and Compliance**

DUTA shall maintain oversight of service delivery and performance through an on-going monitoring function carried out by the Executive Arm.

Its role in enforcing compliance shall be through the power given under set contractual conditions, performance benchmarks, standards and guidelines and enforcing penalties and sanctions provided by the contracts and agreements in place.

In the case of ongoing poor performance and breaches of contract, the case shall be submitted to the Board for action.

#### **4.1.8. Accounts and Financial Audits**

All DUTA accounts shall be subject to the rules, procedures and conditions set under the National Audit Office, including the processes and procedures of the Value for Money audits.

#### **4.1.9. Internal Performance Audits**

DUTA shall establish its internal performance review procedures and methodology to improve performance of its internal departments.

A code of conduct and Standard Operating Procedures (SOP) shall be developed for departmental staff dealing with implementing agencies.

#### **4.1.10. Annual Report**

DUTA shall deliver its annual report providing full public disclosure of its activities, its financial position and its current and future plans.

Full transparency shall be maintained in every area to ensure public confidence in the Authority.



## 5. Provisions in the Draft Act

The contents listed in the ‘Summary of Provision’ column, indicates the necessary content of the legislation to inaugurate DUTA. The legislation must be written in simple and clear terms. The ‘Understanding’ column further describes the nature of the issue, and the ‘Action’ Column describes practical methods and actions needed.

Summary of the provision	Understanding	Action
A clear statement describing the overall responsibility of DUTA to address transport related issues, manage the urban transport functions and address traffic congestion.	The full responsibility rests with the DUTA. It needs sufficient power, and singular accountability so as not to be able to avoid responsibility.	
To develop a Strategic Urban Transport Policy and supporting Budgets	Develop Strategic Urban Transport Policy for the city, provide specific guidelines for implementing agencies and develop supporting financial estimates, secure funds and make budgets	The main body of this work would be developed by the Executive arm of the DUTA for the endorsement and approval of the Board of Management (BoM)
Supervise implementation activities and monitor progress	Monitor implementation and take necessary actions to ensure objectives are met	Establish SOP and set control mechanisms for performance monitoring
Approve final designs of all infrastructure and service planning	The Board is mandated to give approval to final designs relating to implementation of any transport related infrastructure or transport plans.	Develop a <u>set planning and approval</u> process under the DUTA



<p>Coordinate the implementation and all facets of the urban transport land transport functions, including traffic management, road safety and pedestrian safety.</p>	<p>This function needs to be managed under the Executive which will monitor the progress of the responsible agencies and evaluate performance, progress and outcomes on a continual basis.</p>	<p>DUTA has the authority to reorganise the functions and structure of the implementing agencies to improve performance.</p>
<p>Ensure synchronization of land development/ land use to transport provision including approval of traffic management plans for major developments</p>	<p>This will require all developments, and constructions to submit a traffic management plan to DUTA for approval.  DUTA will work with the body acting as the land-use and Development Authority (DCC?)</p>	<p>How to define a major development? How to manage this approval process? Strengthen the DCC function as a Development Authority</p>
<p>Formulate policies to control all types of vehicles (government or non-government) and work with relevant agencies to implement policy</p>	<p>Motor vehicle policy development would include:</p> <p>Ownership:</p> <ul style="list-style-type: none"> <li>▪ Registration and roadworthiness</li> <li>▪ Taxation &amp; fees</li> <li>▪ Vehicle age/ relative to use</li> <li>▪ Safety standards</li> </ul> <p>Motor vehicle use:</p> <ul style="list-style-type: none"> <li>▪ Tolls and road use charges/ parking charges</li> <li>▪ Rules on freight and passenger carriage</li> <li>▪ Safe and competent operation and driving behaviour</li> <li>▪ Storage and parking</li> <li>▪ Permissions and restrictions on roads/carriageways</li> </ul>	<p>This covers a large area of policy and control and will need separate divisions within the implementing agency/ department.  The actual work is under the implementing agency with the DUTA setting policy and working with the IA to implement and monitor performance and outcomes</p>



<p>Communicate policies to all relevant organizations</p>	<p>Concerned and implementing agencies require the full transfer of information by formal and written means as well as instruction and explanations presented to concerned staff and agencies.</p>	<p>This will include briefings and forums, as well as written advice such as policy documents, bulletins, and written manuals and specifications.</p>
<p>Policy for Road and Traffic safety and Vehicle environmental policy</p>	<p>This policy must have a clear and realistic objective in mind.</p> <p>It includes setting rules for:</p> <ul style="list-style-type: none"> <li>▪ Vehicle safety and emissions standards, rules and compliance</li> <li>▪ Infrastructure such as road markings, signage, signals, and driver guidance</li> <li>▪ Driver training, actions, behaviour and compliance including driver’s licences.</li> <li>▪ Public attitudes and behaviour (e.g. road crossings)</li> <li>▪ Vehicle repair facilities (waste, noise, painting emissions) that affect the environment</li> </ul>	<p>Set rules and standards for each area</p>
<p>Develop vehicle taxation &amp; financial policy</p>	<p>This policy relates mainly to car ownership, both as a revenue raising measure (contribute to cost of roads) and also as a demand management measure (as a pricing policy to discourage car use and ownership).</p> <p>This can include the cost of car ownership or the cost of using the car (or both). For example:</p> <ul style="list-style-type: none"> <li>▪ Import taxes or sales tax</li> <li>▪ Fees on registration</li> <li>▪ Tolls for road use</li> <li>▪ Parking charges</li> </ul>	<p>This aspect can use some external assistance, to show how other cities manage car use and ownership cost</p>





	<ul style="list-style-type: none"> <li>▪ Fuel tax</li> </ul>	
Vehicle design rules and standards	<p>This would include vehicle design issues (minimum standards).</p> <p>Including safety issues such as bus loading, axle weight limitations and safety equipment.</p> <p>Truck and freight limits</p> <p>Rules on fuel safety etc.</p>	<p>This requires an implementing agency with a vehicle engineering division to set policy and standards, communicate these and to ultimately ensure policies are enforced.</p>
Parking policy, design and traffic flow management	<p>Parking policy is a three-pronged action:</p> <ol style="list-style-type: none"> <li>1. To ensure parking is managed through designated infrastructure, rules and signage (and enforced)</li> <li>2. That adequate off-street parking is provided to reduce cars parking in public spaces</li> <li>3. That overall parking in the city is limited as a demand management measure (car owners are less likely to drive to the centre if there are parking difficulties)</li> </ol>	<p>Parking policy falls under all DUTA departments:</p> <ol style="list-style-type: none"> <li>1. Policy &amp; Planning, Land use and Development Coordination to develop policies on parking.</li> <li>2. Mass Transit in the provision of Park and Ride and good alternative means of travel (i.e. quality public transport)</li> <li>3. Roads, Traffic and Motor Vehicles in managing parking infrastructure.</li> </ol>
Plans for depots/ terminals, implementation and operation	<p>The DUTA can play a coordinating role to ensure public transport facilities are improved and provided.</p>	<p>Comes under the DUTA Mass Transit division</p>
Develop transport policymaking and planning skills and supervision capacity	<p>Planning and policymaking requires a special skill set which must be developed within the DUTA Executive</p>	<p>External assistance is available to conduct training programmes and build capacity.</p>



<p>Develop a database on vehicles by category &amp; type</p>	<p>Good data will support and develop sound policy</p>	<p>Each division of DUTA Executive will need to assemble a reliable data base to provide necessary information for the planning process</p>
<p>Assist concerned agencies in law enforcement regarding vehicles and transport</p>	<p>The DUTA will develop into a centre of expertise, able to develop plans and policies , and needs to assist the implementing and enforcement agencies</p>	<p>As an example: Good management by DUTA will assist the Traffic Police in enforcement</p>
<p>Develop policy and projects for mass transit, if necessary to implement and provide guidance and supervision</p>	<p>DUTA is expected to take the lead in promoting and developing public transport, not only to establish policy, but to guide and supervise</p>	<p>This provision in the Act allows the DUTA to take a ‘hands-on’ role to get things done, and work with operators to deliver good outcomes</p>
<p>Conduct route and network planning and develop Operational Plans for service providers to determine Level of Service (LOS) and cost frameworks</p>	<p>Public Transport service provision, while often supplied by the private sector, is a politically driven area with wide social implications.  Level of service refers to network coverage and headways while Operational Plans determine financial viability of government set service standards.</p>	<p>Network Planning jointly involves the mass transit and roads and traffic department</p>
<p>Planning and developing activities, setting fares and approving the functions of all transport, (government or private) to operate any type of public transport</p>	<p>DUTA is given here, a full range of options and scope to improve the transport function and operational efficiency.  Developing PPP initiatives and concession agreements will be a key area of DUTA to engage the private sector</p>	<p>This function jointly involves all departments of DUTA</p>
<p>DUTA will be authorized to make funding decisions, assign budgets, and facilitate funding to support and enable implementation of policy.</p>	<p>Specifically DUTA will be authorised to raise its own funds, for its internal funding needs and to channel funds toward specific projects under the agencies.</p>	



# Appendix A: International Examples of Transport Authority in Various Cities

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The following sections list specific aims that cities have sought to realize through the establishment of a Transport Authority. Of course these are not just singular aims as a Transport Authority will have numerous uses, impacts and purposes.

What it does demonstrate is that each city has differing and varying needs and have developed suitable institutions to manage those needs and issues.

The source for these examples is: [http://www.uitp.org/Public-Transport/organising-authorities/pdf/OA\\_PDF/3\\_CaseStudy\\_OA.pdf](http://www.uitp.org/Public-Transport/organising-authorities/pdf/OA_PDF/3_CaseStudy_OA.pdf)

## Summary of International Experience

The experience of Urban Transport Authorities in cities is varied, and developed for different purposes although a common theme is the coordination of various players for the a unified approach to public transport to achieve certain objectives such as providing better public transport services, reducing traffic, and improving environmental outcomes.

A summary of the examples as listed in **Appendix A** are as follows:

### Singapore Land Transport Authority

Linking Transport Plans to City Development Plans with long term advance planning

Develop a high level of integration between land-use and transport to achieve seamless travel

### Transport for London

Overall responsibility for City Transport system and implementing Mayor's Transport Strategy

Policy to promote and invest in Public Transport

### Hamburg Public Transport Agency

Full integration of services under a single brand regardless of operator, and singularly responsible for customer service

### Nantes Metropole (Communauté Urbaine)

Implements the urban mobility plan to increase market share for public transport through an integrated public transport network

### Metlink Victoria Pty Ltd, Melbourne, Australia

Improve brand image of public transport and improve customer service through research communication and promote service improvements

### Merseytravel, Merseyside, United Kingdom

To promote public transport as part of measures to improve environmental outcomes

### Region Emilia-Romagna, Department for Mobility and Transport

To govern public transport and coordinate agencies to reduce emissions and energy use



### **Seoul Metropolitan Government, South Korea**

To integrate fares and ticketing to improve public transport

### **Dubai Roads and Transport Authority**

To develop an integrated transport system to support economic development and international standards of safety and access

### **Västtrafik AB, Göteborg, Sweden**

Improve the overall quality, accessibility and safety of public transport, to reduce traffic, improve environmental outcomes, and manage a contracting system to improve operator performance.

### **Agenzia Mobilità e Ambiente, Milan, Italy**

To reduce traffic and pollution by strengthening public transport, restricting traffic in the city centre and encouraging modal shift to more sustainable modes such as cycling.

## **International Examples:**

### *Integrating land-use transport planning with long term urban planning*

#### **The Land Transport Authority, Singapore**

**Overall Objectives:** Holistic planning and development of land use and transport networks. To allow the state to envision an overall Concept Plan for the long term future, from which the Development Master Plan and the supporting Transport Master Plan can be developed.

**Description:** From the Concept Plan, which is the ‘big picture’ that maps out Singapore’s long term physical development, a Development Master Plan is prepared which translates the vision and broad development strategies of the Concept Plan for implementation in the medium term. A supporting Transport Master Plan is developed.

There is conscious planning to integrate the transport networks with land use, both in terms of planning and implementation. It requires planning well in advance for high density developments at and around major transport nodes such as Mass Rapid Transit (MRT) stations and bus interchanges. Attention is also paid to achieve a high level of integration between the various transport modes at these nodes. This helps to facilitate seamless travel by commuters and encourage public transport use. At the same time, land transport policies are developed covering all modes of transport to meet the mobility needs of the people while maintaining the liveability of Singapore’s urban environment. A holistic package of measures to enhance the integration of the public transport system, manage road use and cater to the diverse needs of the people is adopted.

To be successful in integrating land use and transport planning, it is critical for the land use planning agency and the transport agency to work together to realize the common vision for the good of the state.

**Results:** Such integrated planning and development has transformed Singapore into a vibrant city with a land transport system that is characterised by a comprehensive network of smooth-flowing traffic and a high quality easily accessible public transport system. The MRT networks have grown in tandem with development growth and link the high density housing developments to the city centre and to other employment areas. A high proportion of travel (63% daily mode share) is by public transport. Accessibility to public transport is universal and public transport fares are one of the lowest in the developed world, even though there is no direct subsidy from the state for operating costs.

For more information please see: [www.lta.gov.sg](http://www.lta.gov.sg)



### *Taking overall responsibility for transport (integrated transport management)*

#### **Transport for London, United Kingdom**

**Overall Objectives:** Transport for London (TfL) was created in 2000 and is the integrated body responsible for the capital's transport system. Its main role is to implement the mayor's Transport Strategy for London and manage transport services across the capital for which the mayor has responsibility.

**Description:** TfL is one of the most comprehensive transport authorities in the world, under the control of the mayor of London. One of the key distinguishing features of TfL as a transport authority is that it is responsible for both the strategic road network and public transport. TfL also acts as both an authority and a direct operator, depending on the mode of public transport involved.

The mayor appoints the Board of TfL, according to the Greater London Authority Act, and both of London's mayors have chosen to chair TfL. The mayor is required to publish a Transport Strategy, alongside the London Plan and other statutory plans. He also decides transport policy (including fares policy) and TfL delivers that policy.

Aside from fares and the policy of charging, the rest of TfL's funding comes from national government.

**Results:** One of the most obvious outcomes of the influence of a Mayor for London and supported by an Integrated Transport Authority has been a successful policy to promote and invest in public transport. TfL received a ground breaking five-year financial settlement from the government in 2005 to deliver an investment programme, worth over GBP 10 billion, the first one in the history of London's transport.

TfL has recently received a financial settlement from the Government which is worth GBP 39 billion of grant and borrowing for the period 2010 to 2017. Furthermore, bus usage has increased by over 40% since 2000/01, with currently 2 billion journeys per year. In this time underground/DLR has seen over one billion journeys per year. And traffic in central London has reduced by over 20%. Since 2000, London has achieved a 5% modal shift from car to public transport, walking and cycling. The scale of this shift has not been matched by any other comparable city in the world.

For more information please see: [www.tfl.gov.uk](http://www.tfl.gov.uk)

### *Integrating public transport in the Hamburg area*

#### **Hamburger Verkehrsverbund GmbH (Hamburg Public Transport Agency Ltd.)**

**Overall Objectives:** Full integration of public transport services irrespective of operator and competent authority, showing "one face to the customer".

**Description:** The Hamburger Verkehrsverbund (HVV) was founded in 1965, working for 10 area municipalities (Gebietskörperschaften). It was the first integrating organisation worldwide.

HVV is responsible for the planning of all public transport services in the area taking into account other urban policies, a common fare and ticketing system, marketing of the HVV brand and publishing information on all public transport modes.

HVV introduced cooperation contracts to regulate all aspects of integration and to ensure that all public transport services in the area are fully integrated. The contract includes the planning of the network and time schedule, high quality standards and the integrated fare scheme set up by HVV. Lately, HVV has introduced a quality management system with bonus and penalty payments for all transport services within the HVV area. The contracts are enforced by only awarding commercial authorisation if the operator accepts to sign the cooperation contract. For non-commercial services the cooperation contract will be part of the public service contract.

**Results:** HVV is the brand for public transport in the area. All 38 operators must accept the regulations concerning the integration of services within the area. HVV policy has clearly contributed to shaping a customer-friendly public transport service. Since its foundation, passenger numbers in the HVV have risen by 60%, in the last ten years (since 1998) passenger numbers rose from 480 million to 630 million per year (which is equivalent to a rise of more than 30%).



Even more important is the success of HVV in regard to customer satisfaction. HVV measures customer satisfaction regularly. Since the last ten years it has continuously risen. It is therefore among the top-ranked organising authorities in Germany with a high rating for customer satisfaction. For more information please see: [www.hvv.de](http://www.hvv.de)



### *Developing a structured and interconnected public transport network*

#### **Nantes Metropole (Communauté Urbaine)**

**Overall objectives:** the overall objectives are described in the current urban mobility plan (2000-2010), which states goals in terms of market share for the different modes of 50% for private cars, 18% for public transport and 32% for other modes (walking and cycling).

As far as public transport is concerned, these objectives should be reached through developing a structured and efficient Public Transport network in the Greater Nantes territory and widening the range of services to offer solutions adapted to the different needs and the volume of demand.

**Description:** The network is designed to allow easy and convenient interconnections between the complementary modes. The current network is made of 3 tram lines, 1 BusWay line, 59 bus lines including 3 Chronobus<sup>1</sup> lines and 3 express lines (operating only at peak hours), one on-demand transport system for PRM (proxitan), 2 shuttle boats, 4 local train lines and 11 railway stations in the urban transport perimeter.

To improve coverage and efficiency a new 'BusWay' service was introduced to extend the dedicated lane transport scheme. The scheme is composed of a comprehensive tram system of five branches radiating out from a central hub. The line 4 BusWay has successfully come to expand this high frequency network applying all the elements that made the tram successful to a bus system: dedicated lanes, priority at all intersections, extended hours (from 05:00 to 02:30) and high frequency (every 3.5 minutes at peak times). The line is operated with 20 dedicated CNG-powered vehicles providing comfort and innovation. Four park and ride car parks (1046 parking places) are located along the line.

**Results:** The modal shift from private cars to public transport for the 4 lines was between 25 and 30%. The four park and ride facilities around the BusWay show a 95% occupancy rate. As far as the whole network is concerned, the activity has been growing steadily.

For more information please see: [www.nantesmetropole.fr](http://www.nantesmetropole.fr)

<sup>1</sup> Chronobus is a label created to improve the performance and the image of main bus lines (quality certification, CNG buses, improved frequency, dedicated lanes on at least 50% of the line)





**Figure 4 Nantes**

*The role of an integrated authority in marketing public transport*

**Metlink Victoria Pty Ltd, Melbourne, Australia**

**Overall Objectives:** The main objectives are to create a new image for Melbourne's public transport system; to bring together the system wide marketing and communication activities; to reposition the public transport system and to enhance the provision of customer information.

**Description:** Metlink was introduced to provide a new name and brand image for Melbourne's Public Transport System. It involved government and operators forming the specific-purpose company which cooperatively markets public transport, conducts high quality research, enhances the delivery of customer information, aids passenger navigation and delivers customer-oriented projects.

The advertising campaign aimed to make public transport more accessible to people and to counter some of the misconceptions about public transport. It was designed to encourage customers to reappraise their perceptions to match reality, to promote service improvements and to build the confidence of non-users. It was also important to reinforce the positive experience by communicating enhancements and special offers to new and regular passengers.

**Results:** In its short five-year history, Metlink has established itself as a key component in Melbourne's public transport industry.

Its achievements are vast given it has operated during a time of unprecedented change. Patronage on trains has grown by close to 40%, and overall, the network has 25% more passengers. Fare evasion strategies have saved USD 26 million in lost revenue and ticket revenue has grown by over 40%. Customers are changing the way they buy tickets and are switching to high value periodical and multi-use tickets. A staggering 80% of total revenue growth is seen in periodical and multi-use tickets. Advertising campaigns have repositioned public transport and demystified it for citizens. Customer signage has been overhauled and clearly stands out in the streetscape. Metlink's website is Australia's fourth most popular transport site behind three major airline carriers and is the country's most popular public transport site. Public transport is more welcoming and easier to use following the success of these projects.

For more information please see: [www.metlinkmelbourne.com.au](http://www.metlinkmelbourne.com.au)

*Promoting the use of public transport*

**Merseytravel, Merseyside, United Kingdom**

**Overall Objectives:** Maximising the opportunities for promoting public transport underpinned by the wider agenda of environmental improvements.





**Description:** Merseytravel has a wide range of creative measures to encourage the use of public transport. This includes making information more readily available, clearer and easier to read, using alternative formats and translating information into multiple languages. In addition, Merseytravel has a number of special promotions of travel opportunities in and around Merseyside either linked to special events (including the Southport Flower Show and Mersey River Festival) or destinations such as Aintree Racecourse. Merseytravel also organizes a 'Soccerbus' service to provide transportation for football games in the Merseyside area.

These offers are communicated through a series of leisure-based leaflets encouraging the use of public transport e.g. Out & About, Rideabout, Walkabout, Cruiseabout, Artsabout, Beatles attractions and Performing Arts about Merseyside. The information is also published on the website.

**Results:** The schemes have been a great success over the last years. Soccerbus users account for over 3.0% of attendance at Liverpool and for Everton football games (the two largest clubs in Merseyside). Merseytravel has developed a DVD in Chinese, Arabic and Somali to provide important information for people who speak these languages.

In order to improve customer service, Merseytravel has published a customer charter, revised and updated Merseylink publicity materials and issued publicity for the English National Concessionary Travel Scheme (reduced or free fares for disabled people and people over the age of 60).

For more information please see: [www.merseytravel.gov.uk](http://www.merseytravel.gov.uk)

#### *Coordination of organising authorities to provide an integrated high quality service*

##### **Region Emilia-Romagna, Department for Mobility and Transport**

**Overall Objectives:** The Emilia-Romagna region's Department for Mobility and Transport governs (by planning and ensuring participation) the system of public transport in order to abate the consumption of energy, reduce the causes of environmental pollution and protect the health of its citizens.

The department coordinates organising authorities (called "agencies") with the goal of improving accessibility for individuals and businesses and promoting an integrated system which is safe and of high quality. In addition, the department develops research relating to technical innovation and management for collective and individual transport to promote a culture of sustainable mobility.

**Description:** By regional law, the department retained the competences on railway transport and delegated competences relating to road and urban transport. For public transport the department set up nine provincial agencies that own essential infrastructure and are responsible for the regulatory functions of public transport.

The department cooperates closely with the agencies, participating with them on several EU funded projects (Civitas, COMPRO). The regional authority signs agreements with the agencies and with local bodies for the financing and the regulation of public transport, agencies award the (net-cost) management of services to operators with whom they sign public service contracts.

**Results:** The department provides public transport services which are: integrated with the rail network, consistent with each other, of homogeneous quality and ultimately, organized under a single fare system at regional level.

4.3 million citizens within the region are given the right to access transport facilities and diverse services, providing a concrete alternative to individual transport.

For more information please see: [www.regione.emilia-romagna.it/wcm/ERMES/Canali/trasporti.htm](http://www.regione.emilia-romagna.it/wcm/ERMES/Canali/trasporti.htm) [www.srmbologna.it](http://www.srmbologna.it)

#### *Smartcard ticketing*

##### **Seoul Metropolitan Government, South Korea**

**Overall objectives:** Combining smartcard ticketing with other policies to provide a better service on the Seoul public transport network.



**Description:** Seoul Metropolitan Government first introduced a smart card ticketing system in 1997. Since then it has been updated to improve the way the card is used and to make it more convenient for passengers.

The objectives of the recent changes are to improve the fare system by not charging passengers when they transfer between services provided by different operators and to introduce a more convenient system for fare discounts. The automated distance fare, which started in July 2004, allows passengers to transfer for free up to five times and only pay for the total distance which they travelled. In addition, the new system is more sophisticated and differentiates between children, students and adults. So that when children become students and when students become adults, their card will remain valid and provide the correct discount.

The new transportation card known as T-Money has many advanced functions such as: providing detailed information on fares and type of service for the customer, calculating and adjusting the fare structure by time and distance and ensuring that data remains secure through sophisticated encryption technology. It is also available in different forms (such as key rings) to make it more convenient for passengers.

**Results:** The new transportation card system has been a great success; when the new system was introduced in 2004 the number of passengers increased by 6.6% compared to the previous year. Over the same time the number of bus passengers increased by 11.1%. In addition, the number of passengers has increased by 2% for the subway, 8% for urban bus and 27.5% for local bus, which was to a large extent due to the free transfer policy between local buses and the subway. For more information please see: <http://english.seoul.go.kr>

### *Investment in public transport*

#### **Dubai Roads and Transport Authority**

**Overall Objectives:** Dubai Roads and Transport Authority (RTA) was established in 2005 and its mission is to prepare legislation and develop integrated solutions for road systems and land transportation networks that are safe and in line with Dubai's economic development plans and the highest international standards.

RTA is responsible for planning and providing the requirements of transport, roads and traffic in the Emirate of Dubai, and between Dubai and other Emirates of the United Arab Emirates, and neighbouring countries in order to provide an effective and integrated transport system capable of achieving Dubai's vision and serving the vital interests of the Emirate.

**Description:** Dubai has been experiencing rapid economic and demographic development for the last ten years.

As a result of this continuous growth, Dubai's transport needs are growing rapidly. RTA expects traffic (expressed in person-trips) to be multiplied by 4 between 2005 and 2020. This means that in the coming years RTA will have to meet the challenges of increasing the use of public transport, reducing congestion, improving the urban environment as well as ensuring that everyone has access to public transport, including people with special needs.

To cope with these challenges, RTA has developed a comprehensive strategic plan (with 2020 as the target year) around the slogan "safe and smooth transport for all". The public transport component of the plan includes the construction of a new metro and tram network, the expansion and modernisation of the bus network, the development of new water transport routes and modernisation of the taxi fleet. These improvements will together cost around USD 9.9 billion.

The main objective of this investment is to reach the target of 30% modal share for public transport by 2020.

**Results:** Less than four years after the creation of RTA, Dubai has already achieved a big step towards the implementation of the strategic plan and more specifically its public transport component.



Two driverless metro lines (Red line and Green line) are almost finalised and it is expected to inaugurate the commercial operation of the first line in September 2009. The second line will open during the first half of 2010.

In addition to huge investment in public transport systems, RTA has already implemented a number of initiatives and accompanying measures to promote collective transport including car-pooling, company transport plans, park-and-ride, journey planners, just to name a few.

For more information please see: [www.rta.ae](http://www.rta.ae)

### *Sustainable procurement of public transport services*

#### **Västtrafik AB, Göteborg, Sweden**

**Overall Objectives:** Improve the local environment by reducing traffic sources and other forms of pollution. Improve the overall quality and accessibility of public transport, as well as its safety record.

**Description:** Bus operations are carried out by private enterprises, but Västtrafik as the region's public transport authority sets the requirements and issues the call for tender. The environment and social factors are introduced at the very beginning of the procurement process. Parallel to this, the local authorities of the region are consulted about environmental needs they consider applicable.

To ensure that the objectives are met, two strategies are followed. The first targets environmental emissions by setting minimum standards achieved by including strict emission standards as part of the technical specification of the call for tenders. The second approach incentivises challenging targets to be met and bettered by rewarding good performance with bonuses. This is achieved by awarding 25% of the income generated from transport fares to the operator (usually operators are paid a fixed amount according to the number of vehicle kilometres).

**Results:** The introduction of competitive tendering was very successful in the Greater Göteborg Area, as well as in the rest of Sweden. The main aim and effect was to achieve better public transport with the same amount of public subsidies provided for the system. The main indicator of success is the number of passengers transported. In fact, between 1990 and 1997 the number of passengers increased by 7.5%.

With regards to social requirements, the goals were also achieved. Wages of bus drivers were kept constant by tendering requirements in the first years.

For more information please see: [www.vasttrafik.se](http://www.vasttrafik.se)

### *Transport plans for sustainable mobility*

#### **Agenzia Mobilità e Ambiente, Milan, Italy**

**Overall Objectives:** Reducing traffic and polluting emissions.

**Description:** for sustainable mobility includes a set of integrated measures to strengthen the position of public transport in the city.

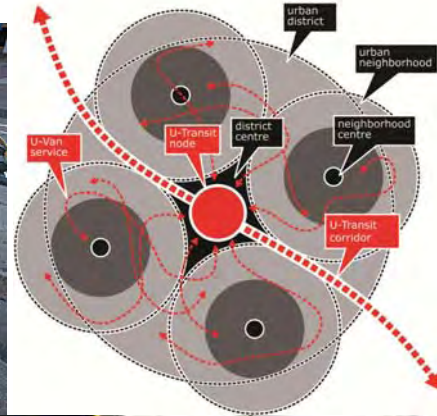
Measures which are a part of this scheme include the integration of fares and e-ticketing in public transport. This is closely linked with policies designed to rationalise traffic in the city centre, such as the development of interchange parking, extension of parking regulation and the development of car sharing and car-pooling.

The shift to sustainable modes is further encouraged through the development of cyclist mobility, and ICT technologies to support mobility management and control. Low emission vehicles are promoted through a variety of incentives and highly polluting vehicles are discouraged by the Ecopass scheme, which charges cars to enter a specified central area of the city. The cleanest vehicles enter free of charge while more polluting vehicles pay fees which increase with the emission levels of the vehicle.

**Results:** The results of the scheme for 2008 have been promising. Traffic levels have been reduced for both private and commercial vehicles, during the time the Ecopass scheme was enforced, but also outside it. In addition there has been an increase in vehicle modification with a significant



reduction in the most polluting vehicles, resulting in a total decrease in the level of the main polluting emissions (PM, CO2, NOx, and ammonia). The actions taken have also contributed to increasing the commercial speed and the level of ridership on public transport inside the Ecopass area and reduced road accidents in the city.





## Appendix B: Code of Conduct - Draft

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The following is a sample of a Code of Conduct to be accepted by all Board Members – usually a document worded in the first person and signed on induction to the Board.

### **Message from the Chair**

This section should state to whom the Code of Conduct applies, and when, meaning only at Board meetings, when representing the Board, or in the wider dealings of all administration linked to the Boards, the work of the respective agencies and personally.

Directors are expected to make a substantial contribution and be an active member of the Board and exercise personal responsibility in the position as a Board Member.

This code of conduct imposes more accountability for professional behaviour compared to Regulation.

The code is not a full statement of director's duties. It outlines fundamental values and principles that identify the standards of behaviour expected of members of our board and associated committees.

### **DUTA Values**

The Board works for, and in the interests of the public and needs to maintain standards of conduct and ethics that maintain public confidence and trust. Public confidence means that the public has the right to expect that public sector organizations display the highest integrity and competence, treating all citizens fairly and reasonably.

### **Conduct**

#### Personal behaviour mandates:

- To act ethically and with integrity;
- To act according to the legislative requirements, policies and ethical codes that apply;
- To make decisions fairly, impartially and promptly, considering all available information, legislation, policies and procedures;
- To treat members of the public and colleagues with respect, courtesy, honesty and fairness, and have proper regard for their interests rights, safety and welfare;
- To not harass, bully or discriminate against colleagues, members of the public and employees;
- To contribute to a harmonious, safe and productive work environment by our work habits, and professional workplace relationships; and
- To serve the government of the day by fulfilling our purpose and statutory requirements.

#### Fraudulent and corrupt behaviour:

- To not engage in fraud or corruption;



- Report any fraudulent or corrupt behaviour;
- Report any breaches of the code of conduct; and
- Understand and apply the accountability requirements that apply.

**In the use of public resources to:**

- Be accountable for official expenditure;
- Use publicly-funded resources diligently and efficiently. These include office facilities and equipment, vehicles, Travel entitlements, corporate credit cards;
- Use corporate expenses only for Board-related expenditure;
- Not use office time or resources for party political work or for personal gain, financial or otherwise;
- Keep to policies and guidelines in the use of computing and communication facilities, and use these resources in a responsible and practical manner; and
- Ensure that any travel for official purposes is only done so when absolutely necessary.

**Conflicts of interest – to:**

- Ensure personal or financial interests do not conflict with the ability to perform official duties in an impartial manner;
- Manage and declare any conflict between personal and public duty; and
- Where conflicts of interest do arise, ensure they are managed in the public interest.

**Commitment to address corruption:**

- Take responsibility for reporting improper conduct or misconduct which has been, or may be occurring in the workplace. To report the details to the relevant people or agency; and
- take responsibility for contributing in a constructive and positive way to enhance good governance and the reputation of the board.

**Professional Behaviour**

- A director should attend all board meetings. If a board member can't attend a meeting they should obtain a leave of absence and inform all other directors of their non-attendance as early as possible.
- A director should arrive at the location of the meeting before the planned starting time to make sure the meeting runs on time.
- A director should have read, understood and be prepared to discuss all issues included in board papers and/or reports.
- A director must learn about DUTA areas of responsibility business, the statutory and regulatory requirements, and be aware of the physical, political and social environment in which DUTA operates.



Communication and official information – requirements to:

- Not disclose official information or documents acquired through my work, other than as required by law or where proper authorisation is given;
- Not misuse official information for personal or commercial gain for myself or another;
- Adhere to legal requirements, policies and all other lawful directives regarding communication with Parliament, ministers, ministerial staff, lobbyists, members of the media and members of the public generally; and
- Respect the confidentiality and privacy of all information as it pertains to individuals.

Record keeping and use of information - to:

- Record actions and reasons for decisions to ensure transparency;
- Ensure the secure storage of sensitive or confidential information;
- Comply with our record keeping plan; and
- Where permissible, share information to fulfil our role.