Md. Shahinul Islam Khan, Chief Town Planner, Chittagong Development Authority

Md. Monjurul Haque Talukder, Assistant Engineer, Chittagong City Corporation

Shige Sakaki, Sr. Urban Transport Specialist, WB
The takeaways

• For an efficient Transit Oriented Development (TOD), access to transit nodes (sidewalk) is very important.

• Co-ordination between landuse and transport plan is necessary. 3V tools can be helpful in this regard.

• Politicians and the government should have a common vision for the future that will support achieving sustainable life style.
Applying 3V framework

- In developing the Urban Transport Masterplan for Chittagong, 3V framework will be applied to
  - Proposed bus improvement corridors
  - Proposed Regional Bus Terminals

- Chittagong City Corporation and Chittagong Development Authority will work together.
List of key challenges

• Incorporating opinions of stakeholders, such as residents, business community, transport service providers etc.

• Developing coordination mechanism among government and non-governmental institutions.

• Convincing politicians and bureaucrats about the benefits of TOD.
The approaches/solutions applicable to our challenges

- To have effective co-ordination between government and non-government institutions.
- Continuous consultation with the stakeholders
- Comprehensive Land Readjustment Scheme is necessary for Chittagong.
Applying these in our city

• For co-ordination, we will form a coordination committee, consisting of the heads of the stakeholder institutions.

• For continuous consultation, we will arrange periodical consultation meetings.

• For Land Readjustment, we will develop a Land Readjustment policy that fits into our existing framework.
The implementation plan up to 6 months

- We (Shahinul and Monju) will convince the Mayor of Chittagong City Corporation to set up the Coordination Committee.

- Chittagong City Corporation will implement user-friendly footpaths through its own main road improvement project. The project is being proposed to the central government.

- Chittagong Development Authority will propose to the central government to develop and adopt a Land Readjustment Policy.
Thank you
2nd TOD TDD Action Planning
Brazil
May-June 2017

Ms. Agueda Muniz – Secretariat of Urban Planning and Env., SEUMA (City of Fortaleza)
Mr. Marcos Santos – National Secretariat of Urban Mobility, SEMOB (Ministry of Cities)
Mr. Lucio Gomes – State Secretariat of Infrastructure, SEINFRA (State Government)
Ms. Emanuela Monteiro – Urban Specialist, TTL
• 5th Most Populous City in Brazil
• 2nd Most Influent Metropolitan Area
• 3rd City in Real Estate investments
• A Great Place for Doing Business
• 35 km of Urban Beaches
• 100% Urbanized Flat City
MASS TRANSIT SYSTEM (RAIL + BUSES + BRT)
PUBLIC TRANSPORT
- BRT
- BUSES
- METRO
- TRAIN
- LRT

BICYCLES
- BIKE SHARING
- INTEGRATED BICYCLE
- CICLEPATHS

ROADS
- EXISTING ROAD SYSTEMS

PEDESTRIAN
- INITIAL INVESTMENTS IN WAKABILITY
BIKE SHARING
“BICICLETERA”
METRO SOUTH LINE
CHICO DA SILVA STATION
2. Challenges to address

• Completing the integration of the system
• Exploring the development potential in some stations
• Improving ridership
• Promoting the use of public transportation
• Developing the business case for TOD and implementing land value capture around selected stations
  • Accessing funding to conduct the needed investments to improve and complete the system
3. Opportunities

• An existing political and institutional alignment
• Existing city’s strategic plan (Fortaleza 2040) integrating economic opportunities, transit and urban planning
• The city has been working with:
  • Special Development Zones: fiscal incentives, economic activities functioning 24/7 and LVC instruments
  • Small scale LVC arrangements for the past 3 years (local PPPs, land use change, air rights)
5. PILOT PROJECT

• How can we improve the system to our users?
• How can we promote higher ridership?
• How can we guide our decisions around densification and urban development having mind the links with the transportation system?
4. PILOT PROJECT

MASS TRANSIT SYSTEM (RAIL)
4. PILOT PROJECT | Parangaba Station

NODE
+ Intermodal station —— metro + LR + buses + BRT + bicycle and car sharing systems

PLACE
+ Existing infrastructure + Shopping + Parangaba lake + multiple services and facilities (health, education) + identity
- There is space for improvement of urban quality
- No walkability (design, quality and continuity of the sidewalks is an issue)
- There are imbalances in the mix of uses and income

MARKET
+ Potential to increase FAR
+ There is room to perform changes in land use regulation
+ Fiscal incentives can be granted (such as exempting or lowering property tax for those willing to develop in the area)
+ Potential to apply flexible permitting regulations (such as business hours)
4. PILOT PROJECT | Papicu Station

NODE
+ Buses + BRT + LR + Bike sharing system

PLACE
+ Existing infrastructure + Big shopping mall (Rio Mar) + Large scale private and public health facilities + Density of commercial activities, services and jobs
- Inner city slums
- High violence rates

MARKET
+ There is a LVC experience under development (Lagoa do Papicu local PPP, Mixed use development, with a shopping mall, office space, commercial, hotel)
+ Land plots tend to be bigger and belonging to few owners
+ 4th most expensive m2 in the city

Existing infrastructure + Big shopping mall (Rio Mar) + Large scale private and public health facilities + Density of commercial activities, services and jobs
5. Application of 3V Framework

• In our case, the 3V offers a clear pathway and methodology to:
  • Validate the pilots stations where to work: Parangaba and Papicu
  • Choose strategies to boost each “V”
6. Key takeaways and lessons from the 2nd TOD TDD

- There is no “one-size-fits-all” solution
- A TOD&LVC approach cannot happen everywhere
- The TOD approach needs to be adapted to each case
- To make your case feasible, you need to:
  - Identify the product to be developed
  - Set your long-term vision + implementation plan
  - You can start small and navigate the process overtime
  - Stakeholder coordination and consensus is a must
  - It is important to combine multiple instruments
  - There is a “menu” of strategies available to balance the 3Vs
7. Institutional Arrangements

SECRETARIA NACIONAL DE MOBILIDADE URBANA

MINISTÉRIO DAS CIDADES

THE WORLD BANK
IBRD • IDA

METROFOR

PRIVATE SECTOR

GOVERNO DO ESTADO DO CEARÁ
Secretaria da Infraestrutura

Prefeitura de Fortaleza
SECRETARIAT OF URBAN DEVELOPMENT AND ENVIRONMENT
8. Action Plan

Hopefully, with the support of the TOD COP...

• Set up a discussion with the key stakeholders to agree on scope and on needed inputs for the Analytical Work (mid June 2017)

• To conduct a roundtable with key stakeholders from the private sector (June 2017)

• **World Bank**: To develop and approve the Concept Note (end of June 2017)

• To prepare a draft ToR for the consulting services (August 2017)

• Final Version of ToR (September 2017)

• Get consulting services contracted (October 2017)
1. City of Guiyang

Population: 4.7 million; Size: 8,034 km²; urban area: 2,403 km²
Guiyang BRT - ring in old town
Guiyang Metro – S2
2. TOD Project

GEF financed project: part of sustainable city program

- **TOD city wide strategy for Guanyang**
  - Mass transit strategy that integrates land use and transport
  - Feasibility study for transport and land use planning to prepare for Guiyang’s new master plan

- **Land use planning and strategy along metro line development**
  - The second metro line is expected to enter into operation in 2019
  - Connectivity to other transport mode (e.g. BRT)

- **Land use planning and strategy along BRT line**
  - Walkability, bicycle lane design and urban design for improving accessibility to BRT stations
  - Station hub design to improve rapid transit and use of public transportation
  - Optimizing public transport network and stations to improve efficiency and service
3. Institutional arrangements

• Guiyang project implementation:
  • Vice mayor led process
  • Designated Project management office that coordinates planning, finance, construction, land use, transport bureaus, and bus and metro companies
2. Key takeaways from the 2\textsuperscript{nd} TOD TDD

- **Japan experience:**
  - Carefully designed, taking time for consultation, integrating commercial development to transit
  - New town development observation:
    - Distance between old town and new town is not too far with good transport connections
    - A good reference to China new town development and high speed rail station development
  - Construction without obstructing existing transportation

- **Deep dive learning**
  - China’s overall transport strategy still lacks of integration between transport and land use and development;
  - 3 Vs would be a useful approach but take time to establish deep understand and implement
4. Challenges to address

- At national level, different ministries need to share the concept of TOD; need to give more authority to the province and cities on how to implement

- Technical assistance provides a good basis but uncertainty for actual implementation:
  - Changing mind set of leadership and city residents – using public transport and non-motorized transport (e.g. car ownership and driving car remain an goal for many Chinese)
  - Connecting to “reality”: practical issues (e.g. Coordination among different bureaus and their interest)

- Implementation of land acquisition and re-adjustment

- Financing the implementation of the plan
6. Approaches and actions

- Share learning with other authorities, consulting firms and other stakeholders in order to incorporate the concept into the relevant studies
- Exchange experience with Japan’s experts with the help of TDLC
- Incorporate 3Vs analysis into studies and explore financing options for TOD
Action Plan
Sea Transport of THESSALONIKI
and reshaping the coastal front of Thermaikos Gulf

by
Maria Zourna &
Thomas Tziatzios

World Bank’s Technical Deep Dive on 2nd Transit oriented Development, Tokyo, Japan, 2017
Photos from Thessaloniki

World Bank’s Technical Deep Dive on 2nd Transit oriented Development, Tokyo, Japan, 2017
Key Takeaways

• Combination of development and transit expansion can provide efficient, convenient and safe cities

• Transit expansion should not provide just short distances but connectivity as well as social inclusion

• TOD relies on commitment and perseverance, by all stakeholders involved, through time

• Legal and regulatory changes must be implemented as prerequisite, for example:
  - Increase FAR beyond specific limits
  - Change land uses without limitation
Application of 3V Framework

TOD as any other tool cannot be used as piecemeal, but has got to be adapted to local situations

Applicable principles in Thessaloniki
- Walk, Cycle, Connect, Transit, Mix, Shift

Not applicable principles
- Densify, compact

TOD diagnostic tools
- Adapted and weighed to task
Key Challenges

To unlock and capture funding resources to pay back investments, to not purely rely on public budgets.

Preserve local identity in defining unique places and creating a sense of belonging among residents.

Better understanding and coordination between stakeholders, to re-evaluate decisions already taken on transit and development issues.
Approaches applicable

Intermodality between different means of transport. Connecting existing and planned traffic nodes to new waterboat-stops.

Use station scale urban regeneration to connect physically nodes that are not necessarily next to each other.

Step by step approach, to provide an example, promoting to all stakeholders what can be achieved through TOD.
Ways of application

TOD analysis to diagnose hidden conflicts and incompatibilities or gaps on imposed decisions

Redesign urban spaces according to TOD principles and methodology, as close as possible

Design a solid framework consisting of:
- involvement of different stakeholders
- their participation in different stages
- coordination of their timetables
- Finding the necessary resources for implementation
- Securing necessary permits on time
Short term implementation plan

Formalization of the collaboration framework between the municipality and the World Bank team
- Steering Committee
- Technical Board
- Tasks, Duties, Timetable, etc.

Internal (within the municipality) debate, in order to persuade all parties on the benefits of implementing TOD concepts

Educating the key stakeholders of TOD principles and added value on potential investment plans
Sea Transport of Thessaloniki and reshaping the coastal front of Thermaikos Gulf

Special thanks to The World Bank and TDLC for the chance provided to widen our horizons

Maria Zourna (m.zourna@thessaloniki.gr)
Thomas Tziatzios (t.tziatzios@thessaloniki.gr)
2nd TOD TDD Action Planning
KENYA

1. John M. Ndirangu, Secretary, Metropolitan Dev. State Dept. of Housing & UD, MTIHUD
2. Kithinji Kanyaura, Project Manager (Infrastructure), Kenya Railways
3. Charles Mutunga, Supt. Engineer, Urban Development Department, MoTIHUD

May 29-June 2, 2017
1. TOD Project in Nairobi City

Nairobi Population: 4.5 Million

The Ministry of Transport, Infrastructure, Housing & Urban Development (MOTIHUD) is redeveloping the existing Nairobi Central Station to a modern Core for Urban Public Transport.

The Project is being implemented through the Nairobi Metropolitan Services Improvement Program (NAMSIP).
Location
EXTENDED CBD

- Compact,
- Sustainable transport,
- High density,
- Mixed land use,
- Diverse,
- Green
Transit Plan
2. Key Takeaways from 2\textsuperscript{nd} TOD TDD

- Have a clear vision of Railway City
- Create a sustainable dense urban core by integration of efficient transport and mixed land use
- Stakeholder engagement and buy-in is crucial
- ToD plans are complex and take long time to implement
- Start with less complex components
3. Institutional Arrangements (Interagency Coordination)

STATE DEPARTMENT OF HOUSING & URBAN DEVELOPMENT

NAIROBI CITY GOVERNMENT

COORDINATION
PS-SDHUD, MD KR

PUBLIC AGENCIES
KR (UN-Habitat)
WORLD BANK
JICA
AfDB
KfW
EU

Project Secretariat: METROPOLITAN DEVPT
4. Challenges to address

- Legal framework
- Institutional framework
- Financing – exploring various financing options
- Viable satellite nodes
- Land Administration
- National and County Government collaboration
5. Application of 3V Framework

- Due to land size and location Node, Place and Market Potential Value all apply to proposed re-development of Nairobi Central Station.
6. Approaches and Actions

• Apply TOD concept to urban plan and designs of Railway City to achieve compactness and sustainability
7. Next Steps: Implementation Plan (First 6 months)

- Stakeholder mapping and Communication Plan
- Develop design standards
- Planning process as per law-Urban plans/Designs
- Technical Work- Urban designs
- Institutional review
2nd TOD TDD Action Planning
Pakistan

02 June 2017

Zohair Fazil
Deputy Chief (Transport & Communication), Ministry of Planning, Development & Reform

Jon Kher Kaw
Senior Urban Development Specialist, WB
Key Takeaways

• In the Planning & Design of Mass Transit Systems, Transport, Urban and Economic Planners should work together from the project initiation

• TOD concept must be applied at the project conceptual stage and relevant stakeholders including the private sector taken on board

• Highly Dense and Compact cities - Support high quality transit & local services (Tokyo and Hong Kong urban space constrained necessitated vertical development)

• Mass Transit System can never be efficient without a mixed use, mixed income, friendly pedestrian and Bicycle urban development

• Reduce dependency on motor vehicles - Requires integrated urban transport Planning and Sustainable Urban Land Use Planning

• Integration of Public Transport Modes - Easy access to public transport Key (Door to Door)

• TOD - Corridor Level or Station Scale Level
Key Takeaways

- Value must be created first before capturing it (Land Value capture: change in land use or floor area ratio)
- Land value capture can be a tool to attract private sector investment as a major financier of the project
- Private Sector more efficient in Operations of a Mass Transit Line – Better service provider
- Connectivity of the main corridor with the feeder or branch lines will increase ridership that will in turn create value for future TOD in the vicinity
- Extension of Corridors - New well planned suburbs can be developed by providing fast mass transit connections with the City Centres, stations along the corridor can be selected for station level TOD that will increase market potential at each station
Key Takeaways

- Transparent Land Management System mandatory for success of any TOD project

- Japan opts for rail system as opposed to Bus Rapid Transit because of space required for road Right of Way and also because large number of buses will be required to cater for the high number of passengers

- In Japan, railway lines operated by private companies – Revenues through fares (1/3 of total), advertisement, shops, departmental stores and hotels.

- Make Regulations that allow Land Re-adjustment
Application of 3V Framework

Methodology for identifying economic opportunities in areas around mass transit stations

- **Node Value**
  - passenger traffic volume
  - Intermodality
  - Centrality

- **Place Value**
  - Urban quality of space
  - Amenities, school and health care
  - Accessibility through walking & cycling
  - Mixed pattern of land use

- **Market Potential Value**
  - Current & future human densities (residential plus employment)
  - Jobs accessible by transit within 30 minutes
  - Developable land
  - Potential changes in zoning such as increasing floor area ratios
Key Challenges

• Transit Oriented Development not considered for design of Mass Transit Systems at the Corridor or Station Scale level – corridor alignment selected based on estimated Ridership seeking full funding from the Government alongwith operational subsidy

• Mass Transit Systems lack integration of various modes – Feeder lines not developed – Non provision of Walking and Cycling facilities – Results in traffic congestion, poor ridership and subsequently large sums of public money spent on operational subsidy

• No concept of leveraging private sector financing through land value capture – projects fully funded & operated by the Government
Solutions Applicable for Addressing Challenges

• **City Master Plan & Transport Plan Development**
  Objective of these plans should be Sustainable Urban Development with Integrated/Intermodal Public Transport that reduces traffic congestion, allows easy access to public transport and an urban infrastructure that facilitates walking & cycling.

**Neighborhood improvements** Objectives are to focus on smaller scale implementation to improve neighbourhood environments like public spaces, safety, walkability and better connect them to transit node.

• Use TOD approach at the City and Station level
  – Land Assembly
  – Good Urban Design
  – Land Value Capture
  – Private Sector investment / Operation of corridor
How to apply these Solutions

• City Master Plan and Transport Plan should be analyzed. In case deficient or out dated – should be developed first

• The Planning & Design of Mass Transit Systems should be carried out by Transport & Urban Planners in consultation with Land Authorities and Private Sector with a clear objective to minimize public sector investment and leverage private sector financing, TOD concept must be applied at the conceptual stage

• Private sector should operate the mass transit corridor – Government to provide a conducive environment only, Land Value Capture requires flexibility in Floor Area Ratios and Land use. Future extension of mass transit systems not possible without private sector involvement/financing
Implementation Plan (6 Months)

- Presentation on the TOD concept (3V Framework) to the Federal and Provincial Authorities involved in the Planning, Design, Approval and Implementation of Mass Transit Projects

- Provincial Authorities to come up with TOD potential projects at Corridor and Station Scale level for operational, under construction and planned mass transit projects using 3V Framework

- Start Discussion with the Land and Law authorities for enabling legal and Regulatory Framework to enable and leverage upon TOD.

- Steering Committee at the Federal level on Mass Transit Projects to include all public (includes provincial / city governments) and private sector stakeholders

- Explore projects similar to WB Karachi Neighbourhood Improvement Project (KNIP) (improved walkability, public spaces and connectivity to BRTS) and how they can be extended to other cities in Pakistan and other areas in Karachi with transit nodes

- Leverage on Steering Committee set up under KNIP for better coordination with government agencies, civil society and businesses to build momentum for similar neighborhood upgrading and TOD related projects.

- Identify Potential Technical Assistance and investment from WB and Japanese Agencies for development / improvement of City Master Plan, Transport Plan and analysis of Mass transit Systems
<table>
<thead>
<tr>
<th>Mass Transit System – Important Data</th>
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</thead>
<tbody>
<tr>
<td><strong>Feasibility Stage</strong></td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>Length (Kms)</td>
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<tr>
<td>Cost of Project/Who is funding</td>
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<tr>
<td>Corridor Selection Basis TOD/only ridership</td>
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<tr>
<td>Urban Infra Development</td>
</tr>
<tr>
<td>Design Standards Used</td>
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</tbody>
</table>
Karachi Neighbourhood Improvement Project
CULTURAL ZONE
National Museum & Burns Road amalgamated to form Public Piazza to bring in vibrancy

Open Theatre
Place for holding events to make the piazza vibrant place.
DESIGN ELEMENTS PROPOSED TO BE FOCUSED ON FOR ACHIEVING THE DESIRED OBJECTIVES

Bus stands
Proposed landscape is a combination of hardscape & softscape features to uplift the existing urban fabric consisting of streets and vacant lands found within our studied area of cityscape. The intent behind the provision of landscape is to bring the urban fabric of land into its productive state for its users by involving features that may bring positive impact on overall environment in terms of their layout treatment.

- Hardscape features will be provided to promote user desired activities like paved areas, walkways, platforms etc.
- Softscape features will be provided such as local region trees, shrubs, grass patches etc.
- Proposed landscape will lower the rates of anxiety & less we will be aware of pain.
- Proposed landscape will benefit health as it will helps to bolster the immune & stimulate the body’s natural healing proclivity.
- Landscape sunken & elevated platforms will serve as furniture itself for users.
DESIGN ELEMENTS PROPOSED TO BE FOCUSED ON FOR ACHIEVING THE DESIRED OBJECTIVES

Street corners and curb stones
Trees and Landscape Strips
Metrobus Rawalpindi – Islamabad
Elevated Section                8.5 Km
At-Grade Signal Free            12.6 Km
Total Length                    = 21.1 Km
Elevated Stations               11 Nos.
At-Grade Stations               14 Nos.
Total Stations                  = 25 Nos.
METROBUS TO
NEW ISLAMABAD INTERNATIONAL AIRPORT
Proposed Stations

**Features**

- Total Length: 25.6 Km
- Stations: 10 Nos.
- Future Stations: 3 Nos.
- Interchanges: 1 Nos.
Typical Cross Section in Trench Section

- Median / Existing Shoulder
- Existing Kashmir Highway
- 10.0 m (MBS Corridor)
- Existing Kashmir Highway
- Existing Shoulder
- Guard Rail
Typical Cross Section in Median of Kashmir Highway

- Existing Kashmir Highway
- MBS Corridor
- Existing Shoulder
- LED Lights
- Existing Drain

9.8 m
Perspective View of MBS Station
CONSTRUCTION OF INFRASTRUCTURE & ALLIED WORKS FOR METRO BUS SERVICE (PESHAWAR MORR ~ NEW ISLAMABAD INTERNATIONAL AIRPORT)

3D VIEWS (AT GRADE)
CONSTRUCTION OF INFRASTRUCTURE & ALLIED WORKS FOR METRO BUS SERVICE (PESHAWAR MORR ~ NEW ISLAMABAD INTERNATIONAL AIRPORT)

3D VIEW (MBS TRENCH)
Stations
PESHAWAR METROBUS PROJECT
Thank You
2nd TOD TDD Action Planning
Cebu City, Philippines

May-June 2017

Arnulfo Fabillar, Department of Transportation (DOTr)
Nigel Paul Villarete, Cebu City Government
Vickram Cuttaree, WB Task Team Leader
1. TOD Project in Cebu City, Philippines

The Cebu Bus Rapid Transit (BRT) Project

- **Classification**: Bulacan–Ayala
- **Length**: 10.55 km
- **Segregated (km)**: 0.51 km
- **Unsegregated (km)**: 6.8 km
- **Total (km)**: 17.31 km
- **Total Number of Stations**: 21
- **Terminal**: 4

1. **Non-separated distance of 0.51 km based on BRT using existing Mambaling overpass.**
2. **Separated distance of 0.1 km associated with BRT only route into Cebu IT Park**
3. **Terminal including IT Park station**

Legend:
- **BRT Stations**
- **BRT Terminals**
- **BRT Corridor (Segregated)**
- **BRT Corridor (Unseggregated)**
- **BRT Depot**

**Note:**
- **BRT Station**: Bulacan
- **BRT Terminal**: Cebu South Terminal
- **BRT Corridor (Segregated)**: Depo
- **BRT Corridor (Unseggregated)**: Osmenta Blv

**City Map**
- **Gov. M. Cuenco Ave - M. L. Quezon St Intersection**
- **N. Escario St**
- **Present of Depot**
- **Archbishop Reyes Ave - Mindanao Ave Intersection**
- **Bulacan**
- **Talamban**
2. Key takeaways from the 2nd TOD TDD

- **Key takeaways from the Technical Deep Dive relevant to the Cebu BRT Project:**
  1) TOD takes land use and transport integration to another higher level, integrating further urban functions into the whole concept of inclusive mobility;
  2) TOD concept was not discussed in the Cebu BRT project formulation. But what we can realize now, is that it should have been from the very start.
  3) TOD will definitely double the benefits of the Cebu BRT project, especially in many sense other than better transport – socially, environmentally, etc.

- **Takeaways from peer to peer learning:**
  1) Different countries/cities have different circumstances, and more critically, different legal framework/legal regulations. But everybody seems to agree that TOD is good, but its application has to be adapted to the local conditions of the cities.
3. Application of 3V Framework

Corridor Approach

• Application of the 3V Framework

For Nodes, we map out

1) future BRT network

2) current and future PT network to identify the high value nodes and places as the city develops

3) assess the potential for market value increase and prioritization of TOD development.

4) consult with the private sector and other involved stakeholders on the whole scheme to achieve collective agreements and commonality.
4. Challenges to address

A. Lack of a clear existing business case information both for the BRT corridor and its stations;
B. Legal and Institutional Environment need to be adjusted to achieve better working conditions for the TOD approach;
C. Need to identify and secure the financing for both the public requirements and the private sector participation in the entire TOD scheme;
5. Approaches and actions

• More in-depth application of the basic concepts of Land Use and transport Planning integration in the Comprehensive Land Use Plan (CLUP) and the City Zoning Ordinance, along the BRT corridor;

• Apply mixed use and integrated development for residential, commercial, and urban services around and adjacent to BRT stations;

• In general, and in the long-term, integrate the whole TOD concept to the long-term City Development Plan, and the City Land Use Plan (CLUP)
What is your implementation plan (up to 6 months)?

- Create a TOD Technical Working Group (TWG) to map out a more detailed Implementation Plan, with specific Terms of Reference, Resource Requirements, Schedules and Timelines, as well as identification of Key Stakeholders to engage;
- Undertake a more in-depth assessment of the constraints and develop the business case for TOD for the corridors and stations;
- Communicate the vision and business case to the different stakeholders in order to generate public support;
- Study and execute legal and institutional reforms;
- Develop a more detailed Implementation Plan.
7. Next steps: Implementation Plan (First 6 months)

How could World Bank (and TDLC) support the implementation plan:

1. Undertake the Detailed Assessment and Develop the Business Case for TOD Application along the WB-assisted BRT Project corridor;

2. Prepare a prioritization Criteria for the Stations and Develop the Business Plan, including the Financing options;

3. Support the Legal Regulations at the National Level and Institutional Reforms at the City Level;
Proposed TOD Project in Cebu City

The Cebu Bus Rapid Transit (BRT) Project

**Classification**

<table>
<thead>
<tr>
<th>Link</th>
<th>Segregated (km)</th>
<th>Unsegregated (km)</th>
<th>Total (km)</th>
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<td>Bulacao – Ayala</td>
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<td>Mambaling - SRP</td>
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<td>Total</td>
<td>14.91</td>
<td>8.05</td>
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</table>

**Number of stations (Terminal)**

- Non-separated distance of 0.5 km based on BRT using existing Mambaling Passover.
- Separated distance of 0.1 km associated with BRT only route into Cebu IT Park.
- Terminal including IT park station.

The project (Bulacao ~ Talamban) L = 22.96 km

**Legend**
- BRT Stations
- BRT Terminals
- BRT Corridor (Segregated)
- BRT Corridor (Unsegregated)
- BRT Depot
Proposed TOD Project in Cebu City
Proposed TOD Project in Cebu City
Proposed TOD Project in Cebu City
Proposed TOD Project in Cebu City
Proposed TOD Project in Cebu City
Thank you very much.
2\textsuperscript{nd} TOD TDD Action Planning
Senegal

May-June 2017

Fatim Tall, Ministry of Urban Renewal, Housing, and Living Environment
Abdoulaye Sy, CETUD
Aiga Stokenberga, World Bank
1. Transport and Land Use Planning in Dakar

- Urban disaster risk due to housing expansion into unsuitable areas
- Limited supply of affordable housing
- Concentration of commercial activities in the Plateau putting a strain on infrastructure
- Inequality across the urban area in access to urban services
- Need to strengthen local technical capacity to prepare PUDs and PDUs

**Land Use Plan for 2035** proposes to:
1. Transform the present monopolar urban structure to a multipolar one
2. Introduce an Urban Growth Boundary (UGB)
3. Promotion of development along mass public transport networks
4. Differentiation of urban poles, urban centers, and sub-centers with unique functions

**Target:** Increase share of mass PT (BRT and rail) from 0.3% today to 25% in 2035
2. Key takeaways from the 2\textsuperscript{nd} TOD TDD

- Institutional coordination
- Political vision, stakeholder endorsement
- Incremental, iterative improvements that take time
- Need to create value first to capture it
- Articulated densities, articulated development potential
- Comprehensive/systematic tools for identifying development potential
- Land development tools (LR) not yet mainstream in peer cities
- Learning from peer cities developing TOD initiatives near BRT (process as important as end product)
3. Institutional arrangements

**TRANSPORT (BRT)**
- **STEERING COMMITTEE**
  - Ministry of Transport/Infrastructure
  - Ministry of Urban Renewal, Housing and Living
  - Environment
  - Ministry of Finance
  - Ministry of Local Governments
  - Ministry of Investment Promotion
  - Municipalities (Dakar)
  - Agencies (CETUD)
  - Private sector
- **TECHNICAL COMMITTEE**
  - Technical representatives of agencies, directorates
  - Civil society
  - Private sector
  - Municipalities
  - Utilities

**LAND USE (TOD)**
- **STEERING COMMITTEE**
  - Ministry of Transport/Infrastructure
  - Ministry of Urban Renewal, Housing and Living
  - Environment
  - Ministry of Finance
  - Ministry of Local Governments
  - Ministry of Environment
  - Representatives of other ministries (Health, Education, Sport, etc.)
  - Territorial Administration (national)
  - Municipalities (Dakar)
  - Agencies (CETUD)
- **TECHNICAL COMMITTEE**
  - Representatives of all sector, agencies, directorates
  - Municipalities
  - Utilities
4. Challenges to address

1. Political vision / support for TOD: specific targets at the level of transit corridors; city-level TOD policy
   example: % of population living near transit

2. TOD-specific technical capacity within Ministry of Urban Renewal, Housing and Living Environment and CETUD
   example: site Master Plan for a specific TOD pilot project
   pedestrian/bicycle access to BRT

3. Understanding / identifying TOD opportunities along the corridor depending on current conditions
   example: built-up/informal station areas vs. station areas with more land availability
5. Application of 3V Framework

Transport demand model has allowed identifying stations that will serve as ‘hubs’ – largest number of transfer passengers, intersection of trunk and feeder lines.

Next step: collect data on local pedestrian accessibility, amenities, quality of urban space near the main transfer hubs.

Next step: analyze real estate market data for the ‘hubs’ (data is available).
6. Approaches and actions

Stakeholder coordination

Private sector participation in infrastructure/ finance and land development
   The novelty of TOD in the Dakar context

The two approaches to TOD used in Japan are both applicable in Dakar:
   New towns well connected to transit (Diamniadio)
   City redevelopment (Medina, Guediawaye)
7. Next steps: Implementation Plan
(First 6 months)

Identify development opportunities along the BRT corridor (especially near the transfer hubs)

NODE + PLACE + MARKET

1. Analysis and mapping of existing data on market trends
2. Collection of station-area specific data on place characteristics (land use, environment, resident perceptions)
   - Technical (GIS) experts within CETUD, Ministries
   - Possible World Bank assistance

Further development of stakeholder mapping

Visioning workshop to discuss initial land-use development plans at the corridor level and for specific station areas (political)

1. Agree on priority station areas to be developed
2. Allocate institutional responsibilities
   - Possible World Bank (or hired consultant) assistance to coordinate/facilitate discussions and document agreed-upon actions

Targeted discussion about development concepts for prioritized stations (technical)
2nd TOD TDD Action Planning
Serbia
May-June 2017

Milutin Folic, City of Belgrade Chief Urban Planning Officer, Mayor’s Office
Dr Zaklina Gligorijevic, Urban Planning Institute of Belgrade
Joanna Masic, WB Group, SUR&R, ECA
Tamara Nikolic, WB Group, SUR&R, ECA
BELGRADE IS A COMPLEX CITY

To position Belgrade on the map within a network of competitive and desirable SEE destinations while enabling sustainable, livable, smart, and healthy environment for Belgrade citizens.
Developing Transit Nodes

• Revision of the Transport Master Plan – SMARTPLAN and first Metro line
• Relocation of the Main Rail Station from the City center and Construction of two new Rail Stations
Creating Market Value

NODE 1 - Block 42 Future Rail & Bus Station
NODE 2 - STATION “CENTRE”
ENCOURAGING HIGHER DENSITY AROUND NODES
SKYLINE BELGRADE
BELGRADE WATERFRONT

NODE 1

NODE 2
FOR BETTER QUALITY OF LIFE IN BELGRADE
Enhancing Node Value

120 KM
OF BICYCLE PATHS

Legend
- Planned cycling routes (120km)
- Existing bicycle routes (85km)
- Rental Stations (150km)
- Parking for bicycles (200km)

Map showing the network of bicycle paths and parking locations.
Creating Place Value
Pedestrian friendly public spaces around the Nodes
Creating Place Value

- Plans for the **underground garages**, **reconstructions of the City boulevards**
- **Belgrade Waterfront**  *For pedestrians & cyclists, Share of Car traffic only 25%*
2. Key takeaways from the 2nd TOD TDD

What were your key takeaways from the Technical Deep Dive relevant to your project?

• ToD can be an excellent mechanism to achieve strategic vision through integrated planning
• 3V is important lesson for the city managers. Multiplying the outcomes of the overall and detail transportation planning.
• The real estate development can be supported or spurred by new transport facilities.
• Tod or DoT is the question for Belgrade! The result should be the comfortable, safe, livable city.

What were the lessons from local partners, speakers?

• Long term Planning and flexible action plan,
• Evacuation of results achieved, monitoring and reshaping the implementation,
• Multi stakeholder engagement during the whole project lifetime

What were your takeaways from peer to peer learning?

• Coordination
3. Institutional Mapping for TOD

**National level**
MINISTRY OF CONSTRUCTION, TRANSPORT AND INFRASTRUCTURE (technical & functional aspects of the project, procedures)
- Department for railways and intermodal transport, and
- Department for construction works and land for construction
MINISTRY OF FINANCE (responsibility for PPP, DFI, procurement, legislation, subsidies)

**City level**
Mayor’s Office
Land Development Agency, PE
City Authorities: Secretariat for Transportation, Secretariat for Public Transport, Secretariat for Urban Planning and Constructing, Secretariat for Environmental Protection, and Secretariat for Investments
Urban Planning Institute

**Coordination mechanisms (planning and implementation)?**
Integrated Strategy,
Planning procedures,
Coordination Body
4. Challenges to address

- Please list key challenges (up to 3) you would like to address upon your return home

- Establishing TOD delivery mechanisms/institutional arrangements
- Developing the business case for TOD and implementing land value capture (direct/indirect) with the engagement of all stakeholders
- Preparing detailed site specific TOD design and plans for implementation
- Measuring impact of TOD, including land value before and after the TOD project
What is your view how 3V approach can be applied to TOD project in your city/country?

Some points and philosophy already incorporated in planning system and the Belgrade practice, like integrated transportation and urban planning, different levels of stations and multimodal public transportation.

Better places with economic value can be cratered or improved through ToD

• The functional Node value can be improved by place making, good urban design and add to the market values.

• 3V ToD is a tool to contribute to transformation of urban space.
6. Approaches and actions

The main Take away:

• Integrated planning, PROJECT BASED.
• Consensus of stakeholders in visioning the future development,
• Shared responsibilities,

How would you do differently compared to before joining the TDD?

• Making the common vision with,
• Involving bigger pool of stakeholders into the process,
• Focusing on CREATING VALUE in order to CAPTURE the VALUE

How would you like to address the challenges among your bureau and to wider stakeholders?

• Establishing COORDINATION BODY within the CITY management,
• More flexible legal framework
• Bringing ToD best cases and knowledge exchange to Belgrade
7. Next steps: Implementation Plan (First 6 months)

What is your implementation plan (up to 6 months)?

<table>
<thead>
<tr>
<th>Action</th>
<th>Location</th>
<th>Timing</th>
<th>Outcome</th>
<th>World Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase knowledge for waterfront developments</td>
<td>Seoul</td>
<td>July</td>
<td>Define Tools and Approaches for further study</td>
<td>Organize and facilitate</td>
</tr>
<tr>
<td>Convene stakeholders for high-level discussion on TOD</td>
<td>Belgrade</td>
<td>Sept?</td>
<td>Increased awareness of TOD at city level</td>
<td>Facilitate &amp; bring expertise</td>
</tr>
<tr>
<td>Build awareness of TOD and potential for Block 42</td>
<td>Vienna</td>
<td>Feb-March 2018 Parallel to Mayors Symposium</td>
<td>Enhanced approaches for station area development</td>
<td>Arrange &amp; facilitate visit to TOD site</td>
</tr>
<tr>
<td>Detailed proposal for World Bank technical support</td>
<td>Belgrade</td>
<td>June - October</td>
<td>Draft Proposal</td>
<td>Support proposal preparation</td>
</tr>
</tbody>
</table>
TAKE AWAY

FISH METRO INTEGRATED WITH HIGH SPEED RAIL & OTHER PT INCLUDING BIKES
Possible Future Proposals

1. Build capacity for Institutional Coordination of transit and urban planning and for major TOD developments,

2. Develop geospatial tools, data governance and platform for enhance decision making and impact assessment,

3. Develop intensive two way communication with the public supporting the ToD project

4. Prepare policies and guidelines for TOD (city/corridor/station), financial instruments and land value capture methods,


6. Complete city bike network while building up the broader support of the ToD Belgrade overall project.
2nd TOD TDD Action Planning
TANZANIA

May-June 2017

Eng. Julius Ndyamukama; TANROADS
Eng. Ronald Lwakatare; DART
Eng. Ezron Kilamhama: PORALG
Mr. Charles Mariki: PORALG
Ms Chyi-Yun Huang; WB TTL
Eng. Yonas Mchomvu; WB TTL
Planned TOD Project in Dar es Salaam
Proposed Corridor Dev. Phase 1
Selected Photos from the Project
Urban morphology around BRT station
2. Key takeaways from the 2nd TOD TDD

- What were your key takeaways from the Technical Deep Dive relevant to your project?
- There is a need to have clear policy, strategy and legislations in order to implement TOD
- DART would not rely on revenues from bus fare rather other sources from investment in TOD
- A well implemented TOD generates employments, maximize Land Use, boost Urban and National Economy growth
- TOD can start from small scale and expanded to bigger scale after stakeholders realizing its benefits
- Encourage Private sector to participate in development of TOD
- To design our urban infrastructures taking into considerations of cyclist and pedestrian
- Designing our urban infrastructure taking into consideration of green infrastructure
2. Key takeaways cont’d

• What were the lessons from local partners, speakers?

• All fellow partners admitted that TOD is the best model to be implemented for sustainable growth of our cities

• Land adjustment along BRT corridors is required to enable implementation of TOD

• To support TOD we need to have Land Management & Administration, high quality Urban design

• One of the main challenge to implement TOD is acquiring land

• Convert ownership of the land to ownership of floor(s)

• What were your takeaways from peer to peer learning?

• Possibility of land reclamation for urban development

• Invest in high rise to reduce urban sprawl

• Use of underground infrastructures where there is limitation of land
### 3. Institutional arrangements

<table>
<thead>
<tr>
<th>Government (National &amp; Sub-National Level)</th>
<th>Private/ Semi-Private Sector</th>
<th>Civil Society</th>
<th>Development Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dar City Council</td>
<td>African Real Estate Society</td>
<td>AMEND Traffic Safety Association</td>
<td>African Development Bank</td>
</tr>
<tr>
<td>Dar es Salaam Regional Commissioner's Office</td>
<td>Architects Association of Tanzania</td>
<td>Archdi University – Institute of Human Settlements Studies</td>
<td>JICA</td>
</tr>
<tr>
<td>Dar es Salaam Water and Sewerage Authority</td>
<td>Association of Tanzania Real Estate Entrepreneurs</td>
<td>Automobile Association of Tanzania</td>
<td>UNEP</td>
</tr>
<tr>
<td>and Dar es Salaam Water and Sewerage Corporation</td>
<td>Association of Transporters in Dar es Salaam</td>
<td>Center for Community Initiatives</td>
<td>UN-HABITAT</td>
</tr>
<tr>
<td>Energy and Water Utilities Regulatory Authority</td>
<td>Dar es Salaam Taxi Drivers Association</td>
<td>Cycling Association</td>
<td>World Bank</td>
</tr>
<tr>
<td>Ilala Municipal Council</td>
<td>Dar es Salaam Chamber of Commerce</td>
<td>Lawyer’s Environmental Action Team</td>
<td></td>
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<tr>
<td>Kibama Municipal Council</td>
<td>Dar es Salaam Commuters Bus Owners Associations</td>
<td>National Housing Tenants Association</td>
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<tr>
<td>Kigamboni Municipal Council</td>
<td>Hotel Association of Tanzania</td>
<td>Tanzania Civil Society Forum on Climate Change</td>
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<tr>
<td>Kinondoni Municipal Council</td>
<td>Tanzania Chamber of Commerce</td>
<td>Tanzania Cities Network</td>
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<tr>
<td>Ministry of Finance and Planning</td>
<td>Tanzania Drivers Association</td>
<td>Sumatra Consumers Consultative Council</td>
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<tr>
<td>Ministry of Industry and Trade</td>
<td>Tanzania Green Building Council</td>
<td>University of Dar es Salaam</td>
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<tr>
<td>Ministry of Lands, Housing, and Human Settlements Development (MLHHSDFD)</td>
<td>Tanzania Institution of Valuers and Estate Agents</td>
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<tr>
<td>Ministry of Transport</td>
<td>Tanzania Private Sector Foundation (TPSF)</td>
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<tr>
<td>Ministry of Water</td>
<td>Tanzania Truck Owners Association (TATOA)</td>
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<tr>
<td>Ministry of Works</td>
<td>Tanzanian Union of Industrial and Commercial Workers</td>
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<tr>
<td>National Institute of Transportation</td>
<td>Traders / Vendors Association (VIBINDO, DAKOA, and ASBO)</td>
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<tr>
<td>National Housing Corporation</td>
<td>Usafiri Dar es Salaam Rapid Transit (UDA-RT)</td>
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<tr>
<td>National Environment Management Council</td>
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<tr>
<td>President’s Office Regional Administration and Local Government</td>
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<tr>
<td>Roads Fund Board</td>
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<tr>
<td>TANROADS - Regional Manager for Dar es Salaam</td>
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<tr>
<td>Tanzania Building Authority</td>
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<tr>
<td>Tanzania Investment Center</td>
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<tr>
<td>Tanzania Revenue Authority</td>
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<tr>
<td>Temeke Municipal Council</td>
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<td></td>
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<tr>
<td>Surface and Marine Transport Authority</td>
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</tbody>
</table>
4. Challenges to address

• Key challenges to addressed

- Creating the enabling legal and regulatory framework for TOD (Planning & Implementation)
- Formulating the TOD/LVC Policy/approach for the City
- Developing of TOD in build up areas
- Readily available land for TOD
- Establishing TOD mechanism/institutional arrangements
- Developing the business case for TOD and implementing the LVC (Direct/indirect)
- Understanding TOD opportunities based on site specific conditions
- Prepare detail site specific TOD designs and plans for implementation
7. Next steps: Implementation Plan (First 6 months)

Corridor Development Strategy (CDS)
-- Providing a roadmap for transport and land use integration

Objective: To develop an integrated land use and transport plan and guidelines to facilitate the detailed development and appropriate densification along the first line of the Dar es Salaam BRT Corridor.

Outputs:
1. Land Use and Transport Plan (BRT Line 1)
2. TOD Pilots Projects / Detailed Site Plans & Operation Models
3. TOD Guidelines for ALL BRT Corridors

Phase I

- Baseline Studies
  - Physical + socioeconomic + institutional
- Diagnosis
  - Opportunity + constraints assessment
- Vision + TOD Framework

Phase II

- Corridor Concepts + Prioritization
- Implementation Methods + Finalize Plan

Month 1
(Jan 2017)

Month 8
(Aug 2017)

Months 16
(Apr 2018)
Stakeholder Consultations & Workshops
Dar es Salaam Metropolitan Development Project
Provision of Consultancy Services to Support Integrated Transport & Land Use Planning

Report 2
Diagnosis of Existing Condition, TOD Guidelines and Development Vision for Corridor
Draft Submission

May 2017

World Bank Group
Social, Urban, Rural & Resilience
5. Application of 3V Framework/Approaches

TOD Principles

- **WALK**
- **CYCLE**
- **CONNECT**
- **TRANSIT**

- **MIX**
- **DENSIFY**
- **COMPACT**
- **SHIFT**
# TOD Station Evaluation Matrix

## Measurement & Weighting

<table>
<thead>
<tr>
<th>Market Readiness</th>
<th>Development Potential</th>
<th>TOD Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding if the real estate market is capable of supporting new development.</td>
<td>Evaluation land framework of the station area. Allows new development and determines potential capacity for new development.</td>
<td>Evaluation of connectivity around the station area. Defines TOD principles on the area and sets up expectations for further TOD implementation.</td>
</tr>
</tbody>
</table>

### Indicators

- Population Density, Employment Density, Land Value (Sales), Land Value (Rental)
- Level of Income
- Availability of Developable Land, Efficiency of Land, Parcel Density, Land Utilization, Infrastructure Provision, Proximity to Current Negative Uses, Planning Status
- Transit Options, Station Accessibility (distance), Station Accessibility (time), Mix of Uses, Block Permeability, Community Facilities
TOD Station Evaluation Matrix
Urban Planning

**Population Density**
Large existing population density provides ridership for BRT and footfall to support non-residential / mixed-use TOD development

**Employment Density**
Large existing employment density provides BRT ridership, job opportunities to support mixed-use TOD development

**Availability of Developable Land**
Higher the % of buildable or non-hazardous land the more suitable for TOD development

**Land Efficiency**
The higher the % of non-built up coverage the more land will be available for TOD development

**Land Utilization**
A higher floor area ratio would indicate that an area has been more intensively developed and could be more difficult to re-develop

**Mix of Uses**
A higher number of uses would suggest that an area will have greater potential to accommodate TOD activities
**Transit Options**

(Public Transport density)
Number of different transit options that are accessible within walking distance

**Station Accessibility**

(Distance)
Population and employment catchment within 500 m walking distance

**Station Accessibility**

(time - isochronal analysis)
Population/Jobs reached within 30 min travel time

**Block Permeability**

Linear meterage of pedestrian paths and routes
Support from the Bank

- The Bank supported financing to procure consultant who is carrying out study on integrated Land Use Development along BRT Corridor.
- The study commenced on January 2017 and expected to be completed end of June 2018
- Phase 1 draft report already submitted for review; Phase 1 consultation workshop planned in July 2017.
- Phase 2 to begin (Aug 2017 – April 2018)
2nd TOD TDD Action Planning
Viet Nam
May-June 2017

Mr. MINH Nguyen Du, MOC
Mrs THUY Le Hong, MOC

Mr PHONG Phung Phu, Da Nang City
Mr VINH Dinh The, Da Nang City

Mr CUONG Dang Duc, WB Task Team Leader
1. TOD Project in my city/country

- Please provide a context and overview of the WB TOD Project in Vietnam
  
  - There is no living examples of TOD projects in Viet Nam. Some lines of the public transportation are under construction and there is no signs of TOD integrations.
  
  - Law on Urban Development Management will provide a framework for TOD and land readjustment.
  
  - Increasing awareness of stakeholders

Some photos from DA NANG City, VIETNAM
1. TOD Project in my city/country

1. Master plan 2030

2. Station scale

3. City scale

4. Corridor concept
2. Key takeaways from the 2nd TOD TDD

• What were your key takeaways from the Technical Deep Dive relevant to your project?
  • Roles of TOD to city development
  • Vary of TOD scales can be applied to different contexts
  • Land management tools to conduct TOD’s project

• What were the lessons from local partners, speakers?
  • All local partners agree on an importance of TOD solutions.
  • Needs of participations from stakeholders
  • Subsidies is crucial for a success of TOD project

• What were your takeaways from peer to peer learning?
3. Institutional arrangements

- Please illustrate institutional mapping at national and sub-national level to prepare and implement your TOD project.

**CENTRAL**

- MOC
- MOT
- MONRE

**LOCAL**

- DOC
- DOT
- DONRE

**STAKEHOLDERS**

- SPONSORS
- NGOs
- Inter ORGs
- CONSULTANT

**IMPLEMENTING BODY**

- Policy framework; Guidelines; Supervisors; Subsidies
- Project Operator
- Mobilizing fund
• Please indicate how urban and transport bureau cooperate. What are the coordinating mechanism both at the planning and implementation phase?

• At the planning phase, urban and transport bureau are together to create urban master plan which will show vision and scale of TOD. The coordinating mechanism is clear.

• At the implementation phase, should establish a committee including representatives of all stakeholders. Depend on fund, features, type of land mechanism of TOD project, implementing bodies could be vary but there should be a good capacity cooperation (jointly by state, private...) to implement TOD’s projects.
4. Challenges to address

- Please list key challenges (up to 3) you would like to address upon your return home

At central level:

- Identify TOD’s contents in the Law on Urban Development Management.
- Providing LR mechanism in the context of unique land system in Vietnam.
- Increasing public awareness on TOD

At local level:

- Institutional coordination (Getting all stakeholders sit together for implementing first project)
- Mobilizing funds
- Capacity building
5. Application of 3V Framework

- What is your view how 3V approach can be applied to TOD project in your city/country?
  - 3V approach is potential in Viet Nam especially in big cities
    There are few difficulties:
    - Vision of city development is influenced by politic point of views then sometime does not go in line with real demands.
    - Most of lesson learned for 3V are from developed countries and big cities (London, Hong Kong, Seoul, Tokyo...). Viet Nam there are only two big cities but without any metro systems, the rest are medium and small cities.
    - Lacking of data in all levels. Some is not exactly (land value, real estate market are showing a very different pictures of city development and even people income).
6. Approaches and actions

- What approaches/solutions that were presented during the TDD are most applicable to addressing your challenges? What are the methods you would like to apply?

- How would you do differently compared to before joining the TDD?

- How would you like to address the challenges among your bureau and to wider stakeholders?
  - Integrating urban, land and transportation within urban master plan and in districts or project level.
  - Considering TOD is an urban development program (other factors should be involved not only transportation such as commercial, housing, health care facilities...)
  - Legalizing LR mechanism.
7. Next steps: Implementation Plan (First 6 months)

- What is your implementation plan (up to 6 months)?
  - Continuing study about Law on Urban Development Management.
  - Work with other agencies to understand main points of TOD which should be modified or applied into Viet Nam’s contexts.
  - Work closely to Danang for further understanding the real situation of first TOD project implementation.

- How could World Bank (and TDLC) support the implementation plan
  - Provide supports for MOC on building the Law (experts, training course)
  - Capacity building on TOD (Station and urban renewal program)
  - TOD assessment (3V framework)
  - Sharing knowledge from TDLC, Yokohama City
  - Preparing for the full FS