# IMPROVING QUALITY OF LIFE THROUGH INCLUSIVE TRANSPORTATION

ANNELI R. LONTOC UNDERSECRETARY DEPARTMENT OF TRANSPORTATION

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#### THE PHILIPPINE PUBLIC TRANSPORT SYSTEM

Our public transport system is deemed unsafe, unhealthy, unreliable, and uncomfortable.

- PUBs and PUJs: Serve 67% of demand but uses 28% of road space (JICA, 2014)
- PUJs dominate road-based public transport:
  - 209,124 PUJ units nationwide. 90% are 15 years old and above (LTFRB)
  - 17% ambient air pollution in Metro Manila and up to 80% in other cities due to PUJs\*
  - PUJ passengers 10 times more likely to get into accidents than private car riders\*

\*GIZ Jeepney Market Transformation Programme Study

# THE CHALLENGE:







#### Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

- Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure.
- Efficient transportation services generate employment and wealth, and drive economic development.

# SUSTAINABLE CITIES AND COMMUNITIES



# Make cities inclusive, safe, resilient and sustainable.

- Provide access to safe, affordable, accessible and sustainable transport systems for all.
- Adopt policies and plans towards inclusion, mitigation and adaptation to climate change.

#### UN SUSTAINABLE DEVELOPMENT GOALS



# **Road Transport and Infrastructure Sector Vision**

By 2022, Filipinos will have a pleasant commuting experience wherein:



Public transport is adequate, *inclusive*, safe and comfortable;



Travel time is predictable;



Public utility drivers are disciplined, competent and mindful of the common good;



Rules are fair, stable and consistently applied.



### DEPARTMENT OF TRANSPORTATION ROAD-BASED PUBLIC TRANSPORT REFORM PROGRAM



### INVESTING IN ROAD-BASED PUBLIC TRANSPORT REFORM PROGRAM





**PUV Modernization Program** 



**Bus Rapid Transit System** 



#### **Integrated Terminal Exchange**



Intelligent Transport System (Interoperability for Planning & Operations)



# ROAD-BASED PUBLIC TRANSPORT REFORM PROGRAM PUV MODERNIZATION PROGRAM

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ROAD-BASED PUBLIC TRANSPORT REFORM PROGRAM PUV MODERNIZATION



A transformational large-scale initiative and flagship project of President Duterte, supported by the proposed Comprehensive Tax Reform Program of the Department of Finance.

It envisions a restructured, modern, well-managed, and environmentally sustainable transport sector where *drivers and operators have stable*, *sufficient, and dignified livelihoods* while *commuters get to their destinations quickly, safely, and comfortably*.

"By 2022, Filipinos will have a pleasant commuting experience."

### MAJOR COMPONENTS PUV MODERNIZATION PROGRAM



"System Reform and Vehicle Modernization"

#### PUV MODERNIZATION PROGRAM MAJOR COMPONENTS



Regulatory Reform

# **1.REGULATORY REFORM**

- Omnibus Franchising Guidelines.
  - DOTr/ LGUs: Local public transport route planning & route rationalization.
  - Modernized PUV fleet compliant with safety & environmental laws / standards.
  - Fleet/Industry consolidation for efficient operations



LGU Local Public Transport Route Planning

# 2. LGU CAPACITY BUILDING

• Mandating the LGUs to conduct Local Transport Planning and to produce Local Public Transport Route Plans.

#### LOCAL-LEVEL PUBLIC TRANSPORT PLANNING APPROACH

LGUs are in a better position to identify local public transport service requirements being in-charge of formulating the Comprehensive Land Use Plan, Zoning Plans, and Traffic Management Plans.

#### PUV MODERNIZATION PROGRAM MAJOR COMPONENTS





Route Rationalization

# **3. ROUTE RATIONALIZATION**

- Make the routes more responsive to passenger demand
- Appropriate vehicle type depending on road heirarchy
- Ongoing rationalization studies:
  - Metro Manila (to be completed by December 2017)
  - Davao City (Proposed routes by end of July 2017)
  - Start of Metro Cebu route rationalization study (July 2017)



Fleet

Modernization

# **4. FLEET MODERNIZATION**

- Compliant with Safety and Environmental Standards & Law
  - Euro IV Emission or better
  - Safety and Security features
  - Improved passenger comfort and accessibility
  - PWD-friendly
- Incentives for manufacturers (DTI BOI CARS program)



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# FLEET MODERNIZATION PROGRAM COMPONENTS



- Based on existing DTI-BPS Philippine National Standards and Clean Air Act.
- Incentives for PUJ manufacturers being done in collaboration with DTI-BOI.

FEATURE	REQUIREMENT		
Environment- friendly	Clean Air Act complaint engine. Euro 4 emission or better. Electric, Solar, Alternative Fuel		
Safety	Side door, Speed limiter, Automatic Braking System, Compliant with safety standards.		
Security	CCTV, GPS, AFCS, Dashboard Camera		
Comfort/ Convenience	PWD/elderly-friendly, Free Wi-fi		

#### PUV MODERNIZATION PROGRAM MAJOR COMPONENTS



Industry Consolidation

# **5. INDUSTRY CONSOLIDATION**

- Existing route operators should form cooperators or consortiums
- Benefits of Consolidation:
  - ✓ Access to credit facilities
  - ✓ Shared O&M costs
  - ✓ Operational efficiency via fleet management system

Financing PUV Modernization

# 6. FINANCING PUV MODERNIZATION

- Operators main concern is access to financing
- Special Loan Program with Landbank and DBP
- Government subsidy, as proceeds from the gains of the Comprehensive Tax Reform Program.
- Automatic Fare Collection System (AFCS), Facilitates easier repayment to lending institutions, reducing collection risks.



# **REQUIREMENT FOR OPERATORS**

BEFORE: One franchise, one unit = Inefficiency



**AFTER:** 

Industry consolidation CDA & OTC: Formation of cooperatives, corporation or consortium ✓ SAFETY OFFICER

**V** TERMINAL AND GARAGE

### = EFFICIENT OPERATIONS & REDUCED COSTS

PUV MODERNIZATION PROGRAM MAJOR COMPONENTS







### 8. PILOT IMPLEMENTATION

- To support the readiness of PUV Modernization Program and gain more support from the stakeholders.
- Activities for the Pilot Implementation will start 3Q 2017.

#### PUV MODERNIZATION PROGRAM MAJOR COMPONENTS





Stakeholder Support Mechanism

# 9. STAKEHOLDER SUPPORT MECHANISM

- Offers training, livelihood and job opportunities programs to stakeholders affected by the modernization:
  - TESDA training programs
  - DOLE's DILEEP (Integrated Livelihood & Emergency Employment)
  - o DSWD Sustainable Livelihood Program
  - o DTI's Microfinance/SME Devt
- Driver's Academy to be implemented by LTFRB in cooperation with LTO and TESDA



# **10. COMMUNICATION**

Effectively communicating the right message to the target stakeholders

### **PARTNERS** PUV MODERNIZATION PROGRAM





![](_page_21_Picture_1.jpeg)

Congestion reduction esp. in highly urbanized areas:

Traffic, disorganized, competitive

transit oriented, order, more mobility options; time savings; vehicle operating cost savings

BEFORE

![](_page_21_Picture_6.jpeg)

![](_page_22_Picture_1.jpeg)

Improved public transport level of service, passenger and commuter welfare

Unsafe, uncomfortable, unreliable, difficult to access with most commuters complaining. air pollution and health hazards

- Safe, efficient, comfortable
- Environment-friendly,
- **Clean Air Act Compliant vehicles**
- Rationalized Routes
- Intelligent Transport System

#### BEFORE

![](_page_22_Picture_10.jpeg)

![](_page_23_Picture_1.jpeg)

Improved welfare for the transport sector

Drivers subjected to health risks, cash-strapped, untrained, tied with the boundary system

#### Adequate training

- Assured of regular income
- Improved fleet management and safety
- Access to credit facilities and financing
- Shared operating and maintenance costs

![](_page_23_Picture_9.jpeg)

![](_page_23_Picture_10.jpeg)

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The PUV Modernization Program will engage the local manufacturing industry by creating more jobs and employment opportunities, further boosting the industry and contributing to the economy

![](_page_25_Picture_1.jpeg)

The modernized fleet will produce significantly less carbon dioxide and particulate matter emissions thereby reducing both environmental and social costs (health)

![](_page_25_Figure_3.jpeg)

#### PUV MODERNIZATION PROGRAM BENEFITS OF THE PROGRAM

**ESTIMATED MONTHLY TAKE-HOME PAY FOR THE DRIVERS** 

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Estimated Monthly driver income, in pesos (Driver-Owner Scenario)	Baseline	Euro IV (1)	<b>Euro IV (2)</b> 50 % increase in operator margin	<b>Euro IV (3)</b> 75% increase in operator margin
Revenue	65,100	78,120	78,120	78,120
Operating expenses	50,415	40,657	50,648	55,643
Operator and maintenance costs	19,981	19,981	29,972	34,967
of which:				
Amortization		22,266	22,266	22,266
Share of cooperative		-2,285	7,705	12,701
Fuel expense	25,037	14,200	14,200	14,200
Maintenance cost	0			
Other expenses	5,396	6,476	6,476	6,476
Net income (Driver take-home pay)	14,685	37,463	27,473	22,477
Increase in net income		22,778	12,787	7,792
Percent change in net income from baseline		155%	87%	53%

10,837 Pesos Savings from Fuel (-43%)

Baseline Figures from the GIZ Jeepney Market Transformation Programme Study Projection estimates done by DOTr and DOF

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### ROAD-BASED PUBLIC TRANSPORT REFORM PROGRAM BUS RAPID TRANSIT SYSTEM

![](_page_27_Picture_2.jpeg)

# **BUS RAPID TRANSIT SYSTEM**

### Bus Rapid Transport System and its Greenways

- 1. Cebu (CBRT)
- 2. Quezon Avenue (L1)
- 3. EDSA (L2)
  - Interim EDSA BRT
- 4. C5 (L3)
- 5. Roxas Boulevard (L4)

#### **BRT System Key Components:**

- BRT Road & Station Infrastructure
- Accessibility Infra & Urban Devt.
- System Management (AFC and ITS)
- Industry Capacity Development
- Depots

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![](_page_28_Picture_15.jpeg)

### BUS RAPID TRANSIT SYSTEM ADVANTAGES OF BRT

**1. Shorter Construction Period** 

3 years to implement EDSA and Q. Ave Corridor with 60km total length compared to 7 years or more for metro or subway construction

#### 2. Lower Implementation Cost

470 to 615 mil per km (as per Cebu BRT & EDSA BRT) compared to 2,000 to 9,000 mil per km (MRT or subway cost)

#### 3. Interconnectivity/Accessibility

Provision of direct and off corridor services

#### 4. Project Maturity

BRT projects approved by NEDA and loan approval by World Bank for Q. Ave (Mar 16, 2017)

#### 5. Public Acceptance

willingness of operators to embrace the new bus system
promotes inclusive growth in Public Transport sector

- supported by riding public and other stakeholders

#### 6. Accessibility Infrastructure

BRT component which will offer people to walk and cycle safely going to stations

![](_page_29_Picture_14.jpeg)

![](_page_29_Picture_15.jpeg)

#### BRT ACCESSIBILITY INFRASTRUCTURE AND URBAN DEVELOPMENT

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![](_page_30_Figure_2.jpeg)

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#### Cebu Urban Realm Enhancement

![](_page_30_Figure_4.jpeg)

# **METRO MANILA GREENWAYS**

![](_page_31_Picture_1.jpeg)

Key issues with planning and design of greenways, which still need to be overcome, are:

- CONNECTIVITY
- CONTINUITY
- SEPARATION
- ACCESSIBILITY
- SERVICES

![](_page_31_Figure_8.jpeg)

BRT ACCESSIBILITY INFRASTRUCTURE AND URBAN DEVELOPMENT WALKWAYS AND BIKEWAYS FOR SAFER ROADS AND USERS

![](_page_32_Picture_1.jpeg)

#### Improved pedestrian walkways

![](_page_32_Picture_3.jpeg)

#### Bike lanes and bike racks

![](_page_32_Picture_5.jpeg)

![](_page_32_Picture_6.jpeg)

Conceptual Designs for EDSA BRT (Source: ITDP-China, 2016)

![](_page_33_Picture_0.jpeg)

Sidewalk without Wheelchair Access

![](_page_35_Picture_0.jpeg)

# **BUS STOP UPGRADE**

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#### Goals

- Better Bus Shelter Infrastructure
  - Uniformity and flexibility of Design
  - Convenience/
  - Safety and Comfort
  - Accessibility
  - Good passenger information
  - Make routes well known and easily understood
- Easily identified

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![](_page_36_Picture_12.jpeg)

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### ROAD-BASED PUBLIC TRANSPORT REFORM PROGRAM INTEGRATED TERMINAL EXCHANGE

# **INTEGRATED TERMINAL EXCHANGE**

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#### Facts (2012 FS):

9,450 provincial buses 5,343 city buses along EDSA

#### **Objectives of the ITS:**

- To reduce vehicular traffic within Metro Manila, particularly along EDSA
- To serve as inter-modal transfer to in-city modes of transportation (city buses, rail transits, UVs, taxis, etc.)
- Improved accessibility and passenger convenience

Funding Source: BTO Scheme (PPP Center)

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# ROAD-BASED PUBLIC TRANSPORT REFORM PROGRAM

# INTELLIGENT TRANSPORT SYSTEM DOT' ROAD TRANSPORT ITS COMPONENTS

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![](_page_40_Figure_2.jpeg)

- To be inclusive "We are planning to move people more than vehicles."
  - think integrated network of intermodal sub-systems, plan wholistically, not in silos
    transport services should
  - consider hierarchy of modes

To be inclusive – "We are planning to move people more than vehicles."

 engage the different levels of government in planning and implementation of transport infrastructure and services;

-consult with and engage the different stakeholders of the transport system and all sub-sectors of transportation, including the passengers, shippers, service providers, investors, development partners, the academe

# To be inclusive – "We are planning to move people more than vehicles."

- social support mechanism

- Efficient data collection, management and dissemination of an open database system for all government agencies to ensure sound and coordinated transport plans and initiatives

# THANK YOU