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Country Report PHILIPPINES



2nd EST Forum
11-12 December 2006, Yogyakarta, Indonesia

**Efforts on Environmentally Sustainable
Transport**

Undersecretary Anneli R. Lontoc
Department of Transportation and Communications



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I. Major EST-oriented Policies

Republic Act 8749 (R.A. 8749) – The Philippine Clean Air Act (CAA) of 1999

- a comprehensive air pollution control policy
- provides for close inter-agency collaboration among the Department of Environment and Natural Resources (DENR), Department of Transportation and Communications (DOTC), Department of Trade and Industry (DTI)
- provides for extensive partnership of these agencies with the local government units (LGUs) and non-governmental organizations (NGOs) in the pursuit of the CAA objectives.

Republic Act 8794 (R.A. 8794) - MV Users' Charge Law

- Special Vehicle Pollution Control Fund – 7.5%
 - Special Road Safety Fund – 7.5%
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AIR QUALITY POLICIES



- Formulation of a comprehensive national program on air pollution management
 - Encourage cooperation and self-regulation among cities and industries
 - Focus primarily on pollution prevention rather than on control
 - Active public participation in air quality planning and monitoring
 - Accountability system for short and long term adverse environmental impact of a project or activity which shall include setting up of a funding or guaranty mechanism on clean up and environmental rehabilitation
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Mabuhay Government Initiatives



- Promotion of public health
 - Land use planning
 - Environmentally and people-friendly urban transport infrastructures
 - Public transport planning and transport demand management
 - Non-motorized transport
 - Social-equity and gender perspective
 - Road safety and maintenance
 - Strengthening road side quality monitoring and assessment
 - Traffic noise management
 - Cleaner fuel
 - Vehicle emission control, standards and inspection and maintenance
 - Strengthening knowledge base, awareness, and public participation
-



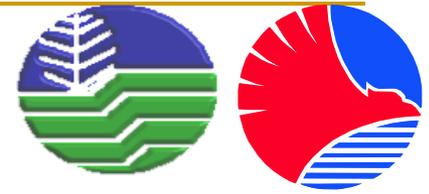
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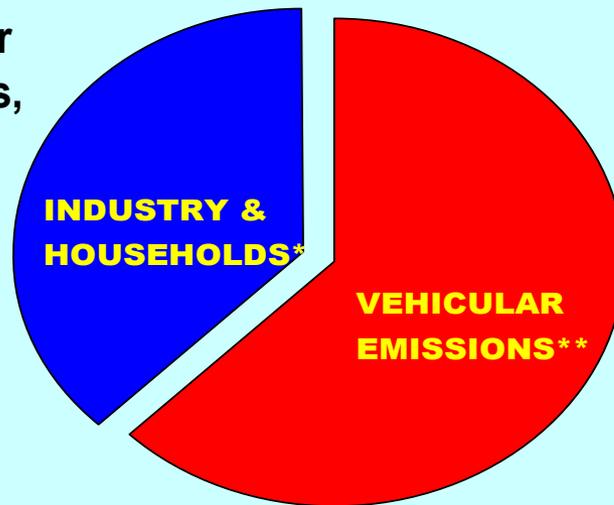


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Sources of Air Pollution

*Includes power plants, factories, industries, restaurants and most recently, the indiscriminate burning of garbage



**Of the estimated 2 million+ Vehicles in Metro Manila:

Jeepneys	500,000
Buses	5,000
Tricycles(2-stroke)	120,000



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Health Impact of Particulate Matter in Metro Manila:

<u><i>Effects</i></u>	<u><i>Number of cases</i></u>
Chronic bronchitis	12,000
Asthma	436,000
Bronchitis in children	112,000 ¹
Emergency room visits	45,000
Hospital admissions	2,000
Restricted activity (days)	11,000,000
Respiratory symptoms (days)	35,028,000
Total cost of PM¹⁰ exposure	US\$430 million

— Source: Dept. of Health, 1999



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Prevalence of Chronic Respiratory Illnesses

<i>SAMPLE</i>	<i>COPD*</i>	<i>PTB**</i>
Jeepney drivers	32.5%	17.5%
Aircon bus drivers	16.4%	11.5%
Commuters	14.8%	9.0%

**COPD or chronic obstructive pulmonary diseases- characterized by shortness of breath and difficulty in breathing due to limited airflow to the lungs*

***PTB or pulmonary tuberculosis – refers to a recurrence of childhood TB that affects the lungs*

Source: Philippines Environment Monitor 2002 – Air Quality (citing an epidemiology study conducted by the UP College of Public Health with support from the World Health Organization)



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Land Use Planning Initiatives

- National Land Use Committee

 - Major cities have their own masterplans
 - Vehicle reduction programs
 - Establishment of transport terminals outside of CBDs
 - Development of public parks
 - Pedestrianization

 - Some LGUs have specific land use planning policies
 - Reduction of the average trip distance within cities
 - Promotion of mixed use development
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Environmentally and people-friendly urban transport infrastructure facilities



LIGHT RAIL TRANSIT IN THE PHILIPPINES





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Environmentally and people-friendly urban transport infrastructure facilities



- Yellow Plates on Yellow Lane
 - Integrated Bicycle Lane to Marikina City has 45 km network
 - Pedestrianized space is estimated at 66 kms
 - 60% of the stations of the light railway transit (LRT) lines in Metro Manila are equipped with facilities for handicapped, the elderly people, pregnant women and children
 - Metro Rail Transit (MRT3) has dedicated couches for women passengers
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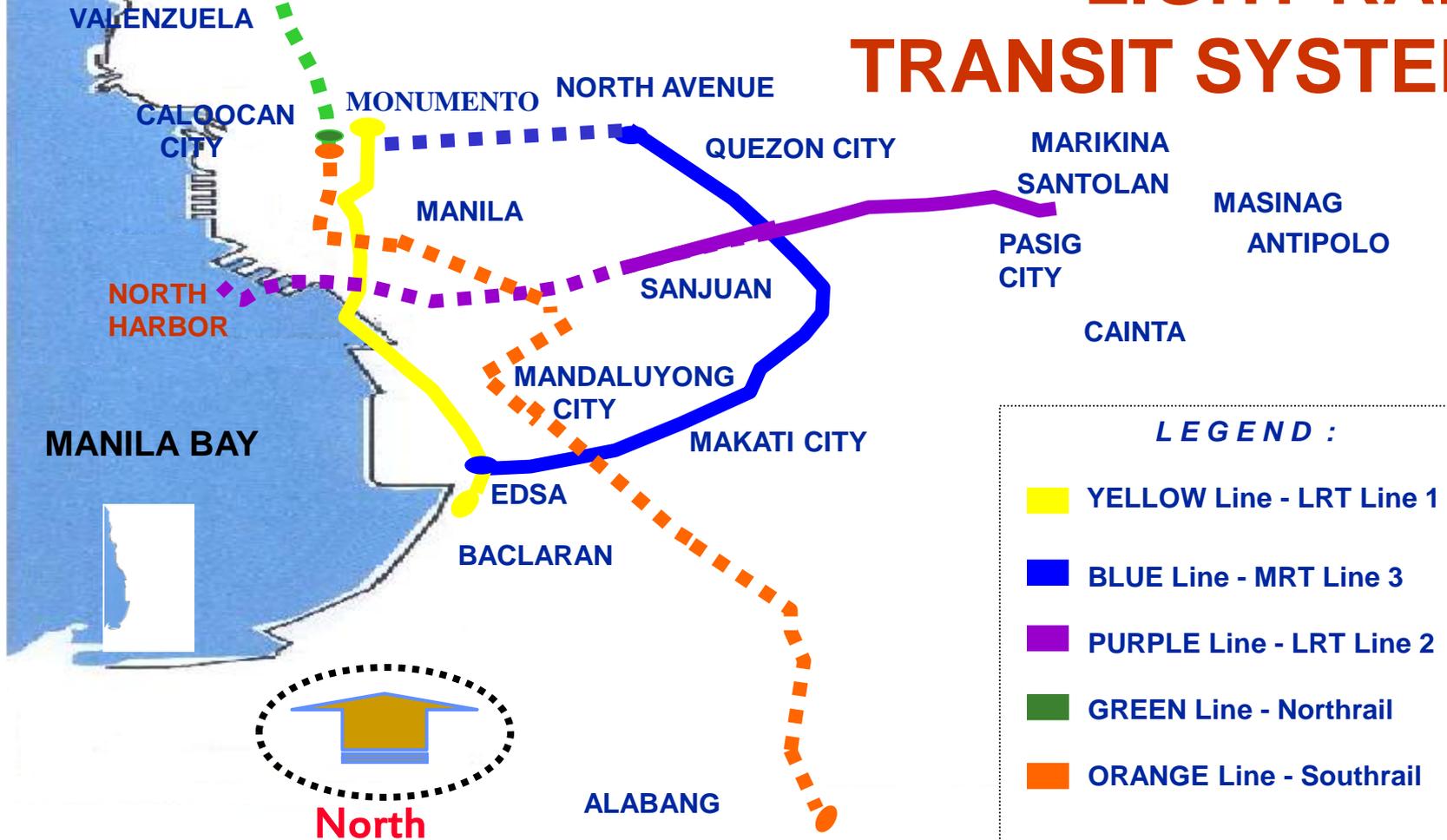


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LIGHT RAIL TRANSIT SYSTEM



SOLID LINES – EXISTING

BROKEN LINES – FUTURE RAILS



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Public Transport Development and Promotion Program

- **Public Utility Vehicle Rationalization Program**
 - **Mega Manila Public Transport Study**
 - **Public Utility Jeepney Route Rationalization Program**
 - **EDSA Bus Revalidation Survey**
 - **North and South Luzon Inter-regional Bus Routes Rationalization**

 - **Multi-Modal Terminal Development Projects**

 - **Bus Rapid Transit Program**
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Mabuhay Social Equity and Gender
Perspective



1. Separate lanes for male/female at some MRT3 stations
 2. 20% fare discount to students, senior citizens, people with disabilities in public transportation
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Road Safety and Maintenance Policies



1. Responsible bodies for road traffic safety policy

- ❑ **National Road Safety Committee (NRSC)**
 - ❑ Created in 1996
 - ❑ Composed of the following agencies
 - ❑ *Chairman* – Secretary, Department of Transportation and Communications
 - ❑ *Members* – Secretary, Department of Public Works and Highways
 - Secretary, Department of Education
 - Secretary, Department of Health
 - Secretary, Department of Interior and Local Government
 - Representatives of the Safety Organization of the Philippines (SOPH) and the Automobile Association of the Philippines (AAP)



2. Laws relating to the road traffic safety policy

- ❑ **Republic Act (R.A.) No. 4136**
 - “Land Transportation and Traffic Code”
 - June 20, 1964
 - registration and operation of motor vehicles and the licensing of owners, dealers, conductors, drivers, and similar matters
- ❑ **Commonwealth Act (C.A.) No. 146**
 - “Public Service Act”
 - franchise to operate public utility vehicles such as taxis, buses, jeepneys and trucks.



- ❑ **R.A. No. 7160**
 - Local Government Code of 1991
- ❑ **R.A. No. 7924**
 - creates the Metropolitan Manila Development Authority
- ❑ **R.A. No. 8749**
 - the Clean Air Act of 1999
- ❑ **R.A. No. 8750**
 - the Seat Belt Use Act of 1998
- ❑ **R.A. No. 8794**
 - the Road Users’ Charge Law





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Road Safety and Maintenance Policies



3. Major issues/problems concerning road traffic safety

- Coordination and management of road safety
- Road accident data system
- Road safety funding
- Safe planning and road designs
- Improvement of hazardous locations
- Road safety education of children
- Driver training and testing



National Road Safety Action Plan



- Road safety publicity campaign
- Vehicle safety standards
- Traffic legislation
- Traffic police and law enforcement
- Emergency assistance to road accident victims
- Road safety research
- Road accident costing
- Private sector and community involvement





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THE ANTI-SMOKE BELCHING PROGRAM

Roadside vehicle emission inspection is done by the DOTC/LTO thru its Anti-Smoke Belching Unit (ASBU) and its duly deputized agents, including LGUs and MMDA personnel.

CAA penalties for smoke belchers:

First Offense : P 1,000

Second Offense: P 3,000

Third Offense : P 5,000 + seminar on pollution management



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Strengthening road side quality monitoring and assessment



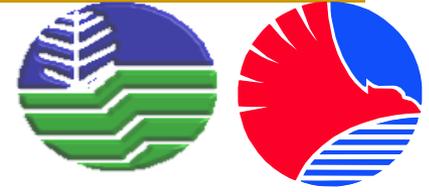
Intensification Of Monitoring Smoke Belching Operations From Mobile Sources





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Strengthening road side quality monitoring and assessment



BANTAY TAMBUTSO

GARAGE/FLEET TESTING

- TRANSPORT COOPERATIVES
- NGOs, GOVT. AGENCIES AND VARIOUS PUV ASSOCIATIONS





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SMOKE FREE EDSA CAMPAIGN

a total of 28,765 vehicles were inspected, about 18,645(64%) failed the test and 10,120 (36%) have complied with the emission standards.





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PROMOTION OF CLEANER FUELS

BIODIESEL - Coco Methyl Ester (CME) “Coco Diesel”



COMPRESSED NATURAL GAS (CNG)
LIQUIFIED PETROLEUM GAS (LPG)

**Coming Soon:
Bio-fuels Act**





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FUEL QUALITY



Unleaded Gasoline

Aromatics	45% max	Jan. 1, 2000
Benzene	4% max	Jan. 1, 2000
AKI	87.5 min	Jan. 1, 2001
RVP	9 psi max	Jan. 1, 2001
Aromatics	35% max	Jan. 1, 2003
Benzene	2% max	Jan. 1, 2003

Automotive Diesel

Sulfur	0.2% max	Jan. 1, 2001
Cetane No./Index	48 min	Jan. 1, 2001
Sulfur	0.05% max	Jan. 1, 2004

Industrial Diesel

Sulfur	0.3% max	Jan. 1, 2001
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Vehicle emission control, standards and inspection and maintenance



Private Emission Testing Centers (PETCs)

- ❑ An interim program and a stop gap measure prior to the full operation of MVIS
 - ❑ Commissioned by the Government through Accreditation by the DTI and Authorization by the DOTC/LTO.
 - ❑ Conduct regulatory test independent from the government testing function.
-



Vehicle emission control, standards and inspection and maintenance



Private Emission Testing Centers (PETC)

CAA's OBJECTIVE OF MV EMISSION REDUCTION

DOTC + DTI + DENR =

JOINT
ADMINISTRATIVE
ORDER (JAO) NO.1,
SERIES OF 2003

DOTC/LTO - AUTHORIZATION

DTI - ACCREDITATION

**DENR - SET EMISSION STANDARDS/
CERTIFY EMISSION TESTING
EQUIPMENT**



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Vehicle emission control, standards and inspection and maintenance



INTERGOVERNMENT MONITORING OF PRIVATE EMISSION TESTING CENTERS





Regulation for all motor vehicles and engines



Joint Administrative Order No. 1 Series of 2003, the Guidelines and Procedures for Monitoring Private Emission Testing Centers (PETCs) - DOTC, DTI, DENR, LTO etc. to monitor activities of the PETCs.





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Regulation for all motor vehicles and engines



**Certificate of Conformity
COC- 828 COCs for motor
vehicle models while 292 for
motorcycles.**





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REVISION OF IN-USE MOTOR VEHICLE EMISSION STANDARDS

Revised (DAO 2003-51)			Old (DAO 2000-81)		
Date of 1 st Registration	CO (% volume)	HC (ppm as hexane)	Date of 1 st Registration	CO (% volume)	HC (ppm as hexane)
			On or before 12/31/1997	4.5	800
On or before 12/31/2002	4.5	800	01/01/1997 - 12/31/2002	3.5	600
On or after 01/01/2003	3.5	600	On or after 01/01/2003	0.5	100



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REVISION OF MC/TC EMISSION STANDARDS

HydroCarbon (HC)

7,800 ppm- urban areas

10,000 ppm - rural areas





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PROMOTE THE USE OF CLEANER ENGINES

1. EXPAND THE USE OF FOUR-STROKE ENGINES FOR MOTORCYCLES AND TRICYCLES

Share of new four-stroke motorcycles

Country	New 4-stroke motorcycles (%)
Vietnam	100
China	85
Thailand	82
India	60
Philippines	25

Source: Clean Air Initiative 2002

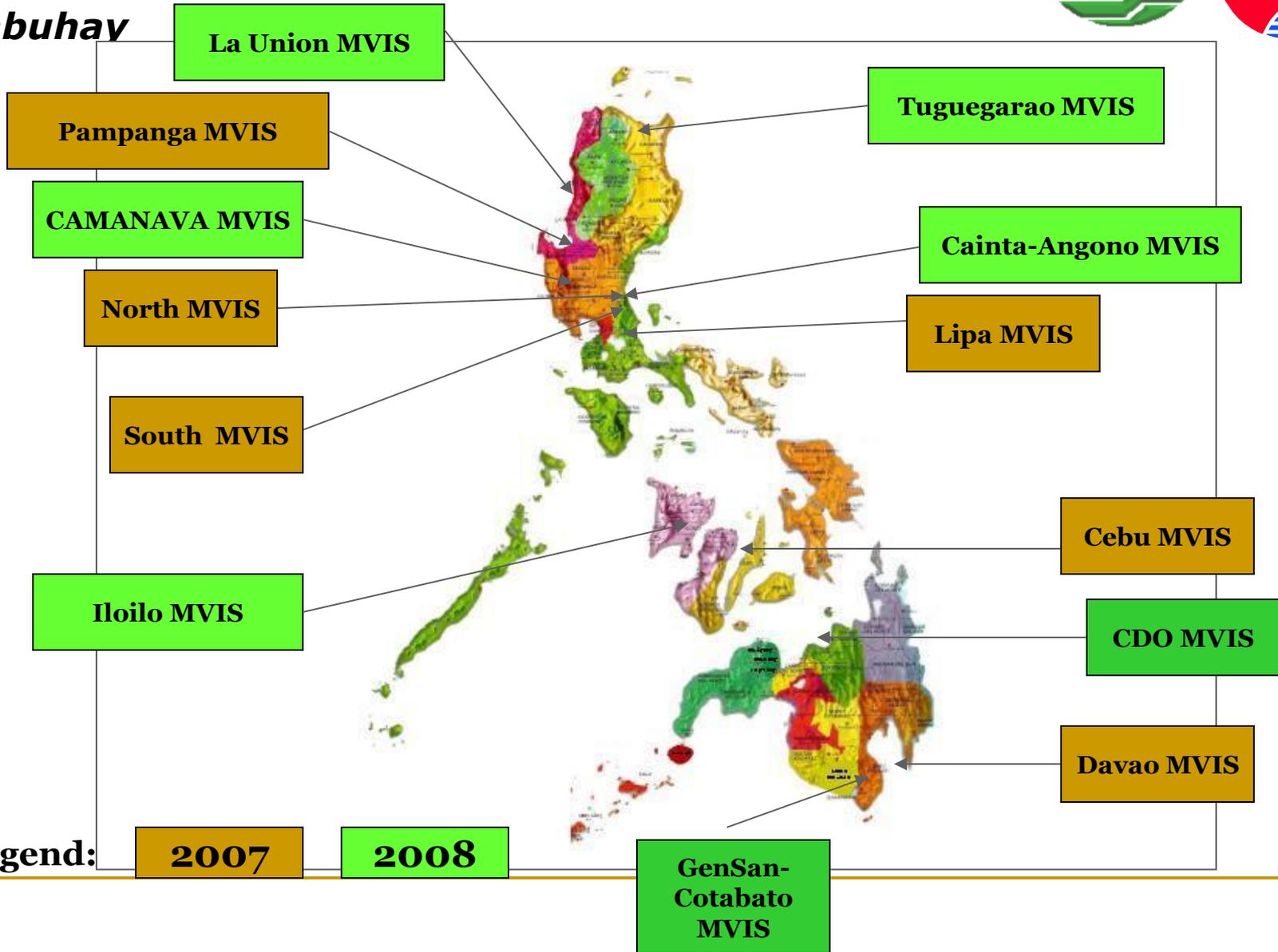
2. FACILITATE THE ENTRY OF ELECTRIC-POWERED MOTORCYCLES OR ELECTRIC BIKES
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MVIS LOCATION



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Legend:

2007

2008

GenSan-Cotabato MVIS



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Increasing Public Awareness and Participation



- Smoke free EDSA campaign brochures, streamers, T-shirts and visors
- Linis hangin program streamers, brochures, flyers, posters and stickers
- Clean Air Month streamers
- Posters and brochures on Clean Air Act Miles and Towards Cleaner Air
- Television , Radio and Musical television plugs on clean air; co-produced by GMA 7





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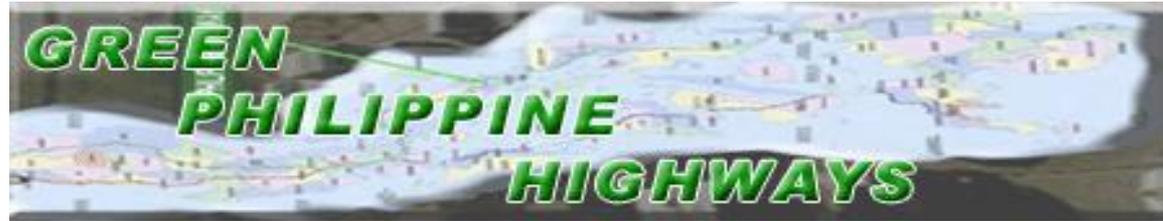
Conduct Anti-Smoke Belching campaign action plan & communication strategies for LGUs;

Clean Air Forum on environment-friendly and cost effective vehicle handling and maintenance for Bus Transport, EDSA Bus Operators

Conduct of forum on Local Governance for Clean Air where nine LGUs shared stories on LGU-initiated projects related to clean air.



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The DENR, in partnership with various stakeholders, pursues the **Green Philippine Highways Project**





Thank You!
