# Sustainable Urban Transport in Asia 2009: A Year in Review

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CLEAN AIR INITIATIVE FOR ASIAN CITIES CENTER

## Introduction

Y ear 2009 can be considered very significant as climate change concerns in transport became the

primary driver of the Sustainable Transport agenda. At the end of the year as deal at Copenhagen became just a "step forward" to hopefuls and a "dismal act" to many environmentalists, if we step back and analyze important developments in transport in Asia; we see many climate change initiatives pushing transport. The "other" important benefits seems to have taken the backseat and many in policy making and transport community started recognizing Transport as a key element in mitigating Climate Change. "Low Carbon Transport" became the mantra, which would decide the future course of transport for the next decade.

This tactical move has both benefits and risks.

The benefit is that sustainable transport funding, which was minuscule in the past, may get more funding from international and national agencies. This has the potential to scale up sustainable transport projects from "few" in some cities to "many" in many cities. But there are many risks of having  $CO_2$  emissions as the "engine of sustainable transport" as more and more policy makers are increasingly considering  $CO_2$  emissions as the "dominating" benefit ignoring other aspects as accidents, air pollution benefits, etc.

Transport debate in 2009 became increasingly  $CO_2$  emissions-oriented. Transport was increasingly measured from  $CO_2$  perspective rather than from quality of life perspective. Whether this move is good or bad, only time will tell. But, this creates a fantastic challenge for all of us to ensure that we reap the benefits of "scaling-up" but by considering the other benefits, which are more important to us.

This is no ordinary challenge.

2009 was also a year full of surprises. Under the cloud of economic recession, many initiatives in Asia showed that we can make intelligent decisions by opting for the right solutions and reap economic incentives. China and India went for strengthening public transport by increased policies and funding; Philippines, Vietnam and Sri Lanka started improving their policies and some major cities initiated sustainable transport projects.

But, there were equal moments of despair.

Many cities in developing countries took a step back by restricting non motorized transport, by inducing motorized transport under the belief that inducing motorization through stimulus packages encouraging car ownership would inflate economic benefits unmindful of deteriorating environment. Many developing countries delayed improvements in fuel and vehicle standards, and only fewer cities carried out sustainable transport projects towards the end of the year.

CAI-Asia presents selected news stories, relevant studies and other articles which summarize the best and worst of year 2009 from the transport perspective. Year 2010 would be challenging for all of us, and we in the CAI-Asia Center together with other organizations will remain in the forefront in making sustainable transport into fruition in Asia.

## JANUARY

### Public transport gets a boost

—2009 took off with India unveiling an innovative stimulus package to promote public transportation. According to this scheme, central financial assistance through a grant would be provided for procurement of buses for urban transport under the Jawaharlal Nehru National Urban Renewal Mission (JnNURM). The caveat is that the buses would be supplied as per the detailed guidelines established by Ministry of Urban Development (MOUD) which includes the preparation of a detailed project report and reforms in urban transport sector.

This is a classic example of how local transport reforms can be initiated by linking funding with good guidelines. However, due to the slow progress of manufacturers in supplying buses against orders of 11,000 buses, only about 350 buses have been supplied till the middle of September, 2009. The MOUD has approved a total of 15,260 buses in 61 cities. The impact of such a stimulus package would be seen in the coming years.

## Asian governments lower pump prices following the fall in world oil prices

—Low demand in the last quarter of 2008 due to the global economic crisis led to a drop in world oil prices to about \$41/barrel in December 2008 from a record-high of above \$147 in July. This drove a series of fuel price reductions by Asian governments which regulate pump rates. For instance, Indonesia and Bangladesh reduced diesel prices by 6.3 and 4.4 %, respectively whilst India decreased fuel prices by another 6.3 % in late January, the 2<sup>nd</sup> reduction in about two months. These lower fuel prices had corresponding impacts on travel behavior and mobility in these countries.

### Philippines issued A.O. 254: mandating the Department of Transportation and Communication (DOTC) to lead in formulating a national environmentally sustainable transport (EST) strategy

-The issuance of A.O. 254 marked the first significant step of the country towards formulating a policy which promotes and prioritizes sustainable transport initiatives such as public transport systems and non-motorized transport (NMT) programs.

The simple principle of "those who have less in wheels must have more in road" will guide the formulation of the national EST strategy.

### Global Transport Sector Meets to Discuss Greenhouse Gas Emissions

-Top representatives from 22 nations met in Tokyo to discuss measures to reduce greenhouse gas (GHG) emissions from the transport sector. Given transport's significant share to GHG emissions and air pollution, developing countries are under intense pressure to undergo transformation to make the sector more sustainable. The meeting resulted in a Ministerial Declaration on global environment and energy in transport. "Those who have less in wheels must have more in road."

### Viet Nam: EST Initiatives

-Viet Nam is also planning to implement sustainable transport using EST strategies by increasing the share of public transport (which currently only meets 7.4 5 of travel demands in Hanoi and only 5 % in Ho Chi Minh City) by 25-30% in 2010 and 50-60 % in 2020 by implementing urban rail projects and improving bus transport.

## JANUARY

"Unknowingly, Jakarta city residents may be redesigning the blueprint of their city, creating several mixed land-use areas. "

## Jakarta residents: driving mixed land-use city development

-Local government officials in Jakarta report that they will regulate houses converted into commercial properties. Several residents have been reportedly building permits abusing their by converting their homes into commercial properties. The 1991 bylaw on buildings in Jakarta stipulates that properties should be used for purposes approved in building permits. Current trends in city development favor mixed land-use and compact cities (vs. sprawled cities) for reduced travel and ease in mobility.

Unknowingly, Jakarta city residents may be redesigning the blueprint of their city, creating several mixed land-use areas. Subsequent actions by city administration on illegally converted buildings may set the tone on the direction of development for Jakarta.



New York beat the likes of Beijing, Istanbul, Mexico City, Milan to win the 2009 Sustainable Transport Award. The Award was awarded on January 13, 2009 by a jury composed of ITDP, Embarg, CAI-Asia, GTZ, UNCRD, UITP, ICLEI and Environmental Defense. Some of the actions taken were - implementation of PlaNYC 2030, its comprehensive long-term sustainability vision. The city took 49 acres of road space, traffic lanes and parking spots away from cars and gave that space back to the public for bike lanes, pedestrian areas, and public plazas. Protected on street bike lanes were part of the 140 miles (255 kilometers) of bike lanes implemented. Bike ridership has increased by 35 percent over the past year. Over 98,000 trees were planted, a select bus service was implemented, car free Sundays introduced. As part of its standard operations, the city's Department of Transport also recycles 40 percent of its asphalt. Although not successful, the city pushed for congestion charging, a first for US city and now other cities are considering it.





## **FEBRUARY**

## Fourth Regional EST Forum in Seoul, Republic of Korea

—In the 4<sup>th</sup> Regional EST Forum, participants from 22 Asian countries drew attention to the significant role that EST initiatives can play in addressing the two current global challenges—climate change and the ongoing economic recession. The forum highlighted the benefits of promoting and implementing EST measures in curbing GHG emissions from the transport sector as well as in revitalizing the economy through the "*Green Growth*" concept.

PHOTO BELOW 52-km bikeways were developed in Marikina, Philippines. From 2000 to 2006, bike share increased by about **7%**—from **2.8%** in 2000, to **9.8%** in 2006.

Source: World Bank-GEF, UP-NCTS; analysis by CAI-Asia Center. The participants adopted a statement towards the promotion of environmentally sustainable transport for a low-carbon society and green growth in Asia—referred to as the Seoul Statement.

### **Towards a Cycling Nation - Singapore**

—With a small pilot project in Tampines to allow cyclists to cycle on pavements, there is growing demand to add bicycle lanes to the road network. With 22 cyclists dying on Singapore roads in 2007, the situation is becoming more positive with growing demand. **Authorities** liberated public transport for carrying folded bikes during off peak hours. To increase number of public transport users, 823 additional bicycle racks at three metro rail transit (MRT) stations have been provided. With more positive actions expected during 2010, Singapore is slowly peddling its way towards being the Cycling Nation of Asia. However, until and unless it aggressively changes its road design guidelines and provides incentives, the wait may be longer.



## **FEBRUARY**

China rolls out a series of programs involving economic incentives to retire heavy-polluting vehicles and promote use of cleaner vehicles

—Continuing its efforts in reducing air pollution from vehicles after the Beijing Olympics, the Chinese government initiated a number of programs that generally aim to progressively retire heavy-polluting vehicles in the country and to ultimately promote the use of cleaner vehicles. Most of the programs offer economic incentives to achieve this:

 A pilot program which subsidize energy-efficient vehicles for public transport sector in 13 cities;

- One-time subsidy for purchase of mixed-power, electric and fuel-cell vehicles;
- A Ministry of Science and Technology (MOST)-promoted project will put 5,000 hybrid buses, 20,000 hybrid taxis and 5,000 electric vehicles on the streets in 30 cities by 2012;
- Maximum subsidy of about 900 US dollars will be offered for automobile trade-ins; with subsidies totaling 1 billion US dollars to be allocated to "trade-ins" to try to wash out yellow label vehicles.

Beijing is also making further preparations to adopt China V emissions standard for motor vehicles by 2012.

### REPORT: Electric Bikes in the People's Republic of China: Impact on the Environment and Prospects for Growth

—As a low-cost, convenient and relatively energy-efficient means of transportation, the electric bike (e-bike) is fast becoming one of the dominant travel modes in China. This report analyzes the environmental performance of e-bikes relative to other competing modes, their market potential and the viability of alternative battery technologies. It also e-bikes' frames role in China's transportation system and recommends policies for e-bikes to decision makers in China's central and municipal governments.

Report findings:

- E-bikes can contribute to mitigating CO<sub>2</sub> and reducing air pollution emissions in cities, depending on electricity source.
- The e-bikes market has a high growth potential and if properly integrated with urban transport schemes, ebikes can serve as a sustainable feeder for public transportation.
- Lead pollution from batteries remains as the main environmental problem but mitigating measures can be put in place to address this.

"E-bikes, **if properly integrated** with urban transport scheme, can serve as a **sustainable feeder** for public transportation."



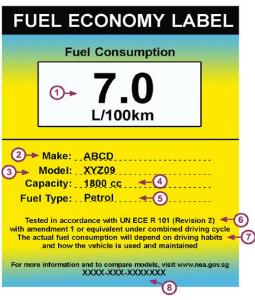
PHOTO LEFT Beijing provides parking services for bicycles at subway entrances.

## **FEBRUARY**

### Mandatory Fuel Economy Labeling Scheme (FELS) of Singapore

-The Singapore Government announced that mandatory fuel economy labeling (Figure 1) of new motor vehicles will start on April 1, 2009. Buyers of new passenger cars and light goods vehicles will be able to know how fuel efficient their vehicles are and how they compare with other vehicles of similar engine capacity. Authorities hope that transparency on fuel consumption would have an impact on reducing vehicle emissions.

#### Figure 1 Fuel Economy Label



Source: National Environment Agency (NEA) website

### Car Scrapping to Help Boost Car Sales -Malaysia

-In order to boost automobile sales, unleashed Malaysia an automotive stimulus package which involves car scrapping. The scheme would allow car owners to exchange their old registered cars, which must be at least 10-years old, in return for a discount of RM 5,000 when buying a new Photon Holdings Bhd car. Industry suggested that the move would battle depreciating sales and help employment generation and environmental protection. But with Malaysia not aggressively pushing for vehicle emissions and fuel economy standards, the impacts of such a move definitely would be not too environmentally-friendly.



PHOTO RIGHT A Performance Motors employee sticks a Fuel Economy Label onto the windshield of a car.

Source: Tan, 2009. asiaone motoring article.

## MARCH

### **Bangkok Footpaths**

—Bangkok Metropolitan Administration spends around 40 million baht (about 1.20 million US dollars) annually on the maintenance of footpaths. Last year alone, the city spent 42.8 million baht (about 1.29 million US dollars) to fix the footpaths on 30 roads. Bangkok has 704 roads and 4,305 sois with a total footpath area of 5.5 million m<sup>2</sup>. However, with the current global challenges, actions should be taken to encourage people to make greater use of mass public transport, or to walk more. In light of this, the World Bank launched a project called "Walk the Talk: Global Walkability Index". Last June, 80 young volunteers collected data and conducted interviews at 14 footpath areas, covering 416 square metres, across the city. The results identified the areas with the best and the worst walkability. Similar studies have been carried out in other cities, among which are Metro-Manila and Jakarta. In the end, poor quality footpaths are likely to be addressed properly, not by construction, but as a result of public pressure.

### **REPORT: Biofuels in Asia – An Analysis of Sustainability Options**

—This report by United States Agency for This is predicated on the optimistic scenario International Development (USAID) provides that countries will rapidly expand cultivation a balanced analysis summarizing the of efficient first generation biofuels crops on benefits and risks of biofuels development in underutilized land while promoting second-Asia. One finding is that by 2030, biofuels generation, "cellulosic ethanol" using will meet only an **estimated 3-14% of the** agricultural residues. **total transport fuel demand in Asia**.



## **APRIL**

"Cooperation and continued dialogue between various stakeholders is <u>crucial</u> to create sustainable transport solutions."

## Access and Mobility for the Cities of Tomorrow

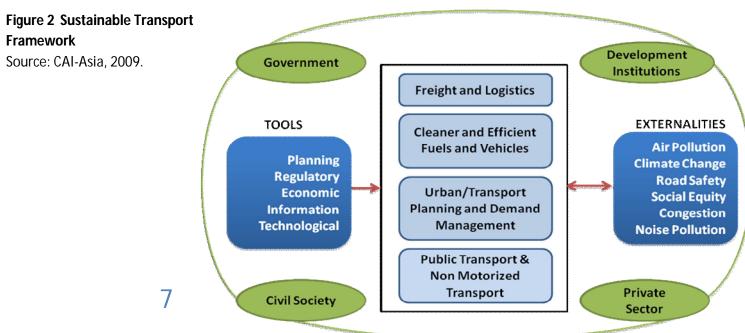
-This was the theme during the 4<sup>th</sup> International Conference on Future Urban Transport in Göteborg, Sweden. Speakers underscored the importance of cooperation and continued dialogue between various stakeholders to create sustainable transport solutions in these times of increasing demand for mobility and accessibility in cities (Figure 2). Academic papers available at http://www.fut.se/conferences/fut/acade micworkshop.4.3e8d58c211f8378233080 005180.html.

### Indonesia: Vehicle Emissions Rules Remain Stalled

-Reports suggested that even after passing a law for four years for regulations vehicle emissions tests, requiring government has not managed to implement it and is still deliberating the issue of "how" to implement it. Reports indicate "jurisdictional dispute" between the Ministry of Transportation and police over who would enforce the law, and whether the law is legally effective. This is one of the major challenges in integrated urban transport wherein different stakeholders who are, in one way or another, interconnected with transport, need to have a consolidated effort.

#### Compressed natural gas clears the air

-In Bangladesh, soot levels in 1997 were 10 times higher than World Health Organization (WHO) guidelines. With this challenge, government started adopting some vehicle fleet improvementsincluding promoting compressed natural gas (CNG) vehicles. CNG use began to succeed due to a major push for a cleaner environment plus the availability of millions of dollars in loans from international agencies to promote a longterm program. With over 300 CNG filling stations around the country and almost 200,000 of the 1 million vehicles on the road using CNG, there is a significant impact on air pollution and climate change. What is lacking from the government has been clear push for regulation of private vehicles and the active promotion of public and NMT.



## MAY

## Pedestrians are the worst victims of road crashes

—In Dhaka, although pedestrians constitute around 60 % of road users, they are often neglected in planning and street designs (Parveen, S., 2009). According to Accident Monitoring Cell of Bangladesh Road Transport Authority (BRTA) and Dhaka Metropolitan Police (DMP), out of the 377 people who died in 620 accidents in the Dhaka metropolitan area in 2008, 75% were pedestrians. Transport experts explain that the city design and planning gives higher priority to motor vehicles, with poor existing NMT facilities and little funding to improve these facilities. In Dhaka's Strategic Transport Plan (STP), out of the \$5 billion budget, only 0.22% is allocated for pedestrian facilities.

## Indonesia asks disabled pedestrians to wear signs

--The 2<sup>nd</sup> clause of Article 80 in the recently updated 1992 Traffic Law requires disabled pedestrians to wear signs to help identify them as handicapped. Although the 1992 Traffic Law was updated to consider the country's current conditions, this particular clause is a regressive step for sustainable urban transport (SUT) in Indonesia as it neglects pedestrian rights and gives priority to car users. Moreover, it has been implicated as a stipulation with promote discrimination against physically-challenged persons.

"Handicapped pedestrians <u>must</u> wear special and clear signs which can be easily recognized by other road users."

PHOTO BELOW Bangalore Poor NMT facilities force cyclists and pedestrians to compete with motorized vehicles, leading to high accident fatalities. Nearly 1 pedestrian is killed daily in the city roads.



### Vehicular pollution checks may be conducted only once a year

—India is thinking of reducing the periodic pollution checks from three months to one year. This measure, which is part of the new standardized rules currently being planned by the government to make life easier for over 70 million vehicle owners, would have enormous implications on environment. This move will take India from the currently used Pollution Under Control (PUC) Computerized facility testing to more standardized and structure oriented scheme for examination of the car and assessment of engine fitness. The impact of such a move remains to be seen.

## Bellagio Declaration on Transportation and Climate Change

-21 representatives from 18 organizations working on transport

and climate change in developing countries met in Bellagio, Italy to build a consensus on the required policy response to the growing CO<sub>2</sub> emissions from transport in the developing world. The meeting resulted in the Bellagio Declaration on Transportation and Climate Change which outlines the principles and actions that policymakers can adopt in developing mitigation efforts including: travel demand reduction through better integration of land use and transport; more effective use of carbon finance mechanisms to fund sustainable transport policies; and acknowledgement of the cobenefits of low-carbon transport in terms of reducing local air pollution and its health impacts, noise pollution, congestion and road accidents.

## REPORT: Moving Cooler:

### An analysis of Transportation Strategies for Reducing GHG Emissions

This report by Cambridge Systematics, Inc. analyses the effectiveness and cost of about 50 transportation strategies, both as individual strategies and in various combinations (referred as "bundles"), and their impacts on reducing GHG emission from transport.

Some of the strategies that contribute the most to GHG reductions are:

- local and regional pricing and regulatory strategies that increase cost of single occupancy vehicle travel;
- regulatory strategies that reduce and enforce speed limits;
- educational strategies to encourage eco-driving behavior;
- land use and smart growth strategies that reduce travel distances; and

multimodal strategies that expand travel options.

Some of the benefits from various combinations of these strategies include:

- annual GHG emission reduction of up to 24% below 2010 baseline levels in 2050;
- reduction of fuel consumption in US (*i.e.*, at least 110 million barrels of oil savings per year); and
- an estimated average savings in direct vehicle costs of up to \$112 billion annually over a 40-year timeframe.

## JUNE

## Global status report on road safety released

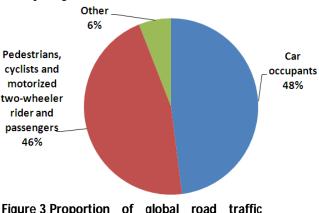
—This report is the first broad assessment of road safety in 178 countries using a standardized survey instrument. Some report findings:

- 48% of countries have laws on all 5 risk factors surveyed (speed limits, drink driving restrictions, motorcycle helmetuse, seat-belt-use and child restraint use).
- 15% have comprehensive laws on all 5 risk factors.
- Pedestrians, cyclists, and riders of motorized two-wheelers and their passengers account for around 46% of global road traffic deaths (Figure 3).
- Road traffic injuries are predicted to become the fifth leading cause of death by 2030, resulting in 2.4 million deaths a year.

### Beijing to build "public transport city"

—Beijing is aggressively trying to push various measures to increase public transport mode share. From 2009 to 2015, Beijing plans to implement four major projects including a rail transit network project in order to increase the mode share of public transport users to 45% of journeys in downtown area. Many experts have suggested that the increase in mode share should come from motorized modes of transport and not from walking and cycling.





## Figure 3 Proportion of global road traffic deaths by type of road user

Source: Global status report on road safety. Geneva, World Health Organization, 2009.



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## JULY

### Sri Lanka's Transport Policy

—Sri Lanka started consultations on its new transport policy. Based on 19 specific principles, this transport policy got mixed reviews- it was applauded and criticized at the same time for being railways-oriented. In October, the government adopted the said National Transport Policy.

3-year Strategic The Action Plan stated that for traffic management in the Colombo Urban Area, there will be a proposed reservation of at least 1/10<sup>th</sup> of space of all roads within urban exclusively for areas NMT, such as for sidewalks and bicycle 1/3<sup>rd</sup> and of lanes, existing road space on major highways within a dense urban area be reserved for highoccupancy vehicles.

PHOTO LEFT Numerous motorcycles plying a road in HCMC.

## Old vehicles causing serious environmental threats to Dhaka

—The BRTA admitted that nearly 50 percent of the vehicles in the capital do not have fitness certificates. Old, overloaded and poorly-maintained vehicles are major contributors to the air pollution in the city. Diesel-run vehicles account for more than 80 %of the city's air pollution, as most fail to comply with the approved emission standards.

With the foreseen rapid increase in motorization in Dhaka, proper inspection and maintenance of vehicles should also be given enough attention as part of the city's air pollution control plans.

## Ho Chi Minh City (HCMC) seeks gov't permission for road price scheme

—The HCMC People's Committee once again asked for the government's permission to implement a electronic road pricing (ERP) policy. This was initially rejected by Finance Ministry in 2008 due to unfeasibility reasons.

According to city authorities, vehicle numbers and traffic jams are increasing in the city and they consider the application of an ERP system and the increase in vehicle registration fees as effective measures to curb traffic jams. Effective implementation of such measures could encourage behavioral changes in city dwellers, progressively transforming mobility patterns in the city.



### Euro-II standards for vehicles from July 1

—The Pakistan Environment Ministry started implementing Euro-II emission standards for all new petrol driven vehicles from July this year and by July 2012, new diesel vehicles will be subjected to Euro II standards as well. This order came after hectic consultations with and lobbying by local environmental stakeholders.

Air quality in Pakistan is so injurious that already 20 % of children below the age of 15 and around 10% of adults are estimated to be suffering from asthma. The environment ministry is also improving fuel quality by reducing sulfur from diesel from 1% to 0.6%. The further reduction of sulfur from 0.06% to 0.05% will be achieved by the year 2010.

## South Korea Sets New Automobile Fuel Economy, Gas Emission Standards

—South Korea will introduce new fuel economy and GHG emission standards, for all passenger cars (with less than 10 passengers) starting 2012.

This will be phased in from 2012 to 2015 and stipulates that local carmakers must make vehicles that can travel 17 km or more on a liter of fuel (on averageO and emit less than 140 grams of GHG per kilometer traveled. "20 % of children below 15 and around 10% of adults are estimated to be suffering from asthma"





### Advancing Vehicle Emission Management (VEM): Emission Standards, Fuel Quality and Fuel Efficiency

-The 4<sup>th</sup> city workshop of CAI-Asia China network in Qingdao, China was attended by 11 CAI-Asia member cities plus Beijing Qingdao Environmental Protection Bureau (EPB), Vehicle Emissions Control Center (VECC), Tsinghua University, Ministry of Environmental Protection (MEP), ADB, CAI-Asia Center, and an expert from the US Environmental Protection Authority (EPA). The workshop provided an opportunity for cities to share experiences particularly on advances in VEM, highlighting the role of fuel efficiency, introducing the SmartWay program and presenting the environmental labeling program of MEP, among others. VEM is an important aspect which is under the cleaner and efficient fuels and vehicles part the sustainable transport of framework.

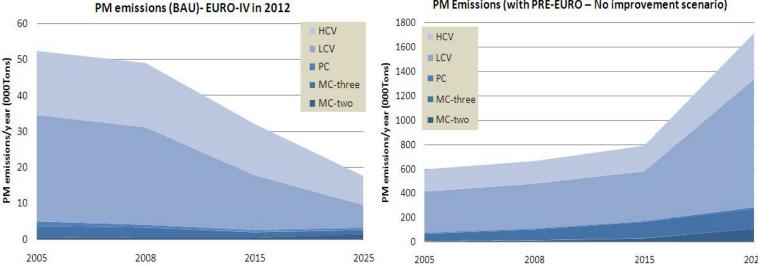
### India: Mandatory fuel efficiency standards from 2011

-The Minister of State Environment and Forests announced that the government will come out with mandatory fuel efficiency standards for the transport sector, which will be effective in 2011. Adopting of fuel efficiency standards is one of India's programs to reduce CO<sub>2</sub> emissions from the transport sector, in light of climate change discussions.

### Green fuels to make up 20% of total energy consumption

-Share of alternative fuels in Thailand's total energy consumption is expected to rise sharply in the next 15 years. Under the 15-year alternative energy master plan, alternative sources will account for 20.4 % of total energy consumed in 2023 compared to 6% this year, according to Department of Alternative Energy Development and Efficiency (DEDE). Sources include ethanol, biodiesel, compressed natural hydropower, gas, biogas, biomass, wind power and solar cells.

PM Emissions (with PRE-EURO - No improvement scenario)



### Case of Philippines: Vehicle Standards

Philippines saw high vehicle growth in 2000-2005 but due to strengthening of standards and improvement in fuel quality (2001), particulate matter (PM) emissions went down. The country needs to leapfrog to EURO-IV and V as soon as possible to maximize these benefits.

Source: CAI-Asia

2025

## AUGUST

## It's time to go public: Singapore's Green Transport Week

—The Green Transport Week was aimed to raise awareness of transport's impacts on the environment and to make people stop and think about the way they travel on every journey. The event highlighted that although Singapore has a highly-efficient public transport infrastructure, there are about half a million privately owned vehicles in Singapore. In addition, roads take up about 11% of land in Singapore as compared to only 6% for housing and less than 3% for natural forest reserves.

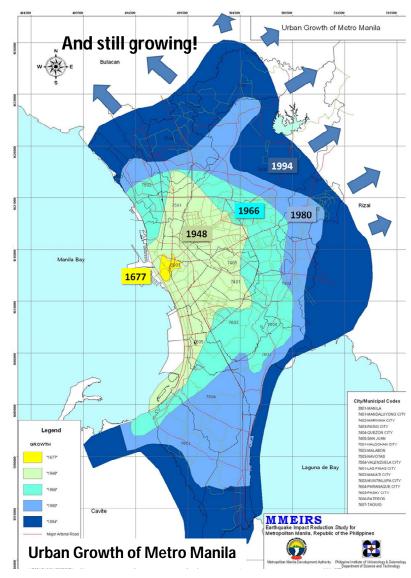
### **REPORT: Changing Course: A New Paradigm** for Sustainable Urban Transport

In this book, ADB outlines a new paradigm for sustainable urban transport that gives Asian cities a workable, step-by-step blueprint for moving towards safer, cleaner, more sustainable cities and a better urban life quality. The new paradigm has five core elements:

- Transport plans and projects reflect a wider city vision or spatial strategy.
- Policy-making process involves various stakeholders so plans and projects reflect actual needs.
- Former link between land use and transport planning is recreated to facilitate provision of public transport and reduce the need for travel.
- Transport demand is managed alongside supply and projects are centered on traffic restraint and greater use of public transport.
- Policy effectiveness is demonstrated to a skeptical stakeholder community.

Hanoi puts freeze on new building permits

—With a massive sprawl-induced congestion, Hanoi decided to freeze the permissions for new building permits. The authorities suggested that the completed Master Plan would dictate the new development regions and that permits would be issued accordingly. This is one of the instances which show the deep links between housing and transport. In many cities, people are spending more on transport and housing than on food, education, health and clothing combined. Due to burgeoning economies, most Asian cities are growing and urbanizing at fast rates. Cities need a guide to ensure that their growth is sustainable.



## **SEPTEMBER**

### REPORT: Transport, Energy and CO<sub>2</sub>: *Moving toward Sustainability*

-This report by the International Energy Agency (IEA) discusses prospects for shifting more travel to the most efficient modes and reducing travel growth rates, improving vehicle fuel efficiency by up to 50% using cost-effective, incremental

technologies, and moving toward electricity, hydrogen, and advanced biofuels to achieve a more secure and sustainable transport future. If governments implement strong

policies to achieve this scenario, transport can play its role in dramatically reducing  $CO_2$  emissions by 2050.

English news reports on Ahmedabad BRTS (Aug 05-Jun 09)

## Partnership on Sustainable, Low Carbon Transport (SLoCaT)

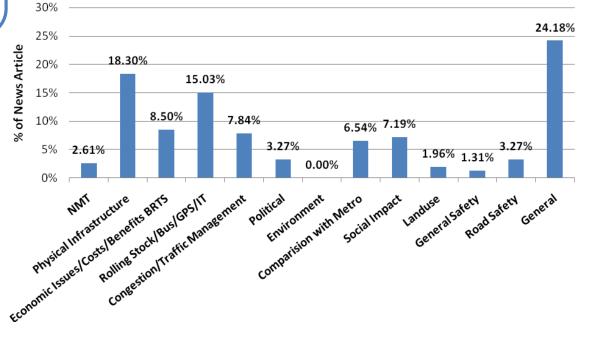
—A new Partnership on Sustainable, Low Carbon Transport (SLoCaT) was launched in Bangkok, Thailand on 25 September that aims to actively contribute options and advice on the development of sustainable transport systems worldwide.—The SLoCat Partnership includes the CAI-Asia Center, United Nations Department of Economic and Social Affairs (DESA), ADB, African Development Bank and the Inter-American Development Bank among many notable organizations. The Partnership currently has over 40 members.

#### Progressive vehicle tax in Indonesia

—The Indonesian government plans to impose vehicle tax progressively to citizens with more than one motorized vehicle. The system, proposed under the new regional tax law, would be implemented from 2010. Provincial administrations can now impose a maximum vehicle tax of up to 10 % of the vehicle value - double the previous ceiling of 5 % - and apply higher taxes on the 2<sup>nd</sup> and following vehicles owned by an individual. The new law sets taxes for the subsequent vehicles at between 2 and 10 %. Details on the system will be regulated by each provincial administration. Many experts believe that the tax system could have been more stringent as people buying multiple vehicles can afford to pay more and government should ensure that the move does not result into vehicles being registered into a different family member's name.

## Ha Noi deal signed for VN's first elevated metro

—The Viet Nam Railway Corporation signed a 74-month contract, worth about VND848 billion (US\$47 million), for an engineering and consulting services package for the Ha Noi City Urban Railway Construction Project, particularly for addressing technical issues and developing designs for an elevated railway connecting Ngoc Hoi in the south and Yen Vien in the east of the capital. The \$1.7 billion project would build the first-ever 28-km elevated railway in Viet Nam with modern technology. According to officials from the Ministry of Transport, the Ngoc Hoi-Yen Vien metro is a key project in the transport system's plan for 2020, to serve the increasing demands for transport as well as for the development of the capital city.



## **OCTOBER**

#### SUMA Summit in Delhi, India

—"Cities in Asia need to pay closer attention to sustainable transport strategies and investments as a way to address growing traffic problems, air pollution, climate change". This was the message of about 85 participants from the two-day international summit that marked the conclusion of the Sustainable Urban Mobility in Asia (SUMA) program.

Sustainable urban mobility in Asia Program brought together many international partners with a common vision to set some good practices in sustainable urban transport in Asia. SUMA embodied a shift of approach from an early emphasis on motor vehicles towards recognizing the role also played by the design of urban infrastructure, nonmotorized transport and other factors. The program was designed with an objective of stabilizing air pollution levels in Asian cities and reducing transport's contribution to climate change by accelerating the development of capacity for urban air quality management (AQM) and sustainable urban transport in Asia through better integration of AQM and SUT into strategies, policies, programs, and projects, of ADB, its member countries, and other development agencies.



PHOTO BELOW Participants at the SUMA Summit in Delhi, India.

#### **BRT launched in Ahmedabad**

-A Bus Rapid Transit System (BRTS) was launched in Ahmedabad on October 14. Initial Service was open to the public with 22 buses operating on the 12.5 km stretch. Trial runs of the BRTS began on July 16, with 14 buses offering free services. Since then, between 17,000 and 18,000 commuters has been making use of the free service daily. Media reports have been very positive on the BRTS. With many international and national delegates visiting it, it was eventually awarded as best MRTS in India by Ministry of Urban Development recently.

## **REPORT:** Characteristics of Bus Rapid Transit for Decision Making

—2009 Federal Transit Administration (FTA) report describes the physical and operational costs, performance and potential benefits of BRT's constituent elements both individually and combined as integrated systems.

Its intended audience includes urban transportation professionals and officials involved in developing and evaluating high performance transit systems, of which BRT is one alternative.

PHOTO BELOW Recently opened BRTS in Ahmedabad, India.



## OCTOBER

### **Car-Free Day reduces air pollution**

--Based on data from Jakarta Environmental Management Board (BPLHD), the program has managed to decrease the amount of dust particle (PM<sub>10</sub>) by 34 %, Carbon monoxide (CO) by 68 %, and Nitrogen monoxide (NO) by 80 %. Air quality monitoring was conducted seven days before and after the program was held.

Aside from reducing air pollution from motor-vehicles emissions, the Car-Free Day is also a way of promoting the use of non-motorized transport to the public.

### Singapore: Car usage on the rise

—According to Transport Minister Raymond Lim, the share of public transport in the total number of trips made during the morning peak period decreased to 59 % last year from 63 % in 2004 and 67 % in 1997. This decrease is reportedly due to the rise in vehicle numbers as well as vehicle use.

### Clean Air and Sustainable Environment Project

-The Bangladesh Government, with support from World Bank, launched an innovative project which integrates environment and transport under one common objective of improving air quality. Initial details emerging from the government suggests that the project would try to improve the traffic flow and pedestrian mobility and safety by building 25 foot over-bridges, 70 km of new sidewalks, 80 km of one-way streets and the BRTS in at least one corridor. Many studies have shown Dhaka to have one of the worst traffic congestion globally. Latest estimates show that gridlock on Dhaka's four key roads alone amounted to 96 billion taka (\$1.53 billion) - onethird of the impoverished country's annual development expenditure.

Air pollution levels decreased significantly (PM<sub>10</sub> by 34 %, CO by 68 %, and NO by 80 %) because of the car free day program.

At the same time, it promotes use of non-motorized transport to the public.



PHOTO LEFT Car free day in Surabaya: Children play in the middle of Jln. Raya Darmo Permai in Surabaya on Sunday. Source: Antara/Eric Ireng, 2009.

## **NOVEMBER**

"Mayor's argument— LRT would be more cost intensive than BRT and ultimately, his people would have to pay for the system"

#### Cebu City Council rejects LRT

-The Cebu City (Philippines) Council stood up against the proposed \$602 Million Light Railway Transit system for Metro Cebu which was backed by some national stakeholders, saying it has already chosen a Bus Rapid Transit as the urban mass transport system in the city. After the city initiated BRTS feasibility studies, some stakeholders committed to the approval of the Cebu Light Rail Transit System which is an alternate proposal to BRT. With the local body and some national level stakeholders coming up with conflicting news, the Mayor sent official letters to relevant national government agencies and development organizations to express his disapproval of the rail initiative.

The LRT supporters argued that LRT would be "free" for the local government as it would be under BOT. The mayor's argument was that a LRT would be more cost-intensive than a BRT and ultimately his people would have to pay for the system.

### Global Ministerial Summit on Road Safety

-With 90% of road traffic deaths occurring in low-income and middleincome countries the most and vulnerable being pedestrians, a major coordinated action needs to be taken to reduce traffic fatalities. Noting this aspect, the ministerial summit concluded with an eleven-step approach towards reducing road accidents. Major emphasis was on designing safer streets for vulnerable users such as pedestrians.

## Shanghai to implement Grade IV emission standard

—Shanghai plans to implement Grade IV emission standard this November. According to the director of Shanghai EPB, Shanghai will implement Grade IV emission standard in advance of the other cities of China, which is expected to reduce about 25% of emission pollution. In addition, Shanghai will also strengthen regular management of vehicles emission and formulate stricter fuel standards in order to decrease the air pollution from vehicles.



PHOTO LEFT Ahmedabad BRTS.

## DECEMBER

#### New electric bikes rules controversial

China has announced new standards (20-40 standards) for electric bikes for 2010 wherein a scooter heavier than 40 kg and capable of more than 20 km an hour will be considered a motor vehicle and thus will be subject to the motor vehicle laws and regulations. This has caused controversy with riders and makers. When the new rules start next year, large electric bikes will be able to use motorways which may become a road safety concern. In addition, these rules will also influence the marketability of the e-bikes, and may lead to a fall in e-bikes demand.

### Joint Ministerial Statement of the 15<sup>th</sup> ASEAN Transport Ministers (ATM) Meeting

During the 15<sup>th</sup> ATM in Hanoi, ASEAN transport ministers discussed strategies and targets the ASEAN transport sector can implement to assist economic recovery in the region.

These involve measures for enhancing the region's connectivity, further opening up of the ASEAN skies, integration of maritime transport and seamless transportation of regional goods.

In addition, the ministers also emphasized the importance of addressing the pressing road safety issues experienced by most ASEAN Member States and lauded the establishment of the ASEAN Multi Sector Road Safety Special Working Group that would further strengthen the institutional capacity in ASEAN Member States to tackle road safety issues more effectively by developing appropriate activities, systems and coordination mechanisms, including the provision of training on key professionals skills and techniques across the region. "E-bike heavier than 40 kg and capable of more than 20 km an hour will be considered a motor vehicle."



## DECEMBER

### REPORT: Environmental assessment of passenger transportation should include infrastructure and supply chains

—This excellent study tries to evaluate the emissions generated for different modes using life cycle assessment (LCA). Most current decision-making relies on analysis at the tailpipe, ignoring vehicle production,

infrastructure provision and fuel production, which essential are elements as well. The authors conclude that to appropriately mitigate environmental impacts from transportation, it is necessary for decision makers to consider lifecycle energy use and emissions. The authors present results of a comprehensive life-cycle assessment which covers energy consumption, greenhouse gas emissions, and selected criteria air pollutant emissions from different vehicles such as cars, buses, trains. and airplanes in the US and takes into account infrastructure. fuel production and supply chains.

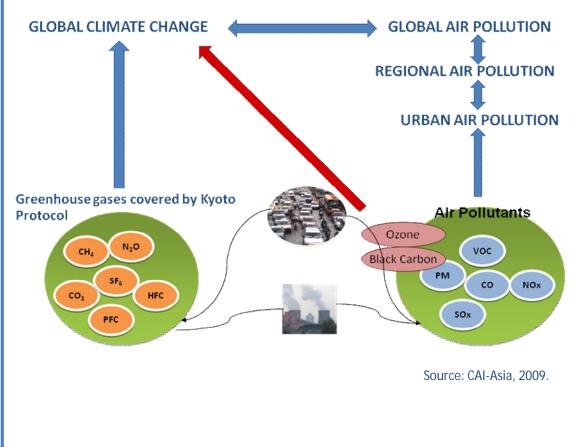
### United Nations Climate Change Conference: COP 15 Copenhagen

COP 15 turned out as a pivotal meeting in the whole climate change negotiations where governments seek to seal a deal on a new agreement that will stabilize  $CO_2$ emissions to manage the impacts of climate change.

COP 15 sawtheconvergenceofathousandNGOrepresentativesadvocating variousissuesrelating to theclimate change negotiations.

## Ahmedabad's BRTS is best mass transit system

The MOUD (Urban Transport Division) has chosen Janmarg - Ahmedabad BRTS project as the '*Best Mass Transit Project*'. Within two months of its launch, the AJL has managed to get around 22,000 commuters for its BRT buses and earns around Rs 1.10 lakh per day.



### Climate Change and Air Pollution Link: The Co-benefits Approach

### <u>JANUARY</u>

#### Public transport gets a boost

Information on Jawaharlal Nehru National Urban Renewal Mission is available here:

http://jnnurm.nic.in/nurmudweb/FOB/Funding\_of\_Buses.htm

#### Viet Nam: EST Initiatives

http://www.uncrd.or.jp/env/4th-regional-estforum/Presentations/14\_BS3\_Viet%20Nam.pdf

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### Asian governments lower pump prices following the fall in world oil prices

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#### **New York City Wins the Sustainable Transport Award 2009** http://www.nyc.gov/html/planyc2030/html/home/home.shtml

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#### China rolls out series of programs involving economic incentives to retire heavy-polluting vehicles and promote use of cleaner vehicles

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#### Access and Mobility for the Cities of Tomorrow

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### <u>JULY</u>

#### Old vehicles causing serious environ threat to Dhaka

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