

# Share the Road Environmental Transport Program

— Pasig City



Pasig City/©Flickr John Westbrock

## City Profile



Area: 31.00 km<sup>2</sup> (11.97 sq mi)  
Population: 772,695

## Urbanization and its Accompanying Challenges

Pasig City is the eighth largest city in Metro Manila in terms of land area. The population of Pasig City increased sharply between 2010 and 2017. Moreover, due to higher purchasing power and a more widespread car-centric mentality, the number of vehicles began to increase remarkably in 2014.

Additionally, Pasig City serves as the gateway to the East Philippines, including all municipalities and cities of Rizal Province. It is home to 121 subdivisions, 176 condominiums and 26,780 business establishments, not to

mention commercial centers and malls. As per data from the Metropolitan Manila Development Authority (MMDA) 2016, car dealers roll out 820 new units per day. As a result, traffic conditions in Pasig City have worsened, leading to a rapid increase in road congestion costs. With traffic congestion in the country’s highly urbanized areas reaching a total gridlock, Pasig City residents are eager for a workable solution.

### Share the Road Environmental Transport Strategies

Realizing the importance of bridging the gap between economic progress and sustainability, Pasig City began to formulate real-world solutions and employ proactive governance to solve its road congestion problems. The city government adopted the concept of Road Sharing Principles called “Bayanihan sa Daan”, which represents a sustainable urban transport strategy integrating pedestrianization, walking, cycling and public transportation.

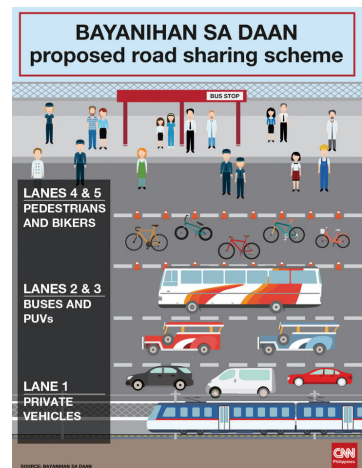
Pasig City has taken the lead to demonstrate four roads for Carless Sunday Streets. It has also shown proof of concept of road sharing in the 2.5 kilometer road along the Manggahan Floodway, including these complementary strategies:

- Improve Environmentally Sustainable Transport (EST)**  
 Improving the service capacity of public transportation can reduce reliance on private vehicles. For example, Pasig City Community Shuttle Service and electric tricycles were established to redirect current development to favor safer and greener transport systems. Additionally, reducing the number of private vehicles can alleviate congestion and reduce travel delays, because public transport occupies less road space per passenger. This is shown by the implementation of the Odd-Even Scheme on six Pasig City’s six major gateways.

**Contributor:**  
 Raquel A. Naciongayo, Department Head of City Environment and Natural Resources Office (CENRO)

**Linking SDGs**

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Bayanihan-sa-Daan\_infographics©CNNPH

## City Solutions

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Distribution of Cargo Type Etrike to Different Communities © City Government of Pasig



Etrike Beneficiaries from tricycle drivers © City Government of Pasig

- **Intelligent Traffic System (ITS)**

The ITS connects the interactions of drivers, pedestrians, public transportation and traffic management systems. It receives real-time data from various sensors installed all over the city like VDS-CCTV, inductive loop and RSE, which will be sent to commuters through smart phone apps and the internet. This would lessen the number of traffic accidents and deaths and make roads generally safer for motorists and the general public. This smart technology solution encourages people to consider more environmentally friendly methods of transportation during high traffic hours.



• **Continuous, Well-Connected Pedestrian Network**

The City requires the provision of pedestrian facilities on all existing, new, and reconstructed roads as well as retrofitting old road networks. Today, cities can be designed compactly to reduce the need for motorized transport by making streets well-connected and walkable. Additionally, pedestrian networks should be integrated with sustainable long-distance transportation infrastructure, such as mass transit and land use planning.

In addition, the City will continue to implement solar-powered blinking pedestrian signals that help pedestrians know when they may cross safely. The City will also continue to implement pedestrian countdown signals that reduce uncertainty about safe crossing times. The City will continue to improve pedestrian crossings at signalized and non-signalized intersections, with the goal of reducing the frequency and severity of preventable collisions involving pedestrians.

• **Develop a Network of Cycling Facilities**

The City has installed protected bike lanes, bike racks and demonstrated a bike sharing system to encourage cycling, which is one indicator of a vibrant, sustainable city. Along with walking, transit and carpooling, cycling conserves natural resources and reduces pressure on the road network. Ancillary benefits include improving health, supporting more compact development, preserving the environment and supporting economic activity. Finally, it offers speed and convenience for shorter trips.



Protected Bike Lanes at CBD@City Government of Pasig



Bike Sharing Program at the CDB and City Hall Compound@City Government of Pasig

- **Implement Pedestrian Signals Countdown**

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### **Smart Governance: Holistic and Inclusive**

Pasig City's long-standing efforts to provide Carless Sunday Streets, free public transport, financial and e-tricycle loan assistance and traffic de-congestion programs all have empowerment at their core: ensuring that people have the opportunities they need to live better lives with dignity and security. With this value, Pasig city adopted the following approaches to encourage not only cross-sectoral cooperation but public engagement.

The combination of soft and hard creative innovations includes the following:

- **Sandwich Approach**

The "Sandwich Approach" or "Bibingka" Paradigm for planning engages the entire community by brainstorming simultaneously from the bottom up and top-down. Starting with a vision from the city leadership or other stakeholders, solutions are formed via consultations and are translated into a local law or ordinance. Stakeholders also include members of the technical working group and implementers. Feedback mechanisms are installed to ensure a successful project, and detailed documentations allows for replication and knowledge sharing with other cities.

- **Streets Owned by People: Bayanihan sa Daan**

Bayanihan sa Daan inculcates the values of family and community bonding as well as road sharing principles. The City continues to create many places for people to assemble, play and associate with others within their neighborhood despite the limited urban space. Examples include innovating Carless Sunday Streets, pedestrianization, and all forms of non-motorized transportation.

Active community participation is also an end in itself. Participatory planning allows people to realize their full potential and make their best contribution to society. This is the wisdom behind the Bayanihan sa Daan Programs. Rather than arranging people around development, urban spaces should be woven by people and for people.

“Pro-active” governance means preparing to roll up our sleeves and get hands dirty to create truly sustainable transportation. Barangay-level consultations take place in relaxed but regular coffee sessions where project implementation at the grassroots is monitored. Regular feedback mechanisms for stakeholders are institutionalized, which encourages people’s participation and instills a sense of ownership.

- **Odd-Even Scheme**

The Odd-Even Traffic Scheme, also known as “The Revised Traffic and Parking Management Code of Pasig,” is a congestion-reducing measure included in Ordinance No. 23, Series of 2016. Pasig City is a gateway for vehicles from Rizal Province to Metro Manila, Makati City to Quezon City, and vice versa. The Odd-Even scheme mandates that vehicles with license plate numbers ending in 1, 3, 5, 7 and 9 cannot use specific roads on Tuesdays, Thursdays and Saturdays, while vehicles with license plate numbers ending in 0, 2, 4, 6 and 8 may not pass on Mondays, Wednesdays and Fridays. Traffic congestion within the city was reduced when the National Government modified the Number Coding within Metro Manila. With the help and participation of Pasig residents, the traffic scheme was a success.



Carless Sunday Streets Brochure/©City Government of Pasig

### Carless Sunday Streets

Pasig City's long-standing efforts to provide Carless Sunday Streets, free public transport, financial and e-tricycle loan assistance, and traffic de-congestion programs all have empowerment at their core: ensuring that people have the opportunities they need to live better lives in dignity and security. The city is guided by the Clean Air Asia's "avoid, shift and improve" strategies to implement the sustainable urban transport programs. Pasig City is exploring new frontiers of empowerment with the following indicators during program planning, implementation and monitoring:

- **Confidence and Understanding**

For Bayanihan sa Daan Program, the community and recipients initiated requests to the City Government about their project proposals. These requests included installing bike lanes or a Carless Sunday Streets program in their locality.

- **Analysis and Communication**

The City Government facilitates forums, public hearings and community discussions regarding urban planning. It mobilizes experts and support groups in the Central Business District, homeowners' associations, interest groups and health and wellness enthusiasts.

- **Trust, Caring and Tolerance**

Through the Technical Working Group for every project, the City delegated responsibilities to achieve a sense of community ownership. They involve vulnerable people such as persons with disabilities, tricycle drivers, senior citizens and other target beneficiaries.

- **Communication and Cooperation**

Homeowners' associations, interested groups and advocacy leaders are empowered to implement and assist in the enforcement of guidelines to protect the Share the Road program from rejections and opposing parties.

- **Access to Information**

All members and stakeholders of the community involved in the Sustainable Transport Programs can access data and information about the project. This transparency allows stakeholders to discuss improvements and give feedback to improve project implementation.



Partnership agreement and citizen engagement towards low carbon city/©City Government of Pasig

## City Transport Development and Management Office

This office centralizes different offices and experts to promote the development of well-integrated and sustainable urban transport with the following functions:

1	Study, create and recommend policies and plans where transport planning is concerned
2	Review existing and relevant city ordinance and resolutions relevant to transport planning and management and propose enactment of new ones
3	Create the Pasig City Transport Master Plan
4	Promote mass public transport (bus, jeepneys, ferry, company shuttle service)
5	Spearhead and represent the city in public consultations regarding transport concerns
6	Manage the implementation and monitoring of the transport master plan, its objectives, concepts and accessibility
7	Coordinate and collaborate with neighboring cities to ensure good connectivity and safety of movement.

Functions of the City Transport Development and Management Office



## City Solutions

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At present, there are eight active technical working groups and a special ad hoc transport committee handling Carless Sunday Streets programs, free public buses, bike share, bike for life and other special transport projects. They schedule regular informal meetings and consultations on how to sustain, synergize and intensify people's participation. Consultation improves the quality of rules, programs and compliance while reducing enforcement costs for both the government and citizens. Regulation and its reforms affect all participants in civil society, and therefore, in order to better assess the impacts and minimize costs, all parties involved should be able to participate somehow in the regulatory processes. The committee's strong working belief is that **"when you want to walk fast, walk alone, but when you want to go far, walk with many."**



Bike for Life©City Government of Pasig



Carless Weekend Zumba©City Government of Pasig

During the process of the Share the Road project, one challenge facing was the business sector questioning the legality of road closure to institute Carless Sunday Streets. In response, the City Government invoked the stakeholders' engagement and bike ordinance, as well as Executive Order 774 favoring "non-motorized transportation and that those who have less in wheels must have more in roads."

## Results & Reflections

Programs	Accomplishments / Impact	Outcomes
<b>A. Free Community Shuttle Service Buses</b>	<ul style="list-style-type: none"> <li>– Serviced 125,038 passengers on four routes in the Pasig City CBD and other identified routes</li> </ul>	<ul style="list-style-type: none"> <li>– Increased purchasing power of constituents</li> <li>– Promoted clean, safe and comfortable public transportation</li> </ul>
<b>B. Bike Facilities (bike lanes, bike share)</b>	<ul style="list-style-type: none"> <li>– 15 kilometers of bike lanes were implemented along with 660 bike parking facilities in buildings and establishments</li> </ul>	<ul style="list-style-type: none"> <li>– Ensured safety of cyclists</li> <li>– Reduced amount of fuel consumption</li> <li>– Promoted clean air</li> </ul>
<b>C. Bike for Life</b>	<ul style="list-style-type: none"> <li>– 2,500 bikers have been participating in special and monthly bike events since 2011</li> </ul>	<ul style="list-style-type: none"> <li>– Promoted healthy lifestyle and non-motorized transport to constituents and the general public</li> </ul>
<b>D. Carless Sunday Streets/ Share the Road</b>	<ul style="list-style-type: none"> <li>– Five major roads implemented and sustained with 185,000 visitors and Carless loyalists for five years resulting in 360 events and activities</li> </ul>	<ul style="list-style-type: none"> <li>– Improved air quality by 72%</li> <li>– Promoted entrepreneurship by increasing traffic to bazaars and businesses</li> <li>– Promoted family and community bonding spirit</li> <li>– Promoted active transport such as walking, jogging and biking</li> </ul>
<b>E. Pedestrianization and Walkability Promotion</b>	<ul style="list-style-type: none"> <li>– Three kilometers of elevated skywalk were implemented at City Hall and other buildings along with 25 elevated skywalk and walkways at the Pasig CBD and citywide</li> </ul>	<ul style="list-style-type: none"> <li>– Provided convenience, connectivity and safety for pedestrians</li> <li>– Reduced traffic congestion</li> </ul>
<b>F. Odd-Even Traffic Vehicle Volume Reduction Scheme</b>	<ul style="list-style-type: none"> <li>– Six major city gateways have been following the scheme which has reduced travel time from 2 hours to 30 minutes</li> </ul>	<ul style="list-style-type: none"> <li>– Stabilized flow of people and vehicles</li> <li>– Promoted quality time for self and family</li> <li>– Reduced vehicle traffic by 40%</li> </ul>
<b>G. Etrike Replacement and Upgrading</b>	<ul style="list-style-type: none"> <li>– Ordinance for phase-out of old two stroke trikes had passed while there were 50 etrike beneficiaries</li> </ul>	<ul style="list-style-type: none"> <li>– Increased income by 50% for Etrike Drivers</li> <li>– Reduced carbon dioxide emissions through cleaner fuel</li> </ul>
<b>H. Intelligent Traffic System (ITS)</b>	<ul style="list-style-type: none"> <li>– 82 Road Safety Blinking Solar Pedestrian Lights were installed along with six LED Monitoring Advisories installed in strategic areas</li> </ul>	<ul style="list-style-type: none"> <li>– Decreased the risk of traffic accidents or deaths</li> <li>– Improved road safety for pedestrians</li> <li>– Reduced carbon dioxide emissions</li> </ul>

Outcome of the Share the Road Environment Transport Program

### Lessons Sharing

Recommendations for peer cities considering similar projects to Share the Road include the following:

1. Conduct consultation with diverse stakeholders in the community;
2. Enact a local ordinance;
3. Create an independent project management unit in the City Government;
4. Organize a Technical Working Group involving the affected sectors and stakeholders.

These strategies towards increasing transportation efficiency simultaneously reduce greenhouse gas emissions in the city. People are encouraged to consider alternative methods of transport such as shared biking or public transportation which helps slow down global warming.

## Review Comments

1. The traffic issue in Pasig represents the overall issue in the emerging countries in Asia; therefore the comprehensive improvement can be very informative for regions which have common challenges.
2. The Share the Road Environment Transport Program in Pasig City is an excellent example of a holistic and inclusive approach to city wide improvement of the transportation system.
3. The initiative is admirable for its inclusive governance approach which includes stakeholders and citizens in the transformation of its transportation system.
4. The Share the Road Environment Transport Program constitutes an ideal approach to the Smart City: Good Governance, supported by both institutional and technological innovation as tools to reach social and environmental urban development targets.
5. To take a more sustainable mobility path, besides odd-even scheme, the critical role of non-motorized transport needs to be recognized and factored into road infrastructure investments.