

NINETEENTH CONGRESS OF THE)
REPUBLIC OF THE PHILIPPINES)
First Regular Session)



22 JUL 13 P4:32

SENATE
S. No. 534

RECEIVED BY: 

Introduced by Senator Grace Poe

AN ACT
PROMOTING SUSTAINABLE AND ALTERNATIVE MODES OF
TRANSPORTATION AND OTHER MOBILITY OPTIONS TO IMPROVE AIR
QUALITY, INCREASE EFFICIENCY, REDUCE CONGESTION AND
CONTRIBUTE TO POSITIVE HEALTH IMPACTS IN OUR SOCIETY

EXPLANATORY NOTE

In 2014, Carbon Visuals—a group which specializes in visualizing scientific data—created a project to show what one metric tonne of carbon dioxide (CO₂) looked like. This was important, as greenhouse gas emissions are measured in million tonnes of carbon dioxide (MtCO₂). As it turned out, one tonne of CO₂ would roughly fill up a gigantic balloon over 31 feet in diameter, almost equivalent to a size of two-story house.¹

In 2013, the World Resources Institute estimated the carbon footprint of the Philippine transport sector at 25.56 MtCO₂.² In terms of the imagery used above, this would be equivalent to 25 million cubes of MtCO₂ the size of houses, floating into the atmosphere every year. In 2010, road transport in Metro Manila was estimated to have produced 7.98 million tonnes of CO₂ equivalent (MtCO_{2eq}).³

The picture is even direr when we factor in air pollution. In 2010, it was estimated that motor vehicles in Metro Manila produced 1.029 tons of carbon monoxide, 118,524 tons of nitrogen oxide, and 6,616 tons of sulfur oxide.⁴ In concrete terms, breathing the air in EDSA-Timog, Quezon City for one hour and forty minutes is equivalent to smoking 2 cigarettes.⁵ How ironic: we have taxed and spent so much to prevent people from killing themselves with cigarettes, only for them to

¹ Lodge, Anna. (11 March 2014). "A One Ton Bomb". Carbon Visuals. Accessed from: <http://www.carbonvisuals.com/blog/a-one-ton-time-bomb>

² World Resources Institute. Historical Emissions Data, 2013.

³ USAID. Annex 2, Climate Change and Clean Energy Project. Cited in Japan International Cooperation Agency, *Roadmap for Transport Infrastructure Development for Metro Manila and its Surrounding Areas (Region III and IV-A)*. Retrieved from http://www.neda.gov.ph/wp-content/uploads/2015/03/FR-MAIN-TEXT.-12149605_01.pdf

⁴ *Ibid.*

⁵ Cruz, J. (10 July 2017). "Why we should raise fuel taxes" *Business World*. Retrieved from <http://www.bworldonline.com/content.php?section=Opinion&title=why-we-should-raise-fuel-taxes&id=147994>

commit slow-motion suicide by breathing in the air in Manila. This is not an exaggeration. According to a report from the Centre for Research on Energy and Clean Air (CREA) and the Institute for Climate and Sustainable Cities (ICSC), approximately 66,000 premature deaths every year are linked to pollution in the country, and that the economic cost of air pollution amounts to P4.5 trillion annually—equivalent to 23% of the country's GDP in 2019.⁶

It can be argued that air pollution only affects those who commute. Yet those who are fortunate enough to own private vehicles have no respite. On average, Filipinos (car drivers included) sit through a cumulative of 28,000 hours to 40,000 hours in traffic—or at least 9 to 15 years in total.⁷ That means that a great portion of our lives are spent “packed like lemmings into shiny metal boxes/Contestants in a suicidal race.”

It is clear that moving around Metro Manila is a stressful, polluted, and neurotic experience. And this is why this representation earnestly seeks enactment of this measure— the proposed *Sustainable Transport Act*. This measure seeks to mandate the Department of Transport and related agencies to prepare a Sustainable Transport Plan. The Plan shall include non-motorized transport, the development of a seamless and inclusive public transportation system, green infrastructure and facilities, and enforcement of transportation demand management measures. In addition, the DOTr shall develop policies and guidelines that promote non-motorized transportation such as walking and bicycling to meet public transportation demand.

In view of the foregoing, immediate approval of this measure is sought.



GRACE POE

⁶ Suarez, Isabella L. & Garcia, Vince Carlo. (November 2021). “Aiming Higher: Benchmarking the Philippine Clean Air Act”. *The Center for Research on Energy and Clean Air (CREA) & The Institute for Climate and Sustainable Cities (ICSC)*. Accessed from: https://icsc.ngo/wp-content/uploads/2021/11/AimingHigher_BenchmarkingthePhilippineCleanAirAct_CREa_ICSC_v4_10Nov2021.pdf

⁷ Luna, Franco. (14 October 2019). “Filipinos Lose 9 to 15 Years of Their Lives Sitting in Traffic—Urban Planner”. *The Philippine Star*. Accessed from: <https://www.philstar.com/nation/2019/10/14/1960117/filipinos-lose-9-15-years-their-lives-sitting-traffic-urban-planner>

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Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

1 Section 1. *Short Title.* – The Act shall be known as the "*Sustainable*
2 *Transportation Act of 2022*".

3 Sec. 2. *Declaration of Policies.* – In conformity with the provisions of the
4 Constitution to promote general welfare and social justice in all phases of national
5 development, to protect and advance the right of the Filipino people to a balanced
6 and healthful ecology in accord with the rhythm and harmony of nature, and to
7 conserve and develop the patrimony of the nation, and in consonance with signed
8 international agreements such as Aichi Statement of 2005, United Nations Economic
9 Commission for Europe (UNECE) Agreement, United Nations Framework Convention
10 on Climate Change (UNFCCC) Agreement of 1992, UNECE World Forum for
11 Harmonization of Vehicle Regulations (WP 29), and Bangkok Declaration for 2020,
12 the State hereby adopts the following policies relative to the transportation system in
13 our country, whether public or private:

14 a.) The State shall promote a shift towards a safe, cost-effective, efficient, non-
15 congestive, non-pollutive, and healthful locomotion and seamless and
16 inclusive transportation system for the benefit of all citizens, economy and
17 society;

- 1 b.) The State shall increase mobility options of the general public and promote
2 the use of alternative modes of transportation such as non-motorized
3 transportation, green vehicles and public transportation;
- 4 c.) The State shall properly plan and establish facilities and infrastructures that
5 will respond to this paradigm shift in the transportation system;
- 6 d.) The State shall espouse social equity and gender perspective in the
7 formulation of a Sustainable Transport plan, reinforcing existing rules,
8 regulations and laws;
- 9 e.) The State shall establish its plans and programs in conformity with the overall
10 integrated national land use plan as well as the local comprehensive land use
11 plans; *and*
- 12 f.) The State shall encourage the viable use of alternative and cleaner fuels in
13 view of vehicular modernization.

14 Sec. 3. *Definition of Terms.* – The following terms shall have their respective
15 meanings:

- 16 a.) *Mixed-Use Development* refers to any urban, suburban or village
17 development, or even a single building, that blends a combination of
18 residential, commercial, cultural, institutional, or industrial uses, where
19 those functions are physically and functionally integrated, and that
20 provides pedestrian connections;
- 21 b.) *Motor vehicle* means a self-propelled vehicle or any vehicle propelled by
22 any power other than muscular power. The term does not include light
23 electric vehicles such as electric bicycles, electric scooters, electric
24 personal transport, and other similar vehicles as defined under Section
25 4(q) of Republic Act No. 11697;
- 26 c.) *Public transportation* refers to a shared passenger transportation service
27 which is available for use by the general public. These include buses,
28 trams, trains, rapid transit and ferries;
- 29 d.) *Road Safety Audit* refers to the systematic checking of the safety aspects
30 of new highway and traffic management schemes, including modifications
31 to existing layouts. The main aim is to design out safety problems from
32 the beginning and to reduce future problems. Safety audits should be

1 included during the design, construction and maintenance phases of road
2 projects;

3 e.) *Transit-Oriented Development* or *TOD* refers to a mixed-use residential
4 and commercial area designed to maximize access to public transport, and
5 often incorporates features to encourage transit ridership. A TOD
6 neighborhood typically has a center with a transit station or stop (train
7 station, metro station, tram stop, or bus stop), surrounded by relatively
8 high-density development with progressively lower-density development
9 spreading outward from the center;

10 f.) *Transportation demand management* or *TDM* refers to strategies that
11 increase transport system efficiency. TDM gives priority to modes that
12 move people more efficiently and discourages the use of single occupancy
13 vehicles to reduce traffic congestion. It also includes promotion of non-
14 motorized transportation (NMT) through walking and cycling;

15 g.) *Walkways* refers to a continuous way designated for pedestrians and
16 separated from the through lanes for motor vehicles by space or barrier;
17 and

18 h.) *Sustainable transport* refers to any means of transport with low impact on
19 the environment, accessible, safe, environment-friendly, and affordable. It
20 includes walking and cycling, transit-oriented development, green vehicles,
21 carpooling, and building or protecting urban transport systems that are
22 fuel-efficient, space-saving and promote healthy lifestyles;

23 Sec. 4. *Sustainable Transport Action Plan*. – The Department of
24 Transportation (DOTr), in coordination with the Department of Environment and
25 Natural Resources (DENR), the National Economic Development Authority (NEDA)
26 and other key stakeholders from the national and local levels as may be deemed
27 necessary, shall prepare a Sustainable Transport Action Plan which aims to provide a
28 roadmap for national and local transportation system to be adhered to at all levels
29 throughout the country.

30 The Sustainable Transport Action Plan shall include strategies relating to the
31 inclusion of non-motorized transport, the development of a seamless and inclusive
32 public transportation system, green infrastructure and facilities, and enforcement of

1 transportation demand management measures. These will set out the actions
2 required to achieve the mode shift target over a certain period of time as identified
3 by DOTr.

4 *Sec. 5. Integrated Land Use and Transportation Plan.* – In the preparation
5 and updating of their land use plans, all local government units (LGUs) shall explore
6 the important relationship between land use and transportation and ensure that land
7 use and transportation decisions be made in conjunction with each other to balance
8 and coordinate the mix of land uses, with the end in view of sustaining a healthy
9 economy, supporting the use of alternative transportation, and enhancing the quality
10 of life. Said plan shall include strategies to avoid unnecessary travel through transit-
11 oriented development. Further, the DOTr shall provide technical assistance to key
12 stakeholders and LGUs in the completion of these integrated land use and
13 transportation plans, upon the request of the LGUs and subject to availability of
14 resources.

15 *Sec. 6. Establishment of Emission Control and Standards, Road Safety and*
16 *Inspection and Maintenance.* – The State shall endeavor to achieve a smoke-free,
17 accident-free and effective road safety management system. In line with this, the
18 existing motor vehicular standards set by the DOTr and the DENR on emission, fuel
19 economy and roadworthiness shall form part of the Sustainable Transport Action
20 Plan as consistent with the objectives of this Act. The DOTr, in coordination with
21 related agencies, shall strictly implement these emission standards and conduct
22 stronger road apprehension.

23 a.) *Emission Control and Standards.* – Pursuant to Philippine Clean Air Act of
24 1999 or Republic Act No. 8749, the DOTr, through the Land
25 Transportation Office (LTO), shall conduct the vehicle test for emissions
26 utilizing the Motor Vehicle Inspection Station (MVIS) as well as establish a
27 roadside inspection system to ensure that vehicles comply with the
28 emission standards.

29 b.) *Road Safety Program.* – The existing road safety program shall be
30 enhanced and strictly enforced, by adopting a zero-fatality policy,
31 implementing appropriate speed controls and imposing a regular Road
32 Safety Audit (RSA) to influence safety performance on an ongoing basis.

1 The Department of Public Works and Highways (DPWH) shall identify the
2 roads and highways to be audited and shall be responsible for the conduct
3 of the RSAs.

4 *Sec.7. Use of Alternative Energy and Cleaner Fuels.* – The Department of
5 Energy (DOE), in coordination with the DOTr and the DENR shall formulate
6 strategies towards vehicular modernization and use of alternative energy and cleaner
7 fuels, such as but not limited to Compressed Natural Gas (CNG) fueled Buses and
8 Electric Motor-Powered Vehicles, pursuant to the Philippine Standardization Law or
9 Republic Act No. 4109, Philippine Clean Air Act of 1999 or Republic Act No. 8749, the
10 Biofuels Act of 2006 or Republic Act No. 9367, and other pertinent laws. The
11 availability, viability, safety, sustainability, energy resilience and fuel efficiency of
12 these alternative energy and cleaner fuels shall be taken into consideration, as well
13 as transparency and route measured capacity in relation to the issuance of
14 provisional authorities or franchises.

15 *Sec. 8. Non-Motorized Transportation.* – The DOTr shall develop policies and
16 guidelines that promote non-motorized transportation such as walking and bicycling,
17 and variants such as the use of strollers, small-wheeled transport (skates,
18 skateboards, push scooters and hand carts) and wheelchair travel to meet public
19 transportation demand. Said policies and guidelines shall include design principles
20 for supporting facilities and infrastructures that will espouse a seamless
21 transportation system such as, but not limited to, exclusive pedestrian and bike
22 lanes, safe street crossings and access ramps for persons with disabilities (PWDs) to
23 ensure inclusive non-motorized transportation.

24 a.) *Installation of Walkways.* – Each LGU shall maintain adequate sidewalk
25 areas on roads frequented by pedestrians as walkways to allow safe
26 pedestrian passage and for the safe and convenient use of wheelchairs,
27 strollers and similar instruments. For primary and secondary roads, there
28 shall be allotted three (3) meters for the sidewalks. If there is no space
29 allocated for such and the implementation will prove difficult, in lieu
30 thereof, either an elevated footbridge or underground walkway must be
31 installed.

1 b.) *Designation of Bike Lanes.* – Each LGU shall designate a bike lane
2 measuring at least one (1)-meter wide on the rightmost portion of major
3 roads within its jurisdiction which shall be clearly marked as such and
4 segregated from all vehicular traffic lanes by a yellow dividing line.
5 Currently designated bike lanes shall be assessed for safety and
6 connectivity and shall be subject to measures that will improve the same.
7 The designated bike lanes shall be for the preferential or exclusive use of
8 bicycles. All motorized vehicular traffic shall not be allowed to use the bike
9 lane at any time of the day, except for light electric vehicles in designated
10 integrated lanes as provided under Section 11 (c) of Republic Act No.
11 11697. The right of way of bikers shall be paramount at all times and may
12 not be obstructed by a parked or standing motor vehicle or other
13 stationary object, even in intersections.

14 c.) *Provision of Bicycle Parking Spaces and Bike Racks.* – The DOTr shall
15 establish guidelines on the minimum supply of bicycle parking spaces and
16 bike racks in buildings and other facilities, taking into consideration the
17 population of the short-term or long-term dwellers in the area. The
18 owners of these establishments shall be required to provide for such.

19 Sec. 9. *Public Transportation.* – The DOTr shall provide guidelines that will
20 promote a shift towards seamless and inclusive public transportation as a primary
21 mobility option to the general public, especially the poor, including the elderly,
22 PWDs, women, youth, and children. Better public transportation initiatives shall be
23 studied and implemented in an effort to reduce the impact of fossil fuel on our
24 environment and financial markets, provide high quality but affordable transport
25 services as well as help reduce energy costs and pollution. Further, a unified and
26 automated fare collection shall, as much as possible, be established among all the
27 available forms of public transportation.

28 The DOTr shall conduct a Land Transportation Rationalization Study which will
29 scientifically determine the actual need for public transportation in the various
30 routes. This study shall objectively determine the actual number of public buses,
31 jeeps, taxis and other public utility vehicles (PUVs) needed by the public in a certain
32 route, road, street, locality or area. After completion, the study will be used as the

1 basis for the Land Transportation Franchising and Regulatory Board's (LTFRB)
2 issuance of the franchises for all the PUVs and grant of authority to operate as a
3 vehicle for hire.

4 a.) *Commissioning of a "Bus Rapid Transit (BRT) System."* – The DOTr shall
5 prepare a study commissioning the creation of a Bus Rapid Transit (BRT)
6 System which will organize buses into one efficient long-distance
7 transportation system with coordinated schedules, rates, routes, and pick-
8 up and drop-off points. The LGU and the private sector, including but not
9 limited to mall owners and bus companies, may be tapped in order to put
10 up or use existing facilities such as parks, parking lots, and bus depots
11 that will serve as large collective transportation terminals where people
12 can park their cars and bikes and take the buses to their destinations.

13 b.) *Establishment of a Water Ferry System.* – As much as practicable, the
14 national agencies and water regulatory bodies in charge of a water body
15 led by the DENR, in coordination with the DOTr, shall study and initiate
16 the establishment of a ferry system in navigable bodies of water which
17 may be operated by the said authority or bid out to a private contractor.

18 Sec. 10. *Transportation Demand Management Programs.* – The DOTr, in
19 coordination with the Department of Labor and Employment (DOLE), Department of
20 Education (DepEd), Department of Trade and Industry (DTI) and one representative
21 each from the civil society, transport sector and the youth, shall come up with
22 guidelines on transport demand management programs that will reduce the volume
23 of cars and motorized transport in the roads and enhance and encourage students
24 and workers to use the public transport system, while in observation of the health
25 protocols as promulgated by the relevant agencies. These shall include, but are not
26 limited to, the following:

27 a.) Carpool, vanpool, or car-share projects;

28 b.) Car ownership policies in relation to parking and air pollution;

29 c.) Congestion pricing measures;

30 d.) Programs to promote telecommuting, or the continuing promotion of
31 telecommuting set-up or work-from-home set-up for employees;

- 1 e.) Flexible work schedules, or satellite work centers; Transport program for
- 2 government employees; and
- 3 f.) Intelligent transportation systems.

4 Sec.11. *Facilities.* – The DOTr, in coordination with the DPWH and the LGUs
5 concerned, shall carry out an investment program that will encourage a shift to
6 sustainable transport within selected communities by providing safe and convenient
7 options to bicycle, walk or use other alternative means of transportation for routine
8 travel, and for other purposes. Transit-oriented development, supporting facilities for
9 non-motorized transportation, intermodal connectivity and public transportation shall
10 be developed in accordance with the land use and transportation plan.

11 Sec. 12. *Education and Research Programs.* – The DOTr in coordination with
12 NEDA shall conduct relevant studies and supply information to car owners and
13 commuters on aspects of sustainable transport that are relatively new. Technical
14 assistance may be provided to other government agencies and private sector
15 representatives involved in the transport system.

16 The DOTr shall also conduct continuous public consultations and social impact
17 assessments amongst stakeholders affected by the Sustainable Transport Action
18 Plan. Social safety nets shall be carefully studied, formulated and implemented, as
19 needed.

20 Sec. 13. *Financing.* – The DOTr, in coordination with key stakeholders, shall
21 explore the possibility of accessing a growing range of global environment funds in
22 order to be able to assist in the funding of sustainable public transport systems.
23 Public-private partnerships shall also be encouraged in the development of
24 transportation improvements.

25 Further, the revenues collected pursuant to Republic Act No. 8794, as
26 amended, shall be used for the implementation of this Act.

27 Sec. 14. *Implementing Rules and Regulations.* – The DOTr shall be the main
28 implementing agency for this Act. The Agency shall issue, in coordination with NEDA
29 and other relevant government agencies and stakeholders, the necessary rules and
30 regulations within ninety (90) days from the enactment of this law.

1 Sec. 15. *Separability Clause.* – If for any reason, any section or provision of
2 this Act is declared to be unconstitutional or invalid, the other sections or provisions
3 hereof which are not affected thereby shall continue to be in full force and effect.

4 Sec. 16. *Repealing Clause.* – All laws, decrees, orders, rules and regulations,
5 and other issuances which are inconsistent with the provisions of this Act are hereby
6 repealed, amended or modified accordingly.

7 Sec. 17. *Effectivity.* – This Act shall take effect fifteen (15) days after
8 publication in at least (2) newspapers of general circulation.

Approved,