

Supportive Systems and Structures for Walking and Cycling in Daily Living

Definition: In this document

”Walking and cycling” means traveling on foot or on cycles in daily life, an activity that is more than for pleasure or exercise.

“Supportive systems and structures for walking and cycling in daily living” means putting in place systems and structures that support walking and cycling in daily living, as well as the use of wheelchairs by people with disabilities, on walkways and cycle lanes that are enjoyable to use, which everyone including people with disabilities, elderly people, children, pregnant women and sick people can equally get access to and make use of.

Significance of the problem, situation and trend

1. Walking and cycling have been principal travel modes of most people in Thailand ever since the introduction of bicycles into the country just over 100 years ago. The situation was changed about 40 years ago with the availability of affordable motor vehicles to middle and higher income population. This was coupled with the fact that the government adopted a national development approach attaching importance to personal cars and making it the basis for town planning and infrastructure development of transportation. At the same time, it neglected to invest and develop non-motorized transport modes, i.e. walking and cycling, as well as mass transit modes, especially the rail system. As a result, many people have opted to travel, even for a short distance, by motorized vehicles, and this has become a preferred habitual mode of behavior.

2. With regard to health, it is an easy, expedient and least expensive way to encourage the public to engage in some healthy physical activities by walking and cycling with at least nine direct health benefits: reduced heart diseases by 30-50%, reduced Type-2 diabetes by 30%, reduced risk factors for strokes, reduced risk factors for overweight and obesity, reduced risk factors for colon cancer, reduced risk factors for breast cancer, improved musculoskeletal system, reduced risk factors for depression, and reduced risk factors for fall by elderly people¹. Cycling is one of three aerobic exercises with no impact on bones and joints. It is, therefore, most suitable for elderly people. Promoting walking and cycling as everyday activities by the public is a way to prepare for aging society. In less than 10 years’ time, between 2020 and 2021, Thailand will witness approximately 11 million elderly people (over 60 years old), about the same number of children, and after that date the number of the elderly will permanently surpass that of the children². A suitable increase in the rate of physical activities will help save the country from loss of working productivity, currently at an average of 1.8 days per person per year³. This will also help save direct and indirect health service budgets. For instance, the budget that the government needs to treat overweight and obese people exceeds 100 billion baht a year, while it is expected to pay even more for obese children in the future – nearly 200 billion baht a year⁴.

3. Economically speaking, promoting walking and cycling, especially for short-distance travel (1-5 km) and promoting its connection with the use of public transport system will help reduce unnecessary use of motor vehicles as well as reducing the importation of oil and natural gas from abroad. Imported oil and natural gas have been on the increase, which in 2011 stood at 16.7% of gross import value⁵ or over one trillion baht. (1) Household expenses for travel and transport in 2011 were the third highest of household expenditure at 19%, for which energy costs in the transport sector (oil and gas used in motor vehicles) accounted for 10% and constantly were on the rise⁶. In this regard, walking and cycling for short-distance travel in daily life will help reduce the expenses. If people walk or cycle instead of using cars one day a week, they will save a petrol cost of 5,200 baht/vehicle/year (based on the petrol cost of 100 baht/day/vehicle). (2)

Walking and cycling, low-speed travel modes, will also help reduce accidents caused by motorcycles and cars, faster-moving vehicles, which stood at 25-30 deaths per day and over new 5,000 disabilities per year⁷, resulting in a yearly loss of 10 billion baht in monetary terms. (3) Walking and cycling are a way to solve traffic congestion problems and loss of travel time due to a greater number of motor vehicles on the streets than necessary. At present, the average travel times spent by people nationwide and in Bangkok are 1.3 and 1.7 hours per day respectively⁸, resulting in a loss of 80 billion baht in monetary terms. In Bangkok and neighboring towns alone, if the traffic congestion could be improved to a functional level, the damages caused by excessive travel time would be reduced by 88.3 million baht per day, while the damages caused by vehicle use would be reduced by 118.9 million baht per day, an overall reduction of 62 billion baht per year⁹.

4. With regard to the environment, short-distance travel by walking and cycling will reduce greenhouse gas emission from the use of oil and natural gas in the transport sector. Such use was one of the main causes of a very high rate of greenhouse gas emission in Thailand, making the country ranked No. 21 in the world in 2011. Out of the country's 221.65 million tons of CO₂ emitted, 59.80 million tons or 27% came from the transport sector, an increase of 20% from 2000¹⁰, while about half of the CO₂ emitted in Bangkok came from motor vehicles. On the basis of the amount of CO₂ emission, in terms of kilogram/kilometer/person from travel (Carbon Footprint of travel), the use of personal motor vehicles records a value of 0.09, the highest in the use of land transport. Every 10 kilometers of walk or cycling per person in Thailand in lieu of motor vehicles will reduce CO₂ emission by almost one kilogram¹¹. If one million cars run 1.3 km less per day, CO₂ emission will be reduced by 100,000 tons, and the environmental costs or damages caused by pollutants emitted by motor vehicles will be further reduced. The current estimate of such costs is as high as 20 billion baht per year; an average of 5 baht will be gained when a person walks or uses a bicycle for one km instead of using a motor vehicle (as of the constant cost in 2003)¹².

5. In socio-cultural terms, when people turn to walking or cycling for short-distance travel, the spirit of community will return. Studies in developed and developing countries reveal that there is a direct relation between the amount of walking and cycling and socio-economic equity, democracy, and public peace and order, thanks to the town planning, urban design and development in such a way that public space is made available for the population to walk, use bicycles, and conduct other social activities in a safe manner as well as reducing the use of personal motor vehicles. The development that ensues will be sustainable; it is an investment with a maximum overall return. It is said that "a cycle-lized city is a civilized city"¹³ and "a cyclable and walkable city is a healthy city."

6. A lot of walkways have uneven surfaces with barriers lying about, are not wide enough without suitable ramps, and do not invite use, thus making it difficult for users, including people with disabilities, the elderly, children, pregnant women and sick people to get access to and make use of in a safe and equitable manner.

Policy, measures and relevant laws

7. To put in place supportive systems and structures for walking and cycling is, therefore, a concrete act to put into effect a number of policies and plans at the international level, to which Thailand is part of, and at a national level as follows:

7.1 The presence of public policy on walking and cycling is an important element in the promotion of physical activity and reduction of sedentary behavior (including sitting in the car) in line with the Toronto Charter for Physical Activity that Thailand adopted in 2010 as well as the Non-Communicable Disease Action Plan 2008 and WHO's Global Strategy on Diet, Physical Activity and Health 2004.

7.2 The promotion of infrastructure for walkways and bicycle lanes to promote non-motorized transport, an inexpensive and sustainable transport promotion, is a

recommendation of the United Nations Conference on Environment and Development or Rio+20 held in Federative Republic of Brazil during 20-22 June 2012. The Conference is a summit meeting attended by national leaders all over the world and designed to set environmental and development strategies in every field for the world community to adopt as guidelines for future action.

7.3 The move to encourage changing from the motorized to non-motorized transport systems – walking and cycling – or to the public or low-carbon transport systems, including the management of travel needs and promotion of road safety, is a conclusion of the 5th Regional Environmentally Sustainable Transport Forum 2010 in which Thailand participated. In addition, Thailand proclaimed Bangkok Declaration 2020 – Sustainable Transport Goals for 2010-2020.

7.4 Walking and cycling instead of using motor vehicles are activities designed to reduce greenhouse gas emission. Such practice will show that Thailand has observed the United Nations Framework Convention on Climate Change (UNFCCC) that Thailand is one of 154 countries that adopted the instrument in 1992; it also shows that Thailand has observed the Kyoto Protocol that it ratified in 2002.

7.5 At national level, promoting walking and cycling in daily living follows the following plans: (1) State Organization Plan 2012-2015 for energy economy and reduction of transportation costs to uplift quality of life as stipulated in Policy No. 3 (economic policy); (2) the 11th National Economic and Social Development Plan 2012-2016 based on the Sufficiency Economy as its guiding principle with strategies intended to review the development paradigm and drive the country towards the path of environmentally friendly low-carbon economy and society; (3) Transport and Traffic Development Major Plan 2011-2020 aiming at sustainable transportation with its objective No. 4 to promote energy-saving and environmentally friendly transportation; and (4) Master Plan for Development of Sustainable Transport Systems and Reduction of Climate Change Problems 2012-2050, which is being finalized.

8. Thailand has a number of relevant laws, such as Act on Organization of Motor Vehicle Parking in Municipal and Sukhaphiban B.E. 2503 (1960), Land Traffic Organization Act B.E. 2521 (1978), Motor Vehicle Act B.E. 2522 (1979), Land Transport Act B.E. 2522 (1979), Land Traffic Act B.E. 2522 (1979), Highway Act B.E. 2535 (1992), Protection of Motor Vehicle Victims Act B.E. 2535 (1992), and Multimodal Transport Act B.E. 2548 (2005). On the whole, these laws do not facilitate or promote walking and cycling in daily living.

Roles of organizations and stakeholders

9. Bangkok Metropolitan Administration (BMA) and several local government organizations have conceived plans to use bicycles to solve traffic congestion problems for years and have initiated a number of actions, e.g. creating bicycle lanes in Bangkok and other cities and towns including Chiang Mai, Tak, Phetchaburi, Yala, Songkhla, and Klaeng. BMA has issues Traffic Officials Rules for Bangkok on Allocating Traffic Lanes for Bicycles 2010. It has also organized a “We Love Bangkok, We Love Bicycles” Project (starting in March 2011) to initiate physical measures, conduct campaigns and work in cooperation with the private sector to promote the use of bicycles. It plans to provide public bicycle sharing services. In addition, it teaches Grade-5 students in every BMA school how to use bicycles.

10. Thai Health Promotion Foundation (ThaiHealth) has been promoting and supporting activities regarding walking and cycling in conjunction with exercises and sports for health in various projects working with its network partners since 2002. In 2012 it has supported a proactive project under Physical Activity Promotion Plan in Social Communication and Campaign Section, offering a grant to Thailand Cycling Club’s Walking and Cycling Public Policy Advocacy Project. The project objective is to gather information and a body of knowledge on walking and/or cycling in the daily life of the community in the urban and rural areas. The

information will be used to advocate a public policy aimed to promote walking and cycling in daily living in cooperation with various partners in the country.

11. Walking and running exercises have been popular activities in Thailand for more than 30 years to an extent that walking and running clubs have been set up in various parts of the country and now joined together to become a Walking and Running Federation of Thailand. However, promoting walking as a daily physical activity is something new that comes mostly under the responsibility of the Ministry of Public Health.

12. Thailand Cycling Club, founded in 1991, has been working to promote the use of bicycles in daily life. It invites the public to do more cycling through a host of activities and has played an important part in the formation of various clubs of people who cycle for health, recreation and competition in every province of Thailand. In 2011, Thailand Cycling Club initiated a consultative process with cycling clubs and groups, local administrative organizations, and other agencies from the public and private sectors that support the use of bicycles with the aim of setting up Federation of Cycle Users of Thailand.

13. Chiang Mai Sunday Cycling Club has made a policy proposal to the government to promote cycling for the last 10 years or so. In 2005 it initiated a seminar with other cycling clubs in 17 Northern provinces to improve the proposed policy plan to cover nearly every aspect. This was followed by several other seminars. However, the draft policy proposal has not been systematically pushed forward enough to make its presence felt.

14. Thailand Cycling Club systematically began to do policy advocacy in 2011 through a “Walking and Cycling Public Policy Advocacy in Thailand” Project. Supported by Thai Health Promotion Foundation (ThaiHealth), the project aimed to gather information and knowledge about walking and cycling in the daily living of the community in the urban and rural areas and advocate a public policy on walking and cycling in daily living in cooperation with various partners in the country. It has started working with local administrative organizations in at least five areas to ensure the presence of policy, measures and budgets for cycling.

15. In 2011 the Green World Foundation started a “Bicycles in the Heart of the City” Project, supported by ThaiHealth with a long-term aim to transform Bangkok from a car city to a bicycle or healthy city. Activities in 2011-2012 were to survey and map out bicycle routes in the capital which would serve as a tool to attract more people to cycle, and campaign for road sharing between motor vehicles and cycles.

Limitations in the work and possible solutions

16. There is no public policy to promote walking and cycling. Neither are there laws, agencies, or budgets to promote walking and cycling specifically.

17. Promotion of walking and cycling in daily living is not carried out on a continuous basis. Work is not properly integrated and does not cover the system and structure for walking and cycling in daily living in such areas as the following:

17.1 Attempts to develop a system and infrastructure linking walking and cycling to the public transport system are limited as seen in such major projects as “park and ride” areas for bicycles, and convenient, safe and standard walkways and bicycle lanes.

17.2 There is no systematic study on suitable bicycle lanes for different areas.

17.3 The existing road system does not have safe bicycle lanes including no safe and sufficient bicycle parking areas, thus posing a major obstacle to cycling promotion.

17.4 There are problems with speed limits for motor vehicles in urban/community areas that are safe for pedestrians and cyclists.

17.5 There is inadequacy in overall public relations and two-way general media that can give information and register the needs of service users. There is no involvement of public users or publicity campaign for the purpose.

17.6 There is no incentive measure, purpose, indicator, follow-up and evaluation on a continual basis.

17.7 No effort is made to promote understanding and importance of pedestrians and cyclists in driving-license tests.

17.8 There is no effort to promote curriculums and educational activities on walking and cycling and to develop skills for correct and safe cycling, including providing walking and cycling amenities in education institutions.

17.9 There is no campaign and budgetary allocation to encourage government officials and the general public to walk and cycle in daily life.

17.10 There is no measure to promote operators and industries that produce goods or provide services specifically related to walking and cycling.

18. All the laws concerning walking and cycling do not favor or promote walking and cycling in daily living as much as they should. For instance, the Building Control Act does not require owners of large buildings and public places to provide convenient and safe parking spaces.

19. Local government organizations which play an important role in promoting walking and cycling in daily living, especially in creating cycling community, on the whole have little or no understanding of the benefits of such practices. Nor do they know how to go about taking necessary action. There are no serious champions and supporters. The organizations are tied down by rules, regulations and bureaucratic structure. No attempt has been made to include walking and cycling in the agenda of local administrative organizations when it comes to providing infrastructure, disseminating information, and launching public campaigns on walking and cycling.

20. Effective efforts to promote walking and cycling require reduced use of personal motor vehicles, particularly for short-distance travel, as well as other social activities. This means behavior modification and change of habits for a number of people, and it is not always easy to do.

Issue for consideration by National Health Assembly

Requesting the National Health Assembly to consider Document National Health Assembly 5/Draft Resolution 1

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³ Ibid (1)

⁴ Ibid (2)

⁵ Energy Policy and Planning Office, 2012. *Result of Energy Analysis and Economy: GDP, Energy, Import and Export of Goods* (Thai language)

⁶ National Statistical Office, 2012. *Executive Summary: Household Energy Use 2011*

⁷ Statement by Dr. Witthaya Chatbanchai, Chairperson of Work Group for Project to Support Road Accident Prevention for Pilot Provinces, at the signing of MOU for “Roads of Smile”, Project for Road Safety Improvement in the Five Regions of Thailand, 5 June 2012 in <http://www.tunespeed.com/RoadsofSmileProject.html> (Thai language)

⁸ National Statistical Office, 2011. *Time Use of Population 2009* (Thai language)

⁹ Office of Transport and Traffic Policy and Planning, 2012. *Progress Report No. 1 on Study Project to Develop Master Plan for Development of Sustainable Transport System and Mitigation of Climate Change Problems* (Thai language)

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¹¹ Department of Environment, Bangkok Metropolitan Administration and Japan International Cooperation Agency. *Handbook to Cool Down Dearly Loved Earth* (Thai language)

¹² Ibid (15)

¹³ Saranarat Kanchanawanit, Dr., 2012. *Bicycle Society, Democratic Society*. On Greenworld Website. <http://www.greenworld.or.th/columnist/ecological/1737> with reference to Wilkinson & Pickett, *The Spirit Level*, 2009 (Thai language)