
Chapter 7

Guidelines for Concrete Operation and Summary of Suggestions

Guidelines for concrete operation are necessary to drive facility development strategies in the transport sector for the persons with disabilities and older persons to achieve the goal. The essence of the strategies is:

7.1 Problem Identification and Effort Necessity

The following problems are currently found from the analysis and effort necessity of facility development strategies in the transport sector for persons with disabilities and older persons in Thailand.

- **Increasing numbers with disabilities and the ageing society**

The number of persons with disabilities and older persons in Thailand is likely to increase significantly due to improved public health. To accommodate this, the public sector must provide facilities, buildings and public services that enable everyone to have access to and benefit from them equally.

- **Lack of clarity of laws**

The laws remain unclear, e.g., clarity in terms of dimensions, size, load and vehicle types that should be enforced as specified in the Ministerial Regulation to Prescribe Characteristics or the Provision of Equipment, Facilities or Services in the Buildings, Places, Vehicles and Transportation Services to Ensure Accessibility and Usability by Persons with Disabilities B.E. 2556 (2013), such as types of passenger ship. They are, therefore, difficult to implement and need revision concerning facility standards so that they can be enforced easily.

- **Lack of personnel with skills and expertise in dealing with persons with disabilities and older persons**

To manage facilities in compliance with the strategies, enough personnel must be available with specific skills and expertise, and/or trained by the Ministry of Transport, in the design, auditing, facility evaluation and service skills needed in the transport sector.

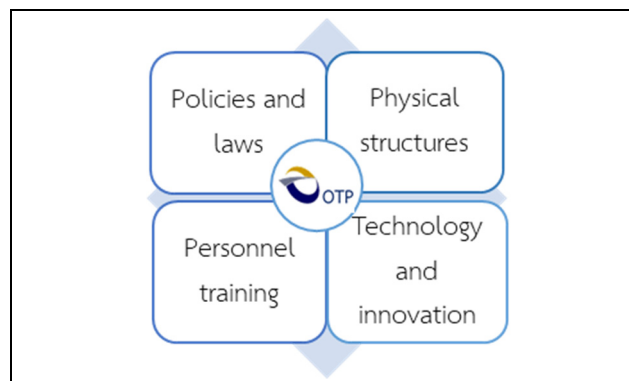
- **Lack of organizations to implement the policies, etc., concerning persons with disabilities and older persons**

As there are no organizations to drive policy and operation in accordance with the plan, the government sector needs to create a permanent agency to perform the task, so that standards can be enforced and/or developed, leading to the provision of better and more efficient services.

7.2 Suggestions for Management and Operation of the Study Results

Suggestions for management and operation of the study results are developed on the basis of action plans in the OTP's facility development strategy in the transport sector, for persons with disabilities and older persons. There are four aspects – see Figure 7.2 – 1.

Figure 7.2 – 1 Facility Development Strategy



Source : Facility development strategy in the transport sector for persons with disabilities and older persons, the Ministry of Transport, 2016-2035

7.2.1 Policy, Organization and Law Operation

The policy, organization and law operation guidelines are:

- **Cooperation and network framework**

Pushing for the development of facility standards must be done with cooperation from state agencies and government at all levels by providing open information on the importance of such development in supporting the changes in Thailand's demographic structures.

Responsible agency: The Office of Transport and Traffic Policy and Planning (OTP)

- **Thailand's 20-year development strategy for transportation infrastructure**

This involves the formulation of action plans and project plans by assigning an agency to monitor and drive the development strategy for transportation infrastructure to provide services to persons with disabilities and older persons. The strategy is supported by a budget concerning personnel and financial resources to push for the standard in accordance with the 20-year strategy.

Responsible agency: The Office of Transport and Traffic Policy and Planning (OTP)

- **Law Review and Revision**

The study is conducted to revise the three existing ministerial regulations, reconsider the redundancy and integrate them to be a single law to be consistent with the operation and to improve the detailed standards of buildings, vehicles and other structural components to meet the changes in technology.

Responsible agency: The Ministry of Transport and the Ministry of Social Development and Human Security

- **Establishment of an organization to drive policies and operation**

An agency at the office level under the OTP should be established with an authority to formulate and monitor the standards of facilities. It consists of the four key groups:

- Administration group responsible for general administration
- Policy and standard group responsible for proposing policies and formulating standards
- Monitoring group responsible for monitoring, auditing, following up and evaluating the operation
- Technology communication group responsible for technology and communication for persons with disabilities and older persons by coordinating with other agencies

Responsible agency: The Office of Transport and Traffic Policy and Planning (OTP)

7.2.2 Operation of Physical Structures, Facilities and Vehicles

Operational guidelines on physical structures, facilities and vehicles comprise the following activities:

- **Formulation of standards of facilities and vehicles to be acceptable**

The operation was carried out by the project. The OTP organized a meeting at the Ministry of Transport with the objective to propose the standards of facilities and vehicles for persons with disabilities and older persons by inviting all agencies concerned under the Ministry of Transport as service providers and service users, including other agencies like associations, foundations, representatives from professional councils, qualified experts in persons with disabilities and older persons and architecture to take part in considering the standards. The result of the meeting is the joint agreement on the essence of the above standards to be submitted to the steering committee for further approval.

Responsible agency: The Office of Transport and Traffic Policy and Planning (OTP)

- **Improvement of the standards of facilities in vehicles in accordance with technology**

The standards of facilities in vehicles are required to be revised in line with constantly changing technology. To enable facilities to be efficient and consistent with the technology at that time, the public sector should revise the standards every 10 years.

Responsible agency: The Office of Transport and Traffic Policy and Planning (OTP)

- **Guidelines for pushing for the transport prototype**

The project selected Don Mueang Airport as a station prototype that was modified in August 2017. This is in line with the operational plan to drive the selected vehicle prototype: air-conditioned bus no. A4 (Don Mueang Airport-Sanam Luang).

The transport and vehicle prototypes were designed in accordance with the standards formulated for the project to be consistent with the operational plans of physical structures and to publicize the study result so that people are informed in a more concrete way.

Responsible agency: The Office of Transport and Traffic Policy and Planning (OTP)

- **Guidelines for pushing for the vehicle prototype**

Facilities were designed by the project in accordance with the standards by taking into consideration usability, and local production and maintenance. The design and cost estimate of the vehicle prototype of the fixed-route bus were submitted to the BMTA for approval. On September 11, 2017, the BMTA approved the prototype to be used for buses to actually serve persons with disabilities and older persons.

Responsible agency: The Office of Transport and Traffic Policy and Planning (OTP)/
Bangkok Mass Transit Authority (BMTA)

- **Guidelines for monitoring and evaluating vehicles and facilities**

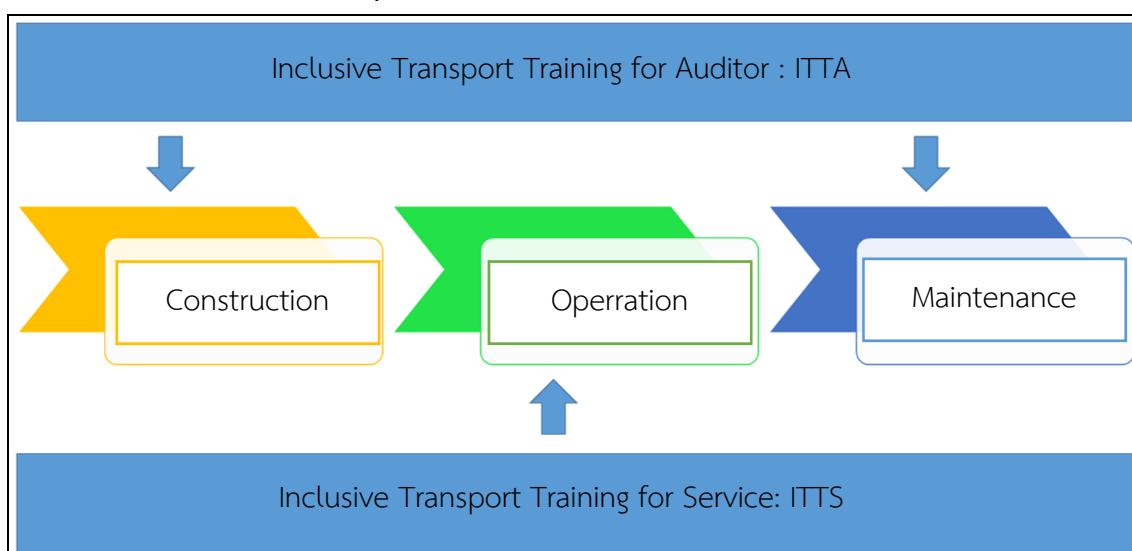
Concerning provision of facilities to be ready for use, it is necessary to monitor, audit and evaluate the operation. In addition, agencies in charge of monitoring the registration of vehicles must prepare personnel with knowledge and skills in the monitoring and evaluation and prepare an evaluation summary to their responsible agency every two years, which will report it to the Ministry of Transport for information.

Responsible agency: Agencies responsible for the registration of vehicles, e.g. the Marine Department, the Department of Land Transport, the Department of Airports, The Civil Aviation Authority of Thailand, etc.

7.2.3 Personnel Training Effort

The operation of the standards of facilities and the vehicle and transport prototypes requires personnel who have skills, knowledge and specific understanding about facilities and transport services provided for persons with disabilities and older persons. Figure 7.2.3 – 1 shows the connection between development of skills and knowledge of personnel and officials, and transport services. The guidelines and activities are:

Figure 7.2.3 – 1 Connection between Personnel Skill Development and Transport Services



- **Training course development**

The OTP conducted the first batch of personnel training to develop personnel to be ready for implementing relevant activities. There are two training courses as below:

- Training on Design, Audit, Assessment, Facility Management and Service Provision to the Disabled and Elderly People
(Inclusive Transport Training for Auditor : ITTA)
- Training on Service Skills for the Disabled and Elderly People
(Inclusive Transport Training for Service : ITTS)

Responsible agency: The Office of Transport and Traffic Policy and Planning (OTP)

- **Training for personnel under the Ministry of Transport**

The training for personnel under the Ministry of Transport is aimed to prepare readiness to serve the ageing society situation and to take care of persons with disabilities so that they have access to transport services. There are three parts of training.

- Training on the design, audit and evaluation of buildings and facilities
- Training on the design, audit and evaluation of vehicles and facilities
- Training on service skills provided for persons with disabilities and older persons

The above three training sessions are organized annually for at least 50 staff per agency to produce sufficient personnel and to provide them with proper knowledge.

Responsible agency: The Office of Transport and Traffic Policy and Planning (OTP)

- **Knowledge enhancement for licensees by the private sector**

This is implemented by transport and traffic business operators so that the trainees get a certificate. To drive the operation conducted by the public sector, the private sector, business operators and operators, training will be organized to issue a certificate for such vehicle and service skills to have the same standard across the country, for example,

- The transport and traffic business operators in the private sector should provide training on the design, audit and evaluation. Those requesting a business license should also undergo such training.
- Training on service skills provided for persons with disabilities and older persons should be organized for service providers.

Responsible agency: Agencies responsible for issuing a business license and a driver's license

7.2.4 Technology and Innovation Effort

As for the application of technology and innovation to facilitate persons with disabilities and older persons to drive the operation in a concrete manner, including provision of facilities comprising appropriate technology and developed innovation, the project proposed suggestions for driving the technology and innovation strategy.

- **Website Standards (W3C)**

W3C is the development of web technology. The website is created so that general people, persons with disabilities and older persons can share the website although users use different browsers. For example, persons with visual disability who use braille display can use the standard website to have access to travel information.

Responsible agency: The Ministry of Transport and the Ministry of Digital Economy and Society

- **Mobile Application**

Persons with disabilities and older persons will be facilitated to continue their daily lives like general people. The mobile application is developed to facilitate the transport service. The application will provide travel information for persons with disabilities and older persons, e.g., barrier free route, service route and timetable, etc.

Responsible agency: The Ministry of Transport and the Ministry of Digital Economy and Society

- **Magnetic sensor for navigation systems**

Technology is used to guide visually-impaired people to travel confidently. It is a technology designed for all people by developing magnetic sensor navigation systems through magnetic synthesis on surface coating. Magnetic strip is placed at the end of cane to alert them on an obstacle, so the sidewalk can be flat surfaces (different from tactile surfaces), which all people can use.

Responsible agency: The Ministry of Transport and the Ministry of Digital Economy and Society

The above management suggestions are summarized as shown in Table 7.2 – 1.

Table 7.2 – 1 Management Suggestions

Issue to be driven	Operation plans/activities	Period of plan (year)			Agencies concerned
		Urgent (2016-2018)	Mid-term (2019-2024)	Long-term (2025-2035)	
1. Policies, organizations and laws	(1.1.) Create a cooperation framework and network in the public sector, and central and regional parts	✓			OTP /OPS
	(1.2.) Formulate action plans and project plans by assigning an agency to be in charge of monitoring and budget	✓			OTP /OPS
	(1.3.) Revise three ministerial regulations and integrate them to be a single one	✓	✓	✓	MOT/ MOI /MSDHS
	(1.4.) Establish an organization to develop facilities				OTP /OPS
2. Physical structures	(2.1.) Standards of facilities in vehicles are acceptable.	✓			OTP
	(2.2.) Improve the standards to be consistent with technology (every 10 years, the first revision in 2027)		✓	✓	OTP
	(2.3.) Push for the service prototypes at five locations to be completed as planned	✓	✓		Responsible agency
	(2.4.) Drive the vehicle prototype, develop a test prototype and install it in other passenger vehicles	✓	✓	✓	OTP /BMTA
	(2.5.) Monitor and evaluate vehicles/facilities and report them to the responsible agency				MD/DLT DOA /CAAT
3. Personnel	(3.1.) Develop training courses to cover the design, audit, evaluation and transport services	✓			OTP
	(3.2.) Provide training for transport personnel annually in an urgent plan and as appropriate in the following year	✓	✓	✓	OTP
	(3.3.) Provide training for licensees in the private sector, transport and traffic business operators and service providers		✓	✓	MI/DLT CAAT

Table 7.2 – 1 (Cont.) Management Suggestions

Issue to be driven	Operation plans/activities	Period of plan (year)			Agencies concerned
		Urgent (2016-2018)	Mid-term (2019-2024)	Long-term (2025-2035)	
4. Technology and innovation	(4.1.) Create a website (W3C) to serve as a transport database for all people	✓	✓	✓	MOT/MDES
	(4.2.) Mobile Application for different access information to access the Barrier Free Route	✓	✓	✓	MOT/MDES
	(4.3.) Magnetic sensor navigation systems	✓			MOT/MDES

Remark: OTP is the Office of Transport and Traffic Policy and Planning, OPS is the Office of the Permanent Secretary, BMTA is Bangkok Mass Transit Authority, DLT is the Department of Land Transport, MD is the Marine Department, DOA is the Department of Airports, CAAT is the Civil Aviation Authority of Thailand, MOT is the Ministry of Transport, MSDHS is the Ministry of Social Development and Human Security, MOI is the Ministry of Interior and MDES is the Ministry of Digital Economy and Society.

7.3 Summary of Suggestions

According to the cabinet’s resolution dated February 28, 2017, the facility development strategy in the transport sector for persons with disabilities and older persons comprise suggestions in four aspects 1) policies and laws 2) development of physical structures of transport service places 3) development of personnel who design and provide services and 4) innovation or technology necessary for persons with disabilities and older persons in the transport sector.

During the study, the OTP drove the strategy to formulate the standards of facilities in vehicles, vehicle prototypes, the curriculum, including suggestions and guidelines for management in a concrete manner to integrate project plans under the strategy to enhance efficiency of transport services, develop physical structures of vehicles and develop personnel on transport service skills provided to persons with disabilities and older persons.