

Report on Taiwan Motorcycle Accident and Parking Lot Conditions and Countermeasures

The Japan Automobile Manufacturers Association (JAMA) sent an observation team to Taiwan for the three-day period of October 26~28. The members of the mission met for discussions with the Taipei City Department of Transportation director, university professors and other experts, while gathering on-site information on improvements made in motorcycle parking spaces and other road traffic policies targeting motorcycle use in Taiwan. With motorcycle parking countermeasures having arisen as a major issue in Japan, the team was able to learn many valuable lessons about the way in which Taiwan is dealing with the problem.



The morning rush hour in Taipei

Motorcycle Ownership Trends in Taiwan

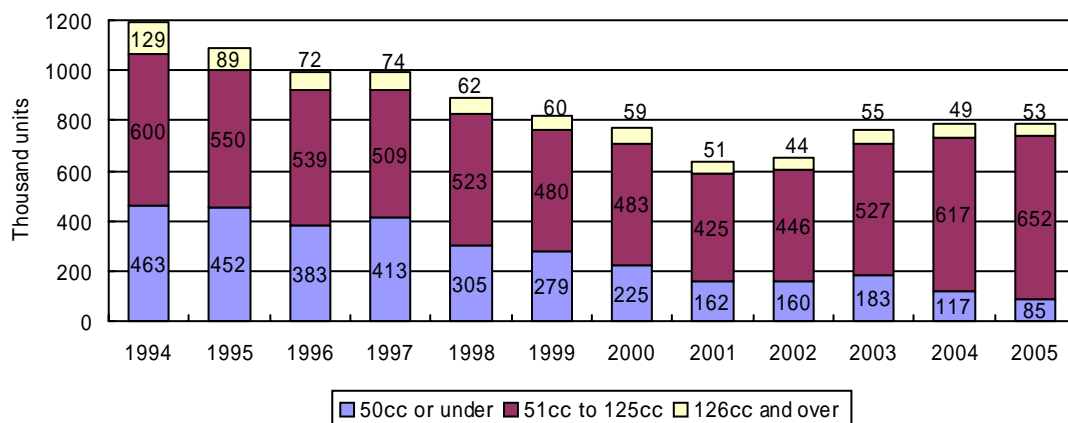
In Taiwan, a country with a population of approximately 22.7 million persons, motorcycle ownership is currently at the 12.8-million-unit level. This calculates to an ownership ratio of one motorcycle per 1.8 persons, the highest level of such registration of any country in the world¹. The focus of Taiwan motorcycle ownership is on the scooter class (displacement of 90~125cc)². In that island nation, meanwhile, the motorcycle is an indispensable means of transportation in almost all aspects of the local lifestyle, and is socially recognized as a convenient “personal commuter” mode.

Annual motorcycle sales in Taiwan peaked in 1994 at 1.2 million units, and then entered a period of decline through 2001. Demand moved back into the growth column in 2002, recovering to the 800,000-unit level in 2005.

Taiwan Motor Vehicle Unit Ownership (2004)

Motorcycle unit ownership	Ownership rate	Passenger car unit ownership	Ownership rate	Population
12,789,000	One motorcycle per 1.8 persons	6,447,000	One car per 3.5 persons	22,696,000

Source: JAMA



Source: JAMA

Motorcycle Sales in Taiwan

¹ In Malaysia this figure is 1 unit per 3.5 persons; in Thailand 1 unit/4.2 persons; in Vietnam 1 unit/5.9 persons; and in Japan 1 unit/9.7 persons.

² Imports of motorcycles exceeding 150cc in displacement were banned through 2002. The number of motorcycles over 250cc in displacement remains quite low at present as well.

Globally, the normal pattern is for growth in national income to support an increase in regular automobile ownership, with this being accompanied by a corresponding decline in motorcycle unit ownership. In Taiwan, however, motorcycle unit ownership continues to increase at the present time.

Taipei City Motorcycle Road Traffic Countermeasures

Taipei, with a population of 2.6 million persons, is Taiwan's capital and largest city. While advances in the city's mass rapid transit (MRT) subway system and other public transportation have reduced the need to ride motorcycles³, the level of motorcycle ownership in Taipei is 1.02 million units – a rate of one unit per every 2.6 residents.

Divisions Between Motorcycle and Automobile Traffic Flows

Taipei has addressed this situation by dividing the traffic flows of motorcycles and automobiles, thereby improving traffic safety in the city. For example, on roads with heavy traffic volume “motorcycle-only lanes” have been established.

Another constructive step has been to place “motorcycle stop zones” at the entrance of intersections. This enables motorcycles to move ahead of automobiles to wait for red lights to change, thereby enabling those vehicles to move out ahead of the larger autos in a scheme that effectively divides the traffic flow. These zones, first introduced in 1997 and now in use at several thousand locations, target safer and smoother traffic flows. According to the Taipei City authorities, the use of the zones has reduced motorcycle accidents at intersections by some 40 percent.

To prevent collisions at intersections between motorcycles turning left (motorists drive on the right side of the road in Taiwan) and oncoming vehicles, “two-stage left-hand turn zones” have been set up. Under this system, motorcycles do not turn left from the center of the intersections, but rather proceed directly to exclusive left-turn zones. There, they change vehicle direction to the left side and wait, then proceed when the light turns green. These zones were launched from 2001 and are currently in use at several hundred locations. They have been successful in clearly reducing the number of collision accidents between left-turning motorcycles and oncoming vehicles that proceed straight ahead.

Parking Conditions

(Introductions of parking lot conditions in Japan also appeared in our July 2005 issue: <http://www.jama-english.jp/motor/2005/200507.pdf>.) While Taiwan's road traffic safety regulations include stipulations for automobiles, the



Motorcycles emerge from the motorcycle-only lane on a large bridge in Taipei City.



“Motorcycle stop zone” at the entrance of an intersection.



Sidewalk parking.

³ According to the results of a survey conducted by the Taipei City Department of Transportation, the number of commuters who have changed from motorcycles to riding the MRT since that system opened for service in 1996 has amounted to only 19% of total commuters.

regulations for motorcycles are quite flexible in application. As a result, regional governments have the freedom to set their own rules in response to the specific local conditions.

In Taipei City, parking on sidewalks is banned with only certain exceptions, with no-parking signs also posted on roadways. In actual practice, however, the crackdowns on illegal motorcycle parking cannot be said to be tough by any means.



Shopping district frontage parking.

As a result, it is extremely common to see motorcycles parked on roadways, sidewalks and along passageways under the covered areas of shopping districts. These “frontage passageways” in shopping districts, which are provided for pedestrian use in privately owned areas, are meant to be kept clear of vehicles and other obstructions for the sake of pedestrian safety.

Since 2000, Taipei City has been advancing a project to build exclusive motorcycle parking spaces on sidewalks and roadways. Specifically, spaces are opened up between trees, plants and other sidewalk landscaping to enable a number of motorcycles to be parked there. The spaces are structured to eliminate steps on the roadside entryways, while the sidewalk side has grade difference (making the sidewalk higher than the parking spaces – see photo). White lines indicate the individual parking spaces, which are large enough to hold motorcycles up to 250cc in displacement.

Taipei City currently has parking spaces of this type for around 12,000 vehicles, with no fees charged for their use. The traffic authorities report that this measure has remarkably reduced the number of motorcycles being parked on frontage passageways, sidewalks and other undesirable locations.

The city also offers motorcycle-only parking spaces marked with white lines on sidewalks and roadways. Taipei continues to lobby for expanded motorcycle parking capacity at stations, office buildings, leisure areas and other large-scale public facilities, an effort that has spearheaded a steady increase in such motorcycle parking lots in recent years.



Parking spaces placed along sidewalks (Taipei City).



These spaces can be located in most places around the city (Taipei City).