

MOTORCYCLE-PROPELLED PUBLIC TRANSPORT AND LOCAL POLICY DEVELOPMENT

– The Case of “Tricycles” and “Habal-habal” in Davao City Philippines –

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In most developing countries, motorcycles are part of the essential mode of transportation. In the case of the Philippines, local public transport in the form of tricycles as well as “habal-habal”, or “motorcycle taxi” exists. This paper reviewed the local transport policy development with regards to innovating motorcycles as tricycles or using motorcycles as a public transport mode. It assumes that motorcycle-propelled public transport precedes the development of local public transport policy. Davao City is chosen as the site for the case study since a wide variation of motorcycle-innovations can be observed. Philippine tricycle is classified as a motor vehicle composed of motorcycle fitted with a single wheel sidecar or with a two-wheel cab, operated as a public transport for a fee. In Davao City, three forms of tricycles can be observed: side-cab, center-cab and open cab. An emerging mode, in the form of motorcycle taxi known as “habal-habal” can also be found. The study shows that the presence of various motorcycle-propelled public transport in Davao City is attributed to inadequacy of either national or local policy that defines its operation and physical design. The policy response of eliminating “tricoat” and the presence of private motorcycle credit facility led to the emergence of informal and illegal modes like the “habal-habal” and open-cab tricycles. The issues and gaps in policy implementation and the importance of relating policies to local urban and transportation planning and management were discussed.

Key Words: Local public transport, Motorcycles, Tricycles, Motorcycle taxis, Motorcycle-propelled

1. INTRODUCTION

In cities of developed nations, a good transportation mix generally exists, that is, the presence of non-motorized and private motor vehicles and a good range public transportation system notably buses in different sizes as well as choices in trains and monorails. On the other hand, especially with that of public transportation, the opposite seems to be happening in most cities of developing countries, particularly in Southeast Asia. The lack of common or traditional forms of a public transport network and infrastructure such as mass public transportation is usually substituted with other innovative modes of public transportation.

The case of the Philippines in Southeast Asia is not an exception. Aside from the usual buses and taxis, it is a country where all modes of imaginable means of motorized public transport seem to ply the roads as exemplified by the presence of jeepneys, multicabs, megataxis, tricycles and “habal-habal”. The latter two, is another innovation out of the motorcycle in the late fifties and nineties, respectively. Interestingly, this mode has been, since then, part of the Philippine’s urban landscape.

In the face of transport advancement coupled with

increasing technological as well environmental concerns and a drive towards sustainable transportation, the issue is whether the presence of innovative modes of local public transportation like the tricycles are to be encouraged. This is especially highlighted in the case of the Philippines that has recently enacted a landmark environmental legislation, the Clean Air Act of 1999 and has highlighted that one of the causes of road-based pollution are the tricycles¹.

Likewise, in other related literature, the presence of this unique mode of transportation, has either been classified, according to its physical, operating, demand, organizational and management characteristics such as low-cost transport², intermediate public transport³, paratransit⁴ and informal public transportation⁵. These studies have noted that the reason why local transport mode remains if not continuously increasing is due to its socioeconomic consequences. That is, economic, as a source of employment for the driver. It is demand-driven from the community that has an infrastructure deficit as well a lack of available alternative modes to use for mobility. Nonetheless, related urban and transportation issues that are still persistent in public transportation sector are the problems of traffic congestion, poor public transport, decrease safety, worsening environment and insuf-

efficient transport services. These are attributed to the deficiencies in various aspects of policy setting, planning and financing, implementation and management not only of the transportation system but also of the overall urban development. Most of these studies provided the macro scenarios in policy setting and usually focus on specific issues such as air pollution⁶. The role of local level policy in the operations of local public transport like tricycles is another important aspect that must not be overlooked.

The objective of this study is to show the history of transport-related policy development at the local level and understand its basis and relationship with the policies at the national level and describe the case of tricycles and its variations in Davao City, Philippines. Analytical background and methodology are discussed in section 2. Introduction of policy and institutional development in the Philippines are explained in section 3. While the case of tricycles and “habal-habal” operations in Davao City as well as policy review are found in section 4. Finally, summary and conclusions are presented in section 5.

2. RESEARCH STRUCTURE

Motorcycles as a means of mobility have become an issue for urban transport planners, especially among developing countries. While it is a valid mode for transportation and accessibility, it is not originally intended for public transportation. In fact, issues raised against motorcycle-based public transport are that of traffic congestion, decrease safety and worsening environment.

It is generally noted that private vehicle ownership tends to have a strong relationship with the economic situation of cities. The ideal situation is that owning a motorcycle or two-wheeled vehicle should be the first sector where motor vehicle ownership would likely increase. While this is true in other economies like Taiwan, Malaysia and Vietnam⁷ the same cannot be said in the case of the Philippines. One of the likely reasons suggested was attributed to cheap conversion of motorcycles into public transportation⁸. Motorcycle innovation such as “tricycles” has gained wide acceptance as a legitimate mode of public transportation in most areas of the Philippines.

Urban transportation planning is designed to meet the end objective of addressing transport problems in terms of traffic movement, public transport, pedestrian, environment and parking⁹.

Mobility and modal split is an important consideration in reviewing public transport policy developed at

the local level for this provides an insight of how a certain mode, for instance in the case of motorcycle-propelled vehicles is viewed from the policy makers perspective. In the case of the Philippines, there was an indication that the wide variations of available low-cost public transport system might explain why motorcycles are not a popular mode for personal mobility⁹. Understanding the process of local transport policy development concerning tricycles might yield some useful insights as well as validate its role in the transportation hierarchy.

Infrastructure and accessibility is another given concept that explains why some public transportation gap exists and why innovative modes evolved. Thus, reviewing local transport policy can provide insights on how the public sector integrates the evolution of different modes with the type of available infrastructure.

At present, air pollution has become associated with most cities of developing nations. This can be attributed to a number of factors, such as the increasing number of motor vehicles that are not all well maintained. Determining if this issue has been considered in developing local transport policy can provide an insight on how proactive the local government is. Reviewing local transport policy can also show how local government ensured an acceptable level of public transportation service.

Motorcycle-based public transportation continues to prevail in most cities of developing nations and this is attributed to the fact that they are affordable by all sectors of the society. They are private sector initiated and can adapt to the needs of the passengers. Understanding how local government responds to this may prove useful in future developments in the area.

The following analytical framework is used in the study:

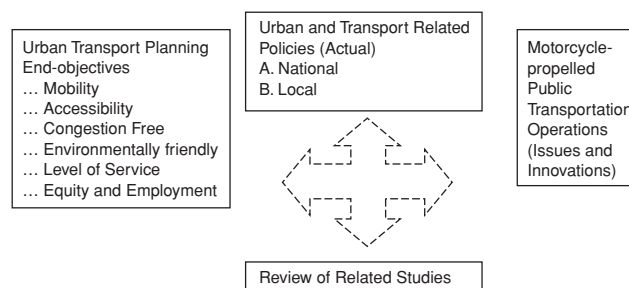


Fig.1 Analytical framework

2.1 Study area: introductory notes on the city of Davao, Philippines

Davao City is a fast growing metropolis and one of the prime centres of economic activity in the island of Mindanao, south of the Philippines. In the context of na-

tional spatial development, it is considered as one of the national growth centers next to Metro Manila¹⁰. It also has the biggest share of population in the region at 1.1 million as of 2000, 63% of which belongs to the working age group¹¹. Davao became a city on March 1, 1937 by virtue of Commonwealth Act No. 51 under the sponsorship of the then Assemblyman Romualdo Quimpo¹².

In 2001, the city has the highest motor vehicle density in the region at 51 vehicles per kilometre of road. There are bus terminals for long-distance trips to areas south and north of the city. Vehicles for short-distance trips have stations scattered in different parts of the city¹².

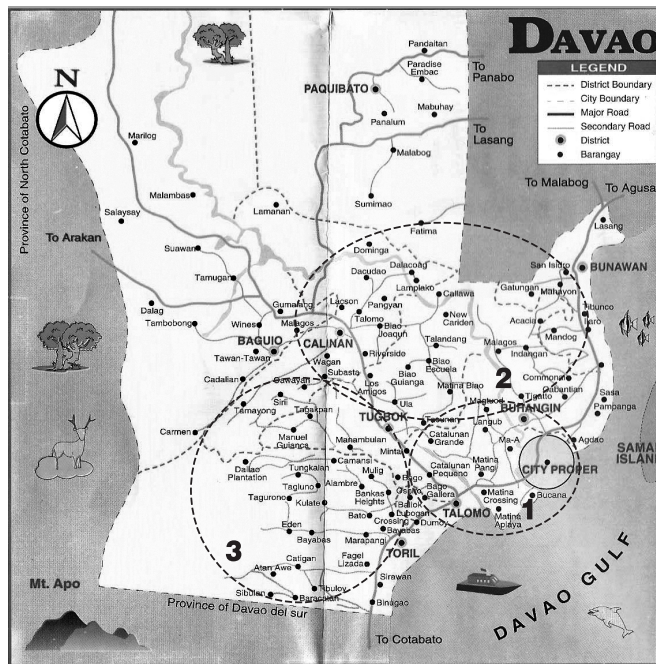
The Study Area: Davao City, Philippines



Road Length (km)	Philippines	Davao City
Road Network	161,000	1,509.6
National Roads	26,600	227.1
City Roads	29,200	464.7
Municipal Roads	16,800	
Barangay. Roads	88,400	823.7

(Source: <http://www.lakbaypilipinas.com>)

Fig. 2 Map of the Philippines



Legend: Numbers indicate the district
(Source: Tourism Map of Davao City, Davao City Department of Tourism)

Fig. 3 Map of Davao City, Philippines



1. Side-cab type (standard)



2. Centre-cab¹⁴



3. Open-cab type

Fig. 4 Variations of motorcycle-propelled public transport in Davao City

Various types of public transport can be observed in the City. These include buses, taxis, public utility jeepneys (PUJ), multi-cabs and tricycles as well as “tricyboats” (pedicabs with boat engine attached to it) and “pedicabs” (bicycles with attached sidecar). Moreover, Davao City has wide variations of motorcycle-propelled public transportation. These include the standard type tricycle or motorcycle with attached side-cab, the center-cab and the open-cab (Figure 4). The latter is considered illegal as a local public transport mode since it does not meet the stability and safety provisions of the Department of Transportation and Communications (DOTC). Traffic enforcers

however allow their operation at “maximum tolerance”¹³. A recent variation that is unique in the city, the “habal-habal” or motorcycle taxis can also be seen.

In 2002, a leading local newspaper in Mindanao reported that Zamboanga City in Southwestern Mindanao cited that Davao City’s regulation on tricycle operators is a model for amendments to be introduced in their own city ordinance¹⁵.

3. A HISTORICAL ACCOUNT OF NATIONAL AND LOCAL TRANSPORT POLICIES IN THE PHILIPPINES

The following describes the development of both national and local transport-related policies and institutions in the Philippines.

3.1 Transport-related policy development at national level

Policy and planning in the Philippines, including transport-related policies was traditionally highly centralized. The first formal law on land transportation in the Philippines was enacted in February 1912, which regulated motor vehicles in the Islands and provided for the regulation and licensing of operators. An Automobile Section was also created as the main implementing agency. In 1932, Act No. 3045 was passed into law, which compiled and incorporated all laws governing motor vehicles. It also renamed the Automobile Section into the Automobile Division. The latter became a separate agency in 1947 under a new name called the Motor Vehicles Office. The Congress enacted in 1964 Republic Act (RA) No. 4136, otherwise known as the Land Transportation and Traffic Code, which provided for the compilation of laws relative to land transportation and creation of the Land Transportation Commission (LTC) that replaced the Motor Vehicles Office. The LTC established various regional offices throughout the country in order to effectively carry out its functions. In 1979, the LTC was renamed the Bureau of Land Transportation and became directly under the Ministry of Transportation and Communication. After a few years, the Bureau was again changed into a separate Land Transportation Commission in 1985¹⁶.

After the People Power Revolution in 1986, a number of major transport-related reforms were implemented at the executive level. Most of them pertained to reorganization of transport agencies and redefining of their powers over transport utilities. Executive Order Number 125

abolished the Land Transportation Commission (LTC) and created the Land Transportation Office (LTO) and transferred franchising and regulatory functions to the Land Transportation Franchising and Regulatory Board (LTFRB). Today, the LTO is in-charge of vehicle registration and issuance of licenses while the issuance of franchises and other applications for land transport operators is vested to the LTFRB, including decisions on fare rates¹⁷.

The enactment of the Local Government Code in 1991 devolved some of the functions vested to the LTFRB to the local governments. The Code has also mandated the decentralization or transfer of some governmental powers from central to local government. Among the powers covered by decentralization include the power to tax and the regulation of motorcycle-propelled public transportation. In 1999, the Philippine Clean Air Act was enacted. While this national policy has positive intentions to create a pollution-free environment, its implementation became another issue especially for the tricycle operators and drivers. For instance in Davao City, the issue is being discussed at the city council^{18*}.

In summary, the following institutional structure describes the regulation for motor vehicles, including motorcycle-propelled transport utilities in the Philippines.

3.2 Transport-related policy development at local level: the case of Davao City

The earliest local transport-related policy in Davao City was the enactment of the Traffic Ordinance in 1948. This was only revised in 1973 consonant with the Land Transportation and Traffic Code that was approved in 1964. During the early eighties, the Davao City Urban Transport-cum-Land Use Study¹⁹ is considered to be the first comprehensive land use and transportation study in the area. It recommended a short-term plan on the formulation of traffic management schemes and public transportation routing and circulation aimed at alleviating traffic congestion. The medium-term plan focused on the development of the policy directions toward the conceptualization of land use-transportation master plan. A number of the recommendations in traffic management and public transportation were implemented. The ordinance has been amended from time to time to take into account the changing conditions particularly with respect to establishment of public transport routes and terminals.

* The City Council Committee on Franchise and Public Utilities drafted a resolution requesting clarification from the DOTC whether or not tricycles and other similar vehicles with two-stroke engines are included in the emission testing requirements provided by the Clean Air Act of 1999.

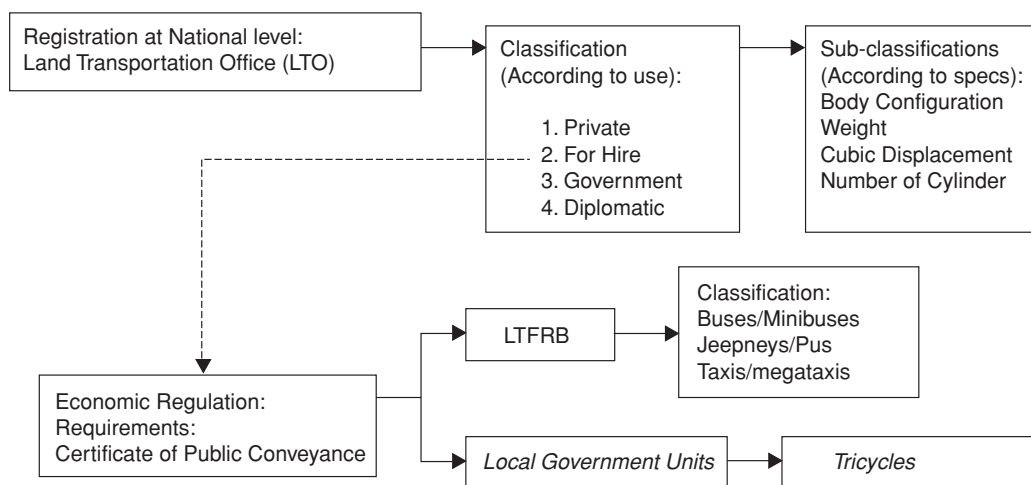


Fig. 5 Road transport registration and regulation structure

Briefly, Table 1 highlights the development of local-transport-related policy in Davao City since the late forties.

A review of this transport related policy develop-

ment shows its reactionary nature. This observation confirms the need for local transport policy to consider the effect or possible repercussions of each policy prior to

Table 1 Development of transport-related local policies in Davao City, 1948-2001

Year	Local Policy No.	Title	Identified Basis
1948	Ordinance No.9	Traffic Ordinance of the City of Davao	
1973	Ordinance No.778	Revised Traffic Ordinance	1964 Traffic Code
1988	Executive Order No.15	Creation of Traffic Management and Control Board (TMCB)	Observation
1990	Ordinance No.52	Legalizing the Operation of Pedicabs (trisikads)Within Davao City	Request from operator
1992	Ordinance No. 516	Establishing Guidelines, Standards, Rules and regulations for the Operation of TFH and the Issuance of MT Operator's Permit, Implementing the Devolution of LTFRB's Franchising of TFH to the City Government Pursuant to the Local Government Code of 1991,Fixing the rates and Providing penalties.	Local Government Code of 1991 DOTC Guidelines
1994	Ordinance No. 1692	Davao City TFH Franchising and Regulatory Code Of 1993	Experience in Implementing Ordinance No.516
1994	Executive Order No.43	Creation of TMCB, expansion of its membership composition and adoption of better Traffic Management	Political
1994	Resolution 789	Operation "Hapsay Dalan"	Experience
1995	Executive Order No. 21	Reconstitution of the Davao City TMCB	Political
1996	Resolution No. 101105	Comprehensive Development Plan of Davao City	Studies
1997	Resolution No.13439 Ordinance No. 5184	Motorized "Trisikad" Licensing and Regulatory Board	Request and Observations
1998	Resolution No.13870	Acceptance of the City Mayor's decision to veto Motorized "Trisikad" Licensing and Regulatory Board	City Mayor's Legal Department
2000	Ordinance 108	Implementation of the Public Utility Rerouting Scheme for the City of Davao	Studies
2001	Resolution No.0176-01	Strict Implementation of Ordinance No.52 Series of 1990 Relative to the Operation of Trisikads in Main Thoroughfares of the city	Observation
2001	Executive Order No.31	Reconstituting the TMCB	Political

Note: *TFH* –Tricycle for Hire, *Hapsay Dalan* – means "good traffic" in local dialect, *Trisikad* – bicycle with attached side car (also known as pedicabs), *Motorized Trisikad* – like a trisikad attached with a small boat or general purpose engine

its implementation.

For instance, the policy on eliminating triciboat (Figure 6) did not mention any provision on alternative cash-based income generating activities for triciboat owners/drivers nor any gap-fillers replacement for resident owners or commuters.



Fig. 6 Triciboat

4. MOTORCYCLE-PROPELLED PUBLIC TRANSPORT IN DAVAO CITY

In many developing nations in Asia, local public transport developed from scooters and motorcycles exist. This has been exemplified by Thailand’s “tuktuks”, Indonesia’s “helicak” and Cambodia’s “moto-dub”. The Philippines’ tricycle and the recently emerging variation, “habal-habal” or motorcycle taxis is another case to illustrate this example. Moreover, motorcycle-propelled (tricycles) transport posted the highest registration under vehicles for hire (Figure 7).

4.1 Tricycles and other variants of motorcycle-propelled vehicles in Davao City

When use of tricycles as public transportation replaced the “trisikads” of Manila in the 1950’s²¹, other cities subsequently followed including Davao City. At present, tricycles and other variations of motorcycle-propelled vehicles are commonly seen in the streets. In Davao City, a new variant called habal-habal recently emerged. Habal-habal is simply a motorcycle used for hire.

The regulation of tricycles and other variants of motorcycle-propelled vehicles were initially under national agency particularly LTFRB prior to the implementation of the 1991 Local Government Code. The powers of LTFRB over tricycles technically ceased on 30 June 1992. A month after, the DOTC issued “Guidelines to Implement the Devolution of LTFRB’s Franchising Au-

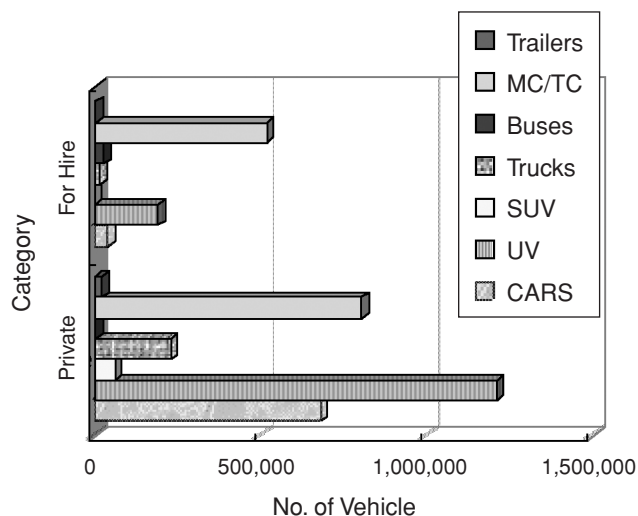


Fig. 7 Number of registered private vs. for hire vehicles in the Philippines, 2001²⁰

thority over Tricycles-for-hire to Local Government Units Pursuant to the Local Government Code” (RA 7160).

Prior to the abovementioned national development, it is important to note that the first revision of Davao City’s Traffic Ordinance was made in 1973. However, this ordinance did not contain any specification for tricycles for hire but specifically noted that “private motorcycles of motor wheel attachments shall not be used “for hire” under any circumstances and shall not solicit or accept passenger or freight for pay²².”

Table 2 summarizes the comparative description of the three types of motorcycle-based public transportation in Davao City* .

In August 1992, the City Council issued Ordinance No. 516 in response to the provision of the Local Government Code concerning the operation and regulation of tricycles for hire. Among the provisions stipulated is that the ordinance shall be implemented within a period of one (1) year during which a provisional permit for hire of tricycles is issued and that the fare rates to be imposed should not be more than the rates authorized to PUJs in the City. Aside from these, the ordinance also provided requirements for the issuance of permit for the operation of a new motorized tricycle as well as the schedule of fees²³. Franchising operations of tricycles provided an additional income-generating venue for the local government.

After two years, the City Council began the imple-

* This was based from the author’s field observation and interview with local officials and tricycle and habal-habal operators and drivers in July 2003.

Table 2 Comparative description of the motorcycle-based public transportation

Description	Tricycles		Motorcycle taxi
	Standard-Design	Center-cab-Design	
Local Name	Tricycles	Motor-cab	"Habal-habal"
Period of Emergence	Late 50's	1994	1999
Background	Replaced "pedicabs"	Change in design to carry more passengers similar to Mini-jeepney	Started to increase when the campaign against "tricyboat" was launched
Type of Motorcycle used	Small and low-powered Utility Motorcycles 80-110,125,175cc	Utility Motorcycles 125-175cc	Utility motorcycles: 100,125-155 cc (Japanese brand like Honda, Suzuki etc.)
Design Innovations	Motorcycles with attached steel covered roof side-cab	Motorcycle is in the centre and attached side cab is designed like a mini-jeep	Extended seats of motorcycle with extra shock absorber
Role in Transport System	Feeder mode/short-haul journey	Feeder mode/short-haul journey	Feeder mode/urban-rural journey
Service Coverage	Residential areas	Residential areas/market place; mostly in District 2	Market, shopping areas /residential and school areas; mostly in District 3
Road Description	Concrete/paved/asphalted roads	Concrete/paved/asphalted roads and some uphill	Rough/unpaved roads Poor road network
Ave. Distance per trip	1-5km	1-5km	3-5km
Other modes in Service Area		Jeepneys	Jeepneys
Type of Service	Door-to-door	Door-to-door	Door-to-door
Carrying Capacity (Driver and Passenger)	1-5; Two passengers in the side-cab and one to two more at the back of the driver are possible	1-10; the passengers are seated face-to-face; can accommodate 6-7 persons	1-4

mentation of the "Davao City Tricycle for Hire (TFH) Franchising and Regulatory Code of 1993" describing the functions and procedures for franchising and regulating the operation of tricycles for hire and collection of fees and charges. The members of the Board came from the Office of the City Mayor, including the Mayor himself as well as an Advisory Committee composed of NGOs as well as representatives of the riding public. An organizational structure called the Motorcycle for Hire (MTH) Board was created.

The Board created two separate systems for franchising and for regulation. The MTH Franchising Division became responsible for accepting or rejecting MTH application after due process and for monitoring its proper conduct as well as coordinating with other Government agencies. It is also in-charge of implementing regulations that require MTH operators to equip their units with devices for the safety, protection, and convenience of the riding public.

On the other hand, the MTH Regulatory Division is tasked to determine, fix or prescribe fare rate adjustment as well as opening, re-opening and closure of service routes after due notices and public hearings.

As earlier noted, the DOTC guidelines²³ did not provide technical specification for tricycles. Instead, its technical definition is based from the Land Transport Code (R.A.4136), which covers two-wheeled and three-wheeled motorcycles with no limit to engine displacement. On the other hand, DOTC Guidelines, and initially the Davao City Ordinance 516 described it as Motorized Tricycle-For-Hire or a motor vehicle composed of a motorcycle attached to either single-wheeled side cab (standard type), or with a two-wheel cab (center-cab type) that hire passengers for a fee. The "two-wheel cab" was amended by Ordinance No. 1692 in 1994 to become "center-cab"²⁴, a variant that began to emerge during the period.

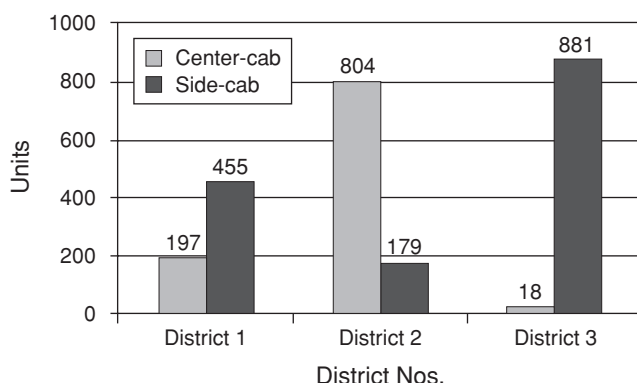
Figure 8 shows the distribution of two legally accepted types of motorcycle-propelled public transport in Davao City. The population density of the major barangays in each district is also shown in Figure 9.

District 1 consists of the administrative districts of Poblacion or city proper and Talomo. It has the most number of inhabitants and contains the most urbanized areas of the city. Based from the list of approved motorized routes, side-cab types are dominant in residential areas and have no other competing modes except for private

vehicles and occasional pedicabs. The center-cab type tricycle terminals are located in two baranggays (Matina-Matina Aplaya, Matina-Matina Pangi Km.9) near the national highway.

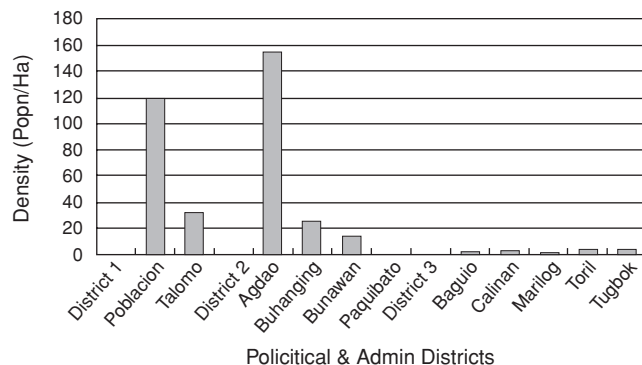
District 2 covers Agdao, Buhangin, Bunawan and Paquibato. Agdao and Buhangin lie along the coastlines within the immediate periphery of the city proper. This is also the district where the Davao International Airport is located. Majority of the tricycles found in this district are the center-cab type. Terminals are mostly located in market place going to residential areas and can be seen competing with other modes of transport like jeepneys.

District 3 has Baguio, Calinan, Marilog, Toril and Tugbok and predominantly considered as rural. Side-cab type is the majority of tricycles found in this districts and they are mostly connecting the “poblacion” or the barangay center to the other baranggays and residential areas.



(Source: Davao City MTH Franchising Division Data)

Fig. 8 Distribution of the tricycles/type in Davao City, 2002



(Source: National Statistical Coordination Board)

Fig. 9 Population density of Davao City's political and administrative districts, 2000

cycles showed that allowing and limiting in tricycle operations in residential areas (tertiary roads) provides homeowners a safe and affordable feeder-mode. Figure 8 and Figure 9 show that most tricycle operations are found in residential areas. It indicates a positive relationship between residential owners and tricycle owners/drivers. It provides employment to an estimated 2,534 tricycle owners/drivers. The estimated average monthly income of PhP 4,933.5-7,793 (U.S.\$ 89.7-141.7). In the Philippines, the average monthly income of a family of five to meet its food and non-food basic needs is estimated at about PhP 4,961 or U.S.\$ 90.2²⁵.

As previously mentioned, an encouragement for local governments to respond to transport policy in their areas is the revenue generated from franchise and permits for tricycle operation. For instance, in 1992 the required fee for the application of franchise for tricycle operation in Davao was set initially at 300 pesos (\$5.45). This was revised when the Franchising and Regulatory Code increased it to 700 pesos (\$12.72)*. In addition, new fees were also introduced for the opening of new tricycle routes. In 1994, the total contribution of tricycle business (franchise fee) was estimated at PhP 2,768,740 (US \$ 14,119,535.7) or 0.7% of the local revenue collection of PhP 391,111,139 (U.S \$ 14,119.53).

4.2 The Emergence of “Habal-habal”

Habal-habal is a local dialect for motorcycle taxis or motorcycle “for hire” which means “sitting close to each other”. Habal-habal passengers, who usually range from two to three persons, sit behind the driver, close to each other, thus the term. As previously noted, the policy response of eliminating “tricyboats” led to habal-habal emergence. The availability of credit facilities for motorcycle ownership by private dealers and motorcycle shops led former “tricyboat” owners to shift to habal-habal and open-cab tricycles.

Local enforcers on “habal-habal” and open-cab tricycles apply “maximum” tolerance as evidenced in Figure 11. Interviews revealed that local enforcers tolerated their presence in the absence of policies providing alternative modes for passengers as well as the lack of employment opportunities for the tricyboat drivers. Compared with the tricyboats, motorcycles are registered. It is perceived to be better since motorcycles are registered and that the other issue is the difficulty of identifying a “habal-habal” from private motorcycles since passengers

The local policy development with regards to tri-

* 1994 U.S. Exchange Rate: \$1.00=PhP 27.7



1. University of Philippines-Mindanao



2. In Toril, Davao City, 45 minutes from the nearest surface road²⁶



3. Bangkerohan area, Davao City²⁶

Fig. 10 Habal-habal or motorcycle taxis in Davao City

Table 3 Cost of motorcycle vs. “triciboat”

Cost	Full-cost	Down Payment And Monthly	24 months to pay (Total amount)
“Trisikad” and general purpose or boat engine	PhP 11,800–14,960 (US\$ 216–272)		
Motorcycles	PhP 55,000 (US \$ 1,000)	PhP 3,960–5,170 (US \$ 72–94)	PhP95,040–124,080 (US\$ 1,728–2,256)

Note: 2003 Exchange Rate \$1.00=\$55.00

connive with drivers. Most of the journeys made are rural-urban-rural journeys and a low number of either accidents or apprehensions have been reported (Table 4).

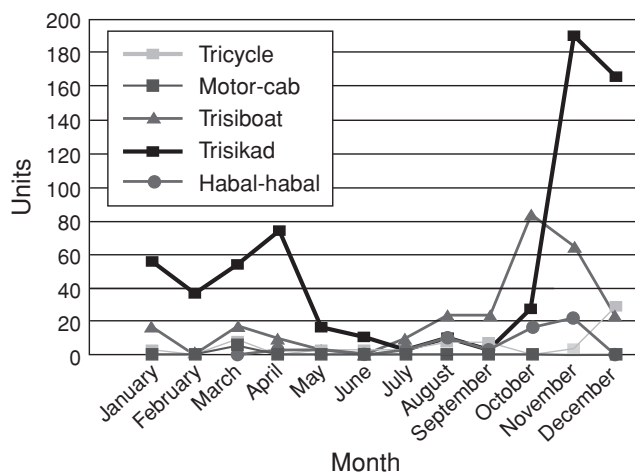


Fig. 11 Davao City vehicle apprehension report, 2002²⁷

Interviews conducted with local officials also indicated that “habal-habal” are not causing any problem in the city and are actually solving mobility issues by being able to service those areas that are not passable to ordinary motor vehicles. On the other hand, most trisikads were apprehended since they failed to observe policy provisions like traversing areas where they are not allowed

such as city proper arterials causing traffic congestion.

The emergence of another role of “habal-habal” in providing service in areas with rough/unpaved roads or poor underdeveloped road networks (mostly District 3) confirms Cervero’s (2000) niche market.

As shown in Table 5, the fare for habal-habal costs is almost twice that of ordinary tricycles because in most cases, it monopolizes certain routes. Moreover, without the side-cabs common to tricycles, it can traverse urban roads under heavy traffic. While habal-habal owners did not immediately convert their motorcycles into tricycles, this new mode for servicing passengers living in areas where roads are not fully developed as well as during peak traffic hours in the urban city proper emerged²⁹. Review of related literature showed that motorcycle taxis are also present in other countries, like in the cities of Thailand and Indonesia³⁰. Compared with the other two countries, which started motorcycle taxi operation in the 80’s and early 90’s respectively, Davao City’s habal-habal is new and unique in a number of ways. Physically, it innovates the motorcycle by extending its seat and adding an extra shock absorber. It seats 3-5 passengers (including the driver) per trip and its owner/driver organizational association does not have any internal policies on the use of helmet or other identifiable paraphernalia such as the use of colored motorcycle drivers’ jackets used in Bangkok for identification. In this regards, borrowing the informal

Table 4 Type of vehicles involved in traffic accidents in Davao City, 2000-2001²⁸

Type of Vehicle	2000			2001		
	Registered Units	Involved in Accidents	%	Registered Units	Involved in Accidents	%
Bicycles/Trisikads	Unavailable	105		Unavailable	56	
Motorcycles/Tricycles	18,427	511	2.77	21,685	504	2.32
Cars	14,609	2,681	18.35	15,291	3,597	23.52
Utility Vehicles	29,866	4,222	14.14	32,939	3,597	10.92
Buses	651	174	26.73	755	161	21.32
Trucks	8,442	627	7.43	8,119	454	5.59
Trailers	868	0	0.00	876	0	0.00
Total	72,863	8,320	11.42	79,665	8,369	10.51

Table 5 Operating characteristics of tricycles vs. motorcycle-taxis

Operating Characteristics	Tricycles		Motorcycle-taxi
	Standard-type	Center-cab	"Habal-habal"
Organizational Structure	Territorial	Territorial	Territorial
Organizational System	Mixed	Mixed: Operator/driver associations per terminal	Mixed: Operator and driver associations per terminal
Operator/ driver ratio	1:1	1:1	1:3-5
Average vehicle per Terminal	5-15	5-15	15-20
Existing Internal Policies on Operations	Internal support group	Internal support group	Internal support group
Fare/passenger (Ave. in \$)	\$0.072	\$0.072	\$0.20-0.25

transport concept³⁰, it can be considered informal and illegal.

The case of the operation of motorcycle-propelled vehicles in Davao City showed policy development at the national and local level. At the national level, motorcycle registration is for record-keeping purposes and a guideline is issued to provide direction for local government units in developing local transport policy for tricycle operations. The emphasis is on tricycle operations and not the physical design of the unit.

At the local level, the basis of transport-related policy development is determined. This is the presence of policy guidelines (DOTC Guidelines), experience from the implementation of previous local policy (Ordinance 512) and public inputs (such as request letters) among others.

Moreover, the gap in the implementation of national policy on motorcycles such as use of helmet and restrictions on overloading is not strictly followed as shown in the operations of habal-habal.

5 SUMMARY AND CONCLUSION

This study illustrates the history as well as the

policy approach on rationalizing the presence of motorcycle-propelled public transportation modes at the national and local level as shown in the case of tricycles and habal-habal of Davao City. At the national level, the study describes the development of local transport policy by integrating national policies (Land Transportation and Traffic Code, Public Service Act and the Local Government Code of 1991) and responding to related issues such as those of congestion. The study also illustrates the role of national transport related policies in the emergence of informal public transport such as the case of habal-habal and open-cab tricycles.

Moreover, this paper concludes with the following points:

- The presence of tricycle operations in most residential areas shows that there exists a good relationship between the tricycle/driver's association and the residential owners.
- The emergence of other variants of tricycles like open-cab models and habal-habal confirms the infrastructure gap especially in terms of developed roads and the lack of alternative transportation modes in the city.
- Moreover, the existence of another policy such as the local government ban on triciboat as well as the pres-

ence of credit facility by motorcycle dealers caused the shift to informal modes such as habal-habal.

- The description of local policy process indicates the factors necessary in the enactment of local policy such as the presence of national policy guidelines, experience from implementation of previous ordinance and public inputs.
- In development of local transport policy, the study shows the need to consider the effects of policies to drivers/operators, as exemplified in the case of triciboat operations.
- The study also shows that the local policy development lacked the integration of non-motorized policy such as walking and cycling even at residential areas.

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