Developing a tricycle management plan

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Need for a Tricycle Management Plan

Major considerations
- Measure the social and environmental problems in the tricycle sub-sector
- Industry - understand how they operate and monopolize the small transport business
- Regulatory - assess the regulatory roles of local and national government for the three-wheelers
- Policymaking – develop innovative approaches to integrate the tricycles to the transportation system

National and Local Policy Considerations

• National level considerations
  – Stricter emissions standards
  – Tax policies – road user’s tax
  – Regulatory and operational design guidelines
  – National versus local mandates on approval and regulation
• Local level considerations
  – Inspection and maintenance program
  – Enforcement of standards and guidelines
  – Approval of franchises – use of route measured capacity?
  – Alternatives to route measured capacity

Achieving sustainable transport
Route measured capacity

\[ Nu = \frac{PD}{ASC \times VLF \times NRT \times u} \]

Nu = required number of units  
PD = passenger demand in a route (one-way)  
ASC = average seating capacity  
VLF = viable load factor  
NRT = ideal number of round trips per vehicle per day  
u = utilization factor

Practical Alternatives to RMC

Issues on Tricycle Operation relating to RMC

1. High volume is 6-9am, 11am-2pm, 4-8pm  
2. Long queue during downtime  
3. Many areas have 5 pax per trip as standard load  
4. Irrational routes makes things complicated  
5. Franchising is ridiculous  
6. Illegal operations compete with law-abiding tricycles without facing the responsibilities

Alternative No. 1: Travel Demand Forecast (TDM)

- Not yet piloted for the tricycles  
- Requires intensive surveys across all areas of operation of tricycles  
- Requires software & programming to be able to get results  
- Requires personnel training at the LGU level  
- Requires validation of the simulation from software  
- Requires dynamic and constant updating

Sample of shared route – Travel Demand Case

TODA No. 1 – 60 units  
TODA No. 2 – 60 units
Alternative No. 2: Tricycle Cap

- Limit the number of tricycle units for a certain number of years
- *Piloted in Puerto Princesa City under a resolution*
- Tricycle population was limited to 4,000 units for the next 5 years

Sample Tricycle Cap Program

- Inventory of the current tricycle population
- Assessment of the local transport demand and supply
- Basic profile of the tricycle units
- Assessment of lifespan of current fleet
- Setting the tricycle cap based on estimation
- Establish a resolution for the program
- Enforcement

Alternative No. 3: Number Coding Scheme

- Limit the number of tricycle operating units for the day
- *Piloted in Metro Manila*
- Reduction in overall traffic by 20%
- Not effective in the tertiary roads and areas outside Metro Manila

Alternative No. 4: Retirement

- Phasing out of “old units”
- *Piloted in Puerto Princesa City*
- Inventory of tricycle age among the fleet
- Set a limit of cut-off: 10 years, 15 years...
- LGU should set a budget for re-fleeting and/or TODA assistance
- Replacement of phase-out units with either new 4-stroke motorcycles or other clean technology options
Alternative No. 5: 50 - 50 Scheme

- Limit the operation on a daily basis
- Pilot in Puerto Princesa City under a resolution
- Divide the population of tricycles into two (2)
- Each group was assigned body color
- One group operates MWF
- Other group operates TThS
- Sunday remains to be a free day
- Non-operational days are either maintenance day or livelihood alternative
- Result: higher income, lesser traffic, lesser pollution, lesser accidents, more time for alternative livelihood programs.

Two (2) body colors for identification

- Lighter shade
- Darker shade

More information

ADB Tricycle Study: Tricycle Air and Noise Pollution Reduction
A Strategic Plan for Quezon City and Puerto Princesa City, Philippines

www.adb.org
Keyword: tricycles, air and noise pollution

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