

# A study on the current role of cycle rickshaw in Southeast Asia

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## 1. Introduction

Recent years, the cycle rickshaw is drawing renewed attention from developed countries on its power source ‘manpower’ as environmental transportation mode. In fact, centering on Europe, we can see cycle rickshaws around the world. Furthermore the number of that is on the increase in Europe, although most of them are for sightseeing.

On the other hand, in Southeast Asia where cycle rickshaw had been important for general citizen on transit, the number of it is on the decrease today. It can be guessed that authorities got rid of cycle rickshaws as a cause of clogs and relic of the past. In addition they doubtless have been shunted by new transportation modes for instance bus, subway...etc. However it is required to go over whether cycle rickshaws should fade away in Southeast Asia on this trend. So this paper describes the past, present and future aspects of them.

There are 3 objectives here. The first is to marshal data on cycle rickshaw in Southeast Asia that have not been done so yet by the original survey. The survey was mainly conducted by using the Internet and books. The marshaled data includes the country-specific history, cycle rickshaw’s body type and existence distribution, management system, and so on. The second is to consider current significations of cycle rickshaw from the date collected by above survey. The last is to propose the new role of it as future possibilities.

## 2. Marshalling about cycle rickshaws in Southeast Asia

### 2.1 Chronological tables

Cycle rickshaw’s historical transition is made in chronological table in seven Southeast Asian countries.

For example, Tabel.1 is the chronological table about Indonesian Becak. The table is also composed of the histories of other transportations, politics and economics in the country. It shows the interaction between those and cycle rickshaw’s histories.

Table. 1 Indonesian (Becak) Chronology

year	History of Transportation	History of Becak	Remarks
~18s			The Netherlands rule
1864	The Netherlands started railway construction in Java island		
1867	Start of Sumatera—Rangoon railway operation		
1868	Horsecar business begins in Jakarta.		
1881	The horsecar of Jakarta changes into the steam engine.		
1925	The railway electrification begins between Batavia—Bogor.		
1936		Test rides on Batavia (Jakarta) roads a	
1937		200 becaks run in the city. a	
1941	A Japanese army organizes the railway route		
1943		3900 becaks exist a	Occupation by Japanese army
1945	Nationalization of railways		1945~ Indonesian independent war
1949	Ruined by Indonesian independent war, etc.		Indonesian independence
1951		25000 becaks exist a	~1959 Age when passengers look for
1962	Bemo (mini bus) introduction (1)	Increase of number of becaks (2) a [Becak pulling is a lowly occupation] (Sukarno) a	Asian sports event @ Jakarta Due to (1)and (2), lower income for becak pulling a
1962	Tram abolition of Jakarta		
	Import of 3000 midgets		
1970	Introduction of motor three wheelers in Jakarta	Registered 92650 becaks (the highest) a	Including unregistered and illegal 150000
	Jakarta	Becak manufacturing ban (Ari Sadikin) d Color classification of Becaks →Operation in only specific regions e	(under Ari Sadikin the number of becak
1971		Becak prohibited areas increase (high-class residential areas) e	
1972	Using yen loan for traveler transportation improvement	100000~150000 becaks.	1972~1981 Yen loan contract
1975	Bajaj import begins (~1985)	250000~350000 pullers d	
1976	Trains are put in use	~1976 decrease of 100000 a	becak regulation is game of cat and r
1980		50000 becaks in the city d	
1981	JABOTABEK railway project		
1983		7828 registered becak a	Including unregistered. 65000 ? a
		1980~1985 5000 becaks confiscated a	
1985		Becak operation prohibited in Jakarta c	
1990		Becak operation prohibited totally in Jakarta d	
1991	National Railways public→corporation	Hundreds of becaks are sunk in the Jakarta bay. b,e	
1997		Partial deregulation of becak business in	Asian financial crisis (recession)
1998		Deregulation withdrawal d	
1999	Indonesian railway company   Two-tiered system		
2004	start operation of trans-Jakarta	Becaks have returned to Jakarta c	
2006	The 14.5km MRT construction in the metropolitan area.		Yen loan contract

References	
a	Kenichi Maekawa . "tricycle in Southeast Asia" . 1999
b	Ootsuki Shigeyuki . "specialized book about Indonesia"
c	Web page . "J-people HP (http://www.jpeople.org/series/gendai/index2005july.htm)"
d	Web page . "http://edadeboro.jp/jawetsuisou/4.htm"
e	Kenichi Miyamoto , Kazuyuki Kohaze . "big city in Asia vol.2 - Jakarta" . 1999

### 2.2 Current area distribution

This survey contains the research on the Internet about the area where now cycle rickshaw is operated. Search keywords are the names of cycle rickshaw and cities that have population more than 100,000 or major ones that have less than 100,000. More over, the research involves the other cities as subjects where it is confirmed that cycle rickshaw is managed and less than 100,000 people live. It is revealed that cycle rickshaw run in at least 75 cities out of 238, that is the number of all researched cities (more than 100,000: 121, less: 117). They are plotted on Fig.1.

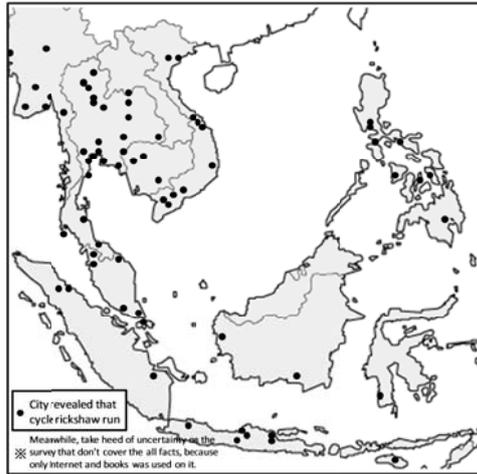


Fig.1 Current area distribution

### 2.3 Type distribution

Though it is said that the types of cycle rickshaws in Southeast Asia vary among countries or areas, the kinds and distribution of them have not been revealed. In this study, they are classified into “pull type”, “sidecar type” and “push type” by their structures. With such classification and name of them, type distribution in East Asia is shown on Fig.2.

The origin of them is various. Some came down from neighboring countries or originated other area idea(cf. Japanese rickshaw), the other was naturally generated. From Fig.2, it can be presumed and considered how cycle rickshaw was invented and spread across Southeast Asia.

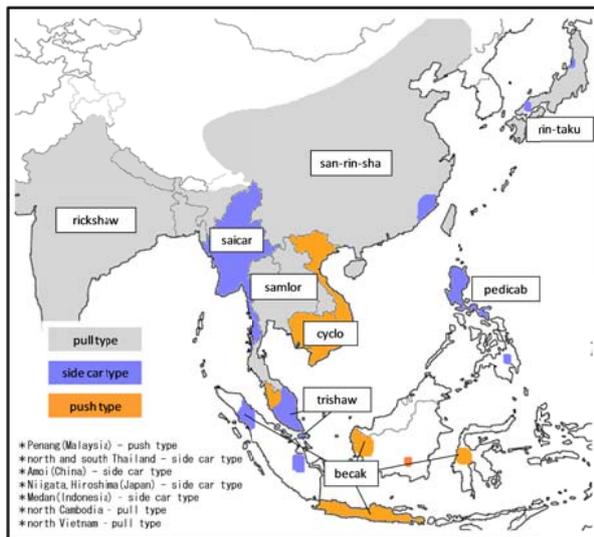


Fig.2 Type distribution

### 3. Current and future role

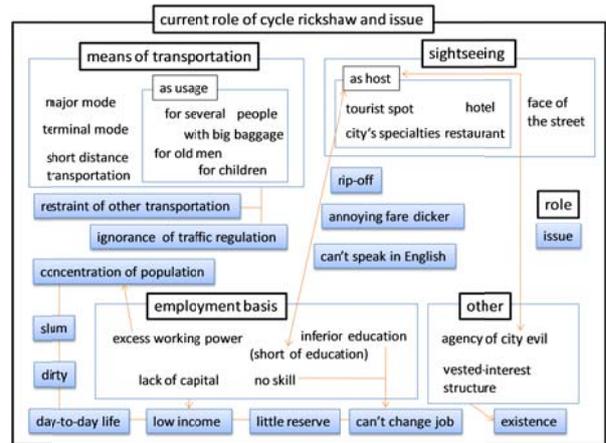


Fig.3 Current role of cycle rickshaw and issue

### 4. Conclusion

The number of cycle rickshaws is on the decline. However, the importance

The conclusions of this study are: 1. to investigate the matter on cycle rickshaws, and organize it. 2. to consider signification of them. 3. to suggest a new role of them.

Future directions are Consideration of the operation of a cycle rickshaw, taking into account the situation and awareness of local residents and comparing with other transportation modes.

### References

- [1] Kenichi Maekawa , "tricycle in Southeast Asia" , 1999
- [2] Motohiro Kurokawa , "Formation and Development Process of Rickshaw Industry in Developing Economies" , 2006
- [3] Robert Joiner , "KINGS of THE ROAD – The Cyclo of Phnom Penh" , 2005
- [4] Web page , "cyclo center Phnom Penh HP (<http://www.cyclo.org.uk/>)"