

A STUDY OF PUBLIC BICYCLES FOR SUSTAINABLE URBAN TRANSPORTATION IN JAPAN

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1. PURPOSE OF STUDY

Public Bicycles have received increasing attention in recent years as Environmentally Sustainable Transportation(EST) all over the world. In particular, 90% of Public Bicycles have been introduced in Europe and studies have been accumulated. In Japan, Public Bicycles have just begun. That is the reason why there have been few reports on Public Bicycles and these are mainly in municipality reports. The objectives of this study are to look into the European case studies, to analyze the current state of Public Bicycles schemes in Japan and to describe the future possibilities of Japanese Public Bicycles.

2. ANALYSIS OF EUROPEAN PUBLIC BICYCLES CASE STUDY

In European cases, Public Bicycles are installed on a large scale basis and serve to enhance integration with overall urban transportation from a view point of EST. As a result, various social benefits can be seen such as reduction of CO₂, increasing number of bicycle users and encouraging intermodal traveling. It is indicated that business model considerations and enhancing use of public transportation with Public Bicycles are crucial when implementing these schemes. Problems to be solved are bicycle theft and vandalism in Europe.

3. CURRENT STATUS OF JAPANESE PUBLIC BICYCLE

In order to implementation of Public Bicycles in Japan, this study focuses on the 3rd generation Japanese Public Bicycle problem by analysis of each business model. As a result of the study, it appeared that there are two types of Public Bicycle: one is bicycle parking type and the other is ordinary type. In Japanese cases, 3rd generation Public Bicycles was originally implemented to solve illegally parking of bicycles. In current Japanese Public Bicycles projects, no problem likes bicycle theft and vandalism were encountered for reduction of CO₂ through transportation modal shift have been recognized. Compared to European cities, however, utilization rate is low and other social benefits could not be recognized at present.

4. CONCLUSION

In order to spread Public bicycles as a sustainable urban transportation in Japan, it is necessary to collaborate with city master plan and urban traffic plan. In addition, it is important to promote public transportation use, to build bicycle infrastructure for safe and convenient cycling network and to provide a large scale scheme of Public Bicycles to achieve a real impact to city. Partnership between multiple stakeholders is also needed.