



Technical and Financial Analysis on Trolley and Electric Bus in Phitsanulok, Thailand

Sittichoke Pookpant^{1,*}, Ananchai Ukaew¹, Pongpun Othaganont¹,
and Pakchira Nugbanleng²

ARTICLE INFO

Article history:

Received: 10 March 2020

Revised: 4 March 2021

Accepted: 26 April 2021

Keywords:

Urban development

Privatization

Powers of exclusion

Public space

Vientiane

ABSTRACT

This paper aims to demonstrate the transformations of public space in Vientiane Capital, focusing on Nam Phu (Fountain) Park as a case study to understand the urbanization process impact on the urban social spaces. The Lao government has been actively involved in urban management of public spaces since the early year 2000s, following its decree to turn land into a capital (TLIC) in 2006. Public spaces and assets have been transformed in order to facilitate this transfer of “capital”, which has been driven by both foreign direct investment (FDI) and domestic direct investment (DDI). The Nam Phu Park is one of public spaces that have been privatized by the DDI, in order to develop it as a modern place to attract tourists. Leading to direct negative impact on community in the form of being restricted from access to Nam Phu Park that they had previously used. Nam Phu is a case that the Lao government and the capitalist class have collaborated together in the transformation of public space into privatization. They have been able to achieve this by obtaining legitimation from residents through the promotion of a ‘modernity and beautification’ discourse, which attempts to convince national residents that they have the duty to develop the country and sacrifice their individual interests to the common good. This changing phenomenon concerning public space transformed the meaning of space from ‘state-owned, public space’ to ‘commodified space’, which is meant to facilitate economic growth. This privatization of state land has led to many negative impacts on surrounding communities. To understand the process of transformation of Nam Phu Park, the author applies the qualitative method including observation, in-depth interviews of key informants, as well as a critical literature review to investigate the urbanisation process of public space in Laos and the implications for the powers of exclusion the community from the Nam Phu Park.

1. INTRODUCTION

Phitsanulok locates at the lower north of Thailand, developed the Indochina Intersection project since 2007 and planned as the economic corridor of the Greater Mekong subregional-GMS including Thailand, Myanmar, Lao, Cambodia, Vietnam and China (Yunnan). Moreover, Phase 1 of the Northern High-speed Railway Project between Bangkok and Chiang Mai will start to operate in Phitsanulok within 2024 [1]. Additionally, the strategic plan “Phitsanulok 2020” provided the direction and developed The Mass Transit Master Plan [2] aimed to improve the quality of public transportation. The master plan of Public transportation development would include available technology to use with existing infrastructure and a financial plan considered one of the important parts of a project as a decision-making tool to decide whether a project is feasible or not. The financial plan/model is necessary for a project leader to allocate the funding

sources from both the private and government sectors.

First, the demand for public transportation was forecasted to design eight different transportation routes in Phitsanulok area. Only two feasible routes were chosen and one route with the highest estimated number of passengers is discussed in this paper. Because of the high investment per distance on the Overhead Wire (OH) system of trolley, the other long-distance routes showed large capital investment when implemented with trolley infrastructure. Based on the ‘Green City’ concept, this study focused on the highest transit demand and the shortest distance route designed passing over the downtown area (the red line in master plan [2]). The study compared a cost and benefit between 2 scenarios which are traveling via trolley and traveling via battery electric bus (BEB).

This study shows technical and financial analysis of 2 scenarios either implementing a trolley bus or BEB. The chosen option will be implemented as a part of the

¹Social Science (International Program), Faculty of Social Sciences, Chiang Mai University, P.O. Box 50200, Thailand..

*Corresponding author: Phone: +66-99-296-2964; E-mail: kesone2009@gmail.com.