



# Sustainable Penang Initiative, Potentials and Challenges ahead

Ong Ke Shin , Yokohama City University

## Abstract

Rapid urbanization and intense development in the state has caused many unintended effect. While Penang , Malaysia enjoyed the economic and social benefit of development, she, too could not escape from the ill-fate of being impacted by the negative side of development. Out of the dire concern of the future of Penang, Sustainable Penang Initiative, which is described as the first “community indicators project” in Malaysia were initiated to guide Penang’s development in a sustainable direction by developing a holistic model encompassing ecological sustainability, social justice, economic productivity, cultural vibrancy and popular participation. This study provides an overview of the relevant aspects under Sustainable Penang Initiatives (SPI). Finally, the potential and challenges of Penang to emerge as a sustainable city is discussed.

## Introduction

Under SPI, Indicators encompassing ecological sustainability, social justice, economic, cultural vibrancy and participation were selected in order to guide Penang towards sustainability. Despite of its high awareness and strong commitment among citizens were praise by many, it is being criticized that the measurement are rather poor (UNEP, 2008). However, the various aspect identified It could be a good guidance for a systematic strategic planning for Penang through SWOT analysis.

## Objective

This preliminary study does not aim to provide a holistic overview of all the aspect in SPI nor does it aim to provide a concrete proposal for the State of Penang to archive its goal as a green state. Rather, this study aimed to:

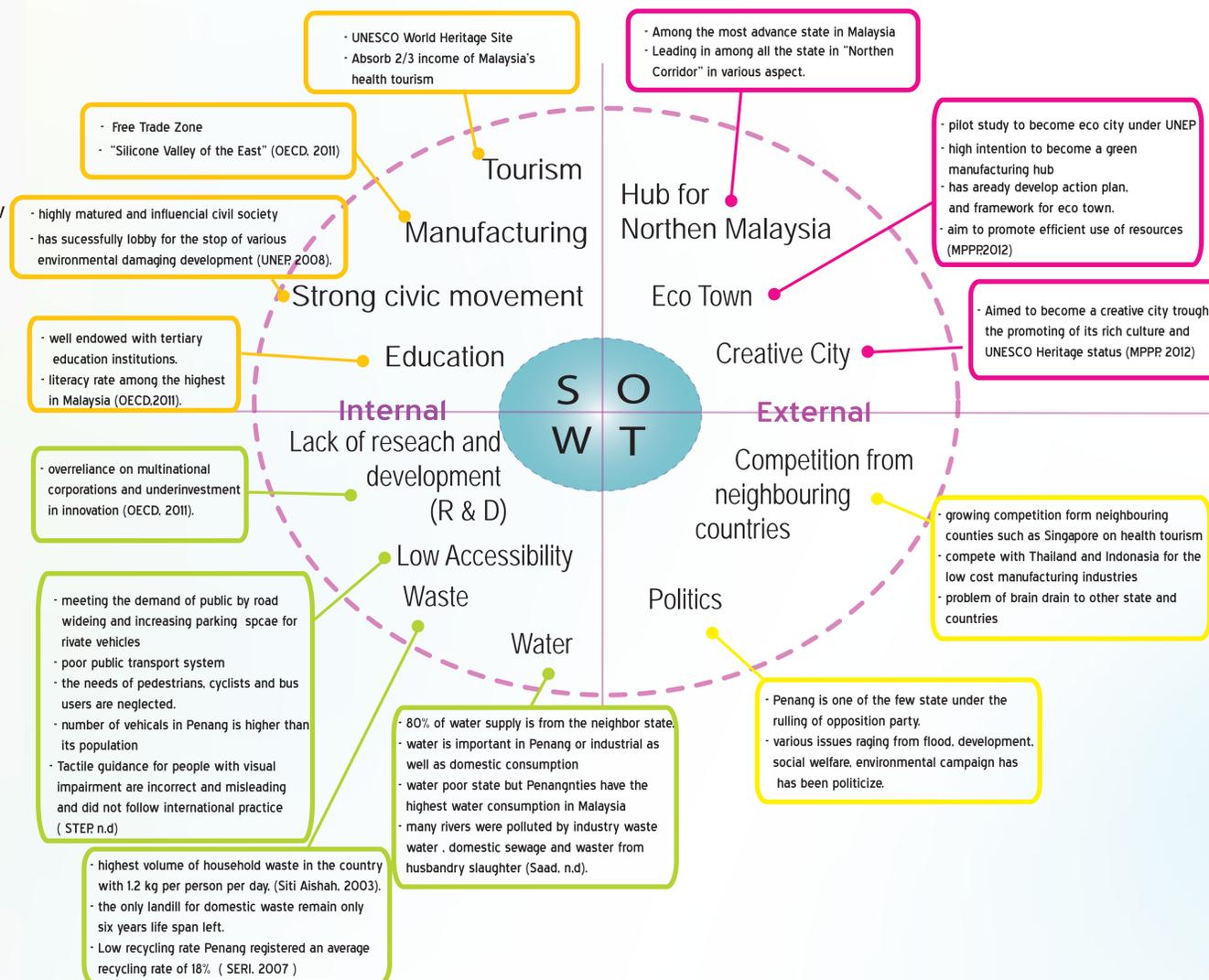
- 1.Examine the possibility of applying SWOT (strengths, weakness, opportunities and threats) analysis to identify the internal strength and weakness, as well as external threats and opportunities of the state of Penang, by categorizing the relevant initiative by various stakeholder as well as SPI.
2. Suggest possible strategies and challenges by minimizing threats and weakness and maximizing strength identified

## Methodology

SWOT analysis, which is an acronym for strengths, weakness, management and is increasingly used, for the past decades in environmental related analysis such as forest management (Kurttila et al.,1999), waste management (Srivastava et al.,2004), regional energy planning (Terrados et al.,2005) , environmental management practices (Nikolaou and Evangelinos,2010) , coaster management (Panaigrahi and Mohanty ,2012) and natural resources management (Kajanus et al., 2012).

In the present study, secondary data relevant to SPI was gathered through literature review. After categorizing the relevant aspects in the SWOT matrix, possible challenges and strategies were identify by matching the relevant aspects.

Table 1: Result of SWOT Analysis



S = Strenight , W = Weakness , O = Opportunity , T = Threats

## Discussion and Conculsion

Overall, SWOT analysis can be apply to develop a systematic strategic planning with relevant aspects from SPI. It is suitable for preliminary study , as well as when information is lacking and a quick decision is needed.

Matching the relevant factor in SWOT matrix according to its principle “minimize weakness, exploring opportunities and counteracting threats” possible strategies, potentials and challenges are identified.



By strengthening education , Penang has the potential in becoming an education hub in the northern region of Malaysia. Perhaps, South East Asia. Also, research and development should be integrated in the education system to minimize it weakness and to fasilited the shift from mass manufacturing based economy to high skilled, knowledge based economy which focus on R & D. Thus minimizing the waste and water problem. Also this will increase its competitiveness with others countries and reduce brain drain.

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Penang should improve its connectivity and accessibility by improving its public transport and improving pedestrian and cycling lane. This will eventually reduce air pollution, boosting tourism also Increase mobility for the disabled. Also, by making full use of its potential its heritage status , strenght in medical tourism, Penang can aslo move towards value added tourism instead of mass tourism that has increase the environmental burden of the city.

## Limitation and future study

Although SWOT can be used as a tool for strategy formulation and improve current SPI, there are some disadvantages. Firstly, the relative importance of the factors and the magnitude of the each factors were not examined. Futher study can apply a hybrid method of SWOT and Analytic Hierarchy Process to overcome this problem. Also, due to time constrain, the current study is only based on qualitative secondary data and some important aspect might be overlook. Future study can be improve by involving various stake holders to generate a more comprehensive outline of the Penang situation.

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