# HOLISTIC PERSPECTIVE ON ENVIRONMENTAL CAPITAL AND POLITICAL CAPITAL IN SOUTHEAST ASIA

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### ABSTRACT

This paper surveys the relationship between environmental capital and political capital among countries in Southeast Asia using holistic perspective. Holistic theories emphasize that the whole is not only greater than the sum of the parts, but that the parts are related in such way that their functioning is conditioned by their relationship. Holistic perspective is being supported by the ecological footprint data as environmental capital among countries in Southeast Asia. Then, this paper uses political capital among countries in that region. Political capital can be derived into some political indicators such as political rights and civil liberties. Next, the paper examines the pattern relationship between these variables environmental capital and political capital in Southeast Asia. Change in these forms of capital represent "institutional relationship" among countries in Southeast Asia. By accomplishing the concept "institutional relationship", this paper can explain various responses among countries in Southeast Asia for responding uncertainty condition around those capitals.

Keywords: Southeast Asia, Environmental Capital, Political Capital, Holistic Perspective

JEL classification: A10, B40, E64, Q59

### 1. INTRODUCTION

Political economy combines major approaches as interdisciplinary way to investigate the complex relationships among several factors in world-system. It can explain evolutionary mechanism on a factor that influenced by other factors. As Thorstein Veblen (1898) argued that a system (economic) could experience increasing return to scale with investment as external factors. This mean a partial system tend to work as corporate system with large scale and long term period in world-system. Consequently, the structural linkages can be observed while several factors among systems experience to change through historical time. By continuing Veblen's perspective, Gunnar Myrdal (1944) assumed that circular relationships as well as cumulative change among factors tend to have specific trend. Therefore, Myrdal introduced multiple capital paradigm approach to investigate this circular and cumulative effect. Indeed, Myrdal uses the term of capital to elucidate several factors which can experience to change at differing levels.

Next, in the context of socio-economic development, asymmetric performance at differing levels can be observed using multiple capital paradigm approach (O'Hara 2008). The asymmetric performance usually occurs through the change of multiple factors. This paper attempts to examine the changing historical pattern between multiple capitals. This pattern will use the aggregate of multiple capitals in Southeast Asia as specific region. Southeast Asia has some characteristic which can be important to expose. As a part of Asian continent, this region contains various diversities on some aspects, including historical background, socio-economic development, political movement as well as cultural circumstance. For instance, Malaysia, Singapore and Brunei Darussalam are commonwealth countries as former British colonies. They have different historical background from other countries like Indonesia (former Dutch colony) and Philippines (former Spain and United States colony). On the socio-economic development, Singapore has the highest income per capita in this region. Malaysia and Indonesia experience as countries which have middle income per capita.

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Furthermore, the differences of historical background tend to influence the political movement among countries in Southeast Asia. Therefore, this study utilizes environmental capital and political capital to realize the multiple capital paradigm approach. Special emphasize is given to Ecological Footprint (environmental capital) and Political Indicator (political capital).

Firstly, this paper examines the aggregate level of ecological footprint as a proxy for environmental capital as well as political indicator as a proxy for political capital. This aggregate process is useful for elucidating the partial pattern of those capitals in Southeast Asia. Then, the second level of analysis examines the structural relationship between these proxies to investigate the changing historical pattern of performance in this region. As the principle of political economy, principle of circular and cumulative causation (CCC) as well as contradiction is used to investigate the changing pattern on this analysis. Despite of the CCC and contradiction, this study also utilizes the concept of investment and consumption in world-system (Boulding 1984). Finally, this study comprehends stylized fact of environmental and political performance in Southeast Asia.

Drawing on the Principle of Circular and Cumulative Causation this study seeks to examine the relationships (stylized facts) between different variables. Gunnar Myrdal and Nicholas Kaldor developed models of CCC, with Myrdal drawing especially from socioeconomic factors, and Kaldor examining more technical economic factors. For instance, Myrdal (1968) showed that education, income, employment and productivity are not only interrelated (circular in movement) but also tend to move up and down together (cumulative). Kaldor (1972) similarly showed these two patterns when scrutinizing the relationship between aggregate demand, investment, productivity and exports. They tend to be endogenously self-reinforcing because they are circular in motion. Paolo Pini (1995), for instance, has modeled these Kaldorian linkages technically for OECD nations. On the other principle, the principle of contradiction in political economy states that there are often considerable opportunity costs associated with advances in economic growth and development. As economic advancement takes place simultaneously other areas of society may decline. Even within the economy, advances in some areas may be at the expense of other economic factors. Usually, though, it relates to economic versus social or environmental or even political factors.

# 2. RESEARCH METHOD

Ge

The method is best summarized in six dimensions, as shown below:

Research MethodUneven Regional DevelopmentContaining Six Elements						
ography	Dimensions	E.g., Data	Principles	Methods	Data Limitatio	
theast	Environmental	Ecological	CCC	O'Hara	Incommensurab	
a		Footprint		[Political		

Table 1
Research MethodUneven Regional DevelopmentContaining Six Elements

Southeast	Environmental	Ecological	CCC	O'Hara	Incommensurable
Asia		Footprint		[Political	
				Economy-	
				Multiple	
				Capital	
				Paradigm]	
	Political	Political	Contradiction	Maddison	Heterogeneous
		Indicator		[History]	
				Boulding	
				[Investment-	
				Consumption]	

Source : Author's Research

Methodologically this study is interested in six elements. First, geographically this study seeks to comprehend the patterns of stylized fact of environmental and political performance in Southeast Asia. Secondly, this study transcends purely environmental factors to develop a holistic analysis of how they link to or is different from political patterns.

Drawing on the work of K.W. Kapp (1963) this study highlights the heterogeneous nature of the dimensions and the need to embed history and complexity into the analysis. Thirdly, this study uses an array of statistics and data to illustrate the two main dimensions of environmental and political processes. The Literature Review will delineate many of the data sources utilized, but at this stage it is crucial to point out that a multitudinal set of differing indicators will be used. At the environmental capital, this study uses ecological footprint minus biocapacity; meanwhile in the political area, the indices of political indicator, including political rights and civil liberties will be used, alongside other sources.

In terms of general methods, this study is influenced by the work of Angus Maddison (2007) whose path breaking analysis of phases of capitalist development and collections of economic data going back to 1000AD have made an economic history approach much more explanatory than previously possible. But this study seeks to modification the work of Maddison by delimiting the scope into regional (Southeast Asia). This study delimits the scope of work for historical performance

Principle of political economy from Phillip O'Hara will be useful for supporting this study. This study also makes modification based on the work of O'Hara. The concept of multiple capital is utilized to illustrate holistic perspective. Nevertheless, this study delimits the number of capital into only two, including environmental and political. A further source of inspiration is provided by Kenneth Boulding, by differentiating the process of investment from consumption (O'Hara 2008). In the analysis of the data and the historical investigation, this study will utilize the concept of 'investment' to mean the building up of durable structures (capital); e.g., of economy, society, polity and environment.

### 3. RESULTS AND DISCUSSION

## 3.1 Environmental Capital and Political Capital: Partial Pattern

This analysis starts by firstly, examining the partial performance of the environmental capital and political indicator. As environmental capital, ecological footprint among countries in Southeast Asia is shown on Figure 1. Figure 1 shows that ecological footprint in Southeast Asia tend to increase during 1975-2015. By analyzing figure 1, this study divides pattern of environmental capital into three groups of country. The first group, Singapore has the highest value of ecological footprint. This means that Singapore tend to explore the stock of natural and environmental resources rather than others in this region. Meanwhile, Malaysia and Thailand can be categorized in the second group which has medium ecological footprint with range level between 2 and 3. The third group consists of five countries which have ecological footprint between 1 and 2, including Vietnam, Philippines, Indonesia, Laos and Cambodia. In general, almost all of countries in Southeast Asia experiences increasing value of ecological footprint during 1975-2015.



**Figure 1. Pattern of Ecological Footprint in Southeast Asia** Source: Processed from New Economic Foundation (2017)

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On the other capital, Figure 2 shows the partial pattern of political indicator in Southeast Asia. This study utilizes political rights and civil liberties as political indicator. By analyzing Figure 2, political indicator for several countries in this region tends to be good and stable position. For instance, some countries, including Singapore, Malaysia, Thailand, Philippines and Indonesia have 4 for their political indicator during 1975-2015. This means that their countries have medium level with stable position for political indicator. Meanwhile, other countries, like Vietnam, Cambodia and Laos experience increasing of political performance while they have decreasing political indicator from 5 to 4. By understanding the term of political indicator, a country has "good political performance" if it can achieve "small value" of political indicator. In general, political performance in Southeast Asia tends to be better than previous decades with medium value of political indicator.



**Figure 2. Pattern of Political Indicator in Southeast Asia** Source: Processed from Freedom House (2017)

### 3.2 Environmental Capital and Political Capital: Holistic Pattern

Next, this study elucidates the aggregative pattern of environmental and political capital. In this section, principle of circular and cumulative causation (CCC) can explain changing historical pattern between environmental capital and political capital. Table 2 shows that global ecological value (biocapacity minus ecological footprint) in Southeast Asia decreases – 174 basis point during 1975-2015. This means that stock of natural and environmental resource tend to diminish through socio-economic development in this region. On the other hand, Southeast Asia tends to experience "good political performance" during 1975-2015. It can be elucidated with political indicator – 1 basis point. **Table 2** 

Capital	1950- 1973	1974- 1979	1980- 1984	1985- 1989	1990- 1994	1995- 1999	2000- 2004	2005- 2015	△ (1950-73— 2005-2015
		1975	1980	1985	1990	1995	2004	2015	Δ Glob.Ecol (1975—2015)
Global Ecological (Biocap minus Eco footprint		+2.49	+2.23	+2.19	+2.18	-2.30	+2.50	+1.75	-174 bp
			1982	1985	1990	1995	2000	2009	ΔPI (1982— 2015)
Political Indicator <sup>1</sup>			5 (Free)	5 (Free)	5 (Free)	4 (Free)	4 (Free)	4 (Free)	-1 bp (Free)

Holistic Pattern: Environmental Capital and Political Capital in Southeast Asia

Source: Process from New Economic Foundation (2017) and Freedom House (2017)

<sup>&</sup>lt;sup>1</sup> Political indicator consists of two sub-indicators, including political rights and civil liberties. Small value for political indicator elucidates a country which has "good political performance" (freedom)

By accomplishing principle of political economy, this study attempts to investigate the changing historical pattern between two sides of capital. The principle of circular and cumulative causation as well as principle of contradiction can be useful to explain this condition. The stock of natural and environmental resources tends to explore for supporting the socio-economic development in this region. Increasing of socio-economic development among countries in this region has been carried by the export of raw-materials, including natural resources. For example, some countries, like Indonesia and Malaysia are countries which exports oil, natural gas, palm oil, rubber and rattan. Meanwhile, Philippines has export some natural resources, like natural gas, coconut oil and several agriculture products. Similar to Philippines, Thailand also supports its economic development with agriculture products. On the other case, Singapore, a country which have not stock of natural resources, has the highest value of ecological footprint. As a new industrial country in Southeast Asia, Singapore encourages its economic development especially in manufacturing, chemicals, biomedical and petroleum refining. This study predicts that the high level of ecological footprint in Singapore tend to be influence by increasing of carbon footprint. In general, socio-economic development among countries in Southeast Asia increases with the dominant support from natural and environmental resources. The amplifying of socio-economic development can influence political circumstances around these countries. By understanding political indicator, almost all of countries in Southeast Asia have achieved "good political performance".

Therefore, Figure 3 and 4 show the simple model to understand the holistic pattern of environmental capital and political capital in Southeast Asia using the principle of political economy.



**Figure 3. Principle of CCC: Environmental and Political Capital in Southeast Asia** Source: Author's Research



**Figure 4. Principle of Contradiction: Environmental and Political Capital in Southeast Asia** Source: Author's Research

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Moreover, in this section, this study tries to elucidate concept institutional capital analysis on environmental and political capital in Southeast Asia. By examining Table 2, global ecological footprint was achieving –174 basis points during 1975-2015. This means that environmental capital in Southeast Asia has experienced "more consumption than investment". On the other hand, this region has experienced "more investment than consumption" on political capital. Political indicator was showing -1 basis point during 1975-2015. This study also attempts to explain institutional capital analysis in the national scope. Nevertheless it cannot be done because of some limitations, especially on time series data.

#### 4. CONCLUSIONS

The conclusions of this study are summarized in Table 3, below:

i autern Anarysis. Environmentar and i ontical Capital in Southeast Asia						
	Partial pattern	Holistic pattern:	Holistic pattern:			
		<b>CCC and Contradiction</b>	Institutional Analysis			
Empirical evidence	<ul> <li>Environmental capital among countries tend to decrease (especially Singapore; Malaysia and Thailand)</li> <li>Political capital among countries tend to have stable in middle position (Singapore, Malaysia, Indonesia) and tend to increase (Vietnam and Cambodia) from low to middle position</li> </ul>	<ul> <li>CCC: ↑ the usage of natural resource → socio-economic development↑</li> <li>→ political capital↑</li> <li>→ policy and regulation for natural resources and economic activities</li> <li>Contradiction: ↑ the usage of natural resource → bio-capacity↓→ socio-economic development↑</li> <li>→ political capital↑</li> </ul>	<ul> <li>Institutional consumption: environmental capital (- 147 basis points)</li> <li>Institutional investment: political capital (-1 basis point)</li> </ul>			

 Table 3

 Pattern Analysis: Environmental and Political Capital in Southeast Asia

The above matrix can be explained in three sections, firstly, the partial pattern between environmental and political capital has shown the differences condition among countries in Southeast Asia. For instance, Singapore has high decreasing on environmental capital, but it can achieve stable position (middle position) on political capital through its socio-economic development. On the other case, Vietnam has increasing on political capital (from low to middle position) with medium decreasing on environmental capital.

The second section elucidates the holistic pattern between environmental and political capital using principle of CCC and contradiction. The principle of CCC shows that increasing of political capital in Southeast Asia is an amplification effect from increasing of socio-economic condition through environmental capital. Then, the principle of contradiction explains that decreasing of global biocapacity (environmental capital) could occur when political capital tends to increase through socio-economic development. These explanations can be support with the third section, institutional analysis. Institutional analysis clarifies that general condition in Southeast Asia experiences "more investment than consumption" on political capital during 1975-2015. But, this condition has contradiction on environmental capital which undergoes "more consumption than investment" in the same period.

Eventually, this study attempts to recommend this region for examining its general condition, especially capital development. The capital development can occur through different pattern as well as various relationships. In this case, major countries in Southeast Asia can explore "local knowledge" or "local wisdom" to maintain their capital. For instance, despite environmental capital can support socio-economic development, major countries in Southeast Asia should observe the method for the sustainability of biocapacity and ecosystem.

#### 5. REFERENCE

———. (1968). Asian Drama: An Inquiry into Poverty of Nations, 3 vols. New York: Twentieth Century Fund.

Boulding, K. (1984). The World as A Total System. United States: SAGE Publisher.

- Chandler, D. P., et.al. (1971). In Search of Southeast Asia: A Modern History edited David Joel Steinberg. United States: Pall Mall.
- Freedom House. (1973). Freedom Index Comparative Data in 1973-2009: Freedom House.
- Kaldor, N. (1972). The Irrelevance of Equilibrium Economics. Economics Journal, 82(328), 1237-1255.
- Kapp, K. W. (1963). *The Social Cost of Business Enterprise*. Nottingham, United Kingdom: Spokesman Book.
- Maddison, A. (2007). *Contours of the World Economy, I-2030 AD: Essays in Macro-Economic History.* New York: Oxford University Press.

Myrdal, G. (1944). An American Dilemmma. United States: Harper and Row.

New Economic Foundation. (2005). Happy Planet Index 2.0. in 1961-2005: New Economic Foudation.

- O'Hara, P. A. (2008). A Myrdalian Holistic Perspective on Global and Regional Performance and Uneven Development. *Working Paper Global Political Economy Research Unit*.
- Pini, P. (1995). Economic Growth, Technological Change and Employment, Empirical Evidence for a Cumulative Growth Model with External Causation for Nine OECD Countries: 1960-1990. *Structural Change and Economic Dynamics*, 6, 185-213.
- Veblen, T. (1898). *The Theory of Leisure Class: An Economic Study in the Evolution Institutions*. New York: Macmillan.