

## **CHAPTER I**

### **INTRODUCTION**

In this chapter, the writer will give an introduction and explain about the background of the topic which is the implementation of Green Growth in South Korea, following with the research question of the topic and theoretical framework that is used to generate answering the question. Furthermore, the writer also will explain about the aims, methodology, scope and organization of the research. As the last part, the writer will explain about the system of the writing.

#### **A. Background**

The concept of Green Growth has been recently advocated in different international organizations such as Organization of Economy Cooperation Development (OECD), United Nation Environment Program (UNEP) and World Bank. Within OECD framework, South Korea is one of the countries in the OECD area that implements Green Growth for its strategies.

Although Green Growth has no universally agreed definition, from the OECD, it is defined as *“fostering economic growth and development, while ensuring the natural assets continue to provide the resources and environmental services on well-being relies”*. The concept officially emerged in June 2009, when all 35 country-members of the Organization of Economic Cooperation and Development (OECD), including South Korea signed a Green Growth declaration. The declaration states that the member countries will *“strengthen their efforts to*

*pursue Green Growth Strategies as part of their responses to the financial crisis, acknowledging that green and growth can go hand-in-hand*". The signed countries approved a mandate for OECD to develop a Green Growth Strategy, to include economic, environmental, technological, and development aspects within comprehensive policy measures (OECD, 2009b).

Green Growth itself is the means by which the current economy can make transition to a sustainable economy while reducing pollution and green house gas emissions, minimising waste and inefficient use of natural resources, maintaining biodiversity and strengthening energy security. It involves promoting growth and development while reducing pollution and greenhouse gas (GHG) emissions (OECD, 2009b).

It is necessary for countries to take action towards pollution and GHG emissions, since the condition of Earth has been vulnerable with the cause of massive production of GHG emissions from human activities. In addition, the GHG gasses trapped in atmosphere and cause the Earth to warm in response (NASA, 2017a).

It is recorded 10 warmest years have occurred since 2000 in 136-year National Aeronautics and Space Administration (NASA) Global Temperature Record, with the latest annual average in 0.99°C in 2016 (NASA, 2017b). As consequences of the rise of Earth's temperature, it leads to climate change compelling the rise of sea level, warming oceans, shrinking ice sheets, extreme events, ocean acidification, decrease of snow cover, etc (NASA, 2017a)

As one of signature in OECD declaration on Green Growth, South Korea government showed its seriousness towards the issues fostering economic growth with preserving the nature. Related with history of South Korea, when the country suffered from massive damage to its economy and infrastructure and became one of the poorest countries after Korean War. Under Park Chung Hee's administration, South Korea aimed to improve its economy by transforming from agrarian country to industrialized one. Thus, the government officially adopted Export-Led Orientation policy. After succeeding in implementing Export-Led Orientation, in 1970s the government officially launched another economic strategy which is Heavy and Chemical Industrialization (HCI). Under the HCI, six strategic industries were selected as major support. industries of steel, nonferrous metal, shipbuilding, electronics, machinery and chemical are included (K. Galbraith & Kim, 1998).

South Korean government had been succeed in implementing those strategies. Based on the World Bank data, South Korea's Gross Domestic Products (GDP) rose from just under \$88 billion in 1980 to more than \$1,000 billion in 2010. However, rapid industrialisation that South Korea adopted coupled with limited domestic energy resources, it resulted South Korea with daunting energy security issues. With domestic supply unable to satisfy people's demand, the country must rely heavily both on natural sources and on its own increasingly controversial nuclear power plants (Mazzetti, 2011).

Due to its dependency on fossil fuel to run industries, South Korea's GHG emissions almost doubled between 1990 and 2005, the highest growth rate in the

OECD area. In 2007, Korea's CO<sub>2</sub> emissions from fuel combustion reached 489 Mt (1.7% of the world's total) which is the 9th highest level in the world. Thus, it contributed on climate change and remained as a formidable challenge to South Korea's government (Jones & Yoo, 2011).

Based on the UNEP report in 2010, South Korea was more vulnerable than average to the effects of climate change and more exposed than most to fossil fuel dependence. During 1912 until 2008, average surface of temperatures in South Korea rose 1.47°C, which was above the world average. Therefore, South Korea has begun to take serious action toward the issues and shown of its resolve.

In the 60th anniversary of the founding of South Korea on August 15, 2008, President Lee Myung Bak proclaimed "Low Carbon, Green Growth" as Korea's new national vision. It aims to establish a comprehensive cap-and-trade scheme by carbon taxes in areas not covered by trading. Achieving a significant cut in emissions required a shift from energy-intensive industries to low-carbon ones. In order to implement the vision, in July 2009 the government announced the "National Strategy for Green Growth" up to 2050 (GGGI, 2015).

Green Growth that South Korea set provides blue print for how to shift its economic structure away from energy-intensive industries that have driven the majority of the development paths in Asia. South Korea is strongly committed to promoting green growth through its Five-Year Plan from 2009 to 2013, which envisages spending 2 percents of GDP per year through 2013 (Jones & Yoo, 2011).

Green Growth is new idea in economy, while people are still seeking for economic welfare combining with preserving nature and development of technology. Furthermore, there are some adjustment that South Korea need to shift its economy from industrialized country to green growth ones. Some of adjustment can be shown trade policies affect trade mechanism that already existed. The firstly, trade policy, such as tariffs, quotas, quantitative restrictions, change the price of goods. Taxes on emissions will directly affect the price. Faced with changed prices, firms want to adjust employment, wages, capital or investment. In the presence of adjustment costs of labor, capital, firms may be unable to react and this may have an impact on wages, employment and welfare. In addition, the changes in prices caused by trade policy may affect the overall incentives of the firms.

Second is investment for technology choice and green growth plans, South Korea government need to provide green technology in action. It is announced the government invested US\$85 billion in 2009 (GGGI, 2015). This is interesting since in 2007 until 2008 South Korea was one of the countries that experienced financial crisis. The government of South Korea should have invested their money to boost production of exported-goods as country's main income, instead the government focused on green growth which they have just adopted (GGGI, 2015).

Following those conditions, it becomes case to analyze since South Korea is the first country that implement Green Growth as its national strategy. Since the government needs a lot of effort and investment to shift the old economic

strategies (industrialization strategy) to the green growth strategy, such as reform of economic mechanism, allocate enormous amount of money for green investment, despite of the fact that South Korea had been successful with the industrialization strategy.

## **B. Research Question**

From the background that is already explained above, the question generated by this thesis is “Why did South Korea decide to set Green Growth Strategy as its national strategy?”

## **C. Theoretical Framework**

In order to answer the research question of this thesis, the use of theoretical framework is highly obligated and important. The theory or concept will help this thesis to do analysis by managing the analysis into certain categories so it has its focus on. It also becomes the tools in order to identify and illustrate the phenomenon, thus misunderstanding will be avoided.

This undergraduate thesis will use three concepts as its theoretical framework. They are national interest, sustainable development and green growth concepts. Those theories are expected to analyze the implementation of green growth as national strategy of South Korea.

## **1. National Interest**

Based on his book *Politics Among Nations*, Morgenthau (1948) defined the meaning of national interest as a survival of the state to protect physical, political and cultural identity against encroachments by other nation-states. States have recognised that there is no higher authority than themselves. Obviously, the state is the entity that defines its own interest and determines how it will attempt to achieve all-related with the need of state or related with the future goal's matter (Sharma & Sharma, 2000).

According to Sharma and Sharma (2000) national Interests can as defined as the claims, objectives, goals, demands and interests which a nation always tries to preserve, protect, defend and secure in relations with other nations. There are different kinds of interest that nation wants to achieve, such as security, geography, independence, protecting unity, prestige, economic welfare, environment, etc (Sharma & Sharma, 2000). In this case, the concepts try to be applied in implementation of Green Growth is compatible with of national strategy of South Korea in which the country is still seeking for economic welfare combining with energy and environment development.

## **2. Sustainable Development Concept**

Sustainable development is a normative concept used to prescribe and evaluate changes in living conditions. Such changes are to be guided by four Brundtland aspirations. First is to satisfy basic human needs and reasonable standards of welfare for all living beings. Second is to achieve more equitable standards of living both within and among global populations.

Third is to be pursued with great caution as to their actual or potential disruption of biodiversity and the regenerative capacity of nature, both locally and globally. The last is to be achieved without undermining the possibility for future generations to attain similar standards of living and similar or improved standards of equity (Carter, 2007).

The definition established the need for integrated decision making that is capable of balancing the economic and social needs of the people with the regenerative capacity of the natural environment. Sustainable development is a dynamic process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs (Rogers, Jalal, & Boynd, 2008).

Based on the sustainable concept that is mentioned above, this undergraduate thesis will explore the reason of implementation of Green Growth Strategy by South Korea and implementation policies to achieve certain goals in South Korea's national strategy by promoting it through its Five Year Plans.



### **3. Green Growth Concept**

Based on the Organization for Economic Co-operation and Development (OECD), green growth talks about economic growth with environmental friendly, furthermore the organizations defined green growth as environmentally friendly sustainable economic growth. (Statistic Center, 2012)

Korea's Presidential Committee on Green Growth explains green growth as

*“Design to reduce greenhouse gases and environmental pollution. At the same time it is designed to maintain environmental preservation and economic growth. Industrial development and economic growth, which have been under way so far, caused side-effects such as energy depletion and environmental damages. However, green growth protects environment and makes new industries and jobs with clean energies such as solar, wind, tide, wave or ocean, hydro power and green technologies instead of fossil fuels like oil and coal. It becomes a new locomotive of national economic growth. The key to green growth pursues economic growth by minimizing the use of natural resources and environmental pollution so that it makes a virtuous cycle.” (PCGG, 2009).*

Green growth supplements abstractness and extensiveness of sustainable development in terms of implementation of effective policies. Therefore, it is safe to understand that economic growth moves towards more environmentally and friendly patterns (Statistic Center, 2012).

There are some indicators of Green Growth that are measured by OECD. The first group of indicators are environmental and resource productivity, representing production or consumption-based emissions productivity, energy productivity, material productivity, water productivity, multi-factor productivity reflecting-environmental services (Statistic Center, 2012).

The second group of indicators are based on natural asset including representing water resources, forest resources, fish resources, mineral resources, land resources, soil resources, wildlife resources (Statistic Center, 2012).

The third group of indicators are environmental quality of life, representing environmentally induced health problems and related costs, population living in areas exposed to natural risks or industrial risks, access to sewage treatment and sanitation (Statistic Center, 2012).

The fourth group of indicators are economic opportunities and policy responses, Korea's green growth based on the OECD green growth indicators representing green research and development, patents of importance to green growth, environment-related innovation in all sectors, production of environmental goods and services, financial flows of importance to green growth, environmentally related taxes, energy taxes and end-use prices, environmental expenditures and training and skill development (Statistic Center, 2012).

In this thesis, the writer will analyze the reason behind the implementation of green growth in South Korea, by looking at the current environmental and economic issues of South Korea by measured with OECD's green growth indicators. After that, the writer will analyze continue on policy actions that was taken.

#### **D. Hypothesis**

This undergraduate thesis draws two hypotheses in answering the research question. The reason behind the implementation of green growth strategy by South Korea is because first, South Korea wants to reduce GHG emissions and mitigate climate change. Second, the country wants to improve energy independence and find new drivers for economic growth.

#### **E. Aims of the Research**

This research aims to reach some purposes as follows:

1. To fulfill requirement of undergraduate degree in International Relations Department of Universitas Muhammadiyah Yogyakarta
2. To understand the background of implementation of South Korea National Strategy “Green Growth”
3. To understand the strategy implementation in South Korean policy.
4. To give a potray about the current results of Green Growth Strategy of South Korea.

#### **F. Research Method**

For completing this thesis, the data method is using library research in which there will be several data that the writer uses. First, the writer will use the analysis from formal statement and annual report that is released by South Korean

government. Second, the writer will use data from annual reports that is released by several international organizations, such as Organization for Economic Cooperation in Development, United Nation Environment Programme, etc. The last is using data or information from relevance references, such as academic journals, news and books.

### **G. Scope of Research**

This research would like to focus on answering the question of why South Korea implements Green Growth Economic as its national strategy and give a potray about the impacts and results of Green Growth Strategy to South Korea Economic Growth. The time period of the research starts from the declaration of President Lee Myung Bak on “Low Carbon Green Growth” in 2008 until the current outcomes of implementation the Green Growth Strategy. However, the important events before will be discussed as they have a link with the historical background of implementation Green Growth Startegy.

### **H. Organization of Thesis**

**Chapter I** gives a brief explanation about the thesis. It consists of seven sub-titles that are background, research question, theoretical framework, hypotheses, method of research, scope of research. It explains the background of the research and research questions as a main problem that need to be figured out. Besides, it shows theoretical framework that will be used to analyse the problem.

This chapter also draws the hypotheses that will be proven in the next chapter. Furthermore, it also explains the aims of the research, research method that is used in this thesis, the scope of the research and organization of the research.

**Chapter II** gives understanding about Green Growth in General and provides the implementation of Green Growth by European Unions.

**Chapter III** gives brief explanation about the economic and environmental background of South Korea and elaborates them with the implementation of Green Growth Strategy for South Korea's National Strategy through Five Years Plan 2009-2013. This chapter also provides policy actions and programs that South Korea take to promote the strategy.

**Chapter IV** is the conclusion that is taken from chapter I to chapter IV.