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Civic Education Improvement for Green Growth

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Abstract

The Korean government published the green growth policy to settle the environmental problems that have been a big issue of the world. The green growth covers a variety of fields. However, the people do not care about it although the policy is the heart among the government policies. The study is, therefore, intended to research the civic education improvement according to the green growth policy in the heart of the government policies.

Keywords: Green Growth, Green Education, Green Technology, Sustainable Development

1. Introduction

1.1 Background
The world is turning to a green city corresponding to the change of climates, which is, that is, the shift of paradigm to make a new low-carbon city through the planning and control of a whole city such as city economy, land use, environment and transportation, beyond the limited city administration, in order to settle the environmental issues of the earth. The advanced countries have already corresponded to the issues by means of planning the space against climate change through the reduction/absorption of greenhouse gas at the level of a whole city planning as well as buildings against climate change and the individual technologies in the field of transportation (Kwon Yong Woo and two colleagues, 2010).

On August 15th, 2008, the President, Lee Myung-bak suggested that ‘low carbon and green growth’ would be a new axis of the national vision’ on the address congratulating the 60th anniversary of the Independence Day. The philosophy on the green growth under Lee government is a new national development paradigm consisting of sustainable growth reducing greenhouse gas and environmental pollution, new driving forces of green technology and clean energy and boosting employment. While the low-carbon and green growth is the heart of the national policy, the interest in the green growth is rapidly growing including the more concern about the environment owing to the climate change in the world, countermeasures against the rapidly rising price of raw materials and energies and plans to develop the environmental fields as a new driving force to overcome the Global Finance Crisis and the education to promote the foresaid statement is getting important.

1.2 Purpose

The study is intended to comprehend the present status of green education through the tendency analysis of the education relating to the green growth policy, suggest the problems and improvements of the domestic education in comparison with the overseas testimonials and consequently achieve the civic education development and education environment creation, the procurement of administrative personnel and the intensification of the capability.

2. Theoretical Background of Green Growth

2.1 Definition of Green Growth

The world encounters both ‘environment’ crisis representing climate change and ‘resources’ crisis representing ‘high oil price’. Especially, the climate change threatens the existence of the human race drastically destroying the order of ecosystem and causing the meteorological disasters. It is furthermore expected that if the current high energy consumption system continues, the economic loss of the earth from the drastic climate change probably would be 5 to 20% of the world’s GDP(2006, Stern Review). Besides, the economic development of newly industrializing countries and the gradually increasing world population would urge the insufficient energy and resource, consequently raising the price. [http://www.greengrowth.go.kr]

The advanced countries have intensely focused on the efficient and sustainable use of resources. That’s why ‘green industry’ and ‘green technology’ are being the new driving forces. The existing ‘resource input type’ growth mechanism economically reached the limits. That is, while the price of resources and energies is rapidly rising, the traditional economic system requiring mass input cannot survive. The advanced countries including EU members have induced the growth of the related industry from the promotion of green technology and the environmental restriction and presented the swift changes such as preoccupying new markets and boosting the employment. Especially, they are heavily competing for manufacturing kinds of low carbon vehicles such as a hybrid car, electric car and hydrogen car in automobile industry. Meanwhile, in the domestic situation, Korea is the world’s 10th largest energy consumption country.

However, 97% of the energy relies on import. In case the Greenhouse Gas Emission Allocation Scheme aggressively starts, the domestic economy must have a heavy burden never expected. More serious the climate change problem is, more forcibly the international society would try to control the emission of carbon. The reason why Lee government suggested ‘low-carbon green growth’ as a new national vision for the next 60 years must be the part of strategy to prepare the international trend changes. Actually, with the recognition that ‘Low-carbon and Green industry’ would be the strategic industry to lead a new growth, which are agreed over the world, we should lead the tendency in order to join in the advanced countries.

A term, ‘green growth’ also has been officially used in the discussion among the member nations of UN ESCAP(Economic and Social Commission for Asia and Pacific). ESCAP decided the ‘Green Growth’
as the action plan of Asia and Pacific for sustainable development in the Fifth Ministerial Conference on Environment and Development (MCED) in Seoul on March, 2005. [UN ESCAP, Greening Growth in Asia and the Pacific, see page 3, http://www.unescap.org/]

Green Growth

- National Prestige meeting the international expectation
  - Active corresponding to the national climate change
  - Global leadership as green bridge nation

- Virtuous circle of the environment and the economy
  - Maximizing the synergy of the environment and the economy
  - Green tech development & green industry promotion
  - Increase of national income and boosting employment
  - Green industrial structure & clean energy expansion
  - Corresponding to climate change and the reduction of greenhouse gas

- Improving the quality of wellness and green revolution in living
  - Low-carbon type land development, wider eco space
  - Green transportation, activation of public transportation
  - Green market by green consumption

Figure 12. Schematic view of green growth [http://www.greengrowth.go.kr]
### 2.2 Necessity of Green Education

The drastic climate change attracts the international attention as the environmental crisis and rapidly increasing price of energy illuminate the resource crisis. For the last half century, the modern society already got of the bounds of the nature owing to the drastic growth. Therefore, the existing growth mechanism seems not to be desirable and especially, the climate change mainly due to the excessive use of fossil fuel has causes the meteorological disasters, destroying the order of the nature’s ecosystem and subsequently threatening the existence of the human race.

According to the 4th report of IPXX published in 2007, the climate change including global warming was almost attributable to the human activities as much as 90%. Even other studies have continuously suggested that the current climate change would get worse, which means that the crisis inversely can be overcome depending on the effort of human race, so the continuous education and promotion are absolutely necessary to accustom ourselves to the effort.

### 3. Present Status and Issues of Green Education

#### 3.1 Domestic Status of Green Education

The green promotion and green education is not sufficient in the territory. The presidential committee on Green Growth and the ministry of environment have discussed and tried a lot for the theme of green growth but actually, nothing has been under way as a result.

Table 1 shows the institutes designated by the committee and the curriculum in order to train the special green personnel for the understanding and chemistry about the green growth with the people. The table shows no educational institute of green growth and no subject limited to the general public. Almost contents are limited to the occupational objects.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Institute</th>
<th>Education</th>
<th>Object</th>
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<tbody>
<tr>
<td>Government</td>
<td>Reorganized as the National Training Institute of Education Science and Technology(NEST)</td>
<td>Understanding the green growth policy</td>
<td>Public Officials(rank 7 and higher)</td>
</tr>
<tr>
<td></td>
<td>Institute of Foreign Affairs and National Security(IFANS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>Korea Standards Association(KSA)</td>
<td>Green management strategy against greenhouse gas emission allocation</td>
<td>Manages and employees of environment management, EHS, sustainable management and management strategy</td>
</tr>
<tr>
<td></td>
<td>Korea Productivity Center(KPC)</td>
<td>Sustainable engineering and green design practices for green growth</td>
<td>Person who engineers or designs a product</td>
</tr>
<tr>
<td>Private</td>
<td>Korea Environmental Preservation Association(KEPA)</td>
<td>Expert course of environmental technicians in the field of atmosphere</td>
<td>Environmental technician in a business place with Atmosphere type 1 ~ 3</td>
</tr>
<tr>
<td></td>
<td>Environment Education Association of Korea</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Personal Experience Learning Research Associate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seoul School of Integrated Sciences &amp; Technologies</td>
<td>4T CEO Green Growth Procedure</td>
<td>Business CEOs and Opinion leaders qualified alike</td>
</tr>
<tr>
<td></td>
<td>Korea Banking Institute</td>
<td>Green finance for the future</td>
<td>Every employee of financial institutes and the general public interest in green finance</td>
</tr>
</tbody>
</table>
The domestic green education introduces the concepts as the curriculum of environment subject of secondary education. Until 2001, it has just dealt with understanding the value and world view of environment preservation, ecological knowledge and the environmental and scientific knowledge, in which the sustainable development was omitted. From 2002, the concept of sustainable development was finally introduced while it was 2010 that the concept of sustainable development was embodied.

3.2 Present Status of Green Education of Other Countries

In foreign countries, the sustainable development was the main theme of the education. Table 2 shows the green education policy of some advanced countries. In Germany, they educate the nature education such as energy, forest preservation and recycling, which features the education improvement mainly by introducing a discussion class. In U.S., they link the environment education in school to the social education on the environment for the efficient practices while in U.K, they have prepared and operated the programs the schools and students can contribute to the improvement of practices in their community.

In Japan, with the cooperation of the ministry of environment and the ministry of education, culture, sports and technology, they have designated GEOSS model school(Global Earth Observation System of Systems) and other environmental model schools as well as have held the fair, promoting the practices importantly. In Canada, they have emphasized the educational policy of promoting environmental civilians mainly by introducing the ‘learning program for the sustainable future and Action 21 Programme.

Besides, Australia has planned the establishment of sustainable education system at the national level and has executed the green growth education to include the concept of sustainability in the curriculum of secondary education.

Table 2. Green growth education of advanced countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Educational Policy</th>
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<tbody>
<tr>
<td>Germany</td>
<td>Promoting 「sustainable development, education for the nature and development」 (German Agenda 2010)</td>
</tr>
<tr>
<td></td>
<td>- Discussion class(education) by operating the nature education centers on energy, forest preservation and recycling(about 4,620 centers)</td>
</tr>
<tr>
<td>U.S.</td>
<td>Operating the partnership program with social environment education in the school and emphasizing the linked embodiment practically</td>
</tr>
<tr>
<td>U.K.</td>
<td>Focusing on the ability of experimental activity and the sustainable development</td>
</tr>
<tr>
<td></td>
<td>- Emphasizing the program a student and a school can contribute to the environmental issues of the community</td>
</tr>
<tr>
<td>Japan</td>
<td>Designating GEOSS model school(Global Earth Observation System of Systems) and other environmental model schools as well as holding the fair</td>
</tr>
<tr>
<td>Canada</td>
<td>Educating the civilians with the 「learning program for the sustainable future and Action 21 Programme」</td>
</tr>
<tr>
<td>Australia</td>
<td>Suggesting the reestablishment of the educational system for the sustainable development education as the national action plan</td>
</tr>
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</table>
The curriculum includes the sustainability

3.3 Improvements for Activating the Green Education

In case of secondary education, the study shows the domestic and overseas testimonials. In advanced countries, they nationally planned the infrastructure and education system for sustainable development by stages as well as can link it with various fields such as experiencing education, discussion and partnership program with the society.

In Korea, the concept of sustainable development was recently embodied while it is not sufficient because of the early stage. A variety of programs linking with the society by bench-marking the overseas testimonials will have to be prepared.

4. Conclusion

The study looked into the prerequisite civil education and promotion to correspond to the environmental issues, which are also the hot issues over the world. The fundamental parts before initiating a project, education and promotion are not sufficient yet. Also, the special personnel are not sufficient.

Although it is closely related to the national slogan, it has not been educated enough, which tells the civil education improvement is necessary at this moment.

1. Promotion to recognize the necessity of green growth
2. Positive support of public offices
3. Center for green education and the special personnel

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Reference

Ministry of land, Transport and Maritime Affairs (http://www.mlmt.go.kr/)
Presidential Committee on Green Growth Korea (http://www.greengrowth.go.kr/)
Green Education Center (http://www.greenedu.or.kr/)