

A Study on the Environmental Education Needs of Public Officials in the Era of Climate Crisis - Focusing on Public Officials in Chungcheongbuk-do -

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Crisis Management Cooperation Course

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Abstract

The purpose¹ of this study is to analyze the actual condition of environmental education and training of public officials in the era of the climate crisis and to use it as basic data to spread awareness of the need for environmental education and improve education and training programs. Public officials are the most sensitive organizations to respond to environmental issues and establish policies, and looking at the current status of environmental education for public officials, it is confirmed that it is difficult to exceed 1-4% of the entire process based on the Chungcheongbuk-do Autonomous Training Institute.

As for the research method, a request survey was conducted on public officials in Chungbuk and Sejong from June 4 to 12, 2024, and 259 public officials responded. Through the study, it was intended to obtain public officials' awareness of the necessity of environmental education, why they did not apply for education, the relationship with their jobs, and improvements in the program. The survey consisted of 5 questions on climate change awareness, 8 questions on environmental education awareness and demand, and 3 questions on basic surveys, with a total of 16 questions.

As a result of the study, 93.1% recognized the seriousness of the environment, but the application rate was low due to the fact that environmental education is not a mandatory subject and reasons for not being interesting. In terms of the importance of roles, 74.5% of respondents said that the government and politicians are the most important. Public officials' perception of the environment is 2050 carbon neutrality regardless of department, and there is a need to improve the environmental awareness of all departments and strengthen the capabilities of public officials in charge of policy establishment and execution based on integrated thinking. Based on the results of the demand survey, we intend to expand the operation of environmental education for public officials, establish a cooperative system for each institution to improve the environmental education system, select it as a required subject so that environmental issues can be reflected efficiently and in policy establishment, and suggest that environmental education can contribute to the development of various contents and the spread of environmental awareness.

Keywords: Public officials, environmental education, policy making, integrated thinking

¹ This study was conducted as a research project for field needs survey of local environmental education, which was the 2024 second-level training course for environmental educators. The research institute consisted of Choongwon Kang, Jongok Kim, Sin Jeongui, Lee Soojin, Ranhee Jeong, and Eun Choi.

I. Introduction

Since the Industrial Revolution, policies focused on reckless development and growth have been mainstreamed since the time when economic growth and development were the national vision and goals, and environmental issues have been treated as obstacles to economic growth. This economic growth-oriented policy has caused a major crisis in the global environment, and since the Kyoto Protocol, the world has implemented a common policy of 2050 carbon neutrality, and the Conference of the Parties (COP), including developed, developing, and underdeveloped countries, is seeking ways to cooperate to promote joint responses to environmental problems facing the world, thereby protecting the global environment, and creating a sustainable society, and implementing various policies to reduce carbon.

This study sought to find improvements in environmental education by examining the environmental awareness, job relevance, and awareness of the need for environmental education of public officials who implement and implement policies in the era of carbon neutrality. Based on this study, we intend to contribute to public officials' consideration of environmental issues when establishing policies by recognizing the necessity of environmental education in the performance of public officials' work and proposing that environmental education be expanded by designating it as a mandatory subject in educational subjects such as public service training and education and training.

Public officials are important organizations that embody and realize national policies and promote environmental regulation policies, enforcement or development projects. Oh Young-seok said that public officials are directly or indirectly involved in citizens' health and environmental quality and are the subjects of embodying and realizing the affairs of the state, which is in a confrontational position with civil society in various fields. Administrative organizations often see symmetries within administrative structures as there are departments that need to protect the environment, and there are departments that need to destroy and develop the environment.

It is very important to create a sustainable society for public officials at the center of environmental issues to implement policies with the right thinking about the environment. Various social phenomena, challenges, and crisis situations in modern society require the capacity of public officials, and among them, environmental education is emerging as an important field. However, in reality, although the education and training of public officials is essential, the participation rate is low due to being pushed back in the priority of job performance, and the awareness of this is low because the education and training process takes a lot of time and effort. Environment-related education is often regarded as the exclusive property of the environmental department, and due to this, there is a limit that it is difficult to achieve results in a short period of time.

Many experts predict that more and more powerful typhoons, tsunamis, earthquakes, tornadoes, droughts, and infectious diseases will occur everywhere. Prevention and preparation are the most important parts of climate disasters. In order to prevent climate disasters, strong policies and institutions, as well as active administration and business performance, are inevitably essential. The role of public officials is that important.

II . Review of theoretical background and prior research

A number of studies have been conducted on actual conditions such as awareness of school environmental education for schools and teachers, but academic discussions on public officials are still insufficient except for Son Kil-gwang (1995). This is because discussions on environmental education have not yet deepened to specific fields and subjects like public officials, and in light of their influence and importance in environmental issues, research in this field should be activated in the future (Oh Young-seok. p29).

1. Environmental Education System and Current Status

Education and training for public officials is a wide range of activities that hone knowledge and skills necessary for job performance, develop potential skills (Shin Young-sam et al., 2012: 592) and even deal with the basic attitude as a public official (Lee Sang-ho et al., 2010: 121). Education and training for local public officials in Korea is conducted with the aim of cultivating public service ethics and job skills through education and training based on the Local Public Officials Education and Training Act, the Enforcement Decree of the Local Public Officials Education and Training Act, and the Guidelines for the Operation of Education and Training for Local Public Officials (Regulations of the Ministry of Security and Public Administration).

The training system for local public officials has been implemented in earnest since the 1960s, and in the 1970s, the establishment of a local administrative training center and training for local public officials began to be systematically implemented. In the 1980s, as the autonomy of local governments increased, each local government established its own human resource development center and began to operate educational programs tailored to regional characteristics. During this period, professional curriculums were expanded to strengthen the job capabilities of local public officials, and the roles and responsibilities of local public officials increased significantly as the era of local autonomy began in the 1990s. Accordingly, the training system for local public officials was strengthened, and practical programs were strengthened. Since the 2000s, education related to e-government and informatization education have been introduced in line with the information age, and new fields such as sustainable development and environmental education have been added. With the introduction of online education, education methods have also diversified.

As such, the training system for local public officials is an essential element for the efficient operation of local governments and the improvement of the professionalism of public officials, and each local government operates its own human resource development center and provides customized education programs tailored to local characteristics.

2. Examples of environmental education

2.1 Domestic case

① The Ministry of Environment's civil service training program

The Ministry of Environment is a specialized institution that provides environmental education to public officials and

ordinary citizens at the Environmental Education Center, which is under the Ministry of Environment and operates various curriculums. In order to enhance understanding of sustainable development and environmental policies, not only public officials belonging to the Ministry of Environment but also public officials from other departments participate in education on the latest environmental issues and policy changes by conducting online and offline workshops on climate change, air pollution, water pollution, energy conservation, environmental laws, and environmental policies.

② National Civil Service Human Resources Development Institute(NHI_National Human Resources Development Institute)

NHI provides education to national officials to cultivate expertise and practical skills, and operates various courses to learn environmental policies and solutions to environmental problems as environmental education courses.

③ Seoul Green Academy

The Seoul Metropolitan Government operates a green academy to provide education on urban environmental management and eco-friendly policies. The educational content includes eco-friendly urban planning, air pollution management, and resource circulation, and provides comprehensive educational programs including inviting professional instructors, field training, and case studies, contributing to strengthening the capacity of public officials necessary for promoting eco-friendly policies and promoting communication with citizens.

④ Chungbuk Autonomous Training Institute

Chungbuk is conducting education and training for public officials at the Autonomous Training Institute. The operation method is a private consignment method for each process, and education consists of collective education (basic education, long-term education, professional education, liberal arts education), and cyber education, and education is conducted by selecting instructors in accordance with Article 23 of the Enforcement Decree of the Local Public Officials Education and Training Act.

The table below shows the current status of environmental courses in 2023 and 2024.

(2023년)

Sortation	Course name
Set Education	① Climate and Environmental Education to Realize Carbon Neutrality
	Course 1. 0.96%
Cyber education	① 2050 Carbon Neutral ② Green New Deal and Carbon Neutrality ③ Carbon neutrality the next 30 years ④ Carbon neutrality and response to the climate change crisis ⑤ Response to climate change ⑥ Climate Change Scenario ⑦ Understanding Climate Change Adaptation
	Course 7. 3.83%

(2024년)

Sortation	Course name
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Set Education	① Climate and Environmental Education to Realize Carbon Neutrality
	Course 1. 0.87%
Cyber education	① 2050 Carbon Neutral ② Carbon neutrality and response to the climate change crisis ③ Climate Change Response ④ Climate Change Scenario ⑤ Understanding Climate Change Adaptation
	Course 5. 4.57%

* The ratio is the ratio compared to the previous opening process

2.2 Overseas case

① U.S. Environmental Protection Agency Training Program(EPA_Environmental Protection Agency)

The EPA provides education on various topics such as environmental law, regulatory compliance, and environmental monitoring for public officials and employees of public institutions, and the program is tailored to each state and region.

The training method is conducted through online modules, field training, workshops, and seminars, and educational materials and resources are disclosed through the website.

It supports the accurate understanding and application of environmental laws and regulations through education, and increases the efficiency of environmental protection activities.

② Environmental education of the British Local Government Association(LGA_Local Government Association)

LGA operates educational programs for local government officials to respond to sustainable development and climate change. Education is being conducted on renewable energy, carbon emission reduction, and biodiversity protection.

Education is conducted through online learning platforms, local workshops, and international seminars, and the scope of education is expanded through cooperation and partnerships with institutions. LGA is strengthening environmental protection efforts at the local government level and supporting public officials to achieve the goal of sustainable development in cooperation with local communities.

③ Australian National Environmental Education Program

The Australian government provides public officials with education on environmental management, response to climate change, and resource management through the National Environmental Education Program. The program is aimed at public institutions across the country.

It shares the latest environmental data and research results, including online lectures, field training, and case study presentations. It helps public officials learn the latest trends and methodologies of environmental management through education and apply them in practice to carry out environmental protection activities.

III . Research methods and procedures

The survey method of this study was conducted using an online form, and it was conducted by categorizing Chungbuk and Sejong government officials into four areas: the northern part of Chungbuk (Chungju, Jecheon, Danyang), the

central part (Chungju, Eumseong, Jincheon, Goesan, Jeungpyeong), the southern part (Boeun, Okcheon, and Yeongdong), and Sejong. The survey period was conducted from June 4, 2024 to 12, with a total of 259 people responding. As a response method, multiple-choice response type, alternative type, and Likert scale were used.

As a preliminary interview, a written interview was conducted with a public official in charge of education at the Chungbuk Self-Governing Training Institute to grasp the current status. For the contents of the question, ① the application rate or popularity level compared to other courses, ③ the reason why the opening process is closed ④ How do you plan to exclude instructors and program when the course is opened? ⑤ As a person in charge of education, do you think environmental education should be compulsory education? ⑥ A total of 6 questions were interviewed to see if there was a plan to open an environmental education program after going to .

IV . The results of the study

Looking at the contents of the preliminary interview with the education manager of the Autonomous Training Institute, the application was low compared to other courses due to the fact that environmental education is not mandatory. The reason why the subjects' interest in the environment was low and they participated in alternative education (cyber of other institutions, collective education of local governments) was low. The reason why the curriculum was opened and then closed was that in the case of cyber curriculum, the production year was old or did not meet the current issue due to the abolition of content production (Ministry of Environment, National Human Resources Development Institute, Local Autonomy Human Resources Development Institute, etc.) In recruiting instructors or planning programs , major environmental experts (professors, researchers at public institutions, representatives of local government environmental institutions, etc.) were recruited, and subjects were designated in consideration of major issues. And to the question of whether environmental education should be operated as compulsory education, he concluded that environmental problems (climate environment) are currently seriously emerging (occurrence of various climate disasters around the world), and that he is aware of the need for compulsory education, and plans to gradually expand various environmental-related education in the future.

According to a survey of 259 civil servants

1. A basic investigation

Age	20s	12%
	30s	25.1%
	40s	35.1%
	50s	27.8%
Years of service	5 years or less	28.6%
	5 to 10 years	20.1%
	10 to 20 years	26.6%
	over 20 to 30 years	24.7%
A place of work	the northern part of the country	66.8%
	the central region	10%

	the Southern Region	-
	Sejong City and Other	22%

Age and years of service were evenly distributed, but in the case of the region, regional equity was insufficient because it was biased toward the northern region.

2. Climate Change Awareness

Environmental Problem Severity	Serious ~ Very serious~	93.1%
How does it feel about environmental issues?	anxiety	69.5%
	sorry	21.2%
	a feeling of helplessness	19.3%
whose role is the most important?	government and politicians	74.5%
	citizen	71%
	Corporation	58.3%

The most serious parts of environmental problems were found to be living environment problems (waste, air, water pollution, air, noise, food, resource circulation, etc.) 46.3% and global environment problems (climate change, ocean, biodiversity, energy, etc.). The biggest cause of the environmental crisis was human desire for convenience and material abundance at 41.3%, followed by citizens' ignorance and indifference to environmental issues at 29.7%, excessive urbanization, development for industrialization, and population growth at 26.6%.

3. Awareness of environmental education

Training completion status	Completion	70.7%
	Not done	29.3%
After education a change in perception	Yes, very much so	84.7%
	ordinary	14.2%
	No	2명
Is environmental education necessary	Yes, very much so	90.7%
	ordinary	7%
	No	4명
Job relevance	Yes, very much so	46%
	ordinary	23.2%
	No	30.9%

As for the type of education, the lecture experience type was the highest at 49.4%, followed by the field experience type at 23.6%. When asked whether environmental education is helpful in overcoming the climate crisis, 79.4% said it was very helpful and 9.3% said it was very helpful.

As for the reasons for the low level of participants in the environmental education program of the Autonomous Training

Institute (multiple choices), the environment is not recognized as important (49.8%), there is no connection with work 46.7%, and it is not interesting 32%. There were also reasons why there was no other time or the supervisor disliked the absence of the person in charge. Desired environmental education (multiple choices) was 44.8% for resource circulation, 40.9% for carbon neutrality, 34% for local environmental status and issues, and 32.8% for environmental policy.

Other content to be covered in environmental education emphasized the importance of education, and various opinions and keywords such as practical activity methods, resource circulation, cultural environment and perception changes, environmental issues, conflicts, and policies were derived.

V . Conclusion

Education has a high learning effect when learners voluntarily participate and engage in learning activities independently. Even if public officials themselves are aware of the environment and see the characteristics of work performance due to frequent job transfers, they should strive to establish sustainable policies without hindering the environment when establishing policies and making execution plans.

It is required to develop education and training programs so that environmental education can make integrated thinking in consideration of the work characteristics of all departments, not one-time education, and to develop various contents and expertise that can induce interest of learners. Through this survey, more than 90% of public officials themselves recognize that the Earth's environment is serious and strongly recognize the need for environmental education.

It is not interesting to not apply for voluntary environmental education, and it is judged that the application for environmental education was even lower because it was viewed from a fragmentary perspective that did not feel a direct connection with the job.

It was confirmed that they wanted more practical and field-oriented education. Accordingly, it is necessary to develop a more systematic and effective educational program.

Previously, while politics was a process of changing the world in the short term, education was considered a process of changing the world in the long run, but today's education was convinced that it was an object of change rather than a subject of change (Lee Jae-young). The segmental research and education system centered on the subject (academic) should be innovated, and voices pointing out the limitations of environmental education distributed in all subjects that have been favored worldwide for the past 40 years since the 1977 Tbilisi Conference (Saylan and Blumstein, 2011), in an era of climate crisis and environmental disaster, we need to innovate our education to guarantee the right to exist for future generations and create a sustainable civilization (Lee Jae-young).

Changes to environmental education should be sought based on comprehensive thinking that approaches the environment in an integrated way of thinking and humans also think of it as an atom that coexists with nature in the system. This study was based on surveys and previous studies, but it was difficult to find prior research data on environmental education for public officials. This is judged to prove that awareness of the environment has not reached public officials. Through this study, I would like to spread the need for environmental education of public officials and make the following suggestions.

- ① Compulsory environmental education for public officials for completing mandatory courses
- ② Development of various environmental education topics by department and diversification of customized

environmental education for Chungbuk and region (program development)

③ Strengthening the professionalism of environmental education

The climate crisis cannot be overcome with environmental education. However, it can be argued that there will certainly be a difference between those who have received and those who have not. As can be seen in the survey, there has been a change in perception since education, and there is a tendency to think about the environment in various ways. On the other hand, respondents who say they are aware of the seriousness but do not feel the need for environmental education should reflect on the future direction of environmental education. It is hoped that through the paradigm shift in environmental education, development of various contents, programs, and active public relations activities, many citizens, including public officials, will be able to increase environmental sensitivity through environmental education and take a step closer to the realization of carbon neutrality in 2050.

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