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A Study on the introduction of
Coast Care Policies based on Public Participation

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Industry
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& Logistics

Port
Policy

EXECUTIVE SUMMARY

1. Purpose

- This study aims to present specific measures to introduce and implement ‘Coast Care’ policy which refers to field and activity-based public participation in the ocean management sector.
- ‘Coast care’ means that citizens participate in a variety of field-based surveys and management activities based on acknowledging the value of coasts as common goods, as this study newly suggests.

2. Methodology and Features

1) Methodology

- Utilizing the Spectrum of Public Participation devised by the International Association for Public Participation (IAP2), this study evaluated the level of public participatory projects in

the coastal and marine sector.

- The Spectrum of Public Participation classifies modes of participation into five stages. This study, however, classified the modes into four categories for evaluation, taking preceding studies that IAP2 was applied to as well as characteristics of public participation in the coastal and marine sector.
- As for qualitative research methods, this study utilized focus group interviews and in-depth interviews to extract the effects, limitations, and problems of public participation in the coastal and marine sector.
- Focus group interviews targeted middle managers (5 individuals) who are leading public participation with government support, while in-depth interviews were conducted with representatives of Civil society organizations that are voluntarily organizing and operating participatory programs.
- This study suggested areas necessary for the introduction of coast care policy through IPA analysis that evaluates the importance (necessity) and satisfaction (achievement level) of individual items.
- IPA analysis evaluates the necessity of public participation, satisfaction of current policies, and future feasibility on a 5 point Likert scale. The results are represented in each quadrant in accordance with the structure of action grids.
- Targeting experts (31 people) engaging in public institutions, universities Civil society organizations and the National

Federation of Fisheries Cooperatives, this study proceeded with the IPA analysis on the perspective of the necessity of public participation, satisfaction with current policies and future feasibility for specific policies in the coastal and marine sector.

- Having heard the opinion of those in charge of coastal and marine policies and operators of public participatory programs, the effectiveness of coast care policies was increased.
- In the process of building a network with public officials in the Ministry of Oceans and Fisheries in charge of implementing public participatory policies and projects in the coastal and marine sector, discussions were held on a regular basis.
- The effectiveness of Coast Care policy was boosted by forming a consensus on the purpose as well as the content of this study with operators and participating groups of public participatory programs in the coastal and marine sector.

2) Features

- This study newly suggests 'Coast Care' policy, which is a concept of field-based public participation in the coastal and marine sector.
- The means for public participation befitting to the coastal and marine sector was suggested taking spatial attributes of coasts and oceans differing from land, pending issues to be solved at present or in the future and ocean-based social and economic

characteristics into account.

- This study proposed a number of effective policies after identifying the present status of Civil society organizations under operation as well as reflecting the experiences and opinions of a variety of organizations currently operating or participating in public participatory programs.
- For the first time in Korea, this study surveyed and made a list of Civil society organizations in the area of marine litter.
- After hearing the opinions of those in charge of operating public participatory programs in the areas of marine debris removal, surveying and observing of marine ecosystems, and coastal disasters, the results were reflected insuggestions for public participation policy surrounding the coastal and marine sector.
- Specific measures for institutional improvements were suggested to implement ‘coast care’ policy proposed by this study.
- This study proposed suggestions surrounding the definition, specific activities, dedicated organizations, governance establishment, and support of coast care into the Coast Management Act.

3. Results

1) Summary

- As a newly suggested concept, this study defined what ‘Coast Care’ is and analyzed the effects potentially resulting from coast care policy.
- ‘Coast Care’ refers to public participation in a variety of field-based surveying and management activities in coastal and marine areas. This term includes identifying problems in the field, but further encompassing active activities contributing to directly solving issues.
- Surrounded by waters along with a long coastline, Korea is facing a variety of social issues. However, the government’s sole capacity poses limitations in solving these issues, calling for the participation of the public.
- The implementation of ‘Coast Care’ policy is expected to bring about a number of effects including; participants’ self-learning’, ‘contribution to scientific development’, management of coastal and marine blind spots’, ‘reduction of coastal and marine management costs’, ‘institutional improvements’ and ‘make a difference in communities’.
- This study analyzed the content of public participation stipulated in major coastal and marine-related law as well as public participation projects currently under operation.
- In the laws pertaining to areas of ecosystems, coasts and islands,

safety and pollution, and fisheries, most of the laws prescribe the participation of citizens who have relevant experience including the head of fishing village cooperatives and experts. Their activities include guidance, surveillance, and suggestion as somewhat a formality.

- Public participation projects are implemented in the form of 'law and plan-based projects', 'government-sponsored projects', and 'private sector-led projects'. Law and plan-based projects as well as government-sponsored projects are driven by public institutions to recruit citizens such as local governments, the Korea Coast Guard and the Korea Marine Environment Management Corporation. These projects are engaging in a variety of areas such as marine debris removal, marine ecosystem surveying and monitoring and safety management. Private sector-led projects are driven by civil groups and volunteers, working in areas such as marine debris removal and marine ecosystem surveying and observation.
- According to the evaluation of participation level of public participation projects in coastal and marine areas, surveying and monitoring projects are assessed as the lowest level of participation, whereas marine debris removal and safety inspection were estimated as the second level of involvement.
- Public participation in coastal and marine areas is most active in the marine debris sector, which has become an important social issue, ensuing voluntary participation not only from public organizations but from the private sector.
- By conducting an in-depth interview with those operating

public participation programs in the coastal and marine sector, this study found a number of problems and suggestions not found in preceding studies.

- Problems of public participation programs in the coastal and marine sector were identified including; a lack of philosophy surrounding public participation in the coastal and marine sector, a lack of specific methods, implementation of individual projects instead of promoting integration and connection, differences in the awareness between principal agents of public participation projects and citizens and disconnection between public participation projects and policies.
- This study suggests following measures in order to make 'Coast Care' a success and this includes; public participation policy that considers characteristics of fishermen and citizens, close communication with the field, promoting middle managers as the core agent of implementing Coast Care, developing a scientific methodology that anyone can understand, utilizing the data produced through public participation into policies and support to make up for the limitations of accessibility to coasts and oceans.
- With regard to the target of public participation, active participation of fishermen is necessary given characteristics of the coastal and marine sector. Also, utilizing economically independent retirees is one effective way.
- Based on the analyses of current status and problems of public participation in Korea's coastal and marine sector,

domestic and foreign cases of public participation and conditions of public participation, this study proposes direction for the introduction of Coast Care as shown the table below;

〈Summary table 1〉 Direction for the introduction of Coast Care

Category	Implications of analyzing the present status and conditions	Direction for the introduction
Implementation area	<ul style="list-style-type: none"> • Consider major issues occurring in coasts and oceans in Korea, geographical and topographical conditions and characteristics of citizens and so on • Select effective areas for Coast Care policy in Korean coastal and marine conditions • Provide education for promoting relatively higher level of public participation 	<ul style="list-style-type: none"> • Select areas for implementing coast care policy with priority (utilizing IPA) • Expand areas for participation through education and support for experts
Subject for participation	<ul style="list-style-type: none"> • Consider an increasing trend of public participation and need to expand the public interest towards the coastal and marine sector • Consider spatial accessibility of coasts and oceans • Find a group possessing the willingness to participate in Coast Care policy 	<ul style="list-style-type: none"> • Discover and support middle organizations or leaders who can encourage the participation of scattered individuals • Utilize easily accessible means of the public (ex. Social media etc.) • Utilize or connect with other methods of public participation
Governance establishment	<ul style="list-style-type: none"> • Need clear division of roles among the government, 	<ul style="list-style-type: none"> • Establish a governance system between the

Category		Implications of analyzing the present status and conditions	Direction for the introduction
		<p>public institutions and Civil society organizations related to public participation</p> <ul style="list-style-type: none"> • Need an close communication system among relevant organizations and groups 	<p>central and local governments for coast care policy</p> <ul style="list-style-type: none"> • Organize the commission, centers etc. for Coast Care policy at the city and province level • Utilize existing organizations capable of serving a control tower of Coast Care policy per region
Acknowledgement and incentives		<ul style="list-style-type: none"> • Participating citizens want acknowledgement in exchange for their activities in some way • Some of them want material incentives though not necessarily cash. Material incentive is an effective tool for expanding the public participation 	<ul style="list-style-type: none"> • Acknowledgement or certification publicly accredited to general public • Offer monetary incentives to the leader of a small group and higher level • Provide a variety of benefits, if not cash subsidies.
Foundation construction	System	<ul style="list-style-type: none"> • Need to improve scattered and ineffective individual laws in terms of regulations related to public participation • Require an institutional system to manage public participation in the coastal and marine sector as a whole 	<ul style="list-style-type: none"> • Prepare separate regulations of Coast Care policy • Connect with regulations on public participation of individual law • Develop a detailed manual for Coast Care policy • Prepare financial resource for Coast Care policy
	Technology	<ul style="list-style-type: none"> • Take the current conditions that most of the public participation is taking place online into 	<ul style="list-style-type: none"> • Provide information relevant to Coast Care policy utilizing a variety of means

Category		Implications of analyzing the present status and conditions	Direction for the introduction
		consideration • Develop digital-based technology that can facilitate public participation	• Need a digital-based interesting platform where general public can easily able to participate

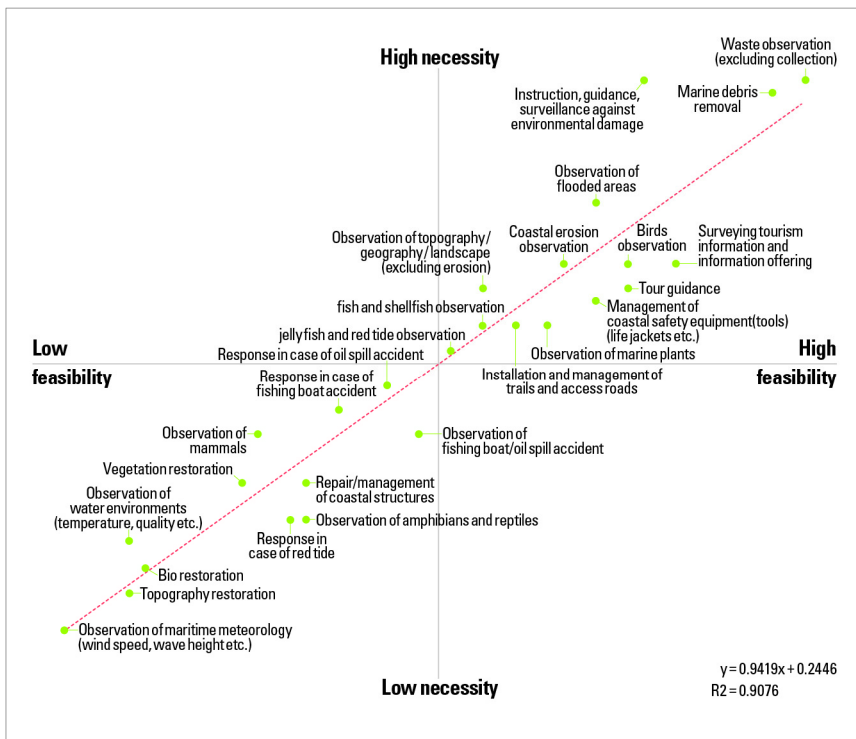
- Utilizing IPA, this study selected areas to which Coast Care policy should be applied.
- According to the result of the IPA, areas that need Coast Care policy include the following; marine debris, observation of marine ecosystems (marine plants, fish and shellfish and birds), landscape observation (topography/geography, erosion and flooding), tourism, installation and management of trails and access roads, management of safety equipment and guidance and surveillance of environmental damage.

〈Summary table 2〉 Priority areas for the implementation of Coast Care policy

Large classification	Small classification	Areas
Surveying and Information offering	Natural environment	Marine plants observation
		Fish and shellfish observation
		Birds observation
		Observation of topography/geography/landscape (excluding erosion)
	Disaster	Coastal erosion monitoring
		Observation of flooded areas
	Pollution/safety	Marine debris observation (removal not included)

Large classification	Small classification	Areas
	Others	Surveying of tourism information and information offering
Management	Management and installation of facilities	Installation and management of trails and access roads
		Management of coastal safety equipment (tools)
	Others	Marine debris removal
		Instruction, guidance and surveillance on activities causing environmental damage
		Tourist guidance

〈Summary picture 1〉 The result of IPA (necessity – feasibility)



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- For the expansion of Coast Care policy, the roles of mid-level organizations and core participating citizens are indispensable. Specific participating groups that can perform the roles of mid-level organizations and core participating citizens are shown the table below;
 - Mid-level organizations include Civil society organizations working in the coasts and marine sector, education institutions and government-funded organizations etc. Core participating citizens may include fishermen centering on fishing village cooperatives, citizens enjoying marine leisure activities as well as elementary, middle and high school students.

〈Summary table 3〉 Subjects and characteristics of core participating groups of Coast Care policy

Participating targets		Characteristics of participating targets
Mid-level organizations	Civil society organization	<ul style="list-style-type: none"> - An organization designed to encourage a variety of participations from citizens - Have engaged in public participation for a long time and accumulated expertise and experience ex) Nonprofit organizations, nonprofit corporations, volunteer organizations etc.
	Education institution	<ul style="list-style-type: none"> • Elementary, middle and high schools - Manage students who need volunteer works - Guide or educate students' volunteer works
	Government-funded institutions	<ul style="list-style-type: none"> - Allow coastal and marine experts to participate - Easy to get support from the government's budget and able to connect with a variety of government policies ex) Sea Grant, Korea Marine Environment Management Corporation, Fishing Village

Participating targets			Characteristics of participating targets
Participating citizens	Core		Specialization Support Center
		Fishermen	<ul style="list-style-type: none"> • Fishing village cooperatives <ul style="list-style-type: none"> – Carry out fisheries-related decision-making such as management of fishing grounds – Work as a mid-level organization for encouraging the participation of fishermen – Self-Management Fishery Community is consistent with the purpose of coast care activities • Fishermen <ul style="list-style-type: none"> – Engage in the fisheries in coasts and oceans, which are target areas of Coast Care – Possess abundant basic knowledge on the phenomenon and issues surrounding coasts and oceans
		Citizens engaging in water leisure activities	<ul style="list-style-type: none"> – Familiar with oceans by engaging in a variety of marine leisure activities – High level of understanding on the issues and natural phenomenon relevant to sea – Possess expertise in inaccessible spaces such as underwater and uninhabitable islands – Divers are able to conduct coast care policy underwater
		Students	<ul style="list-style-type: none"> – Participate in volunteer activities as part of school curriculum – The pool of students able to participate is relatively limited – Put more emphasis on fulfilling volunteer hours rather than voluntary participation

- In order to introduce Coast Care policy, this study suggested specific tasks by sector as shown below;
- The introduction of Coast Care policy requires establishing governance where the central and local governments and mid-level organizations participate. In addition, a variety of acknowledgements and incentives are necessary to encourage

the participation of a large number of citizens.

- Moreover, specific tasks include laying the foundation for the implementation of Coast Care policy through revision of relevant laws such as the ‘Coast Management Act’, writing a guideline which contains specific methods and building a digital-based platform.

〈Summary table 4〉 Specific tasks for the introduction of Coast Care policy per sector

Classification		Specific content
Governance establishment		<ul style="list-style-type: none"> • Build a governance system between the central and local governments for Coast Care policy <ul style="list-style-type: none"> - MOF (plan, budget), local governments (support, linkage between policies), mid-level organizations (leader of implementation stage) • Create a new organization or utilize existing organizations at the level of city or province for Coast Care policy <ul style="list-style-type: none"> - Establish the (tentatively named) Coast Care Center as a field-based organization dealing with practical affairs
Acknowledgement and incentive		<ul style="list-style-type: none"> • Acknowledgement or certification publicly accredited by the general public <ul style="list-style-type: none"> - Recognize the policy-wise or academic utilization of the results of Coast Care activities - Grant certification of Coast Care activities to students • Prepare monetary incentives for supporting mid-level organizations • Hold a national or regional convention for Coast Care participants
Foundation establishment	System	<ul style="list-style-type: none"> • Formulate separate regulations for Coast Care policy: stipulate on the Coast Management Act • Connect with regulations of public participation within individual laws – Marine Ecosystems Act, Marine Environment Management Act and

Classification		Specific content
		<p>Gaetbeol(Tidal Flat) Act etc.</p> <ul style="list-style-type: none"> • Draw up specific manuals for Coast Care policy: divide the manual into 'institutions' and 'citizens' • Prepare financial resources for Coast Care policy
	Technology	<ul style="list-style-type: none"> • Provide information relevant to Coast Care policy by utilizing a variety of means • Need a digital-based interesting platform where general public can easily able to participate

2) Policy suggestions and policy-making activities

- Measures to revise the Coast Management Act for the introduction of Coast Care policy
- In relation to the introduction and implementation of Coast Care policy to the Coast Management Act, this study suggests measures to revise relevant regulations that include the definition of Coast Care policy, specific activities of Coast Care, roles of relevant organizations, establishment of dedicated organizations, budget support, establishment and operation of a platform, and measures to improve incentives etc.

〈Summary table 5〉 Measures to revise the Coast Management Act for the introduction of Coast Care policy

Classification	Detailed content
Definition	<ul style="list-style-type: none"> • ‘Coast Care’ means that citizens are engaging in a variety of management activities such as surveying or observation for the purpose of making academic or policy contribution in coastal and marine sector
Specific activities	<ul style="list-style-type: none"> • Surveying and observation: areas of ecology, landscape, disaster and tourism • Management: marine debris removal, installation and management of facilities, instruction, guidance and surveillance etc.
Governance	<ul style="list-style-type: none"> • MOF: Establishing a national plan, supporting the budget and connecting with coastal and marine policies • Local governments: Supporting Coast Care policy within coastal jurisdictions, connecting with other policies and projects
Organization	<ul style="list-style-type: none"> • Establish the Coast Care Center per region for effective implementation of Coast Care policy • Coast Care Centers can be established in an institutions that have relevant experience in public participation
Platform establishment	<ul style="list-style-type: none"> • Build a digital platform such as portal for Coast Care policy
Support	<ul style="list-style-type: none"> • Grounds for providing certification and incentives for mid-level organizations and citizens for participating in Coast Care activities • Ensure the safety of participating citizens (insurance etc.)
Linkage to other laws	<ul style="list-style-type: none"> • Elements for connecting coastal and marine related laws that possess regulations on public participation activities
Guideline	<ul style="list-style-type: none"> • Develop and distribute detailed guidelines for the implementation of Coast Care policy

- Direction for writing a guideline for the implementation of Coast Care policy
 - The Coast Care guideline is written by classifying it into two; ‘institutes’ and ‘citizens’.

- Whereas the chapter for ‘institutes’ includes works of institutes relevant to Coast Care policy including central administrative agencies such as MOF, local governments and the Coast Care Center, the chapter for ‘citizens’ should cover methods for conducting Coast Care activities and acknowledgement/incentives etc.

〈Summary table 6〉 Major content to be included in a Coast Care policy guideline

Classification	Target	Items to be included
Institutes	<ul style="list-style-type: none"> • MOF • Local governments • Coast Care Center 	<ul style="list-style-type: none"> • Role of MOF • Role of local governments • Role of Coast Care Center
Citizens	<ul style="list-style-type: none"> • Mid-level organization • Participating citizens 	<ul style="list-style-type: none"> • Ways to participate in Coast Care activities • Specific methods concerning Coast Care activities (for example, detailed guideline for citizen science) • Acknowledgements/incentives for participating citizens

- Measures to establish governance for systematic implementation of Coast Care policy
- The governance of Coast Care policy should consist of the central administrative agency (MOF), local governments, mid-level organizations and participating citizens. And the roles of each participating agent are listed on the table below;

〈Summary table 7〉 Roles of principal agents in the governance of Coast Care policy

Area	Detailed activities	Institutions able to participate
The central administrative agency (MOF)	<ul style="list-style-type: none"> • Improve relevant laws for the launch of Coast Care policy • Establish plans and guidelines for implementing Coast Care policy • Prepare the budget to support mid-level organizations • Develop a system for promoting the 'mid-level organizations' and secure the budget • Prepare incentives for participating citizens 	MOF Regional Offices of Oceans and Fisheries Korea Coast Guard MOF
Local governments	<ul style="list-style-type: none"> • Identify and submit the demand of Coast Care policy within coastal jurisdictions • Support Coast Care activities • Connect coastal and marine policies as well as public participation projects with Coast Care policy • Prepare incentives related to Coast Care at a local government level • Provide administrative support and equipment for Coast Care activities 	Local governments at coastal region
Mid-level organizations	<ul style="list-style-type: none"> • Recruit citizens for participating Coast Care policy • Educate participating citizens and secure safety • Summarize the results of Coast Care activities and build a DB • Feedback for the improvement of Coast Care 	Civil society organizations, Education institutions, Government-funded public institutes
Citizens	<ul style="list-style-type: none"> • Voluntarily participate in Coast Care activities • Boost the awareness and capacity in the coastal and marine sector 	

- Direction for establishing 'Coast Care Center', an organization in charge of Coast Care policy

- This study suggests the establishment of 'Coast Care Center' which is an organization in charge of practical affairs surrounding regional policies of Coast Care.

〈Summary table 8〉 Activities and examples of target institutes for Coast Care Center

Detailed activities	Examples of target institutes for Coast Care Center
<ul style="list-style-type: none"> • An organization to systematically implement coast care activities • Identify the demand and plan for Coast Care activities per region • Support mid-level organizations • Provide information on the participation of Coast Care activities to general public • Run a portal site on Coast Care • Operate the central Coast Care center and regional Coast Care centers 	<ul style="list-style-type: none"> • Sea Grant • Fishing Village Specialization Support Center • Regional Volunteer Center • Civil society organization

- Plans for offering incentives to invigorate the Coast Care policy
- Participating citizens need non-monetary incentives that provide fulfillment and joy for the participation, while mid-level organizations that recruit citizens and instruct Coast Care activities may need monetary incentives as well.

〈Summary table 9〉 Overview of incentives surrounding Coast Care policy

Classification	Target	Detailed content	Incentive offering
Monetary	• Mid-level organizations	<ul style="list-style-type: none"> • Expense for recruiting and instructing participants of Coast Care activities • Expense for operating Coast Care activities • Insurance for the safety of participants 	<ul style="list-style-type: none"> • Ministry of Oceans and Fisheries • (Coast Care Center) • Local governments
Non-monetary	• Citizens	<ul style="list-style-type: none"> • Certification for Coast Care activities • Recognition of policy-wise and academic contributions from the results of coast care activities • Recognition of volunteer work hours • Networking opportunities for participants of Coast Care activities (Coast Care Participants Day etc.) 	<ul style="list-style-type: none"> • Ministry of Oceans and Fisheries • (Coast Care Center) • Ministry of the Interior and Safety • Local governments • Public institutions

3) Expected benefits including policy contribution

- This study proposes measures for institutional improvements relevant to public participation in the coastal and marine sector.
- To introduce the Coast Care policy, specific improvement measures are suggested including revising necessary laws, writing a guideline, establishing governance and offering incentives etc.
- It is expected to consider and review institutional improvement

measures suggested by this study when those in charge of relevant institutions such as MOF push forward public participation policies in the coastal and marine sector.

- The implementation of Coast Care policy allows finding blind spots where a number of problems exist through the managerial capacity of the government has failed to reach, and then able to solve problems.
- If a number of citizens engage in Coast Care activities, such as removal of marine debris, surveying and observation of marine ecosystems, observation of the damage resulting from natural disasters and restoration of coastal topography, it will contribute to solving problems occur in managerial blind spots.
- Coast Care policy can reduce the management cost required to solve problems arising in coasts and oceans
- Coast Care activities voluntarily carried out by citizens without monetary compensation are expected to have the effect of cutting the government budget of implementing management projects.
- It poses an opportunity for citizens who participate in Coast Care activities to raise the awareness on the preservation and the value of coasts and oceans.
- With citizens being able to experience a variety of activities in the field, Coast Care activities offer an opportunity to recognize invaluable benefits that coasts and oceans offer.
- Based on the acknowledgement on the benefits of coasts and

oceans, it will further raise an alarm about reckless development, resource abuse and environmental pollution and support the government's activities to address them.

- This study contributes to the production of science-based data for reasonable implementation of policies in the coastal and marine sector
- Abundant data produced by citizens will contribute to the development of science, while helping establishing and implementing evidence-based coastal and marine policies.