The Significance and Role of Volunteer Service in Large-scale DisastersE

- Comparative analysis of perceptions between volunteer centers and public officials

Dong Wook Kim[1+], Chang Kil Lee[2#]

[1]Department of Urban Planning and Policy Studies, Incheon National University, 119 Academy-ro, Yeonsu-gu, Incheon, Korea
[2]Department of Urban Policy and Administration, Incheon National University, 119 Academy-ro, Yeonsu-gu, Incheon, Korea

A B S T R A C T

The purpose of this study is to derive an institutional improvement plan to build an effective volunteer service system at Large-scale disaster sites. In order to achieve this research purpose, t-test was conducted for volunteer-related activists and public officials to explore the perceptions related to social capital and the awareness of the volunteer service at the disaster site, and derived priorities for change the directions. As a result of the analysis, first, it was analyzed that the importance of building a relationship of mutual trust with respect to social capital at the disaster volunteer site was highly recognized. Second, in relation to the volunteer service system, both volunteer center and public official respondents showed interest, but not at a high level. Third, the respondents answered that clear distribution of roles and responsibilities, strengthening of volunteer expertise, and clarifying support in the public sector were important for changing the volunteer service system. Based on the analysis results, changes such as distribution of responsibilities, establishment of professional competency and diversification of the scope of activities were proposed.

Key words: disaster volunteer service; disaster management; social capital; collaborative governance

1. Introduction

Disasters in modern society are changing, such as the increase and enlargement of disasters and safety accidents, and the expansion of uncertainty in the extent of damage and prediction. In accordance with these changes, discussions are actively underway on establishing cooperative governance between the public sector and stakeholders for effective disaster response(Lee, *et. al.*, 2017).

In particular, it is predicted that the importance of the field and role of volunteering at disaster sites will continue to expand as the risk factors in daily life increase along with the increase in social and new disasters. Therefore, it is required to establish an institutional foundation for disaster volunteer support and reinforcement of the professional competency of volunteers.

This study intends to suggest the necessary matters for the smooth operation of volunteer activities at disaster sites and the direction of institutional change to support the volunteer system through empirical analysis.

2. Theoretical Discussions

2.1. The Meaning and Role of Volunteer Service

In the Framework Act on Volunteer Activities, volunteer service activity is stipulated as an act in which an individual or group voluntarily provides time and effort for the sake of the local community, nation and human society without compensation.

Volunteer activity is a process in which each individual works through a chosen volunteer organization and strives to achieve new goals, and is a voluntary and private effort to perform a role in the maximum freedom and democratic process and to promote or promote elements of the public interest. It can be said that it is an active activity that is put into practice(Lee, *et. al.*, 2008). In addition, it is a place for self-realization to feel responsible for social problems and to voluntarily participate without financial expectations to solve community problems and find the meaning of life.

In relation to the existing disaster volunteering, it is evaluated that there is a lack of mutual under-

standing between private organizations and volunteers, and that the connection between organizations and institutions related to the disaster management system is not properly established(Cho, *et. al.*, 2008). In addition, the disaster management system was mainly composed of administrative agencies, so there was no cooperation with the private sector, and no communication or decision-making plan for disaster management was established.

Current disaster management requires improvement of practical on-site response capabilities. Since disasters vary greatly depending on the site situation, and a more flexible disaster response system is required, it is necessary to prepare a volunteer system that can be flexibly applied to various disaster types and sites. In relation to disaster volunteering, the situation and response management system should be reorganized and the operating system should be improved so that the capabilities of the relevant institutions can be investigated and necessary functions can be performed. A system that connects, integrates and manages resources owned by local public institutions, private institutions, and related organizations, and jointly utilizes them if necessary is also required.

Also, in relation to volunteer work, a real-time monitoring system for all disaster situations should be established by establishing an integrated system for prompt collection, judgment, and dissemination of disaster information. At the same time, a consumer-centered disaster volunteer system should be established. All plans and activities related to disaster preparedness and response should be made from the point of view of the public and the consumer, and all plans and evaluations are made from a supplier-centered point of view that only checks the work of public officials(Cho, *et. al.*, 2008).

Recently, a lot of research on disaster safety resilience has been conducted, which suggests that disasters are less severe and recovery is faster in areas where disaster response and recovery are made through the participation and interest of residents and communities(Lee, *et. al.*, 2017).

2.2. The Concept of Collaborative Governance

In Korea, there has been a problem of confusion and delay in relief and recovery activities due to the lack of response at the site related to disasters that are repeated every year. The importance of cooperative networks between the government and the private sector, which are important actors in disaster management, is increasing(Lee, *et. al.*, 2015).

In general, a cooperative network can be said to be a social trust system in which individuals, groups, and organizations in the private sector and individuals, groups, and organizations in the government sector give and receive mutual assistance in order

to provide integrated and problem-solving services(Lee, *et. al.*, 2015). Collaboration is the ability of each organization to play a responsible role and to more effectively provide shared information and resources. In this regard, cooperative governance can be defined as a form of mutual effort to achieve a common goal.

In addition, it can be said that it is a process deliberately designed to solve public problems as a social operating mechanism for the participants to undergo a cooperative process based on the agreed decision-making of the participants with autonomy, and to induce the participants to adjust and cooperate(Yoo, *et. al.*, 2016).

Social capital, which is the basis for crisis management, consists of trust, norms, and networks. First, trust is an expectation that arises from the everyday, honest, and cooperative attitudes of other members of the community. While economically calculated trust is associated with personal trust as to the likelihood of obtaining a predictable positive outcome through interactions with others, communities rely on social trust, which relates to the identities that arise from relationships with others. Social trust facilitates the exchange of resources and increases the level of trust in others(Lee, *et. al.*, 2015).

Second, norms refer to general interrelationships for effective cooperation. Community norms are essential to sustaining the entire community, and they play an important role in guiding community activities as a normative basis for developing disaster management activities.

Third, the existence of various interactive civic cooperation networks means that cooperation and communication are being promoted within the local community. What is important for social cohesion is to form a network so that community members can exchange opinions and information to effectively solve community problems(Ha, *et. al.*, 2009).

Governance refers to a change in the relationship between the state, the market, and civil society, and a new coordination method to solve public problems through joint action. From this perspective, cooperative governance is a type of governance in which actors in the public and private sectors collectively participate to provide public goods. In the process of solving social problems, the role of a horizontal, voluntary network composed of various participants such as the central, local government, and civil society is emphasized(Yoo, *et. al.*, 2016)..

2.3. Collaborative Governance for Field-Based Disaster Volunteer Service Activies

As disasters become more complex and larger, effective disaster management is difficult with government-centered disaster management policies. In

particular, as the government-led disaster management in the form of command and control has revealed its limitations, the central role of disaster management is being transferred from the central government to the provinces(Lee, *et. al.*, 2026).

On the other hand, the need for a system for the integrated operation of disaster management is being raised due to the problem that resources cannot be connected and distributed quickly at disaster sites despite changes in regional-oriented disaster management. In order to solve these problems, it is necessary to secure the efficiency of linking and distributing resources at the disaster site through the establishment of a cooperative network based on cooperation. The characteristic of network-based cooperative governance is that it does not depend on hierarchical control, but solves social problems through the voluntary participation of various members such as the government, organizations, and organizations and cooperation in a horizontal relationship.

In addition, disasters have characteristics that are limited to regions in time and space, and the nature of disasters and damage varies according to regions. Therefore, in order to increase the effectiveness of the initial response to disasters, the local private sector must participate in an active partnership in all areas of disaster management. This can be understood as the formation of local governance, which can secure decentralization and democracy of the disaster management system by enhancing the participation of local residents.

3. Methodology

In order to derive a systematic improvement plan for establishing an effective volunteer system at disaster sites, a sample was selected focusing on public officials and field activists with experience related to disaster site volunteering. The reason for not targeting general public officials and citizens is to derive analysis results that include more professional opinions.

The evaluation scale was composed of a 6-point scale. It is usually composed on a 5-point scale, but it is for clarity of choice in order to prevent the middle-of-the-road phenomenon of responses. In the case of a 5-point scale, the tendency to give a middle grade score is sometimes reflected, and when there is not enough thought about the questionnaire items, the appearance of concentration appears. In addition, since most of the questionnaires were evaluated generously, it was conducted using a 6-point scale.

Retrieved questionnaires were 90 copies, and 79 copies were analyzed, excluding 11 insincere responses. Among them, 54 respondents belonged to the volunteer center and 25 were public officials.

<Table 1> Descriptive statistics of survey participants

(N = 79)

Characteristics		Volunteer center		public official	
		n	%	n	%
Sex	Male	25	31.6	9	11.4
	Female	29	36.7	16	20.3
	Sum	54	68.4	25	31.6
organization	Metropolitan center	7	8.9	-	-
	Basic center	47	59.5	-	-
	Local government	-	-	25	31.6
	Sum	54	68.4	25	31.6
Disaster work experience	Yes	37	46.8	5	6.3
	No	17	21.5	20	25.3
	Sum	54	68.4	25	31.6
Age	20-29	7	8.9	1	1.3
	30-39	14	17.7	12	15.2
	40-49	23	29.1	12	15.2
	50-59	9	11.4	0	0.0
	≥60	1	1.3	0	0.0
	Sum	54	68.4	25	31.6
Years of service	3<	28	35.4	23	29.1
	3-5	8	10.1	0	0.0
	5-10	11	13.9	0	0.0
	10-15	3	3.8	1	1.3
	≥15	4	5.1	1	1.3
	Sum	54	68.4	25	31.6

In the case of public official responses, the number of samples is small, so in order to judge the difference between the volunteer center respondents and the public officials group, a t-test that can be applied to small samples of 30 or less, whose sampling distribution is not normally distributed, is performed. Therefore, it was investigated whether the difference in the mean between the two groups was statistically significant.

It is judged that the analysis result of this survey can show the difference between the perception of volunteer center respondents centered on field activities and the perception of public officials centered on public administration.

4. Results

First, social capital, including the trust relationship between public and private participants, the smoothness of the network, and the normative basis for mutual cooperation, was investigated. The questionnaire consisted of 7 areas including mutual trust relationship between subjects, information sharing and smooth communication, resource support for disaster sites, clear role and responsibility distribution, experience and expertise, and active participation and interest of local communities.

<Table 2> Comparison of perceptions related to social capital

(N = 79)

Group statistics		n	mean	SD	SEM
Public-Private Mutual Trust Relationship	Volunteer center	54	4.22	1.410	.192
	Public official	25	4.80	.866	.173
Private-Private Mutual Trust Relations	Volunteer center	54	4.20	1.279	.174
	Public official	25	4.84	.800	.160
Information sharing and active communication	Volunteer center	54	4.02	1.498	.204
	Public official	25	4.84	.943	.189
Government support	Volunteer center	54	3.56	1.513	.206
	Public official	25	4.44	1.044	.209
Distribution of roles and responsibilities	Volunteer center	54	3.80	1.459	.198
	Public official	25	4.48	1.005	.201
experience and expertise	Volunteer center	54	3.59	1.460	.199
	Public official	25	4.24	1.091	.218
Community participation and interest	Volunteer center	54	4.11	1.223	.166
	Public official	25	4.28	.843	.169

<Table 3> T-test results of social capital perception

Overall, public officials' perceptions were positive, and it was analyzed that the awareness of volunteer center respondents was relatively low. It was analyzed that the relationship of mutual trust between the private volunteer organizations participating in disaster field volunteer service was the highest for both groups. In addition, the trust relationship between the local government and the private sector is high, so it is judged that the trust relationship between the actors at the disaster site is positive.

5. Conclusions

Summarizing the analysis results, first, the importance of building a mutual trust relationship with respect to social capital in volunteer activities at disaster sites is highly recognized. The results show that the participation of local actors and residents in disaster recovery should be activated.

Second, both volunteer center respondents and public officials are interested in laws and regulations regarding changes in the institutional framework to support an effective on-site volunteer system in the event of a disaster, but it is not at a high level. It was analyzed that public officials are aware that disaster volunteer-related support is being done smoothly because they perform administration in accordance with laws and regulations. However, volunteers working in the field have a high negative perception that systematic support and legal basis are not clearly established by the law. In this regard, it is judged that volunteers working at disaster sites lack the support of government agencies and have low diversity, so that they think that the institutional basis is not meeting the demands of the field.

Third, when the importance and priorities regarding the institutional change direction were derived, it was analyzed in the order of clear distribution of roles and responsibilities, strengthening of specialized volunteer competence, diversification of the scope of volunteer roles and activities, and clarification of volunteer support.

In the future, institutional changes should be pursued through redistribution and establishment of roles related to disaster volunteering, identification of resource status and establishment of a regular inspection system, establishment of the professional competency range of volunteers, and diversification of the scope of activities. In order to effectively respond to a site-based disaster, not only changes to the volunteer system but also practical actions will be required.

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Profile

Dong Wook Kim (kimdw@inu.ac.kr)

He received his M.A. in public administration from Incheon National University, Korea in 2018. He is Ph.D. student in the department of urban planning and policy studies at Incheon National University. His research interests include policy evaluation, performance management, and urban crisis management.

Chang Kil Lee (changkillee@inu.ac.kr)

He received his Ph.D. in public administration from Yonsei University, Korea in 2007. He is a Professor in the department of urban policy and administration at Incheon National University. His research focuses on several aspects of public administration, including public human resource management, policy evaluation, performance management.