

Article

Multilateral Governance for Climate Change Adaptation in S. Korea: The Mechanisms of Formulating Adaptation Policies

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Received: 31 May 2017; Accepted: 28 July 2017; Published: 3 August 2017

Abstract: This paper explores the current trajectory of multilateral governance for climate change adaptation in S. Korea, which is characterised by vertical and horizontal adaptation governance. This article highlights that the characteristics of adaptation governance can be realised more effectively through grassroot activities at both metropolitan and local government levels. In particular, a thorough examination on the implemented adaptation measures (‘national climate change adaptation scheme’, ‘national climate change adaptation centre’, and the climate change ‘Ansim Village’ project) as well as the limitations at the national and local level were carried out. Ultimately, as a result, this paper suggests of the effective multilateral governance for climate change adaptation; enhancing the multilateral partnership between the national government and local governments, facilitating horizontal governance within the adaptation departments of local governments, managing adaptation horizontal governance by sectors according to the characteristics of climate change risk, and establishing sustainable adaptation governance for ‘Ansim’ Village.

Keywords: climate change adaptation; multilateral governance; national climate change adaptation scheme; national climate change adaptation centre; climate change ‘Ansim’ Village project

1. Introduction

In realising a greenhouse gas reduction for climate change adaptation, rather than the mitigation effort itself, a strong emphasis lies on governance; as a top-down approach from the central (national) government could undermine the regional characteristics of adaptation efforts [1]. Seemingly, a top-down approach could be regarded as a quick resolution, however, in reality it faces many difficulties in responding to the conflict as well as the fast-changing environment [2]. Within any level of governance (international society, central government, municipal government, local government, communities), the area affected by climate change or influenced by adaptation action is required to be integrated both horizontally (in geographic and hierarchical levels) as well as vertically (between administrative departments). Therefore, for successful adaptation, it is crucial of well-coordinated effort to strengthen the adaptation capacity and amplify the synergistic effect of cooperation between governance and the interested parties [3,4].

Varyingly defined by scholars, however shares the common understanding of its distinction from government on governance as the power does not solely rest on the government itself. Rather, governance with its flexibility is distributed within various levels of power [5–7]. The purpose of governance is to accommodate and compensate for the very limitations that the government possesses,

thus ultimately aids to secure the engagement of various actors in governance processes, as well as to achieve a common goal [5,8]. Following this, climate change adaptation governance could be defined as the mechanism embracing such as the activities of ‘guiding’, ‘steering’, ‘controlling’, and ‘managing’ that are carried out by its numerous actors and sectors).

The occurrence of the climate change impact is universal. Nonetheless, it is regionally evident even under the same circumstances of extreme climate phenomenon, the scale of damage as well as the adaptation effects could diverge depending on regional and local characteristics. The national adaptation policy execution takes place at both the regional and local level, and the responsibility for most of the adaptation policy implementation lies on the region itself [3]. The very nature of the national government adaptation policy could be seen as the overall guidelines of the climate change adaptation; however, the detailed plan-making, the execution, and finally the realization of such adaptations are the duties of the regional and local levels. Adaptation, via a risk assessment, requires a full understanding of the vulnerabilities and potential risk factors. After a careful consideration of social acceptability, and as suitable alternatives and technologies are employed, adaptation desires coordinated decision-making and participation at the regional and local levels [9,10].

Consideration of the region’s natural and physical characteristics as well as its societal and economic factors is necessary. For the effective planning and execution of adaption alternatives, it is crucial to comprehend the gravity of the potential damage that climate change impacts could cause in various ways, as well as an understanding of the region’s stakeholders’ needs. In short, for the enhancement of the region’s resilience, raising awareness of the climate change risk, dividing roles and responsibilities among social groups (including the governments), sharing knowledge of not only the existing risk but also the drivers of risk and risk-prone factors, and planning and investing in incentives will help to minimize the risk for participating individuals [11]. A uniformed system led by the central government may hinder it from taking flexible actions, and thus could be less attentive to the demands and needs of the socially vulnerable [12].

2. Multilateral Governance for Adaptation in S. Korea

2.1. The Features of Multilateral Adaptation Governance

Due to the impact of climate change impact, the outbreak of vulnerability has occurred on multiple levels. Vulnerability at the individual level would stretch to vulnerability at the community level, and vulnerability at the community level aggravates the sense of inequality within individuals and is a potential risk for the community [13,14]. Personal knowledge and resource scarcity have repercussions on the community’s distribution of resources, and this reduces the chance of risk diversification [13]. A similar phenomenon breaks out at the national level; one nation’s low climate change adaptation ability leads to the individuals’ continuous exposure to such risk. In particular, Figure 1 illustrates the hierarchical multilevel model of adaptations and its vulnerability in which the individual grey levels of adaptations and vulnerability may expand out to the community levels of local scale determinants and broad scale determinants [15].

The characteristics of climate change adaption, under the big umbrella of governance could also be expressed as the climate change policy unification which emphasizes the coordination between the sectors (by policy) and the levels (by region) under the umbrella of governance [3,16]. Due to the underlying uncertainty, mismatch between the policy making level and the region’s action could be caused along the way; however, the coordination led by multilevel governance could ease such mismatch and elevate consistency as well as the receptivity between the region and the central government policy.

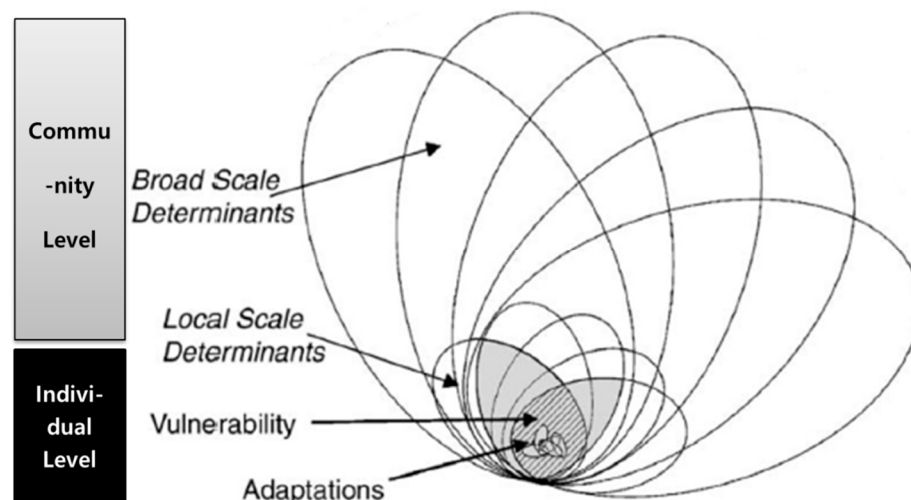


Figure 1. Hierarchical multilevel model of adaptations and vulnerability; Sources: Smit and Wandel (2006), p. 286 (revised).

Nonetheless, as multilevel decision making expands, the distribution of resources in various sectors for the coordination and the execution of adaptations have resulted in placing the actors in a difficult position to resolve a problem alone. The wide ranging, extensive domain of the multilevel governance system requires a distinctive system which differs from the conventional governance system; where there is a fine line between each field and the government boundaries and ranks on the basis of responsibility and expertise. Ref. [17,18] shared a view on the characteristics of adaptation governance that in terms of structural aspect, it is multilevel whilst also found across multi-policy sectors engaged by the various actors; as for the contextual aspect, it encompasses the social, economic as well as other significance with other disaster risk management. As for the successful adaption under the given settings with the various entities involved, cooperation and assignment of the roles and responsibilities between the government and private sector is required; taking transparency, openness, and responsibility as well as the authority from both actors into account.

As [4] argued, multilevel governance could be classified as (i) governance between the actors such as public–public and public–private; (ii) governance between the policy sectors (areas) such as health, weather, disaster and ecosystem; (iii) governance between the adaptation-related agenda such as mitigation and sustainable development. This could be re-categorized as horizontal governance (between policy sectors and between public–private actors) and vertical governance (by the spatial hierarchy) which is found on the structural hierarchy where the decision-making process and the actual actions takes place. The Figure 2 below describes the configuration of vertical and horizontal governance where the interaction between the national government, the metropolitan governments, and the local governments takes place under the vertical hierarchy. Here, the cooperation between the administrative departments and the public–private partnership (PPP) may take place under horizontal governance.

2.2. Vertical Adaptation Governance

A fairly typical case of vertical governance could be the triangle of the international society–central government (nation)–local government (region). In reference to the Bauer’s analysis findings, for the adaptation governance, four of ten nations have institutionalized the very system of governance between the central and local government [3]. These four nations have been accelerating the vertical coordination by aiding the local network and partnership for those keen on adaption policy. Those who are keen usually include public servants and scientists who gather climate change knowledge; the interested parties are unified and coordinated.

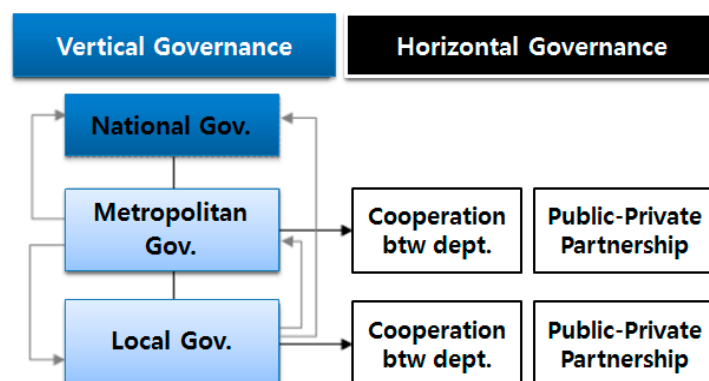


Figure 2. Configuration of vertical and horizontal governance.

The vertical unification allows a two-way interaction: firstly, a bottom-up initiative led by the region has an impact on national policy whilst the state-led top-down policy strengthens the authority of the actors in the region. In realizing climate change capacity building, the close cooperation between the national and local government provides cost-effective exploration into adaption alternatives. There are three typical models: (i) a model boosting the region's adaption behaviour through a strong emphasis on state-led institutionalization and a specific policy; (ii) an expanding model under the bottom-up behaviour led by the region, creating innovative ideas and policy that are linked to the experiment and sophistication process and ultimately reach either the metropolitan or national level; and (iii) a model with close cooperation between a national or metropolitan government and local (municipal) government through a mutual learning process [19].

2.3. Horizontal Adaptation Governance

Horizontal governance extends as far as the process of unification and the coordination work of public–private agents, and between policy sectors (areas) or agendas in relation to adaptation. The adaptation could be divided into public sector adaptation and private sector adaptation for which, not only government-intervened policy but also the private sectors' actions encompassing a vast spectrum, is advised, in order to achieve long-term as well as strategic coordination ensuring adaptation behaviour at the individual level functions for the common good, common interest and for the public good [20].

Linked closely with economic resources, considering the uncertainty adaptation should fathom the repercussions and risks followed by appropriate measures. Different societal and economic activities as well as decision-making are not undertaken separately but are spread across a great deal of public policy sectors and categories, including, for example, human development, livelihood security, disaster risk management, spatial or land-use planning, structural/physical and institutional arrangements under the approaches of vulnerability and exposure reduction and adaptation [21]. For instance, a policy aimed at adaptation could be mixed with intentional activities; however, other policies could result in other ordinary societal, economic changes and not climate change. Therefore, adaptation measures can be realized through the coordination between the multilateral policy sectors (administrative departments) including disaster, health, ecosystem, water management, etc.

3. Adaptation Measures and Limitations in S. Korea

3.1. Adaptation Governance Mechanism in S. Korea

The adaptation governance mechanism in S. Korea is based on the Framework Act on Low Carbon Green Growth (FALCGG) that includes the binding enforcement decrees of climate change in the local governments. In accordance with the Framework Act, the S. Korean government established the National Climate Change Adaptation Scheme (NCCAS) and related national organizations and

metropolitan and local governments have tried to establish the implementation plans of NCCAS (mandatory since 2015). The NCCAS (2011–2015) was first executed by the 14 national ministries in 2010, covering 10 sectors and 87 detailed specific tasks. The implementation plans of local governments provide detailed mechanisms as well as activities for the adaptation implementation policies [22].

Looking at the governance mechanism and the process in relation to the Adaptation Scheme, there are various major actors involved: The Ministry of Environment (MOE) as the control tower for the adaptation; the Korea Adaptation Center for Climate Change (KACCC) of Korea Environmental Institute (KEI); and the National Institute of Environmental Research (NIER) for the monitoring of climate change impact [23].

In particular, as illustrated in Figure 3 below, the S. Korean governance mechanism on adaptation could be characterized by two dimensions in analyzing the governance: ‘substantive content of governance’ and ‘practical character of governance’ [24,25]. The former dimension is lined with risk steering and controlling public affairs, realized by the institutional mechanism of the National Framework Act, the National Adaptation Scheme (NCCAS), the Adaptation Center (KACCC), the NIER (National Institute of Environmental Research), and also the adaptation implementation plans of metropolitan and local governments. The latter dimension encompasses the governance activities and practices among stakeholders, which could be characterized by the projects of Climate Change ‘Ansim’ Village (referring to a project of creating green and safe communities for local residents) and Disaster and Safety Villages. These village projects have been managed by the national ministries (Ministry of Environment (MOE) and Ministry of Security and Public Administration (MOSPA), the National Emergency Management Agency (NEMA), and the metropolitan and local governments, including the Seoul metropolitan government. For example, currently, 50 projects of Climate Change ‘Ansim’ Village are carried out by the local governments [14]

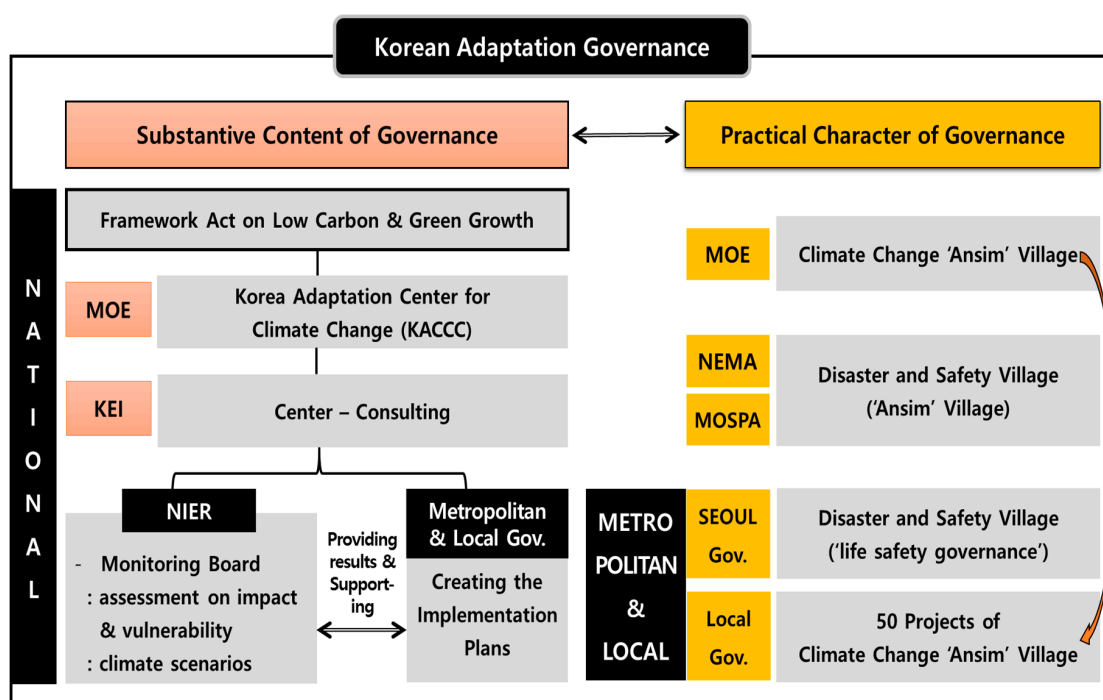


Figure 3. Adaptation governance mechanism in S. Korea.

3.2. National: Climate Change Adaptation Scheme (NCCAS)

As explained previously, since 2015, the local governments were obliged to establish the implementation plans of adaptation. The first National Climate Change Adaptation Scheme (NCCAS) was executed by the 14 national ministries in 2010, which consists of 10 sectors (including health,

disaster, water management etc.) and 87 tasks. Recently, the Ministry of Environment (MOE) has confirmed the second NCCAS aiming to minimize the climate change impact and utilize the opportunities from climate change. The NCCAS II, created by the 20 national ministries, has developed from the pathways taken by the NCCAS I. The Second Scheme seeks to reduce the risk of climate change and take the opportunity to create a happier and safer society through climate change adaptation. As described in Figure 4 below, the scheme is comprised of four policy sectors ('Scientific Risk Management', 'Construction of Safe Society', 'Increase of Industrial Competitiveness' and 'Sustainable Management of Natural Resources'), and 'Implementation Base' and 'Monitoring and Evaluation', and twenty additional policy tasks included [23]. In particular, the scheme unlike before provides precise information on climate change based on the cutting edge scientific risk management system.

In contrast to the First Scheme (NCCAS), the Second Scheme aims to reinforce the policy efficiency through 20 key implementation tasks in order to build up the adaptation base and an integrated system of adaptation implementation in the economy, society, and environment area. To achieve such goal, the scheme has set the direction to initiate a virtuous circle of economy, society, and the environment through adaptation, by taking scientific-based and demand measures of climate change impact and risk and by setting up adaptation priorities and key strategies in each policy area.

Vision	Establishing the Safe Society through Climate Change Adaptation and Realizing People's Happiness				
Adaptation Principles	Consistent with Sustainable Development	Consideration for Vulnerable People	Science-based	Integrated Approach	Reinforcement of Participation
4th Policy Areas (16th tasks)	Scientific Risk Management	① Climate Change Monitoring & Prediction ② Vulnerability Integrated Evaluation-Risk Management ③ Development of 'Korean Climate Scenario' ④ Arrangement of Integrated Information Provision System ⑤ Monitoring of Climate Impact			
	Construction of Safe Society	⑥ Protection of Vulnerable People to Climate Change ⑦ Management of Vulnerable Areas & Facilities ⑧ Prevention and Management of Health Damage ⑨ Management of Disaster			
	Increase of Industrial Competitiveness	⑩ Enforcement of Industrial Adaptation Capacity ⑪ Creation of Climate Change Adaptation Technology ⑫ Expansion of Industrial Adaptation Infrastructure ⑬ Development of Overseas Market Expansion			
	Sustainable Management of Natural Resources	⑭ Protection and Management of Species ⑮ Restoration of Ecosystem and Management of Habitat ⑯ Management of Climate Change Risk Factors in Ecosystem			
Implement-ation Base (4th tasks)	Arranging Domestic·Intl. Implementation Bases	⑰ Increase of Effectiveness of Adaptation Policy ⑱ Reinforcement of International Cooperation for Adaptation ⑲ Facilitation of Adaptation Activities in Communities ㉔ Promotion and Education of Adaptation			
Monitoring & Evaluation	Key Indicators of Adaptation Measures & Performance Indicators by Sector				

Figure 4. Overview of the second national climate change adaptation scheme; Sources: Korea Adaptation Center for Climate Change (KACCC) (2015), p. 59 (revised).

Moreover, the Second Scheme highlights the role and the responsibility of the local governments in relation to the adaptation activity. It further seeks to enhance the effectiveness and efficiency of local adaptation implementation plans. To achieve this, the scheme is oriented towards establishing an implementation base of adaptation at the metropolitan and local level; specifically, by specializing the medium of local-based adaptation measures; by supporting local community-customized adaptation measures through expert consultation and sharing of best practices; and by enhancing a partnership between the national, the metropolitan and local governments [26].

However, according to the research [14], though the creation of metropolitan and local adaptation plans has a positive impact on understanding and the capacity of adaptation, the implementation process lacks collaborative activities among the national–metropolitan–local governments (vertical governance) in S. Korea. The first National Climate Change Adaptation Scheme (NCCAS) with the purpose of rapid dissemination has been carried out through a top-down approach by the national government. Nonetheless, such an approach requires certain challenges to be overcome—in terms of coordinating and integrating the adaptation policies due to a lack of understanding of adaptation and in terms of the infrastructure including human resources, budgets, organizations, and so on.

3.3. National: Korea Adaptation Center for Climate Change (KACCC)

In 2009, the Korea Adaptation Center for Climate Change (KACCC) was established to realize the adaptation capacity-building and adaptation programs for a safer society; based on the first National Climate Change Adaptation Scheme (NCCAS I). The Adaptation Center (KACCC) as the inter-support agency seeks to support NCCAS I, and serves the purpose of researching adaptation policies and measures, providing adaptation-related information for local governments, and developing adaptation measure tools and guidelines.

For instance, in 2010, the center carried out a pilot project of climate change impact monitoring and adaptation support measures in two metropolitan cities: Seoul and Incheon. It involved the implementation plans of adaptation through climate prediction and elaboration in the sectors of health, disaster, ocean eco-system, and ocean disaster.

3.4. Local: Climate Change ‘Ansim’ (The Korean Word of ‘Ansim’ Means Safe and Being Relieved) Village

The initiative of Climate Change ‘Ansim’ Village was established by the Ministry of Environment (MOE), initiated with two pilot projects in 2014. The ‘Ansim’ Village project (currently 50 on-going projects), by supporting customized policies for climate change-vulnerable residents and fields in the risk-increasing environment from heat, cold wave, etc., aims to achieve ‘climate welfare’ [14,27].

Given the most climate change-vulnerable fields are located in the farming and fishing communities, the Village projects have been performed mostly in the local farming and fishing areas, and urban–rural complex areas. The project consists of two main sectors; first, protection from harm, including improving the residential environment, running heat wave shelters, enlarging social infrastructures responsible for climate change damage; and second, the creation of income-earning opportunities, including projects to increase the income of farmers and fishermen.

For example, in 2014, two pilot projects were operated in Nonsan city in Chung-nam province and Yeonsu-gu in Incheon metropolitan city. In particular, (see the Figure 5 below) the Village project of Yeonsu-gu was characterized by three sub-parts (projects): the construction of climate change-friendly spaces, the supporting project for climate change-vulnerable residents, and the improvement of adaptation infrastructure [28].

The first part was to increase residents’ adaptation capacity to the abnormal weather, such as the heat and cold waves, by constructing adaptation cooling and heating zones in the fields. The second sub-part sought to set up an adaptation safety net by appointing and selecting ‘adaptation guides (assistants)’ from the residents within the communities, who could help the residents in the Village to improve the residential environment and also visit them thus could inform them of the action guidelines regarding heat and cold waves. Through the third sub-part, an ‘automated weather

station’ was installed, reflecting the environment information of Yeonsu-gu, and climate information was provided to the residents for the prevention of maladaptation (erroneous response due to incorrect or only partly correct information and guide).



Figure 5. The sub-projects of the Village project of Yeonsu-gu, Incheon Metropolitan City.

3.5. Local: Disaster and Safety Village

It is worth noting that, before launching the Climate Change ‘Ansim’ Village, a variety of similar village projects—named ‘Disaster and Safety Village’ were enforced by the Ministry of Security and Public Administration (MOSPA), the National Emergency Management Agency (NEMA), and the Metropolitan governments including Seoul. For example, the NEMA has run three pilot projects of disaster prevention since 2008. They are the projects of infrastructure construction based on the concept of community disaster prevention, which were initially launched in Samcheok city of Gangwon province, Geumsan city of Chungnam province, and Jangheung city of Jeonnam province. The Village project was led by the Implementation Committee of Disaster and Safety Village, the public–private partnership entity, in which community residents, businessmen, experts, and local organization participated. However, in reality, the Village project has taken a top-down approach as the product of the government’s decision-making and resulted in a lack of resident involvement because it ultimately led to an infrastructure-supply-intensive project [14].

Launched in 2013, selecting 10 pilot areas, the ‘Ansim’ Village project of MOSPA aims for resident-led security improvement. These projects consist of various sub-projects in the local communities (Eup-Myeon-Dong) (Neighborhood (community) units in S. Korea) such as the production of a ‘community safety map’, the questionnaire survey, the analysis of safety and hazard, and so on. Particularly, the ‘Ansim’ Village projects are characterized by a community-led process based on residents’ participation. However, most of the ‘Ansim’ Village projects of MOSPA are not relevant to the climate change adaptation. It is because only a few projects among them are in line with climate change response; for example, snow-removal work.

On the other hand, in terms of local disaster and safety activities, the Seoul metropolitan government set up ‘life safety governance’ in 2012, which allows to integrate disaster and safety activities previously run separately and by managing them in each ‘Dong’, and the neighborhood unit. Life safety governance is regarded as a life safety net whilst acting as a disaster management infrastructure in daily life. Life safety governance is rooted in a community partnership among local residents and NGOs (Non-Governmental Organizations) who are deeply aware of how to prevent, respond, and recover from a disaster. Regarding life safety under community-based governance and participation, various volunteer groups of the disaster and safety sector have endorsed the development of ‘life safety programs’ and shared safety-related activities among them. In a multilateral way, the Seoul metropolitan government tried to support various relevant programs such as disaster and

safety training for local leaders, community-customized consulting, and the creation and dissemination of ‘life safety guidelines’, and so forth.

4. Alternative Effective Multilateral Governance for Adaptation

4.1. Enhancing Multilateral Partnership among the National, Metropolitan, and Local Governments

This paper notes that the lack of cooperation among the national, metropolitan and local governments may lead to maladaptation (erroneous response of residents), which is based on separate responses of private actors to a climate change impact [29]. As [30] argued, although the role of private actors in climate change risk management and the roles of community networks and informal institutions in adaptation are to be emphasized, solid support from the government is necessary as well.

Under multilateral governance, the national government should pursue an effective bottom-up approach because the alternatives cannot be realized in a community until the fundamental improvement at the top national system level. The national government’s sustainable investment in the adaptation capacity of local governments should be present in order to enhance the effectiveness of local adaptation plans as well as the overall local resilience to climate change risk. In fact, as demonstrated by the survey [14], the civil servants of metropolitan and local governments shared the view that one of the most important actors for the adaptation is the national government.

Hence, the commitment of the national government should be concrete for the Climate Change ‘Ansim’ Village projects of local governments. Also, for the medium and the long term, it is crucial to establish a partnership base between various stakeholders in light of adaptation governance. [31] suggested, the national government is required to support a local climate change partnership or a local forum project in order to organize adaptation-related human and material resources (including organizations, systems and finance) and adaptation capacity at a local level. In addition, the national government needs to facilitate vertical and horizontal governance by strengthening the roles of intermediate support agencies, whilst being required to develop a robust partnership initiative between the metropolitan (city and province) governments and the local governments in light of the multi-level mechanism [32].

4.2. Facilitating Horizontal Governance of Adaptation Departments in the Governments

Adaptation raises a question about responsibilities and roles between each policy sector. It is ambiguous which policy sector (area) should be responsible for the adaptation and to what extent adaptation measures can be mainstreamed. In the light of a policy coherence matter, a synergy effect needs to be fostered by harmonizing the adaptation policies with general policy objectives based on the widespread participation of stakeholders [1].

However, under the bureaucratic system where the policy area is separated under different administrative departments—for example, environment, welfare, urban-planning, and so on—it is rather ambiguous to realize policy coherence through mutual cooperation and communication. In relation to this, one survey [4] portrays an important opinion of residents, indicating that the role of the control tower in adaptation should be carried out by non-environmental departments, not by environmental departments. It implies that the control tower department for adaptation currently lacks the capacity and activity of horizontal governance. Considering this limitation, this paper suggests that the authority of adaptation departments needs to be strengthened in the metropolitan and local governments by enhancing the roles of adaptation-related information provision, education and promotion, and networking activities. Moreover, in relation to adaptation policy monitoring and evaluation, the institutional foundation for horizontal governance should be arranged and supported by the local, metropolitan, and national governments.

4.3. Managing Adaptation Horizontal Governance According to the Characteristics of Climate Change Risk

At the implementation level, horizontal governance by sector matters greater, which should be in accordance with a comprehensive administration. As [33] explained, for instance, in the policy areas of disaster, health, and water management in the metropolitan and local governments in S. Korea, it is seen that adaptation governance works effectively. However, the response system to heat waves and storm and flood damage is operated based on the welfare delivery system in a top-down way. Moreover, the heat response service is offered temporarily under a public welfare administration system during the specific term when heat occurs, and it mostly focuses on vulnerable people such as the elderly living alone.

As a result, we could observe that the heat response service may lack a fundamental spatial approach (solution) such as residential environment improvement in heat-vulnerable communities. Furthermore, it lacks the community involvement. Ultimately, a governance system in relation to heat response needs to be reinforced and extended to potentially vulnerable residents. On the other hand, regarding the storm and flood damage, the disaster management system in metropolitan and local governments is effectively constructed, involves a number of residential organizations and local NGOs in relation to the policy areas of disaster management and life safety [26]. Hence, it appears to be needless to establish an additional adaptation governance system for disaster management.

4.4. Establishing Sustainable Adaptation Governance for ‘Ansim’ Village

As explained previously, the Climate Change Ansim Village project has been carried out to increase the community’s understanding and capacity of adaptation by promoting several sub-projects of residential environment improvement, namely vulnerable groups, information provision, and monitoring. Although, through the ‘Ansim’ Village, some positive impacts have been made—understanding on climate change risk, community networking, and a stakeholder partnership between the private and the public actors—the project itself is not very sustainable; in other words, it may ultimately remain a one-off business venture.

Moreover, some contents of the ‘Ansim’ Village project overlap with other village projects. Therefore, it is imperative to develop a link between similar projects and between the project-related actors. In selecting and appointing the ‘Ansim’ Villages, it is advised to firstly consider on to what extent community actors actively work, and organizations are constituted and needed to create a community consensus between residents about the necessity of ‘Ansim’ Village. Moreover, to assure the sustainability of the Village project, public and private actors must be present to make ‘Ansim’ Village manuals and guidelines, thus able to provide and share the knowledge and experience with other ‘Ansim’ Villages through an ‘Ansim’ Village network.

Author Contributions: Taewook Huh, the first and the corresponding author designed the very structure of the article and completed the writing-up under the cooperation with co-authors. Yongsung Park, as the first co-author contributed in completing the writing-up and revising the article as a whole. Last but not least, the other co-author, Ji Yun Yang has also aided in completing the writing-up as well as the proofreading.

Conflicts of Interest: The authors declare no conflict of interest.

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