# A Case Study on the Climate Change Cooperation and Capacity Building -Focused on UNITAR Jeju Cifal-GTC's program

Kim, Minchul · Choi, Hanna
(Senior Researcher, Green Technology Center, Ph.D. in Economics/ Graduate student, Department of Technology and Innovation Management, Hanyang University)

## Abstract

This is a descriptive case study of the capacity building program in the field of climate change cooperation achieved by UNITAR Jeju Cifal and GTC(Green Technology Center). The study included the GTC's expertise in climate technology and the UNITAR's collaboration program, an international training body in the environment, peace and security. First, in this study, the results of the satisfaction survey of the education and training in 2017 were analyzed. Education demand for climate change adaptation was shown to be high, and technology demand needed in developing countries was found to be the highest demand for ecosystem monitoring/restoration. Second, an analysis of the program for 2018 showed that South Korea's Eco-city project case is also worth referring to Asian Pacific countries. It was also found that exchanges and discussion activities among participants were more helpful than simple lectures. Meanwhile, development of city-share programs, including self-evaluation, was found to be necessary. Finally, we discussed ways to improve the city-share program in UNITAR. Sharing urban information among peers in this program is beneficial. However, it is necessary to plan programs that have a prior understanding of the culture and background of participants. And it is also important for participants to follow up on their own goals by setting up action plans and checking them after training. It is also necessary to make it clear to participants that there is an organic connection at each stage of the program. That way, participants will set up and plan problems in the climate technology sector of their own country or city, and the effect of education and training will be even greater.

**Key words :**
Climate Change Cooperation, Capacity Building, UNITAR Jeju Cifal, GTC(Green Technology Center), City Share Program, Developing Country

## Introduction

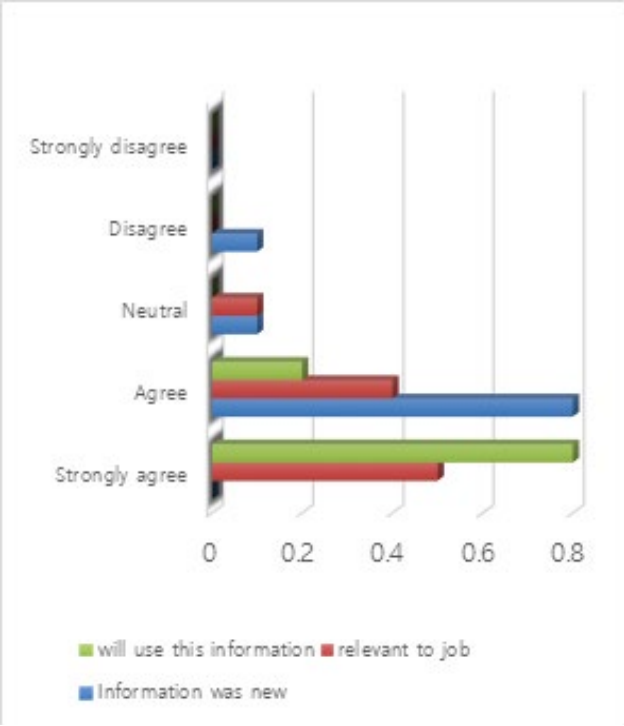
The Green Technology Center is a government-funded research center that promotes capacity building in the climate technology field. In 2018, it opened a climate change adaptation program in the Hague.[1] In addition, it also carried out a capacity improvement program in Bhutan's Thimphu[2] city. UNITAR Jeju Cifal support Korea to take leading role in the two thematic areas; Environment and Human Security. The two agencies have jointly operated capacity building programs since 2016. In this study, the results of the joint program's survey in 2017 are analyzed. And joint program in 2018 is evaluated, and this paper propose the development plan on city share methodology applied to these capacity-building.

## 2017 Climate Technology Cooperation Capacity Building Program for Developing Nations Outcome[3]

In 2017, UNITAR and GTC held capacity building programs in Bangkok and Jeju Island. This chapter consists of evaluation for "Survey Results on Satisfaction on Jeju Island Workshop". The workshop was organized base on the survey conducted in Bangkok and the satisfaction and dissatisfaction on each item of the program were surveyed. Most respondents responded that they acquired knowledge and experience on technological trends that they had not had before the program. The age and position of participants were evenly distributed, but more novel content should be provided to some participants.

## Satisfaction on Program's Contents

Program content exhibits a general outline of the program, demonstrating whether the program can provide the information that participants need and is a critical factor when planning a program.




〈Table 1. Benefits of contents on GTC-UNITAR Program〉

Various climate technologies were introduced in the program and respondents exhibited high level of satisfaction on the usability of related information. However, since the level of knowledge on climate technology various between individually, depending on their level of expertise, more novel content should be provided o some participants. In addition, since participants were from the academia, business, and government and had different occupations and the information on climate technology was delivered with high level of specialty, some participants responded that the information provided in the program was irrelevant to them, because they might not actually utilize the information unless their jobs are related with climate technology. Therefore, selecting those who really need education is important for successful training.

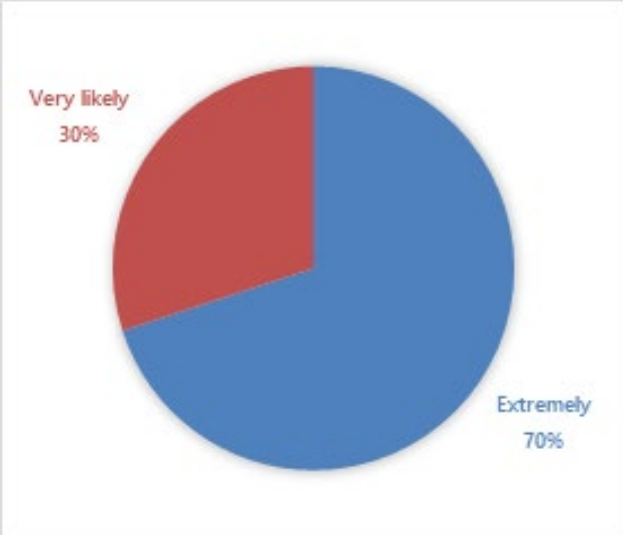
1) GTC-KEI's Climate Change Resilience and Financing Program (Hague, the Netherlands in collaboration with the KEI which has content and UNCDF focusing on financing local governments, provided only lectures on climate technology and local governments in 2017. This year, however, participants were able to understand what climate technology is and think of technology demands, as the program included a session of the GTC's climate adaptation technology classification. The educational institution, Hague Academy, is a fitting place for trainees such as government officials in Africa; in this sense, the demand for lectures on technology as well as future adaptation policy is expected to continue(Green Technology Center, 2018 Climate Technology Cooperation Capacity Building Activities for Developing Nations Outcome Report, 2018, p.58).

2) Workshop on Strengthening Partnership between ROK and Bhutan for Local Development (Thimphu, Bhutan) was significant as the follow-up program was delivered in line with the MOU with UNITAR and the capacity building program. The workshop demonstrated that even a workshop for unspecified individuals would lead to climate technology cooperation when content for the workshop was well organized. The foundation for the cooperation with SNUAC was also established as SNUAC's database of regional information would be shared on the climate technology demand sector of CTis. Mayors of Thimphu, Gelephu, Phuntsholing and Samdrup Jongkhar Thromde showed considerable interest in Korea's climate technology and asked for support for continuous capacity building and consultation. The workshop can be a good model in providing tailored workshop projects for countries that need capacity building by utilizing the strengths of universities, government-funded research institutes and international organization.

3) Table and figure in this chapter are taken from "Green Technology Center, 2017 Climate Technology Cooperation Capacity Building Program for Developing Nations Outcome Report, 2017". This survey result was conducted by UNITAR and the interpretation of it was based on "Green Technology Center, 2017 Climate Technology Cooperation Capacity Building Program for Developing Nations Outcome Report, 2017". The author of this paper analyzed with additional comments.

### Level of Knowledge Acquisition Through This Program and Willingness to Utilize Related Knowledge

This program delivered knowledge on a host of fields including the types of climate change mitigation/adaptation technologies, how they work, and their management policy and system and the willingness to utilize the knowledge was surveyed.

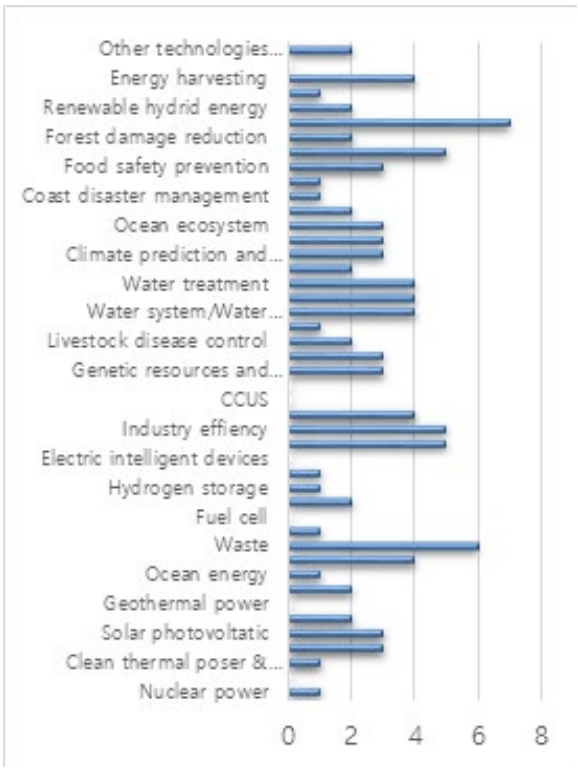



〈Table 2. Will to Use Information from the Program〉

All the participants responded positively on the willingness to utilize the knowledge acquired through this program, responding that they will utilize the knowledge in the future. 70% of total respondents positively evaluated the program, demonstrating that the knowledge delivered in the program was useful to participants. The inclusion of both enabling environment[4] and climate technology in the program may be the reason of this survey result.

### Survey on Technology Needed in Participants' Countries

This questionnaire was created to survey which technology is needed in the participants' countries. Climate technology consists of mitigation/adaptation technology in general and you can refer to the questionnaire on climate technology needed in one's country.




〈Table 3. Technology Needed in One's Country Among Various Climate Technologies〉

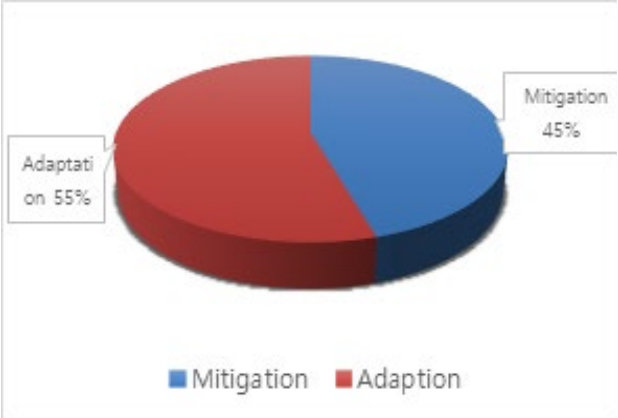
The diagram above demonstrates the technologies that more than three participants chose as the technology they need, exhibiting technologies with relatively high level of necessity. Ecosystem monitoring/restoration technology had the highest level of necessity due to the importance of development and systematic management and maintenance technologies. Each country's technological needs from participants will help planning capacity-building programs. In addition, such information could be basic data that could enable participants to engage in mutual climate technology cooperation or support commercialization.

Serious illumination of the social role in science and technology is taking place amid the breakdown of trust in the development of science and technology and the spreading concerns of the fourth industrial revolution. At the same time, interest in appropriate technology is growing. With the reflection that most of the existing scientific research activities are being carried out for the needs of 10% of the wealthy and the ability to consume, interest in appropriate technologies for 90% of the people who are alienated from science and technology is increasing.[5] The goal of appropriate technology is to realize intermediate technology, which is superior to

4) The enabling environment is the broad social system within which people and organizations function. It includes all the rules, laws, policies, power relations and social norms that govern civic engagement. It is the enabling environment that sets the overall scope for capacity development(UNDP, Capacity Development: A UNDP PRIMER, 2009, p.11).

4) Yoon Je-yong, Appropriate Technology for Social Value Realization, Journal of Symposium, The Korean Sociological Association, 2017, p.100.

indigenous technology in underdeveloped countries and cheaper than those of the rich. For participants in developing countries of UNITAR-GTC capacity building, dissemination of appropriate technologies and their proliferation will be more important than high-tech technologies. When self-assessment is performed in a capacity-building program, it will be possible to derive the appropriate technology suitable for the country to which the participants belong and to conduct training accordingly, which will create shared value.




〈Table 4. High Necessity Technology Section For Developing Countries〉

Among the technologies with high ratio compiled above, the ratio of mitigation and adaptation technologies was analyzed. Adaptation technologies took up higher ratio in general compared to mitigation technologies because participants' need for resource utilization and usage through adaptation technologies was higher than their need for mitigation technologies.

In the process of exchanges with the international community, the nation can consider active cooperation with international organizations. This will lead to the establishment of information exchanges and networks related to climate change adaptation, double the efficiency and effectiveness of projects through business cooperation with various related organizations, and share our adaptive and cooperative experience with the international community, so that good cases can be reproduced over and over again.[7]

Korea was also a lack of adaptation rather than climate change mitigation. It has opened KACCC(KOREA ADAPTATION CENTER FOR CLIMATE CHANGE) and is strengthening its overseas partnership regarding climate change adaptation or technology transfer to developing countries. In the case of developing countries, there is a high demand for technology to adapt to climate change in case of weather change and disasters Such capacity building in the field of adaptation to developing countries can also be an opportunity for Korean companies. In Korea, there is also a competitive industrial group related to the fourth industrial revolution, and technological support from developing countries will help both contribute to the international community and revitalize domestic industries.

It is also necessary to apply the strengths of domestic technology development more actively to strengthening capabilities of developing countries in relation to climate change adaptation technology. In May 2018, the Jeju Special Self-Governing Province Development Corp. and the Korea Institute of Construction and Technology published a report on the development of integrated water management technologies to adapt to climate change in Jeju. The report also looked at cases of islands in Hawaii or Spain in the U.S. In this way, research on the management of scientific water resources for the island region of Jeju City is worthy of benchmarking by Asian Pacific island nations. Also, if research8 on advanced legislation on climate change is provided to officials in developing countries, it will greatly help them plan for the country and design and legislate policies of local governments. Asia-Pacific countries have a big role for their government in adapting to climate change. Therefore, capacity-building education for officials in developing countries can bring about major changes in policies and legislation.

## Assessments and Improvements Needed

In general, the survey item on knowledge acquisition and utilization through the program exhibited high level of satisfaction and all participants responded that they would recommend the workshop to other people. Since participants' age, place of work, and job are evenly distributed, more novel knowledge should be provided for all participants. However, the event aimed to provide satisfactory information to all participants and in conclusion, since all participants responded that

6) Chung, Yongkyo, Development and Application of Appropriate Technology Program in Vietnamese Society focusing on a new Possibility of University Education, Korean Journal of General Education 11(3), 2017, p.591

7) Park, Yong-Ha ,Chung, Suh-Yong, Son, Yowhan ,Lee, Woo-Kyun , Investigation on Enhancing Efficiency in International Cooperation for Climate Change Adaptation of Republic of Korea, Journal of Climate Change Research, Vol.1 No.2, 2010, p.183

8) For example, KIM Doosu · KIM, Minchul, Analysis of Hawaii's Climate Change Act and Implications for Korea's Climate Change Response Legislation, Environmental Law Review, Vol.41 No1, 2019; Park Jong-won, Some Lessons from the Climate Change Adaptation System under the Climate Change Act, Environmental Law Review, Vol.38 No2, 2016.

they are satisfied with the program, the program can be regarded as a successful one. Among overall survey items, many participants responded that they were not satisfied with the time allocation of the program, saying that the workshop was too short. In addition, participants responded that due to lack of time for mutual exchange and communication, they could not interact much with other participants, so they would like the session to be longer.Since the number of participants were less than planned, more participants should be recruited in the programs in the future by preparing more thoroughly.

## 2018's "Workshop on Strengthening Governance for Low-carbon Integrated Solid Waste Management and Circular Economy" (Jeju Island, Korea)

Workshop's background and target

GTC and UNITAR CIFAL Jeju organized a capacity-building program titled "Workshop on Strengthening Governance for Low-carbon Integrated Solid Waste Management (ISWM) and Circular Economy" from April 24th to April 27th, 2018. The workshop had been planned to help national and local governments of developing countries to apply the ISWM plan based on the 3R-Reduce, Reuse, and Recycle-waste hierarchy and to establish a master plan for solid waste management. The workshop casts a long shadow to the participants in that rapid urbanization and industrialization resulted in increased solid and hazardous waste generation which has rendered it difficult for developing countries to manage the wastes. This overall goal of the course was to enhance the participants' knowledge and skills for applying the ISWM. Participants learned about: the purpose, scope and application of ISWM; on-site application of ISWM technical processes; and Korea's wastes management strategies and policies. Participants had an opportunity to apply the knowledge to different exercises and tests, so they will be prepared to implement ISWM in their own work context.[9]

## Participant's Implications and Improvements Needed

Participants from the Asia-Pacific region will be able to utilize the policy, technology, and best practices shared by Korea and Japan which have similar environments and cultures when returning to their own countries. As Korea's Eco-city and projects in other countries were introduced, similar cases would be highly likely made in other Asia-Pacific countries. Participants showed greater interest and more actively participated in group activities than in lectures, and asked to put more time in group activities. In this sense, adding more hours to group activities should be considered for next workshops. It is also needed to offer follow-up management by reviewing participants' self-evaluation before workshop and action plans after workshop in CTis[10].

## A Suggestion for Development of UNITAR's city share program[11]

The UNITAR's city share training program is very well structured, and organized program. The program mainly applies the participatory approach, by which the participants are required to interact, and participate actively throughout the program. It is an intensive training program: being organized for a weeklong event. Each training has specific focus theme of environmental related subjects, such as waste management, water, and climate change, etc. The city share program integrates the participants with the diverse cultural, and professional background from the different geographical area of both developed and developing nations. In addition, participants represent the different sectors such as universities, non-governmental organizations, ministries, municipalities who are working on the same theme. This cosmopolitan classroom environment in the training program allows the participants to exchange and learn different countries' experiences and lessons of successful and unsuccessful cases, which individual participants can apply or avoid in their future programs implementation in their own countries. And the trainings are lead and instructed by the experts with decades of professional experiences in the sector or in the field. The experts bring not only their invaluable experiences and knowledge but also enthusiasms to the classes to explain, share and motivate the participants. The training covers wide range of aspects on each specific topic. However, it gives much more on overview with case studies of each topic covered, than the details.

9) KIM, Minchul, KIM, Jiwhan, KIM, Hyeonmin, A Case Study on Korean Capacity-Building Programs for Climate-Change Experts, The Journal of Core Competency Education Research, Vol.03 No.01, 2018.6, pp.74-75.

10) Green Technology Center, 2018 Climate Technology Cooperation Capacity Building Activities for Developing Nations Outcome Report, 2018, p.58.

11) This chapter is based on manuscripts and an interview with Susu Myat who has completed UNITAR-GTC's 2018 Capacity Building Program.

## City share knowledge management methodology

This methodology is unique which guides through well-explained consecutive steps. This allows cities to map their existing capacity in the given sector, and to identify strength and challenges of each cities to share their experiences and support each other to collectively develop the future action plan for environmentally sound cities. The methodology includes four steps: Self-Assessment, River Diagram, Peer Assist, Knowledge Assets, Knowledge Fair, Action Plan. UNDP also has a methodology for these capacity-building programs, and UNITAR's methodology is applied to each region in different way.

## Strengths and Weaknesses of the Methodology

- Self-assessment

The main objective of "Self-assessment" is, for the cities, to identify the needs to be improved or get supported, and the strengths which they could use to support others, or to share as the best cases. This allows cities to review themselves, where they currently are on the given subject in term of willingness, awareness, human and technical capacities, and data availability. The assessment is guided with pre-defined set of indicators and questions. Participants are informed and got instruction and information to do the assessment before the training, which is also important that participants have some time to collect the necessary information. During the round table discussion, participants received guidance for rating and justification of their responses. The self-assessment methodology should also take into account of the role of participants. By doing so, it should reconsider and clarify if the participants need to assess the current situation (on the given sector or topic) of city or that of the participants' department or organization or project in that particular city. Since the participants are representing the many different organizations, their roles and mandates are also different to act on the given subjects (for example Solid Waste Management). In our case, me and my fellow participants found that some of the pre-defined assessment questions are difficult to respond for the reasons: 1) our organizations are not in the direct position to be fully aware of the information asked, 2) we are not in the place to rate as the mandate of our organization is not in that particular area. And the participants are also asked to choose three priority area while accessing their city situation. Further information would be needed to support this activity, if participants have to choose three priorities from the list of indicators described on the matrix or they can propose any. If the other aspects are allowed to add, there should also be the way to describe their identified priorities on the river diagram or in their presentation. It will be a more advanced methodology since it will be self-assessed through the Climate Technology Information System[12] and can be compared with other participants since 2019.

- Self-assessment matrix

Self-assessment matrix is the assessment tool provided with the set of pre-defined indicators and rating scales. The rating scales are given as 1 (basic) to 4 (high). Each rating scale is explained with question to help participants choose the scale to rate the indicators. It is a guide for the participants to do the self-assessment easily. The assessment questions use the words "We or Our". In that way, these questions are tailored to directly reflect the conditions of the respondents by answering to them It means when participants answer those questions, and choose the number to judge their current level on the given indicators, the results will represent the capacity, knowledge and awareness of that participants' organizations' ability and knowledge and activities. Therefore, the results would not necessarily represent the whole city's situation. Instead, the assessment methods should provide the option to show the roles of participating organizations (such as University, NGOs, Municipalities, Ministry of Agricultural, etc.) it would also be interesting to add more indicators to understand "how the participating organization is collaborating with other organizations in the cities, and "how the participating organization support or get supported by their counterparts". For instance, our NGO work with city municipality to implement solid waste management project. We provide technical support to the municipality in project implementation, and they take the position to make decision as the project lead.

- River diagram

River diagram is the graphical representation of the self-assessment result. It is a great visualization tool to picture the cities' situation, and is a very useful communication tool for the cities to present themselves about their self-assessment results. However, this diagram is also the continuation and

12) CTis is an information portal and online platform to support the Global Climate Technology Cooperation. CTis corresponds to the system after the receiver by providing a systematic and international weather information and technical cooperation, designed to promote national climate technology development and transfer(https://www.ctis.re.kr).

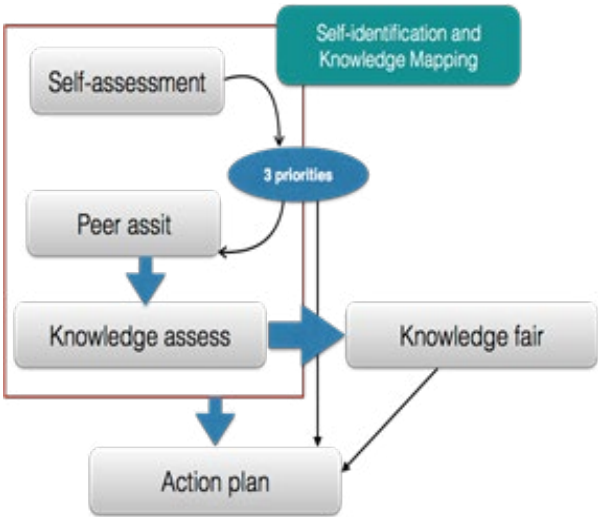
output of the self-assessment, it should also open to provide the options to describe the participating organizations on the chart. For instance, if the participants from Myanmar represent University, as stated above, the river diagram would not necessarily be presenting the whole country or city itself – instead it would display the capacity or the situation of what the University can do, and what its ability and position are in that city of Myanmar.

– Knowledge Fair

During this session, participants post their identified "demand", and "offer" written on the post-it on the wall. Participants explained their knowledge assess to each other, and discuss together. Participants can also note down the contacts of the city which they want to work with, as the contacts are also displayed together with offer and demand. This city share methodology is very practical, and in practice, it is very effective and beneficial. One of the city alliance program (http://www.cityalliance-psc.org/about/ ) of South East Asia cities initiated by an iNGO, which Susu-Myat participated in also used similar kind of methodology in a-day event – to do self-assessment, and to map the cities' knowledge, and identify "which ones of them has strength on the particular topic to support others", and "which ones need help". In their case, the differences with the UNITAR's city share program is the participants' background. In that program, although the participants are from the different cities, and different countries, they hold the similar position – that is most of them are from the city municipalities or same kind of organization". In that case, the participants share the same level of mandates, and roles in their city and countries, as well as the same level of understanding on their city development programs. These shared announcements are posted during the training period and are kept by the UNITAR's office. Unless it's a special secret, it would be better to scan and post presentations on the Web and access and recall them after the training is over.

– Link between the stages of the Methodology

As described on the following diagram, the stages of the city share methodology are linked to each other. It would also be useful to present clearly the linkages of each stages to the participants. In the first stage "self-assessment", participants are asked to list three priorities. Therefore, in the following stages, if it is relevant, participants could focus on selecting the issues and solutions of their priorities area identified in the earlier session. In such way, participants can draw the action plan for one of their priority needs.




〈Figure 1. Linkages between the stages of City Share Methodology(Susu Myat's manuscrips, 2018)〉

– Action Plan

The action planning exercise is a practical exercise: easy to understand and to follow. At the end of the session, participants produced a basic draft action plan layout, which could be expanded to develop the comprehensive plan to develop the project or program in the cities. However, the activity should be more closely linked to the post training implementation approaches. If participants draw the action plan based on their identified priorities, and with respect to their potential roles in the proposed actions, the chance of implementing the actions on the ground will be higher after completing the training. For example, the representative of the University should propose an action, based on how they could participate in implementing the action. And participants from the same institution in the same country are steadily participating in UNITAR's program. In such cases, it would be better to present action plans for past participants in advance and refer them to create new action plans that reflect changing external conditions.

## Conclusions

An analysis of the GTC-UNITAR's 2017 Capacity Building Program for Development Counties showed that it was a program that helped them learn Korean climate technology and find insights that can be applied to developing countries. It was also a meaningful work to learn about technology trends in climate technology and to establish a network among participants. However, it was emphasized that the program should be designed considering the different understanding or prior knowledge of climate technology information. The survey results indicated that it was necessary for developing

countries to participate in the Forest Damage Reduction or the Waste related in. In addition, identifying technology demand from each country from these programs should be continuously managed. It also showed higher demand for technology related to climate change adaptation than for climate change reduction.

GTC–UNITAR's 2018 Capacity Building Program for Developing Nations has two features. First, it provided a hybrid program, a combination of a capacity building program with themes focusing on the demand of developing nations and a capacity development activity to offer opportunities to other developing nations which were interested in the program. The 2018 program was focused on capacity building in integrated solid waste management for government officials in Bhutan; by doing so, cooperative businesses were continuously created as developed capacity led to a business to establish a master plan of solid waste management for cities in Bhutan. In addition, seeking opportunities for capacity building was possible by making developing nations participate in the program based on UNITAR's network. As a result, new cooperative businesses followed; for example, the city of Thimphu submitted a letter of interest to push forward a capacity building program and Myanmar requested to conduct a cooperation workshop on capacity building. Second, it suggested a new methodology supporting developing nations in mapping out implementation plans by utilizing well–organized programs such as City Share. The GTC expanded the use of City Share to climate technology cooperation, helping developing nations consider various options when formulating implementation plans. Furthermore, outcomes were added to CTis's database, thereby paving the way for analyzing relations and trends through big data analysis in the future. The 2018 Capacity Building Program for Developing Nations contributed to expanding the breadth and depth of capacity building and capacity development in climate technology cooperation going forward and is expected to produce various outcomes contingent on future applications.[13]

The knowledge sharing methodology of UNITAR's city share program is very unique and designed for the cities to share their knowledge, to learn from each other and to support each other. Since the training involve participants of mixed background, the methodology should also adapt to consider "the role play" of individual participants not only in the training, but also in the project implementations in their cities. This knowledge sharing session should strongly link to follow up activities, since it already initiates the systematic start–up, and provides the initial plan. These foundations laid for the cities during the training will greatly support the cities to elaborate them to plan and implement further.

ENGOs are unique organizations that play a vital role to educating, empowering and building the capacity of individuals, groups, and communities to resolve environmental issues. In general, an ENGO's organizational capacity is its capability to achieve environmental protection that forms the core of its mission. In other words, capacity measures the ENGO's performance in its programs and services to address environmental issues. Thus, an ENGO's capacity building is about improving its capacities to build the capacities of its beneficiaries.[14] UNITAR CIFAL Jeju was created in 2010 by the agreement among the UNITAR, Jeju Special Self–Governing Province and International Peace Foundation. Based on this establishment, UNITAR CIFAL Jeju will a have many opportunities to collaborate with ENGO on climate change field. Furthermore, it is worth considering the joint program of GTC, UNITAR, and ENGOs.

13) Green Technology Center, 2018 Climate Technology Cooperation Capacity Building Activities for Developing Nations Outcome Report, 2018, p.59.

14) Muthusami Kumaran, Organizational Capacity Building and Strategic Growth for Environmental NGOs : A Primer, World Environment and Island Studies, Volume 8, Number 3 ,2018, p.13.

**References**

[1] Chung, Yongkyo(2017), Development and Application of Appropriate Technology Program in Vietnamese Society focusing on a new Possibility of University Education, Korean Journal of General Education 11(3), p.591

[2] Green Technology Center(2017), 2017 Climate Technology Cooperation Capacity Building Program for Developing Nations Outcome Report

[3] Green Technology Center(2018), 2018 Climate Technology Cooperation Capacity Building Activities for Developing Nations Outcome Report

[4] Green Technology Center(2018), Green Climate Technology White Paper

[5] Hanna Choi, Kim Minchul, Jewoo Park(2018), Assessment of the UK's Climate Change Capacity-Building Policy's Implications on Korean Policy through Advisor's Core Competency Analysis, The Journal of Core Competency Education Research, Vol.03 No.02, pp.43-63.

[6] KIM Doosu · KIM, Minchul(2019), Analysis of Hawaii's Climate Change Act and Implications for Korea's Climate Change Response Legislation, Environmental Law Review, Vol.41 No1

[7] KIM, Minchul, KIM, Jiwhan, KIM, Hyeonmin(2018), A Case Study on Korean Capacity-Building Programs for Climate-Change Experts, The Journal of Core Competency Education Research, Vol.03 No.01, pp.74-75.

[8] Muthusami Kumaran(2018), Organizational Capacity Building and Strategic Growth for Environmental NGOs : A Primer, World Environment and Island Studies, Volume 8, Number 3 , p.13.

[9] Park Jong-won(2016), Some Lessons from the Climate Change Adaptation System under the Climate Change Act, Environmental Law Review, Vol.38 No2

[10] Park, Yong-Ha ,Chung, Suh-Yong, Son, Yowhan ,Lee, Woo-Kyun(2010) , Investigation on Enhancing Efficiency in International Cooperation for Climate Change Adaptation of Republic of Korea, Journal of Climate Change Research, Vol.1 No.2, p.183

[11] UNDP(2009), Capacity Development: A UNDP PRIMER, p.11

[12] Yoon Je-yong(2017), Appropriate Technology for Social Value Realization, Journal of Symposium, The Korean Sociological Association, p.100

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