

Developed picture-story show for learning earthquake DRR

Lesson used the picture-story show

Source: JICA Expert Team

Figure II.1.28 Picture-Story Show for Kid's Room

II.2 Achievements of the Project

II.2.1 Outputs and indicators

(1) Output1

The following three indicators are applied to evaluate the achievement of the Output 1 based on the PDM.

1.1 The number of guidelines, operational rules, provisions which are developed.

As described in Activity 1.1.1, three (3) kinds of GLs were decided to be developed in Output 1 namely, the "Earthquake Disaster Risk Assessment GL", "Earthquake Disaster Protection Planning GL", and "Disaster Database GL". In the category of "Earthquake Disaster Protection Planning GL", three (3) administrative levels of GLs were decided to be developed, namely "National Level", "State Service Level", "Regional Level".. Thus, finally five (5) GLs were developed as shown below.

- ✓ Earthquake Disaster Risk Assessment GL
- ✓ National Earthquake Disaster Protection Planning GL
- ✓ State Earthquake Disaster Protection Service Planning GL
- ✓ Regional Level Earthquake Disaster Protection Planning GL
- ✓ GL on Operation and Management of Spatial Information System for Disaster Risk Reduction

The WG1 also developed the following documents as an appendix for the GLs.

- ✓ Technical GL for Earthquake Risk Assessment
- ✓ Operation Manual on Earthquake Risk Assessment Software

✓ Manual for Earthquake Disaster Risk Reduction Planning

A total of eight (8) GLs and manuals are developed by WG1. Therefore, it is concluded that the achievement is high.

1.2 The number of the drafts of agreements developed and participants who participated in the programs on agreements

The number of the drafts of the agreements developed by the WG1 is nine (9). At the beginning of the Project, it was considered to be four (4) cases. Thus, the number of the draft agreement shows a high degree of achievement.

For the training program, a total of 38 people from the Ministry of Health, National Hospital, Private hospital association, Pharmaceutical association, Ministry of Food and Agriculture, Ministry of Construction and Urban Development, Ministry of Road and Transportation Development, Mineral Resource and Petroleum Agency, Communication and Information Technology Agency, NEMA and EMDC participated to the training. Of the 50 invitees, 38 actually attended. Although the number of participants is not large, the participants' organization contributed the promotion of conclusion of agreement with NEMA.

From these viewpoints, it can be said that the achievement rate is high.

1.3 White paper on disaster risk reduction

"Mongolia Disaster Risk Reduction White Paper 2017" in both Mongolian and English was published with 300 copies in December 2018.

Prior to this, for the AMCDRR held in July 2018 at UB City, summary of the 2017 White Paper in English was edited by WG1. One thousand copies of the summary were printed and distributed to the participants of the Conference.

"Creation Manual of the Disaster Risk Reduction White Paper" was also developed by WG1.

Although the 2018 version of the Paper has not been published yet, WG1 completed the contents of the Paper and the composition of the Paper was approved at the executive meeting in October 2019. Currently, editing work is in progress at the Disaster Prevention Department. It is expected that the Paper will be published in December 2019.

(2) Output2

The following two indicators were applied to evaluate the achievement of the Output 2

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based on the PDM.

2.1 Guideline for seismic assessment: The number of the participants in the training program on seismic assessment

After obtaining the approval on the draft GLs by STC of MCUD, WG2 conducted a training course of seismic evaluation for buildings on June 4th to 6th, 2018, and one for infrastructures and lifeline structures on June 7th, 2018. For the former, 110 trainees including inspectors from GASI participated. For the latter, 70 trainees which were also beyond the estimate participated.

In addition to the planned training course above, a training course on seismic evaluation was held in Erdenet on September 8th, 2018 in response to MACE's request. Twenty-three (23) engineers in Erdenet attended it. It is noted that collaboration with MACE will be one of practical way to disseminate the technology on seismic evaluation and seismic strengthening, since the MACE's program can make attendees motivated to participate by giving them "points" needed to be a registered engineer.

On November 12th to 13th, 2018, the training course on non-destructive inspection equipment for seismic evaluation was conducted, in which 64 trainees participated.

After the publication of guidelines, TOTs started to disseminate the technology as mentioned before, in which 53 officers participated. Also 68 engineers from private companies participated in the training program for seismic evaluation supported by MACE, to which WG2 contributed.

The total number of participants is considerably beyond the estimate. So it is concluded the achievement is high.

2.2 Guideline for seismic strengthening: The number of the training program on seismic strengthening

Since the training program for seismic strengthening contains RC, PC and masonry buildings, it became unnecessary to prepare several programs. On May 1st to 3rd, 2019, the planned training course on seismic strengthening was conducted, in which 65 trainees participated.

It is noted that the number of participants was beyond the estimate and the achievement is high.

(3) Output3

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The following two indicators are applied to evaluate the achievement of the Output 3 based on the PDM.

3.1 The number of the cases of delivering classes on disaster risk reduction based on the activities of the Project

Due to the delay of the editing work, the WG3 developed the Guidebook for teachers to implement “Life-Safety Education” Program with the reference DVDs in October 2019 which was printed and distributed to the schools in November 2019. Full-fledged implementation of the Program at schools will be started from second semester of 2019 school year. Therefore, at this moment, it is difficult to evaluate the number of the cases of delivering classes on DRR based on the activities of the Project. Since the implementation of the “Life-Safety Education” is the responsibilities of each school under the approved Decree, it would be conducted in all schools. Further, another Decree to support the implementation of the “Life-Safety Education” is under preparation which includes descriptions on necessary measures for enabling environment, budget preparation, coordination with relevant stakeholders, and capacity development for teachers. This will ensure the delivering of classes on DRR.

3.2 The number of visitors in DPTMC

The WG3 developed educational materials in March 2019 and improved the training program for DPTMC in line with the “Life-Safety Education” Program for DRR education and raising awareness. The program was approved in July 2019 by Decree of EMDC Director.

After the handing over ceremony of the equipment of earthquake simulation experience conducted at the Earthquake Experience Room of DPTMC on 20 March 2019, the equipment and all exhibitions including explanatory materials of earthquake mechanism and the miniature building models for learning seismic retrofitting have been made available for the training program for implementing earthquake disaster prevention.

As of 17 September 2019, the number of visitors to DPTMC who participated in the training program for implementing earthquake disaster prevention from opening at the Earthquake Experience Room was about 16,820 persons collectively. The breakdown of visitors' number is shown in below.

Table II.2.1 Number of visitors to DPTMC

Group of Visitors	Number of Visitors
	From March 23 to September 17, 2019
	59

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Public Service	4,008
Private Firm	5,054
Residents	4,372
School Students including Kindergarten, Primary, Lower-Secondary, higher-Secondary	9,041
University & College Students	1,835
Teachers	427
Total	24,737

Source: DPTMC

(4) Indicators

The project output indicators are summarized in Table II.2.2.

Table II.2.2 Project Output and Indicator

Outputs	Objectively Verifiable Indicator	Achieved Value	
1. Capacity for data collection on disaster risk reduction and coordination among related organizations will be enhanced.	1.1 To improve frameworks for disaster risk reduction by reflecting the Amended Law of Disaster Protection	<ul style="list-style-type: none"> · Guideline(GL) on Earthquake Disaster Risk Assessment · GLs on Earthquake Disaster Protection Planning (3 GLs for "National", "State", "Regional") · GL on Operation and Management of Spatial Information System for Disaster Risk Reduction · Manual to Support Earthquake Disaster Protection Planning · Manual to Support Conclusion of Agreements on DRR · Manual to Support development of White Paper for DRR 	<ul style="list-style-type: none"> · The number of guidelines, operational rules, and provisions which are developed. 8 / 8 (developed) (5 GLs of 8 GLs were approved.)
	1.2 To strengthen cooperation among related organizations for disaster risk reduction	<ul style="list-style-type: none"> · Agreements on cooperation among governmental agencies and related organizations for DRR actions (9 agreements planned to be developed) · Agreements on spatial database exchange among the DRR related organizations (2 agreements planned to be developed) 	<ul style="list-style-type: none"> · The number of the draft of agreements developed 11 / 11 (developed) (9 agreements have already been signed officially.) · The number of participants who participated in the training programs on agreements : 38 trainees (Apr. 8, 2018)
	1.3 To improve monitoring and information gathering methods for national and local disaster protection plans	<ul style="list-style-type: none"> · Earthquake Disaster Protection Plans in pilot aimags and Districts (2 aimags and 2 Districts in UB city) · White Paper for DRR in 2017, 2018 · Spatial Information System for Disaster Risk Reduction including Disaster Spatial Database 	<ul style="list-style-type: none"> · Pilot Activity for local earthquake disaster protection planning in the pilot area(2 aimags, 2 districts of UB City) · White Paper for Disaster Risk Reduction 1 (approved) / 2 (developed)
2. Capacity of public	2.1 To establish seismic	<ul style="list-style-type: none"> · GLs on Seismic · Guideline for seismic 	

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administration officer related with the seismic assessment and seismic strengthening for buildings will be enhanced.	assessment methods for buildings, infrastructures and lifelines in the country, and to implement training program on seismic assessment	Evaluation of Buildings (3 GLs : RC, PC and Masonry) ·GL on Seismic Evaluation on Infrastructures and lifelines · Manual to Support Training Program Implementation	assessment 4 (approved) / 4 (developed) · The number of the participants in the training program on seismic assessment · Seismic evaluation 180 trainees (Jun. 4-7, 2018, Hosted by Project) 247 trainees (Hosted by others, including TOT and MACE's program) · How to use equipment for seismic evaluation 64 Trainees (Nov. 12-13, 2018, Hosted by Project)
	2.2 To develop seismic strengthening guidelines for buildings in the country, and to implement training program on seismic strengthening	· GLs on Seismic Strengthening of Buildings (3 GLs : RC, PC and Masonry) · Trial Designs of Rebuilding and Strengthening Construction (5 kinds of buildings) · Manual to Support Training Program Implementation	· Guideline for seismic strengthening 3(approved) / 3 (planned to be developed) · The number of training programs on seismic strengthening : · The number of training programs on seismic strengthening : 65 participants (May. 1-3, 2019, Hosted by Project) 42 participants (Hosted by others, including TOT and MACE's program)
3. Implementation plan on disaster risk reduction education and awareness raising activities will be developed and realized.	3.1 To develop a guideline for disaster risk reduction education and educational materials in kindergartens and schools, and to implement training program for instructors and teachers	· GL titled "The Program for Life Safety Education" · Guidebook for teachers to implement lessons based on the GL "The Program of Life Safety Education"	· The number of the cases of delivering classes on disaster risk reduction based on the activities of the Project: Classes on DRR education will be delivered from the second semester of the 2019 school year.
	3.2 To develop materials for disaster risk reduction education and raising awareness, and to implement training program for target groups and residents	· DRR Training Materials for the Community · Disaster Prevention and Simulation Program with related Materials in the DPTMC · Webpage for sharing the DRR training schedule	· The number of visitors in DPTMC: Total 24,737 (9,041 students and 15,696 citizens visitors from 23 Mar. to 17 September 2019 (16,820 persons for the Earthquake Experience Room)

Source: JICA Expert Team

II.2.2 Project Purpose and indicators

The "The Capacity of the National Emergency Management Agency will be enhanced through the activities for strengthening the countermeasures for seismic risk" were achieved based on the assessment of objectively verifiable indicators that revised in the 8th JCC held on June 5, 2019. The achievements of the Project Purpose are summarized in Table II.2.3.

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Table II.2.3 Project Purpose Output and Indicator

Project Purpose	Objectively Verifiable Indicator	Achieved Value
The Capacity of the National Emergency Management Agency will be enhanced through the activities for strengthening the countermeasures for seismic risk.	The number of the approved guidelines, rules, and provisions/ The number of the Earthquake Disaster Protection Plans formulated or revised based on the guidelines developed through the activity in the Project	OUPUT 1 Activity: 8 (approved) / 9 (developed) OUPUT 2 Activity: 7 (approved) / 7 (developed) OUPUT 3 Activity: 2 (approved) / 2 (developed) The number of the Earthquake Disaster Protection Plans formulated or revised based on the guidelines developed through the activity in the Project: • 2 (approved) / 5 developed : National Level, 2 Aimags, 2 Districts)
	Following systems for Earthquake Disaster Risk Reduction which have taken root in NEMA based on the approved guidelines, rules, and provisions:	<ul style="list-style-type: none"> • Formulation and Revision of Regional Earthquake Disaster Protection Plan • Development of White Paper for Disaster Risk Reduction • Collection and Management of Disaster Related Information • Implementation of Earthquake Risk Assessment • Promotion of Disaster Risk Reduction Education and Awareness Raising

Source: JICA Expert Team

II.3 History of PDM Modification

The modification of PDM was made in the following JCC meeting as shown in Table II.3.1.

Table II.3.1 History of PDM Modification

Parent Document	Date of Signing	Revised Content
MM on the 8 th JCC	June 5, 2019	Objectively Verifiable Indicators for Overall Goal a -The formulation of Disaster Protection Plan -The system of formulating White Paper established -Referring to the guideline on Seismic Evaluation -Continue to foster seismic engineers -Referring to guidelines of DRR education in a school for Project Purpose -The number of the approved guidelines -Formulation and/or revision the plan -Development of White Paper -Collection and Management of Disaster Related Information -Promotion of DRR education and Awareness

Source: JICA Expert Team

II.4 Others

II.4.1 Results of Environmental and Social Considerations

The Project does not involve environmental and social considerations. However it is important to pay attention to the environmental impact in the activities of DRR.

II.4.2 Results of Considerations on Gender/Peace Building/Poverty Reduction

It is necessary to consider gender, especially in the operation of evacuation centers and educational activities, when implementing disaster prevention measures using the guidelines formulated in this project. It is also necessary to take care that the information on disaster prevention measures should be steadily disseminated to residents at all levels.

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III. Results of Joint Review

III.1 Results of Review based on DAC Evaluation Criteria

(1) Relevance

Relevance can be described how the Project is consistent with the development policy, sector policy and development needs of the recipient country's government as of project completion.

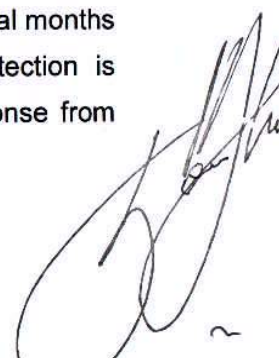
Relevance is high. The Project started while in the preparation of the revision of the Law of Disaster Protection that is newly focusing on pre-disaster action and risk reduction measures. The revised law was enacted in February, 2017 that introduced the Pre-Disaster Activities including assessment of risks, development of disaster protection plan, control and monitoring of a disaster protection, conduct of training and advocacy and creation disaster information data base. Whereas NEMA has a responsibility to cope with these pre-disaster activities in prompt manner, all activities of the project are related to these issue.

In terms of the Country Assistance Policy of Japan, the purpose of the project is highly consistent with aiming to contribute to the realization of safe cities through support to mainstream disaster prevention utilizing Japan's expertise.

(2) Effectiveness

Effectiveness is judged by if the Project purpose and outputs have been achieved as a result of project implementation.

Effectiveness is high. As mentioned in Section II, 2-2, the Project Purpose had generally been achieved as long as it was looking at the Objectively Verifiable Indicator. Some project activities, however, were partially completed. The activities related to Output 1 such as the "Earthquake Disaster Risk Assessment GL", "Disaster Database GL", "State Earthquake Disaster Protection Service Planning GL", "Regional Level Earthquake Disaster Protection Planning GL" were formulated by the WG and approved. But "National Earthquake Disaster Protection Planning GL" has not been approved yet although the manuscript was prepared by WG and submitted to the executive meeting of NEMA on August, 2019. The reason why the "National Earthquake Disaster Protection Planning GL" has not been approved yet at this moment is that it takes several months to obtain the consent of the relevant organization of disaster protection. It is expected to be approved within several months as soon as the coordination with relevant organization of disaster protection is completed. An external factor that delays approval is a delay in the response from



disaster protection organizations.

(3) Efficiency

Efficiency is evaluated in terms of the level of achievement of the Project cost/period relative to the actual project cost/period.

Efficiency is fair. The actual cost with regard to inputs had been executed within the planned budget. Although the budget was added 14.8 million Japanese Yen for 2nd Training in Japan as shown in the table below, since the additional budget was originally estimated separately as a 2nd training in Japan or a training in third country, the budget within the initial assumption was executed following the request of the Mongolian side.

The actual period spent in the Project was equal to the planned period that was from 23 November 2016 to 22 November 2019.

Table III.1.1 Contents of Additional Budget

timing	Amount (Japanese Yen)	Reason
October, 2017 (Before 2 nd Training in Japan)	14.85 million	Increased the number of participants for 2 nd Training in Japan.

Source: JICA Expert Team

(4) Impact

Impact is mainly evaluated according to the achievement level of overall goal in the ex-post evaluation phase. At the time of project completion, it shall be described early signs or prospects of impacts.

Impact is high. The reasons of the determination is that, first of all, the project objectives have been generally achieved as shown in the Table II.2.2, and results have greatly contributed to the promotion of disaster protection policies in related organizations toward the overall goal. Further impacts are described as follows. In addition, the following impacts are assumed.

1) Prospects to achieve the Overall Goal

The Project produced the output as shown in the section II.2.1, which in turn, would promote the activity of NEMA and related organizations. Table III.1.2 shows the relationship between the Objectively Verifiable Indicators, the related output of the Project, and signs of prospects.

Table III.1.2 Overall Goal, Verifiable Indicators and Prospects

Overall Goal
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Seismic risk will be reduced.		
Objectively Verifiable Indicators	Relating Output	Prospects
<p>1. The formulation of Disaster Protection Plans at Regional Level will be continued by referring to the guidelines developed through the activity in the Project.</p> <p>2. The White Paper for Disaster Risk Reduction will be developed every year based on the system established through the activity in the Project.</p> <p>3. The implementation of Seismic Evaluation for public facilities will be continued across the country by referring to the guidelines developed through the activity in the Project.</p>	<p>✓ Earthquake Disaster Risk Assessment GL</p> <p>✓ Regional Level Earthquake Disaster Protection Planning GL</p> <p>✓ Manual of the Disaster Risk Reduction White Paper</p> <p>✓ Seismic Evaluation Guideline for Buildings</p> <p>✓</p>	<p>It can be assumed that the formulation of the earthquake disaster protection plan with reference to the GL will proceed by incorporating the disaster protection plan in the aimags and districts of the Capital City into the NEMA annual plan.</p> <p>The white paper will be published continually to be listed on NEMA annual plan every year.</p> <p>It is planned that seismic evaluation of the public building will be implemented by UBUDA, MCUD and GASI by referring to GL.</p> <p>NEMA and other organizations to which non-destructive inspection equipment was handed will increase the accuracy of evaluation.</p>
<p>4. The implementation of Seismic Evaluation for infrastructures and lifelines will be continued across the country by referring to the guidelines developed through the activity in the Project.</p>	<p>✓ Seismic Evaluation Guideline for Infrastructure and Lifelines</p>	<p>It is expected that the seismic evaluation for infrastructure and lifelines will be promoted by GASI. NEMA and other organizations to which non-destructive inspection equipment was handed will increase the accuracy of evaluation.</p>
<p>5. The fostering engineers who have expertise in Seismic Strengthening of buildings will be continued based on the system established through the activity in the Project.</p>	<p>✓ WG of the Project conducted three ToTs to foster seismic diagnosis engineers during the project implementation period.</p>	<p>MCUD and Mongolian Association of Civil Engineers (MACE) conducted training program during the project period, and are planning to continue fostering seismic strengthening engineer by using GL.</p>
<p>6. The implementation of School Disaster Risk Reduction Education will be continued across the country by referring to the guidelines developed through the activity in the Project.</p>	<p>✓ The Program for Life Safety Education</p> <p>✓ The Guidebook for the program of Life Safety Education</p> <p>✓ Conducting training for the school teachers</p>	<p>MECSS incorporated the contents of "Life-Safety Education" in the regular teacher training program in cooperation with Institute of Teacher's Professional Development from 2019. It can be inferred that some Aimags/Districts will organize training for "Life-Safety Education" by themselves.</p>
<p>7. The Activity of Disaster Risk Reduction Education and Raising Awareness for the public will be continued across the country under NEMA's initiative based on the system established through the activity in the Project.</p>	<p>✓ DRR Training Materials for the Community</p> <p>✓ Conducting ToT for EMA, MRCS Volunteer etc.</p> <p>✓ Development of website for the Comprehensive Training Schedule.</p>	<p>Based on the request by NEMA, all the district EMAs have continuously conducted Community DRR training developed in the Project activities. The website for sharing the information of DRR training and education activities has been continuously used by EMAs.</p>

Source: JICA Expert Team

2) Causal relationship

The Overall Goal does not deviate from the Project Purpose because the enhancement of NEMA contributes to risk reduction.

3) Ripple effect

Most local governments are the first to develop an earthquake disaster protection plan. The earthquake risk assessment GL shows a simple method for assessing earthquake risk, and can indicate specific damage figures. This will deepen the understanding of earthquake disasters and countermeasures for disaster prevention staff, and they understand that citizens need to be aware of earthquake disasters. The formulation of a disaster protection plan by government will be able to bring an opportunity for awareness raising of disaster at the private sector

If the Disaster Risk Reduction White Paper is written in plain text and widely distributed to citizens, their awareness of disaster risk reduction will increase.

MACE promotes the understanding of seismic diagnosis through training for member engineers, and the implementation of seismic diagnosis for general buildings will be promoted in the near future, and the effect of reducing the risk of building collapse against earthquake disasters will be expected. .

It is envisaged that the awareness raising measures for the community will induce the emergence of a new disaster protection culture.

(5) Sustainability

Sustainability is evaluated comprehensively considering secure continuation of the project effect.

Sustainability of the Project is relatively high considering the following aspects.

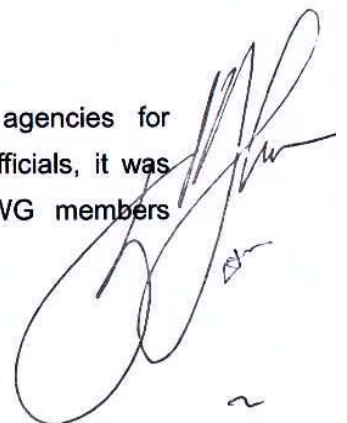
1) Political and Institutional Sustainability

The Project strives to ensure the political and institutional sustainability of the Project by institutionalizing the outcome of the project including technical guidelines, agreements and organizational framework. This documentation contributes to secure human resource for further implementation of the Project activities.

It is observed that the finalization of White Paper 2018 has been delayed as of August 2019. The preparation of White Paper is not yet to be institutionalized to enforce its implementation. Thus, it is desirable to ensure the timely publication by institutionalization of the activity.

2) Organizational Sustainability

The Project appointed WG members from NEMA and related agencies for implementing the project activities. Due to frequent transfer of C/P officials, it was observed some of the activities were delayed because former WG members



transferred to irrelevant department to the Project. In order to ensure the organizational sustainability, it is desirable to incorporate the activities of the project into terms of reference of the transferring department or division so that the activities will be surely succeeded after the transfer of officials.

As for Output 3, the Project firstly investigated the organizational framework for coordinating with donors that conduct DRR activities to efficiently use donor's budget and human resources. This coordination framework was approved as regulation by the NEMA Administrator, which contributes to facilitate collaborations with other agencies. For example, NEMA could obtain the funds from MRCS to print out the material of Output 3-2 and hold a contest to expand the activities implemented in pilot districts/aimags.

3) Technical Sustainability

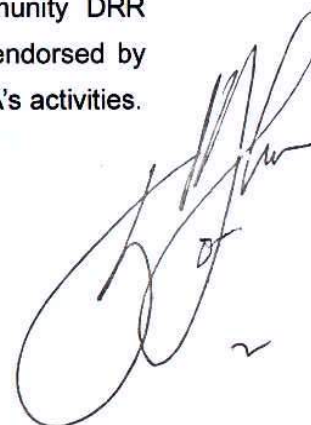
Each output developed training material as guidelines to expand the result of the Project to other regions. The Project strives to utilize C/P officials as facilitators/lectures for ensuring the technical sustainability and implemented the ToT workshops if necessary. Due to the small number of WG members and limited budget, it is challenging to disseminate the pilot activities to outside of the pilot areas.

Especially, Output 2 strategically involves related agencies not only government agencies but also professional organizations including MACE to foster the importance of seismic evaluation and seismic strengthening.

4) Financial Sustainability

The Project ensures the financial sustainability of the Project by legalizing and approving the outcome of the Project, which facilitates the future budgeting of the activities. In additions, the Project emphasizes on strengthening the working relationship with other DRR related government agencies. This is designed to enhance the capacity of NEMA as a DRR focal in Mongolia as well as facilitate the cost share with other government agencies.

Building coordination framework among donors and related agencies developed by Project contributes to ensure the financial sustainability of the community DRR education because a concrete framework and decree for collaboration endorsed by NEMA can be convincing for donors to raise a budget for supporting NEMA's activities.

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III.2 Key Factors Affecting Implementation and Outcomes

The following points are the items that had a negative impact on the Project by each output. There were no political negative impacts.

(1) Output1

1) Frequent change of person in charge and delay of the development work of GLs

Regarding the Earthquake Disaster Protection GL, originally, two GLs namely, "Aimag / Soum Level GL" and "Capital City / District Level GL" were planned to be made, however, according to the request of Mongolian side, two more GLs namely "National Earthquake Disaster Protection Planning GL" and "State Earthquake Disaster Protection Service Planning GL" were added to be prepared. For this additional preparation work, two more WG members were appointed in the middle of 2017.

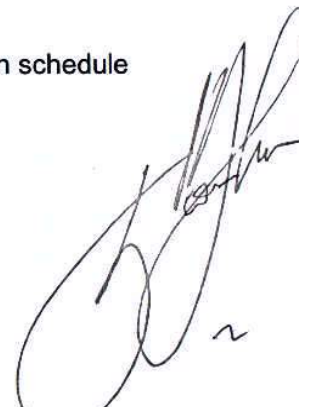
However, these two members were transferred together in 2018 and the successors were not decided for several months. Although new members were nominated, but they were also transferred again. As a result, the creation of guidelines was significantly delayed.

In addition, for WG members, the Project work is a task given to them in addition to their daily work. Since NEMA is a state of emergency organization, the principles of command hierarchy are thorough. Therefore, WG members are obliged to accept the additional Project work in principle, but tend to be late. This is also the cause of the delay.

2) Recognize the need for effective pre-disaster DRR investment

The WG members must recognize and understand the needs for effective pre-disaster DRR investment. In Mongolia, buildings, infrastructure and lifelines are the most vulnerable, but it is possible to reduce the recovery budget after a earthquake disaster by pre-investment for earthquake resistance. Even in that case, there may be "residual risks" during the pre-investment so that it is necessary to look for the best combination of structural and non-structural measures, and should be prioritized in areas where there is a high potential for economic losses and urgent action is needed.

Especially, it is necessary to make the plan by recognizing the implementation schedule of structural measures that take time to complete.



3) Preparation Work of the White Paper 2018

Although the working group for the White Paper 2018 has been established and started to develop, the publication for 2018 version did not completed as of November 2019. It is expected to be published in December. In order to issue the Paper at an appropriate time (at least before the second quarter), it is necessary to institutionalize the preparation by the documentation or legalization.

4) Make Redundancy of System Administration for SISDRR O&M

There are some challenges regarding a shortage of human resources for system administration for SISDRR O&M. The Spatial Information and Technology Division have a responsibility of operation and management of SISDRR, but there is only four staffs including division chief. And the focal system engineer is composed of only one staff member as of now. If the key person leaves the division, it is difficult to keep a stable operation and management of SISDRR. It is a serious risk and the JET requests the NEMA side to assign a few additional system engineers in the division to share the task of SISDRR O&M.

(2) Output2

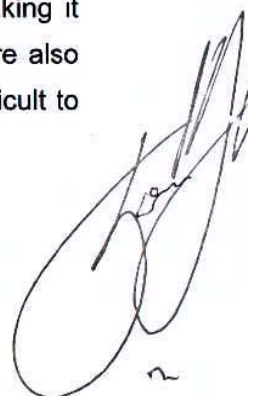
1) Establishment of Guidelines as Mongolian standards

To make the guideline practical and effective, WG2 decided to follow the Mongolian standards that were established under the direction of MCUD, since the previous guideline for mid- and high-rise buildings, which was established in the previous project is not being used. On the other hand, implementing the official procedure was time consuming.

To proceed with the project on schedule, WG2 and JET collaborated to prepare the TOR and to give explanations to members of CST and of the Respective Professional Council in advance. WG2 also made a prototype of each guideline to help CST to establish draft guideline, followed by the frequent exchange of opinions to make prototype practical in Mongolia.

2) Frequent Change of Working Group Leaders and Members

Through the project period, the leader of WG2 was changed three times, making it difficult to give the responsibility to WG2 to conduct tasks. WG2 members were also changed so that few members are consistent through the period, making it difficult to transfer the technology.



In order to solve the issue, JET and WG2 conducted the intra-group workshop to transfer the background of project and methodologies to new members.

3) Providing the Tools for Technology Transfer

Since the seismic evaluation and seismic strengthening is quite new technologies for the Mongolian counterparts and other officers and engineers, it was very hard for them to fully understand the methodologies within a project period.

So, JET and WG2 prepared the seismic evaluation tools using the Excel spread sheets to understand the method. These tools were used in the training courses and workshops followed by the well-received comments from participants, since the tools were effective to understand.

(3) Output3

1) Better Understanding of the Project Activities as a Technical Assistance Project

Since this Project is the first project for NEMA as a Technical Assistance Project, the counterparts had some confusion regarding what should be done by the JET and what should be done by the Mongolian side. In most of the foreign assistance projects for NEMA in the past, major activities and works were done by the project members and their involvement in the project activities was limited. Under those circumstances, the superiors of the departments and divisions which the counterparts belong to have also achieved no understanding of how much time the counterparts need to spend for the Project activities and the counterparts are always busy with their other commitments. They get caught in a dilemma between the project activities and the other commitments in their organization.

For a more comfortable working environment of the counterparts for the Project activities, regular explanations, reporting, and consultation with the superiors of the counterparts from the Project team were needed. Also, explanations to the counterparts about the procedures of the Project activities were repeatedly required.

2) Delay of Individual Editing Work of Working Group Members

Due to the frequent mission travels to districts of WG 3-1 members and other personal reasons, the individual editing work for the Guidebook development by working group members had been delayed. MECSS included the work in the MECSS's official work plan of 2019 and finally the work was completed in May 2019.



3) Coordination with Other Projects for Website Development

The development of a comprehensive schedule website was delayed due to frequent changes of NEMA's information sharing platforms funded by other donors. Eventually, ADPC's website platform to share donor's information was suspended due to technical difficulties and NEMA developed a different platform funded by the World Vision Mongolia. This change was informed to JET after the platform development, which made unifying the entry form difficult. Prior coordination among agencies that develop web platforms for similar purpose was indispensable as well as understanding the overarching vision and goal for information sharing as DRR focal agency.

After recognizing the differences of the web platform system among the relevant agencies, NEMA and the JET have always been trying to invite the relevant persons of other organizations when the discussion is conducted for the development of a website for a comprehensive schedule. All the members now understand the importance of sharing information for avoiding unnecessary redoing coordination.

(4) Common items for all outputs

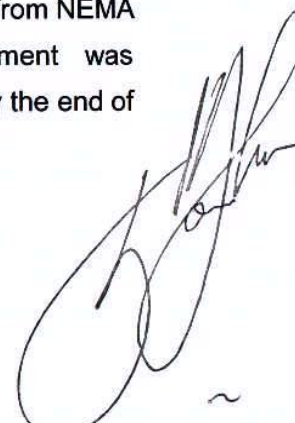
1) Cooperation between related organizations

Before the commencement of the project, there was a concern for NEMA that coordination among related agencies was insufficient. Strengthening the coordination with related agencies including government agencies, professional societies, and donors is the urgent priority for NEMA as national machinery of DRR in Mongolia

The project strived to establish the framework for the necessary coordination and collaboration by WG activities and appointing them as participants of JCC. This enables related agencies to have regular meetings with NEMA to update the progress of the project in a timely manner. This framework also contributed to more efficient work demarcation and cost sharing among NEMA and related agencies.

2) Timely input responding to flood in training center

The Project supported DPTMC by installing shaking table and educational materials to upgrade the earthquake experiencing program such as scale models, and informative panels. Due to heavy rain in UB city this year, ground floor of DPTMC was inundated and some training program on the ground floor was stagnated. Timely input from NEMA including human resource, budget allocation and prompt arrangement was indispensable and expected for the response in order to solve the issues by the end of the Project.



III.3 Evaluation on the results of the Project Risk Management

As for the key factors of previous section, the JET conducted a meeting with the PD or/and PM immediately when a negative situation occurred, and consulted with it on how to cope with the response to avoid adverse effects on project implementation.

With reference to the direction of the PD or/and PM, NEMA, MCUD and other C/P member made an effort to cope with the issues such as change of WG, and delay of activities.

Although the impact of not approving the one guideline could not be avoided, other risks were largely avoided.

III.4 Lessons Learned

(1) Appointment of appropriate resources with duties for effective project implementation

In the activity of WG1, members were NEMA's personnel, a great deal of effort and support was required to complete the formulation of guidelines and the pilot work because of busyness in daily work. In addition, eight (8) of the thirteen (13) participants from WG1 in the 2nd Training in Japan for the practical level were transferred or retired, which also prevented the progress of the Project. To avoid such problems, it is important for the NEMA to appoint personnel with appropriate duties.

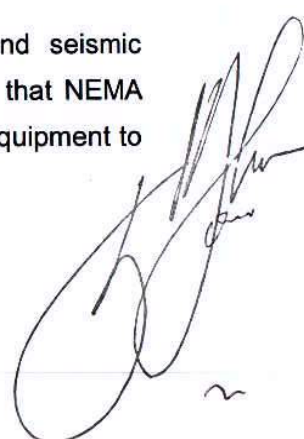
(2) Sharing the experience and knowledge

In the Project, the activities of technology transfer were divided into three (3) stages such as learning (first), arrangement (second), formulation (third). The WG members were concentrated in working during the project period, and the horizontal expansion was limited. Although, some ToT have started partially in WG2 and WG3 activities, it is necessary to share information for appropriate the expansion of the project outputs.

(3) Appropriate budget allocation

The scope of the Project covers the development of guidelines and manuals, and pilot activities in a few areas. After the project ends, budget arrangement at the aimag level is essential because the dissemination of the Pilot activities is required to be spread throughout the country to achieve the Overall Goals. It is expected that NEMA supports the budget allocation to DRR activities at local government level through supporting Emergency Management Department of Aimag (EMA).

In addition, the Project procured equipment for seismic evaluation and seismic strengthening and equipment and material for the DPTMC. It is required that NEMA secures the operation and maintenance budget for the above-mentioned equipment to ensure the continuous implementation of strengthening DRR education.

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Installation of the shaking table was delayed due to inundation of the ground floor of the DPTMC and after the installation another inundation occurred therefore the training program had to be stopped. In order to assure the safe operation of the shaking table, the Japanese side has continuously requested NEMA to take necessary measures including waterproofing work.

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IV. For the Achievement of Overall Goals after the Project Completion

IV.1 Prospects to achieve Overall Goal

The project set Overall Goal as "Seismic risk will be reduced". The overall goal will be achieved when the outcome of each output continues to be implemented or disseminated throughout Mongolia. An overview of the prospect of achieving Overall Goals have been summarized in the III (4) Impact Table III.1.2.

The prospects for achieving the Overall Goal are described for each output as follows.

(1) Output 1

The formulation of Disaster Protection Plans at Regional Level will be continued by referring to the guidelines developed through the activity in the Project.

The WG members learned how to make the earthquake disaster risk mitigation plan through WS and became able to carry it out in local government. Therefore, if a NEMA's Order on the preparation of the regional earthquake disaster protection plan is issued, the preparation work will proceed.

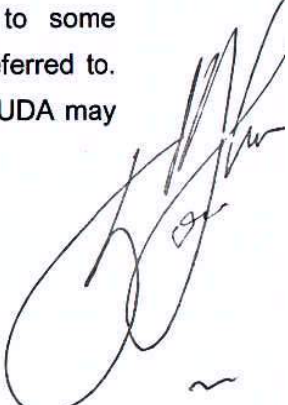
Since there are a limited number of WG members who are familiar with the coordination of the WS, if they are transferred, there is a risk that the WS will not be conducted. NEMA should immediately conduct earthquake disaster protection planning in areas other than the Pilot Area in order to transfer the knowledge to other appropriate staff of NEMA.

As for the revision of "National Earthquake Disaster Protection Plan", it is expected that NEMA will revised the plan based on the "National Earthquake Disaster Protection Planning GL" and implement disaster mitigation measures in national level to contribute to risk reduction.

The Project observes that preparation work of White Paper 2018 has started but not published yet as of September 2019 even though the preparation of White Paper is clearly stated in the NEMA's business plan. Since the White Paper provides basic information for planning risk reduction measures, it is expected that the white paper will be revised steadily every year by introducing a strong legalization.

(2) Output 2

Seismic evaluation for facilities will be implemented referring the guidelines, since GASI submitted letters to conduct the seismic evaluation according to some procedures, in which guidelines were developed in the project, are also referred to. UBUDA prepares the passports of building including seismic diagnosis. UBUDA may also use the guidelines as an alternative method in case.

UB


NEMA will conduct risk evaluation of essential buildings in case of disaster such as schools or hospitals and of apartment houses and residential dwellings protecting human lives and wealth. Guidelines for seismic evaluation contribute to the activity, followed by the actual countermeasure as rebuilding and retrofitting.

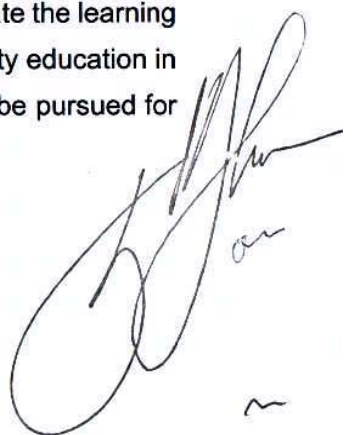
A training course for seismic strengthening will be included in the MACE training programs, so that the course has a power to motivate relevant engineers to attend the course since MACE training course gives participants a certificate necessary to apply for a license. Therefore, it can be concluded that fostering engineers will be continued.

(3) Output 3

The "Life-Safety Education Program," which was approved by MECSS on 6 April 2018 as A181 Decree, clearly stipulates the roles and responsibilities to promote the life-safety education including of DRR education of each stakeholder in school education. Further, the Program was developed with due consideration of the school education situation in which it is difficult to introduce new subjects and explains how to include the life-safety education in the existing subjects and school activities. Also, since the training program for the "Life-Safety Education" in the Project was provided to all the provinces and districts, the importance and necessity of implementation of the school DRR education is well understood by key actors across the country. In these conditions, the above goal will be achieved in Mongolia.

Therefore, for the further promotion of the education, the Guidebook for the implementation of "Life-Safety Education" should be improved. Since the guidebook was developed based on the limited numbers of pilot or model school activities in the Project, it needs to reflect more practice in school education activities in Mongolia. Also, due to time and area limitations in the Project activities, contents of the Guidebook do not cover some disasters and risks. It is recommended to periodically improve or update the Guidebook based on the accumulation of experiences and practices of the "Life-Safety Education" in the schools.

In addition, the working group members identified the directions for encouraging the implementation with the following ideas. 1) To include contents of "Life-Safety Education in the Grade 3 examination for promotion to the next grade conducted by Education Evaluation Center, 2) To conduct an academic achievement test focused on health education and life-safety education, because it is difficult to evaluate the learning result by normal education evaluation methods or 3) To include life-safety education in the checklist of school self-assessment. Such kinds of activities should be pursued for ensuring the continuation of the nationwide implementation.

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The Activity of Disaster Risk Reduction Education and Raising Awareness for the public will be continued across the country under NEMA's initiative based on the system established through the activity in the Project.

The "DRR Experience Program- Everybody be ready at anytime and anywhere" was developed with due consideration of existing DRR education and raising awareness activities in Mongolia and good coordination with various major stakeholders including MRCS and World Vision Mongolia. Also, with the official direction from Director of Disaster Prevention Department of NEMA to each EMA in April 2018, the program was conducted across the country in 2018 and continued in 2019. Further, by the Website for the Comprehensive Training Schedule developed for the "DRR Training and Raising Awareness Team", the implementation of the activities can be monitored. In these conditions, the above goal will be achieved in Mongolia.

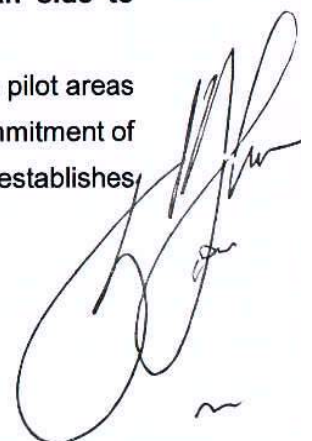
The "DRR Experience Program- Everybody be ready at anytime and anywhere-" was mainly for the outside activities targeting to adult and earthquake disasters, expansion of the contents should be considered in the future for wider participants, from the view of a wider-range of disasters, and with consideration for the venue conditions of cold weather.

Further, the DPTMC is playing important roles for DRR education and raising awareness for the public with the improvement of the program by the Project activities. Currently the DPTMC is only established in Ulaanbaatar and it is difficult for the residents in other provinces to visit the center. The establishment of the DPTMCs at least 4 other areas of Mongolia will be recommended for the purpose of supporting the achievement of the goals.

Throughout the project, JET had supported procuring equipment for seismic evacuation and equipment for earthquake experience room including shaking table and materials for kids' room. Proper operation and maintenance of above-mentioned equipment and materials in terms of human resource and budgeting are indispensable for achieving Overall Goal.

IV.2 Plan of Operation and Implementation Structure of the Mongolian side to achieve Overall Goal

In order to achieve Overall Goal, expansion of the pilot activities outside the pilot areas and on the local level is indispensable. Therefore, the involvement and commitment of local government is essential for implementation. C/P at national level establishes

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coordination framework including local government level. Below is the implementation structure for each output.

(1) Output 1

NEMA, EMAs and EMDCs are the main actors for formulating and instructing the local disaster protection plan and its implementation. The operational plan for the formulation of a disaster protection plan at the aimag level and its implementation to the baug level led by NEMA in the next few years is indispensable.

(2) Output 2

It is expected that NEMA would establish a monitoring framework of implementation of seismic evaluation and seismic strengthening. This monitoring framework will contribute to planning and implementation monitoring of disaster protection plans.

(3) Output 3

As for DRR Education, NEMA and EMDC continuously support DRR education through the operation of the DPTMC as an opportunity for learning hands-on. It is also expected NEMA can technically support the strengthening of the contents of DRR Education.

As for community DRR Education, NEMA, EMAs and EMDC continuously implement the program in close collaboration with donors and will be a coordination body for the stakeholders of community DRR Education.

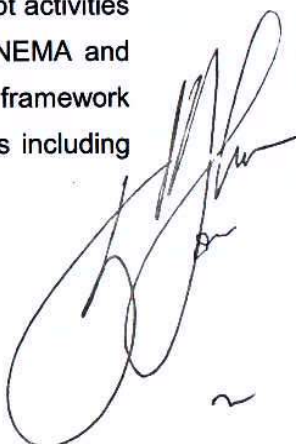
IV.3 Recommendations for the Mongolian side

(1) Institutionalization of project activities as C/P's regular works

Throughout the project activities, it is observed that project activities delayed or stagnated due to the transfer of staff in all outputs. This is partly because the works are designated as each person's responsibility not their affiliations. Some activities of the Project such as publishing White Paper and managing agreement between related agencies were not originally NEMA's duty but the necessary works as a national machinery of DRR. For sustainable implementation, it is recommended to officially designating the terms of reference of the department/division in charge.

(2) Implementation of effective arrangement for nationwide dissemination

Since the objective of the Project is the capacity enhancement of NEMA, the Project does not directly implement technical cooperation at the local level. The pilot activities were designed to implement through NEMA after technical transfer to NEMA and related agencies. The Project supported an inter-agency coordination framework NEMA, EMAs and related local organizations through the project activities including the ToT and coordination meetings.


4/5 2

It is essential that NEMA, as the DRR focal agency in Mongolia, takes the lead for disseminating the outcome of the three outputs of the Project by incorporating into NEMA's policy and planning frameworks in collaboration with stakeholders for nationwide to improve DRR capacity of whole Mongolia.

(3) Proper budget allocation for the countermeasure of DRR

To disseminate DRR activities nationwide after the project, it is recommended strongly that NEMA supports and monitors the budget arrangement at the aimag level.

It is also recommended that NEMA secure the operation and maintenance budget for the equipment that had been procured in the project.

As mentioned in III.4 Lessons Learned, the budget allocation to protect it from the inundation of the ground floor of the DPTMC is required immediately to continue conducting effective disaster reduction activities.

As of November 2019, the waterproofing work has not completed yet then there remains a risk of damage to the equipment in possible future inundation. Therefore, it is recommended to take necessary measures immediately.

IV.4 Monitoring Plan from the end of the Project to Ex-post Evaluation

In order to follow up the NEMA's approval of "National Earthquake Disaster Protection Planning GL", which is still in the approval process of NEMA as of November 2019, and to ensure that the National Disaster NEMA Risk Management Department continuously monitor the activities of the three outputs and recognize its bottleneck, NEMA will monitor the progress of continuous training regarding GLs formulated in the project. At the same time, NEMA will have a meeting with the JICA Mongolia Office once a quarter.

ANNEX 1: Results of the Project

(List of Dispatched Experts, List of Counterparts, List of Trainings, etc.)

ANNEX 2: List of Products (Report, Manuals, Handbooks, etc.) Produced by the Project

ANNEX 3: PDM (All versions of PDM)

ANNEX 4: R/D, M/M, Minutes of JCC (copy) (*)

ANNEX 5: Monitoring Sheet (copy) (*)

(Remarks: ANNEX 4 and 5 are internal reference only.)

Separate Volume: Copy of Products Produced by the Project


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- Disaster Protection Plan of Aimag (Darkhan-Uul Aimag)
 - Manual of Revision of Disaster Protection Plan
 - White Paper
 - Manual for a formulation of White Paper
 - Results of dissemination materials at international conferences
 - The brochure of the project distributed in the AMCDRR, 2018
 - Seismic Diagnosis and Formulation of Reinforcement Design Standards for Masonry Buildings in Mongolia, 16th ECEE, 2018
 - Development of Seismic Diagnosis and Retrofitting Standards for Existing Buildings in Mongolia, 7th ACEE, 2018
 - Development of Seismic Evaluation and Retrofit Standards for Existing Buildings in Mongolia, International Science Conference on Strengthening Urban Disaster Resilience in Mongolia, 2019
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Action Plan for Addressing the Achievement of Overall Goals of the Project

Working Group	Sub-Working Group	Activity	Responsible Organization	Period	Expected Results
Working Group 1	1-1 Risk Assessment Guidelines	1. Provide administrative guidance to regional DRR committees to implement the General Earthquake Risk Assessment Guideline between 2020-2025 in aimag centers where high-resolution regional mapping was made by the Space and Geophysics Division according to the General Earthquake Risk Assessment Guideline, and monitor their implementation process.	NCDRR, NEMA Aimag Governors' Offices	2020-2024	An administrative guidance on conducting risk assessment according to the General Earthquake Risk Assessment Guideline will be delivered to the Standing Committee on Earthquake Disaster Prevention and Risk Reduction. This activity will be included in the Standing Committee's operating plans for 2021-2024. The guidance will be included in the Standing Committee's operating plans for 2021-2024 and its implementation will be ensured.
	1-2 Disaster Protection Planning Guidelines	1. Promptly proceed to an approval procedure of National Earthquake Disaster Protection Planning Guideline, State Disaster Protection Service Planning Guideline and Regional Earthquake Disaster Protection Planning Guideline. 2. Conduct training on the guidelines for specialists in charge of planning at emergency management departments, the staff in charge of DRR in state organizations, and chiefs of staff to soum governors 3. Develop disaster protection plans for all aimags, soums, cities and districts according to the guidelines, have them approved by the governors of the relevant administrative units and monitor their implementation	PCCD, DOD PCCD, DOD, RCDRR, CREMD DOD, RCDRR, CREMD	2019 2020 2020-2024	Guidelines will be approved and disaster protection planning will proceed. Increased DRR knowledge and understanding of the officials in charge of developing the disaster protection plans. Each administrative unit will have a disaster protection plan.

UG

			MCUD, GASI	2019-2024	with public participation will be developed. Conduct seismic diagnosis on buildings in regional areas.
Working Group 2	2-1 Seismic Diagnosis of Buildings	<ol style="list-style-type: none"> 1. Provide directions to utilize the newly developed "Building Guidelines" in the technical passport issuing process for buildings in regional areas. 2. Monitor the implementation of the newly developed "Building Guidelines" in the technical passport evaluation of buildings. 3. Establish a new Building Passport Division which will use the newly developed "Building Guidelines" in their activities. 4. Incorporate the newly developed "Building Guidelines" in the regular training programs for the professional development, and retraining, of construction sector employees. 	GASI	2019-2024	Monitor the results of issuing technical passports for buildings.
	2-2 Seismic Diagnosis of Infrastructure and Lifelines	<ol style="list-style-type: none"> 1. Utilize the newly developed "Building Guidelines" in the general earthquake risk assessment. 2. Incorporate the newly developed "Building Guidelines" in the earthquake risk assessment monitoring sheets. 	AMCE DRMD	2019-2024	Conduct training where the seismic diagnosis methodology for old buildings is presented to the engineers. Conduct earthquake risk assessment at the administrative unit level.
	2-3 Seismic Reinforcement Design of Buildings	<ol style="list-style-type: none"> 1. Incorporate the newly developed "Building Guidelines" in the earthquake risk assessment. 	GASI	2019-2024	Conduct earthquake risk assessment of infrastructure and lifelines.
	2-4 Monitoring of Implementation on	<ol style="list-style-type: none"> 1. Incorporate the newly developed "Building Guidelines" in the earthquake risk assessment monitoring sheets. 2. Incorporate the newly developed "Building Guidelines" in the regular training programs for the professional development, and retraining, of construction sector employees. 3. Incorporate the newly developed "Building Guidelines" in the earthquake risk assessment monitoring sheets. 	AMCE	2019-2021	Present the building reinforcement methodology to engineers during training.
		<ol style="list-style-type: none"> 1. Incorporate the newly developed "Building Guidelines" in the earthquake risk assessment. 2. Incorporate the newly developed "Building Guidelines" in the earthquake risk assessment monitoring sheets. 	DRMD	2020-2024	Development of human resource of the seismic diagnosis and reinforcement will be monitored and utilized. Implementation of seismic diagnosis will be monitored and DRR measures will be implemented.



Working Group 3	3-1 School DRR Education	<p>1. Incorporate the contents of the "Safety Life Skills" program in the 3rd grade graduation test conducted by the Education Assessment Center in secondary schools.</p> <p>2. Conduct separate proficiency tests for health class and the "Safety Life Skills" program since it is challenging to determine proficiency results for these subjects using traditional education assessment methodology.</p> <p>3. Include the contents of the "Safety Life Skills" program in the self-assessment sheets of schools.</p> <p>4. Incorporate the contents of the "Safety Life Skills" program into a textbook.</p>	MECSS	2020-2021	Create the conditions for determining the appropriate level of proficiency according to the program, and incorporating the results into future plans.
		<p>1. Continue teacher-training activities and organize training for citizens using the "Be Ready!" and the "Anyone, Anytime, Anywhere is Ready" training modules in regions other than the test aimags and districts (Uliastai and Otgon soums in Zavkhan aimag, 23rd khoroo of Bayanzurkh District in UB, 2nd khoroo of Bayangol District in UB).</p> <p>2. Accelerate the implementation of the "Working Procedure of the DRR Training and Awareness-Raising Team" approved by the Head of NEMA, regularize activities, and convene a team meeting no less than twice (in June and December) each year.</p> <p>3. Develop training manuals and equipment for each target group specified in the Law on Disaster</p>	MECSS	2020-2021	Ensure the possibility to determine and assess the appropriate level of proficiency obtained by children through the program.
Working Group 3	3-2 Regional DRR Education	<p>MECSS</p>	MECSS	March, 2020	Each school will assess the safety of their environment and incorporate the results in their operations plans.
		<p>MECSS, ERI</p>	MECSS, ERI	2020-2021	Certain parts of the program may be mandatorily taught to children through textbooks.
		<p>Governors' Offices of Aimags, Soums and Districts, CCMO, CREMD, Government Organizations, NGOs</p>	MECSS, ERI	2020-2024	The knowledge and skills of citizens will improve through increased scope and access to DRR training and awareness-raising activities.
		<p>SCDPRR, MECSS, NEMA, CREMD, SGI, NGOs, UNDP, MRCS, World Vision, Save the Children Japan</p>	MECSS, ERI, The Emergency Management	2020-2022	Have a unified planning framework for DRR training and inform citizens through one channel. Moreover, the redundancy in training programs will be erased and the cooperation between related organizations will improve.
		<p>DPD, DRI, The Emergency Management</p>	DPD, DRI, The Emergency Management	2020-2022	Create the possibility to provide disaster protection and prevention education to all legally-specified target groups.

		Protection.	School of LEU, NEMA Expert Advisory Team, Projects and Programs, International Organizations, Humanitarian Organizations		
		4. Establish DPTMCs in regional centers, aimags and the remote districts of UB	Citizens' Representative Khurals and Governors' Offices of Aimags, Capital City and Districts, NEMA, Regional EMDCs, Projects and Programs, International Organizations, Humanitarian Organizations	2020-2022	The quality and access to DRR training improve and the knowledge of citizens will increase.
		5. Provide the legal conditions for the budgeting, utilization and maintenance of the tools and equipment in the earthquake experience simulation room and the children's room of the DPTMC of the EMDC; and resolve ownership issues.	FPID, State Property Commission, CCMO, EMDC	2020-2022	Utilization of the DPTMC will improve.
		6. Ensure the coherence of DRR training and awareness raising activities by communicating with the "Grassroots" technical cooperation project.	DPD	2019-2024	Regional DRR activities will be accelerated.



Annex7 Question and Answer in the JCC Meeting

Record and Question and Answer in the 9th JCC Meeting

1. Changes in WG Members:

Ms. B. Bazarragchaa, Disaster Risk Management Department, NEMA: Thank you to the WGs for the presentations on their activities. The next topic is changes in WG members.

Since the previous JCC meeting, there have been no changes in the composition of WG3.

There was 1 change in the member composition of WG2. The Director of the Policy Coordination Department for Buildings and Building Material Manufacturing of MCUD changed from L. Bilegjargal to B. Gantulga.

There were 3 changes in the member composition of WG1. B. Batbayar from sub-WG 3.1 and B. Myagmardorj from sub-WG 3.2 left the WG, and O. Tsend-Ayush from sub-WG 3.4 is on leave.

Now I invite Mr. Owada to present the project evaluation included in the Project Completion Report (“PCR”).

2. Confirmation of the Project Completion Report:

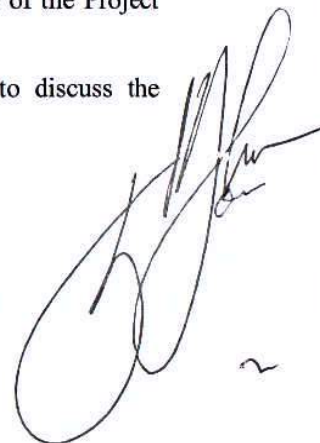
Mr. Kiyotaka Owada, Team Leader, JICA Expert Team: According to the sheets handed out to you, I would like to briefly present the final evaluation of the Project based on the following 5 DAC evaluation factors in Chapter three of Project Completion Report (PCR). Each factor is evaluated on Low, Moderate or High.

- **Relevance:** In relation to the revised Law on Disaster Protection, the relevance of the Project is High.
- **Effectiveness:** According to the results achieved by the WGs, the effectiveness of the Project is High.
- **Efficiency:** From comparing the initially planned Project budget and period against the realized budget and period, the efficiency of the Project is Sufficient.
- **Impact:** Based on the achievement of overall goals and the impact on the policies of related organizations, the impact of the Project is High.
- **Sustainability:** The in terms of policy and structural impact, Project results show signs of further continuity and the training programs developed within the Project are continuing to be implemented, as such the sustainability of the Project is Relatively High.

3. Action Plan for Addressing the Achievement of Overall Goals of the Project:

Ms. B. Bazarragchaa, Disaster Risk Management Department, NEMA: The next item of discussion is the confirmation of the Action Plan for Addressing the Achievement of Overall Goals of the Project and Securing Sustainability of Project Outputs (“Action Plan”).

Mr. Kiyotaka Owada, Team Leader, JICA Expert Team: Firstly, I would like to discuss the implementation of the follow-up activities of Output 1 as follows:



- To proceed with the approval process of the GLs that have not been approved so far.
- To encourage the EMDs in the pilot aimags and districts to promptly approve the Earthquake Disaster Protection Plans formulated within Output 1.
- To expand the scope of local earthquake disaster protection planning and formulate local earthquake DRR plans in the other regions.
- To promote the formulation of local disaster protection plans by formulation promotion plan.
- To monitor the implementation of risk assessment conducted according to the Earthquake Risk Assessment GL and Seismic Diagnosis GL developed within Output 2.
- To conclude the two agreements discussed and drafted in the Project. Promptly conclude the Fuel Supply and Communication agreements with the relevant organizations.
- To ensure the sustainable operations of the SISDRR.

The next item of discussion is the further actions to implement for Outputs 1, 2 and 3, as follows:

- To make special efforts to disseminate measures for DRR including disaster protection planning to all local governments by assigning appropriate personnel.
- To expand seismic diagnosis of buildings, infrastructures and lifelines throughout the country and promote seismic reinforcement.
- To actively practice DRR education for students, preschoolers and citizens.
- To hold the Disaster Prevention Education and Awareness Raising of Disaster Prevention Team meeting regularly to utilize the website of DRR training program schedule effectively and continuously.
- To monitor progress of DRR education in Soum and Bag level through communicating with the Grassroots Technical Cooperation implemented by Nagoya University in Mongolia.
- Promptly conduct water-proofing work for the basement floor of DPTMC.

Mr. B. Bayanmunkh, Policy Coordination and Cooperation Department, NEMA: The Action Plan includes planned tasks to implement for each WG by the year 2024. WG1 has 13 tasks, WG2 has 8 and WG3 has 10, making a total of 31 tasks to be implemented by the WGs. The plan requires participation from a total of 15 organizations, including but not limited to NEMA, MCUD, MECSS, GASI, regional governments, international organizations etc. Please review the plan and provide any comments or proposed modifications.

Mr. T. Badral, Head of NEMA: I propose further clarifying the responsible organizations for each task. Perhaps the National DRR Committee and the Standing Committee on Disaster Prevention and Risk Reduction should be included as well. MCUD and CDC are should be also included.

Secondly, perhaps there should be a clause in the Action Plan that requires each responsible organization to include the tasks in their operations plans on 2020. The tasks would not be well coordinated if only some organizations include them in their operations plans and others do not. This could be resolved for some of the tasks by issuing joint ministerial decrees. As for joint decree of the Vice Prime Minister and the Minister of MECSS that Ms. Myagmar mentioned, it should be included.

The procedure of the Action Plan should be informed in The National DRR Committee and the National Standing Committee of Earthquake Disaster Protection presided by the Vice Prime Minister.

The Standing Committee on Disaster Risk Prevention and Risk Reduction will convene for their final meeting on November 26, 2019; during which the PCR will be presented. I urge the Project members and

WG members to pay attention to preparing the report in a well-organized manner and detailing all WG activities in order. The Deputy Prime Minister may then approve the Action Plan.

Ms. Enkhtuya, Urban Planning and Development Department of the Capital City: In terms of issuing technical passports for buildings, I propose that MCUD cooperate with the Capital City. Engineers from the Building Safety and Quality Division of the Urban Planning and Development Department of the Capital City had worked in developing the seismic evaluation GLs during the Project and had participated in the related training programs. We see that these training programs were conducted on the basis of our efforts.

The Building Safety and Quality Division is also currently evaluating and issuing technical passports for over 700 public buildings, and are installing heating systems in precast concrete buildings on the basis of the seismic resistance evaluation GL.

Mr. Hideaki Matsumoto, Director of Team 2, DRR Group, Global Environment Department, JICA: We have talked about the action plan. I would like to first comment on the topic of continued DRR public relations. It is expected that NEMA will continue to conduct public relations of DRR events including the seminar for disseminating the Project's outputs and their DRR activities including formulating DRR plans, implementing disaster drills and DRR training programs through not only media but also their website to improve DRR awareness of citizens and DRR related ministries and agencies.

In terms of the Project, the participants have made a great deal of effort in the past three years. The Project has yielded results and because the Action Plan is developed, I believe the results will be sustained.

I understand that the Action Plan will be approved as an official document. Perhaps the Action Plan should be included as the annex of a decree in a manner such that the plan may be monitored.

Mr. T. Badral, Head of NEMA: Because we are talking about a plan, it should have a defined period. Perhaps it would be better to define the Action Plan as a 4-year plan implemented between 2020-2024.

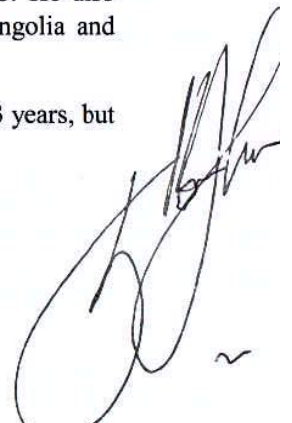
Mr. Matsumoto mentioned about the monitoring of the Action Plan. It might be better to add a new column that lists the performance indicators of each task. As such, the progress of the Action Plan may be discussed at the end of each year.

Since the Action Plan will be approved by the Deputy Prime Minister, I urge the Project team and WG members to review the Action Plan in more detail before November 26. The comments and modifications may be collected and incorporated into the plan within three working days. Perhaps it would be better to review the targets of the Sendai Framework.

I also propose creating a new page dedicated to the Project on the NEMA website.

Ms. L. Sayanaa, Advisor to the Deputy Prime Minister of Mongolia: First of all I would like to express my gratitude to the Project team for all their efforts and achievements in the last 3 years. Major General Badral and I have consistently updated the Deputy Prime Minister U. Enkhtuvshin on the progress and impact of the Project results. The Deputy Prime Minister holds the Project in high regard and has personally visited NEMA during the installation of the equipment for the DPTMC. He also speaks highly of the Project in each of his meetings with the Japanese ambassador to Mongolia and expresses his gratitude to the Japanese side for all their efforts.

One important achievement of this Project is that not only was a lot of results achieved within 3 years, but a plan to further continue and sustain the Project results has also been developed.



Major General Badral's proposal to have the 2020-2024 Action Plan approved by a decree of the Deputy Prime Minister will have significant impact on the sustainability of the Project results. The Deputy Prime Minister always emphasizes inter-sectoral coordination in DRR activities, and having the Action Plan approved will serve in guaranteeing that Project results will be sustained.

Therefore, it is imperative that the Project results be presented to the Standing Committee on Disaster Prevention and Risk Reduction. Previously, the preliminary risk assessment GLs were presented to the Standing Committee, whose membership includes high-ranking decision-making officials such as the Minister of Construction and Urban Development and the Deputy Minister of Finance. As such, it is a very important platform for obtaining quick decisions.

I hope that in the coming Standing Committee meeting, the Project members can present a clear and comprehensive Action Plan. I would also like to request that you provide detailed information about the map.nema.gov.mn website during the meeting and how it can be used to communicate critical information to citizens such as the location of temporary shelters. The meeting will be diffused through all TV stations, so please use this opportunity to provide useful information on the Project results to citizens.

I would also like to mention that a comprehensive project to map out all locations in Mongolia on Google Maps is being implemented by a friend of mine, Mr. Natsagdorj. If NEMA deems it necessary, I can link him to NEMA and perhaps NEMA's disaster-related geospatial data can be incorporated into Google Maps' mapping project in Mongolia. During the drill in April, it was confirmed that we should work on the issue of informing citizens on the locations of temporary shelters, and that it would be appropriate to provide this information straight to people's smartphones.

It was mentioned that the capacity of the server needs to be augmented. It could be suggested that Major General Badral would be discussing possibilities with Mercy Corps to enhance the server capacity.

The agreements with the 4 mobile operators are delayed. According to the decree issued by the Deputy Prime Minister 2 years ago, mobile operators are now required to disseminate disaster prevention information to citizens; and if the agreements continue to be delayed, we can support the agreement-signing process by sending official letters to the mobile operators from the Office of the Deputy Prime Minister.

In relation to the issue raised by Mr. Matsumoto on DRR public relations, in conjunction with the AMCDRR conducted in July, 2018, we have conducted a series of training program in collaboration with the UN and the Asian Disaster Preparedness Center for 80 Mongolian journalists on the subject of disseminating DRR information to the public. The journalists have now created a Facebook group called the "Network of DRR Journalists". I believe we should support the activities of this group. According to Mongolian DRR legislation, media companies have a duty to work with the Government to disseminate DRR information.

Lastly, in relation to approving the Action Plan by the Deputy Prime Minister, I request the Project members to pay close attention to the responsible parties for each task and to include all possible parties in the plan. If not, there could be delays in implementation or obstacles to inter-sectoral cooperation. From previous experience in approving plans. Therefore, please clearly specify the responsible parties for each task, as mentioned previously by Major General Badral. From my experience in approving plans, most of the challenges arise from the responsible parties. Please pay attention to this issue.

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Mr. B. Bayanmunkh, Policy Coordination and Cooperation Department, NEMA: Thank you everyone for your comments. We plan to refine the Action Plan by incorporating your comments and submit it to the Standing Committee on Disaster Risk Prevention and Risk Reduction for approval by the Deputy Prime Minister.

Mr. Hideaki Matsumoto, Director of Team 2, DRR Group, Global Environment Department, JICA: I am glad to hear about Major General Badral's proposal on having the Action Plan approved by the Deputy Prime Minister. I understand that you give great importance to this Project. All the comments are well received by JICA.

I am happy to have participated in this Project, even though I joined in its final stage. I will pass on the comments of this meeting to the JICA headquarters in Tokyo when I get back.

4. Others

Mr. Kiyotaka Owada, Team Leader, JICA Expert Team: In relation to spreading awareness of the Project results, I'd like to briefly mention that the final seminar for presenting the results of the Project will be held at Tuushin Hotel on November 7, 2019. Please notify the relevant organizations of this seminar.

5. Closing Remarks

Mr. D. Batsaikhan, Director of the Disaster Prevention Department, NEMA: The 9th JCC meeting was conducted according to schedule. We will now close the meeting with an awards ceremony in which JET members who have made significant contributions to the Project implementation shall be presented with 3rd order NEMA medals as well as memorabilia from MCUD, MECSS and the Urban Planning and Development Department of the Capital City.

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