

**MINUTES OF MEETING  
ON  
THE EIGHTH JOINT COORDINATING COMMITTEE MEETING  
FOR  
THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY  
OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN  
MONGOLIA**


Joint Coordinating Committee (hereinafter referred to as "JCC") for the Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia (hereinafter referred to as "the Project") held its eighth meeting on June 5, 2019 from 10:00 to 12:00, at Conference Room of National Emergency Management Agency (hereinafter referred to as "NEMA"), Ulaanbaatar, Mongolia, chaired by Mr. Tsogtbaatar Ganzorig, Deputy Chief, Colonel, NEMA on behalf of chaired by Mr. Badral Tuvshin, Chief and Major General, NEMA and supported by Mr. Kiyotaka Owada representing the Expert Team dispatched by the Japan International Cooperation Agency (hereinafter referred to as "JICA"). JCC members were invited and attended to the JCC. The list of the participants and agenda of the meeting are provided in Annex 1 and Annex 2, respectively.

The main subjects discussed and agreement made at the meeting are summarized in the attached document hereto.

Ulaanbaatar, June 5, 2019

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Ms. Eriko Tamura  
Chief Representative  
Mongolia Office  
Japan International Cooperation Agency  
Japan

  
\_\_\_\_\_  
Mr. Badral Tuvshin  
Chief, Major General  
National Emergency Management Agency  
Mongolia

大和田清隆

\_\_\_\_\_  
Mr. Kiyotaka Owada  
Team Leader  
JICA Expert Team  
Japan

  
\_\_\_\_\_  
Mr. Batkhoo Idesh  
Director General  
Development Financing Department  
Ministry of Finance, Mongolia

## ATTACHED DOCUMENT

### 1. Progress of Activities for each Working Group

The representatives of each Working Group (hereinafter referred to as "WG") member explained the current progress of WG activities based on the presentation documents as shown in the Annex 3. JCC members understood the progress and outputs of WG activities, existing issues and activities plan toward completion of the project by November 2019.

### 2. Nominating Officers for the Working Group Members

According to the Record of Discussions signed on July 8, 2016 (hereinafter referred to as "R/D"), the project organization of Mongolian side includes counterpart (hereinafter referred to as "C/P") WG in order to implement project activities at output level of the Project.

Mongolian side submitted the member list of the C/P WG that was amended from the member list approved in the seventh JCC on February 1, 2019 in order to respond to changes in members' positions and conduct more effective WG activities. JCC members agreed about the amended member list of WG as shown in the Annex 4.

### 3. Amendment Objectively Verifiable Indicators for Overall Goal and Project Purpose in Project Design Matrix.

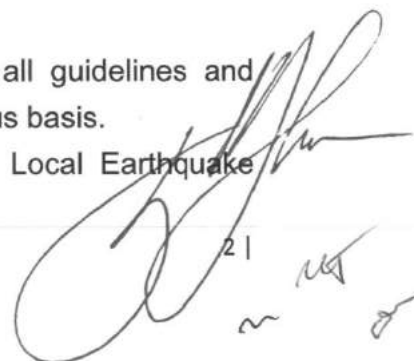
Japanese side proposed amendment of objectively verifiable indicators for Overall Goal and Project Purpose in Project Design Matrix (hereinafter referred to as "PDM") in consideration of actual status of exiting WG activities and how to measure sustainable and long-term utilization of expected outcomes of the Project. Then, Japanese side explained proposed amended and added indicators shown in Annex 5.

There was no objection to amendment and addition of the indicator for Overall Goal and Project Purpose from Mongolian side, and JCC members agreed with proposed indicators.

### 4. Confirmation of Required Activities toward the Achievement of Indicators in Project Design Matrix

Both Japanese side and Mongolian side confirmed the latest progress toward the achievement of the Project Outputs based on Annex 6. Then, following activities should be implemented to reach the Project Outputs.

- ◇ To keep on making efforts to get the approval of all guidelines and manuals formulated in the WG1 activity on a continuous basis.
- ◇ To make special efforts to get approval of revised Local Earthquake



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Disaster Protection Plans which are being developed through the pilot activity and to identify a plan of nationwide dissemination of revision work of other local plans and a division of NEMA in charge of this work.

- ◇ To secure enough human resources in NEMA in order to keep a sustainable utilization of all outcomes for each WG activity including establishing the system to make and utilize the DRR white paper even after the end of the Project and operation and management of spatial information system for DRR.
- ◇ To establish the system to make in use of the civil training center continually for disaster education after the end of the Project.
- ◇ To establish methods and systems for monitoring achievement of new indicators for Overall Goal of the Project.

#### 5. Preparation of Project Completion Report (hereinafter referred to as "PCR")

Japanese side explained the schedule for preparing the PCR toward the end of the Project in November 2019 and requested to cooperate on discussion and work well together in this reporting work. Mongolian side agreed with this matter. By the end of August, PCR first draft should be made by the project team and the content of PCR should be confirmed and agreed on by Japanese side, Mongolian side and JICA in the 9th JCC.

#### 6. Next JCC meeting and Seminar

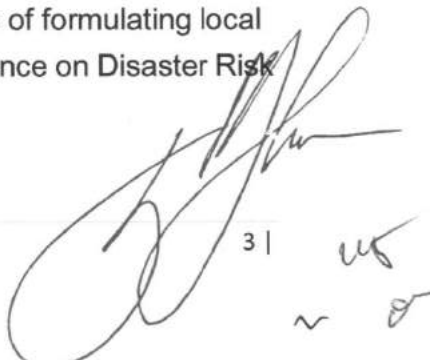
Both side agreed that the next (9th) JCC meeting and Seminar for announcement of the Project's accomplishments will be scheduled in November 2019. The final review of the PCR and progress of activities as noted above (4. Confirmation of Required Activities toward the Achievement of Indicators in Project Design Matrix) will be main topic of discussion in the 9th JCC meeting.

#### 7. Question and Answer on the JCC

The record on the session of Question and Answer in the JCC is shown in Annex 7.

#### 8. Others

Mongolian side agreed to announce the Project's accomplishments actively after the end of the Project and consult with Japanese side continually about the presentation of the Project's achievements including progress of formulating local disaster risk reduction plans in 2020 Asian Ministerial Conference on Disaster Risk Reduction held in Brisbane, Australia in June 2020.

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Annex 1: List of participants

Annex 2: Agenda of the JCC meeting

Annex 3: Presentation documents for the progress of Activities for each Working Group

Annex 4: Working Group Member List

Annex 5: Amendment of Objectively Verifiable Indicators for Overall Goal and Project Purpose in Project Design Matrix

Annex 6: Progress toward the achievement of Project Outputs

Annex 7: Question and Answer in the JCC meeting

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**"THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY  
OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN MONGOLIA"**

Date: 2019/6/5

Place: NEMA Conference Room (1st Floor)

Title of Meeting: 8th Joint Coordination Committee (8th JCC)

Name	Position, Organization	E-mail/ Tel	Signature
T.Badral Ts. Ganzorig	Chief, Major General, NEMA		
L. Sayana	Advisor in charge of Emergency Management of Deputy Prime Minister		
S.Magnaisuren	State Secretary, Ministry of Construction and Urban Development		
D.Batsaikhan	Director, Disaster Prevention Department, NEMA		
Yo.Jargalsaikhan	Referent of National Security Council		
L.Ulziibayar	Director, Policy Coordination and Cooperation Department, NEMA	39165534 ulziibayar@nduco.gov.mn	
D.Jargal	Director, Infrastructure and State Inspection Department, General State Inspection Agency	d.jargal@yako.gov.mn	
T. Batkhuu	Director, Development Financing and Debt Management Department, Ministry of Finance		
J.Myagmar	Director, Division of Preprimary and Primary Education, Ministry of Education, Culture, Science and Sports	jmyagmar@mecs.gov.mn	
P.Bayarkhuu	Vice Mayor of the Capital City in charge of Urban Development		
N.Ulambayar	Director, Emergency Management Department of the Capital City (EMDC)		
G.Enkhtuya	Director, Construction Quality and Safety Division, Master Planning Agency of Capital City	99016177 ench@yako.gov.mn	
Eriko Tamura	Chief Representative, JICA Mongolia office	Tamura,eriko @jica.go.jp	田村 211子
Makiko Inamori	Project Formulation Advisor, JICA Mongolia Office	Inamori, Makiko2 @jica.go.jp	稲森 真希子
Ch.Munkhmanlai	Program Officer, JICA Mongolia office	chibay munkhmanlai @jica.go.jp	
Fumiya Niwa <Observer>	Second Secretary for Economic relation and ODA Program, Embassy of Japan in Mongolia		

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OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN MONGOLIA"**

Date: 2019/6/5

Place: NEMA Conference Room (1st Floor)

Title of Meeting: 8th Joint Coordination Committee (8th JCC)

Name	Position, Organization	E-mail/ Tel	Signature
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**“THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY  
OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN MONGOLIA”**

Date: 2019/6/5

Place: NEMA Conference Room (1st Floor)

Title of Meeting: 8th Joint Coordination Committee (8th JCC)

Name	Position, Organization	E-mail/ Tel	Signature
<i>Jux-Aryans</i>	JET	98956059	<i>JJA</i>
D. Murun	JET	99057365	<i>D. Murun</i>
T. Bolormae	JET	99736052	<i>T. Bolormae</i>



## Annex 2: Agenda of the JCC meeting



### “THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN MONGOLIA” Agenda for 8th Joint Coordination Committee (8th JCC)

**Date:** June 5<sup>th</sup> 2019

**Time:** 10:00~11:50

**Venue:** NEMA Conference Room

No.	Time	Agenda	Presenter
	9:50-10:00	Registration	
1	10:00-10:10 (10min)	Opening Remarks from NEMA	Mr. Ts.Ganzorig Deputy Chief, Colonel, NEMA
2	10:10-10:20 (10 min)	Opening Remarks from JICA	Ms. Eriko Tamura Chief Representative, Mongolia Office, JICA
3	10:20-10:25 (5 min)	Overview of Project Activity and Schedule	Mr. Kiyotaka Owada Team Leader, JICA Expert Team
4	10:25-10:40 (15 min)	Progress of WG1 Activity	<Sub-WG1-1 to 1-4> B.Bayanmunkh Policy Coordination and Cooperation Department, NEMA <Sub-WG1-5> D.Sodnomragchaa Spatial Information and Technology Division, NEMA
5	10:40-10:55 (15 min)	Progress of WG2 Activity	<Sub-WG2-1 to 2-3> S.Munkhdul Construction Development Center
6	10:55-11:10 (15 min)	Progress of WG3 Activity	<Sub-WG3-1> J.Myagmar MECSS <Sub-WG3-2> D.Bat-Erdene Disaster Prevention Department, NEMA
7	11:10-11:30 (20min)	Discussion and Confirmation on: - Amendment of Working Group Member - Confirmation of the Achievement of the Project Purpose based on Indicators - Discussion How to Evaluate the Achievement of the Overall Goal including items of Indicators - Schedule of Next JCC - Others	Project Coordinator, NEMA Discussion with All Participants
8	11:30-11:40 (10 min)	- Closing Remarks	Mr. D.Batsaikhan Director of Disaster Prevention Department, NEMA



# Progress of the Project

“THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN MONGOLIA”

8th Joint Coordination Committee  
June

## Progress toward the achievement of Project Outputs

<As of May 2019>

Project Output	Project Activity	Expected outcomes developed through the Project activity <i>Blue: Ongoing in the WG Activity, Red: Completed by WG Activity</i>		Progress toward the achievement of Project Outputs (PDR Progress (As of May 2019))
		Products (Documents / tools)	Human and Organizational Development	
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 on Disaster Protection	<ul style="list-style-type: none"> <li>GL on Earthquake Disaster Risk Assessment</li> <li>GLs on Earthquake Disaster Protection Planning (4 GLs for "National", "State", "Aimag / Soum", "Capital City / District")</li> <li>GL on Operation and Management of Spatial Information System for Disaster Risk Reduction</li> <li>Manual to Support Earthquake Disaster Protection Planning</li> <li>Manual to Support Conclusion of Agreements on DRR</li> <li>Manual to Support development of White Paper for DRR</li> </ul>	<ul style="list-style-type: none"> <li>Improvement of rules and provisions by reflecting the Amended Law on Disaster Protection</li> <li>Capacity enhancement of NEMA, EMDC and regional EMDCs through the pilot activity based on GLs</li> </ul>	<ul style="list-style-type: none"> <li>The number of guidelines, operational rules, and provisions which are developed: 3 (approved) / 9 (planned to be developed) Provided, remaining 6 documents have already been drafted.</li> </ul>
	1.2 To strengthen cooperation among related organizations for disaster risk reduction	<ul style="list-style-type: none"> <li>Agreements on cooperation among governmental agencies and related organizations for DRR actions (9 agreements planned to be developed)</li> <li>Agreements on spatial database exchange among the DRR related organizations (2 agreements planned to be developed)</li> </ul>	<ul style="list-style-type: none"> <li>Capacity enhancement for conclusion of agreements and accumulation of know-how on this work</li> <li>Enhancement of cooperation among governmental agencies and related organizations</li> </ul>	<ul style="list-style-type: none"> <li>The number of the draft of agreements developed: 11 (approved) / 11 (planned to be developed) 4 agreements have already been signed officially.</li> <li>The number of participants who participated in the training programs on agreements: 38 trainees (Apr. 9, 2018)</li> </ul>
	1.3 To improve monitoring and information gathering methods for national and local disaster protection plans	<ul style="list-style-type: none"> <li>Earthquake Disaster Protection Plans in pilot aimags and Districts (2 aimags and 2 Districts in US city)</li> <li>White Paper for DRR in 2017, 2018</li> <li>Spatial Information System for Disaster Risk Reduction including Disaster Spatial Database</li> </ul>	<ul style="list-style-type: none"> <li>Pilot Activity for local earthquake disaster protection planning in the pilot area</li> <li>Training program on operation and management of spatial information system for DRR intended for NEMA, EMDC and regional EMDCs</li> </ul>	<ul style="list-style-type: none"> <li>White Paper for Disaster Risk Reduction (1 approved) / 2 (planned to be developed)</li> </ul>
2. Capacity of public administration officer related with the seismic assessment and seismic strengthening for buildings will be enhanced.	2.1 To establish seismic assessment methods for buildings, infrastructures and lifelines in the country, and to implement training program on seismic assessment	<ul style="list-style-type: none"> <li>GLs on Seismic Evaluation of Buildings (3 GLs: RC, PC and Masonry)</li> <li>GL on Seismic Evaluation on Infrastructures and Lifelines</li> <li>Manual to Support Training Program Implementation</li> </ul>	<ul style="list-style-type: none"> <li>Training program on seismic evaluation on buildings, infrastructures and lifelines</li> <li>Training of trainers on fostering engineers who have expertise in Seismic Evaluation of buildings</li> </ul>	<ul style="list-style-type: none"> <li>Guideline for seismic assessment (1 approved) / 3 (planned to be developed)</li> <li>The number of the participants in the training program on seismic assessment: 180 trainees (Jan. 6-7, 2018); 23 trainees (Sep. 3, 2018); 64 trainees (Nov. 12-13, 2018); Training on How to use equipment for seismic diagnosis: 31 trainees (Mar. 28 2019); Explanation of GLs: 21 trainees (May. 6-31 2019); Training of trainers</li> </ul>
	2.2 To develop seismic strengthening guidelines for buildings in the country, and to implement training program on seismic strengthening	<ul style="list-style-type: none"> <li>GLs on Seismic Strengthening of Buildings (3 GLs: RC, PC and Masonry)</li> <li>Trial Designs of Rebuilding and Strengthening Construction (8 kinds of buildings)</li> <li>Manual to Support Training Program Implementation</li> </ul>	<ul style="list-style-type: none"> <li>Training program on seismic strengthening on buildings</li> <li>Training of trainers on fostering engineers who have expertise in Seismic Strengthening of buildings</li> </ul>	<ul style="list-style-type: none"> <li>Guideline for seismic strengthening (2 approved) / 3 (planned to be developed)</li> <li>The number of training programs on seismic strengthening: 65 (May. 1-3, 2019)</li> </ul>
3. Implementation plan on disaster risk reduction education and awareness raising activities will be developed and	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	<ul style="list-style-type: none"> <li>GL titled "The Program for Life Safety Education"</li> <li>Guidebook for teachers to implement lessons based on the GL "The Program of Life Safety Education"</li> </ul>	<ul style="list-style-type: none"> <li>Training program for the instructors of Teacher Training Institutes and experts of educational departments in local governments (Kindergarten, Primary school, Lower-secondary school)</li> <li>Training program for teachers by the instructors and experts who received the training program (Kindergarten, Primary school, Lower-secondary school)</li> </ul>	<ul style="list-style-type: none"> <li>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 Sep. 2019</li> </ul>
	3.2 To develop educational materials for disaster risk reduction education and awareness raising activities, and to implement training program for instructors and teachers	<ul style="list-style-type: none"> <li>DRR Training Materials for the Community</li> <li>Disaster Prevention and Simulation Program with related Materials in the Disaster Protection Training and Technology Center</li> <li>Manual to Support Training Program Implementation including the DRR training schedule</li> </ul>	<ul style="list-style-type: none"> <li>Training for trainers on DRR Experience Program</li> <li>Pilot activity of workshops for DRR Awareness raising</li> <li>Enhancement of cooperation among related organizations</li> </ul>	<ul style="list-style-type: none"> <li>The number of visitors in the Training Centers: Total 8,806 (2,200 students and 1,600 citizens visitors from 23 Mar. to 27 May 2019)</li> </ul>

# Progress of WG1 Activities

"THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN MONGOLIA"

8<sup>th</sup> Joint Coordinating Committee (JCC) Meeting  
June 5<sup>th</sup>, 2019

## Sub-WG 1-1: Earthquake Disaster Risk Evaluation Guideline

### Progress of Activities

#### EARTHQUAKE DISASTER RISK EVALUATION GUIDELINE (Regional Level)

##### Contents

##### 1. Introduction

- 1.1. General Provisions
- 1.2. Purpose of the Guideline
- 1.3. Scope of the Guideline

##### 2. Earthquake Risk Evaluation Methodology and Procedure

- 2.1. Terminology
- 2.2. Required Information
  - 2.2.1. Determining Earthquake Risk
  - 2.2.2. Earthquake Risk Analysis (Simplified Method)
  - 2.2.3. Earthquake Risk Analysis (Comprehensive Method)
  - 2.2.4. Earthquake Risk Evaluation

##### 3. Developing Recommendations

##### 4. Including Risk Evaluation Results in DRR Plans

##### 5. Developing the Earthquake Risk Evaluation Report

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## Sub-WG 1-1: Earthquake Disaster Risk Evaluation Guideline

### Developing the Disaster Risk Evaluation Guideline

Sub-WG1.1 has cooperated with the JICA Expert Team to finish developing the technical methodological section according to the structure of the earthquake disaster risk evaluation guideline. Currently, "Section 4: Including the Risk Evaluation Results in the DRR Plan" and "Section 5: Developing the Earthquake Risk Evaluation Report" are being developed. The guideline is planned to be fully developed within June 2019.

### Implementation of the Disaster Risk Evaluation Guideline

The simplified method for earthquake disaster risk analysis specified in section 2.2.2 of the guideline was used to evaluate disaster risk and model damage projections in the test regions for developing earthquake DRR plans, namely: Omnogovi and Darkhan-Uul aimags.

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## Sub-WG 1-2: Guideline for Developing Earthquake DRR Plans

### Progress of Activities

- The "Guideline for Developing Earthquake DRR Plans of State Authorities", the "Guideline for Developing Earthquake DRR Plans of Aimags and Soums", and the "Guideline for Developing the Earthquake DRR Plan of the Capital City" have been developed and are ready for feedback from NEMA departments. A Strategy Planning Division of the Policy Coordination and Cooperation Department is being prepared for approval by NEMA's executive committee within June 2019. In the future, the Specialized Management and Coordination Division of the Disaster Operational Department of NEMA will be responsible for the management and supervision of activities to develop earthquake DRR plans in rural areas.
- The finalization process of the "Guideline for Developing the National Earthquake DRR Plan" is currently underway.
- There is a need to discuss organizational issues relating to the task of updating the National Earthquake DRR Plan.

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## Sub-WG 1-2: Guideline for Developing Earthquake DRR Plans

### Test Regions for Developing and Refining Earthquake DRR Plans

#### Darkhan-Uul and Omnogovi aimags

- May 2018
- September 2018
- November 2018
- January and February, 2019
- April 2019 in Darkhan-Uul, and May 2019 in Omnogovi

#### Bayangol and Chingeltei Districts of Ulaanbaatar

- August 2018
- September 2018
- December 2018
- January 2019
- May 2019

• Earthquake DRR plans for aimags will be fully developed in September 2019.

• Obtained feedback on the contents of the guideline, and incorporated them into the guideline.

• Disaster prevention and risk reduction plans are in the finalization stage.

• Earthquake DRR plans for capital city districts will be fully developed in September 2019.

• Currently obtaining feedback on the contents of the guideline.

• Disaster prevention and risk reduction plans are in the development stage.

Review by regional DRR committees and approval by the relevant governors.

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## Sub-WG 1-3: Cooperation Agreements

Sector	Contents	Organizations	Progress
Food	Organize stable supply of foods and water to disaster victims in evacuation places and temporary housings	NEMA-MOFALI	Agreement established on October 16, 2018.
Medicine, medical equipment	Stable supply of medicine for providing emergency medical services in regions struck by disaster	MOH-3 major pharmaceutical manufacturer and importer companies	Agreement established on November 12, 2018.
Construction materials, temporary housing	Supply of construction materials required for the immediate restoration of structures, and construction of temporary housing	MCUD- Association of Construction Material Manufacturers, Construction Association	The date for signing the agreement is being scheduled, and the agreement is planned to be established in the near future.
Clean water	Organize stable water supply at in regions struck by disaster	NEMA-Water Management Authority	The Water Management Authority approved the draft agreement. Feedback from NEMA divisions and the agreements being prepared for signing.
Road and transport	Providing road and transport means necessary for organizing search and rescue, damage mitigation, and immediate restoration activities without delay in regions struck by disaster	NEMA-MRTD	Draft agreement delivered to MRTD. The results of the Capital City Comprehensive Training held in April have been incorporated into the agreement. Draft is planned to be signed in June.

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**Sub-WG 1-3: Cooperation Agreements**

Sector	Contents	Organizations	Progress
Fuel and gas	Providing stable fuel supply required for organizing search and rescue, damage mitigation, and immediate restoration activities in regions struck by disaster	NEMA-MRPAM	Draft agreement delivered to MRPAM. A meeting with MRPAM on the establishment of the agreement is planned for this week.
Communications	Setting up priority telephone lines during disasters, and limiting regular telephone services	Telephone companies, NEMA, CRC	CRC and telephone companies are currently studying the technical feasibility of the agreement.
Temporary housing	Utilizing school buildings as temporary housing (School buildings to be built by Japanese government grants)	NEMA (EMDC)-Education Office of UB City	Draft agreement delivered to MPACC and currently being discussed. Efforts are being made to establish the agreement in the near future.
Waste water treatment	Establish public latrines in evacuation places and temporary housing, and organize the immediate restoration of sewage systems	EMDC-Facility Service Office of UB City	The Facility Service Office of UB City has approved the agreement. The agreement is planned to be signed in June.

**Sub-WG 1-4: DRR White Paper**

300 copies of the DRR White Paper was printed in English and Mongolian, and distributed to NEMA divisions, the DRI, Central and Regional Emergency Management Departments, the Education and Rehabilitation Center of NEMA, the Law Enforcement University, the National Security Committee and the DPTMC.



**Sub-WG 1-4: DRR White Paper**

**Further Activities**

- Conditions are set for annual development and publishing.
- According to the NEMA operations plan of 2019, the Disaster Prevention Department will be responsible for developing the White Paper from 2019 onwards.
- The "Manual for Developing the DRR White Paper" was developed based on the experiences and lessons learned from developing the 2017 version.
- The meeting of the WG in charge of developing the 2018 White Paper was held on January 29<sup>th</sup>, 2019. The contents and associated expenses of the White Paper were discussed during the NEMA Executive Committee meeting; and the White Paper is planned to be printed within the 3<sup>rd</sup> quarter of 2019.

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# Spatial Information System for DRR

SUB WORKING GROUP 1-5.

8<sup>th</sup> JCC  
2019.6.5

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## Contents:

- ▶ Development of Guideline and Manuals
- ▶ Capacity Enhancement of Human Resource
- ▶ System Development and Database Expansion
- ▶ Challenges and Further Actions

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## 1. Development of Guideline and Manuals

### ❖ Guideline:

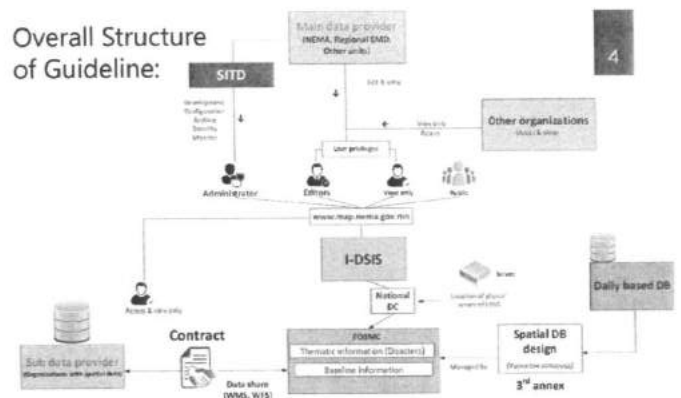
"Guideline on Operation and Management of Spatial Information System for Disaster Risk Reduction" approved by A/47 order of head of NEMA in 20<sup>th</sup> Feb 2019.

### ❖ Annex

- > Annex 1: Disaster code
- > Annex 2: Geospatial database design for DRR

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## Overall Structure of Guideline:



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## 2. Capacity Enhancement of Human Resource

- ▶ JET and "Spatial information technology division" was jointly organized 3rd capacity enhancement technical training of spatial information system for DRR (I-DSIS) for communication and early warning staffs of 21 regional EMD in 30 April 2019. Object of training was explaining in detail about contents of approved guideline as well as introduced latest improvement of I-DSIS.
- ▶ 35 participants were participated in training.



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## 2.1 Capacity Enhancement of Human Resource

- ▶ JET team and "Spatial information technology division" (SITD) jointly organized technical training on operation of spatial information system for DRR for disaster risk assessment specialists of 21 aimaqs and UB city in 22 March.
- ▶ The trainees was achieved basic operation of I-DSIS and learned how to upload results of disaster risk assessment into the disaster mapping system.



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 2019  
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## 2.2 Capacity Enhancement of Human Resource

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- ▶ Utilization of I-DSIS is not only for regional EMD but also will be needed to be utilized in Central NEMA's staffs for better emergency response, planning and policy making etc. Therefore JET and Spatial information technology division providing series of training for departments and division under the central NEMA based on their own functions.
- ▶ Here is list of departments will be trained:
  - 1. Disaster Operation & Early Warning Command Center
  - 2. Disaster Risk Management Dep.
  - 3. Fire Dep.
  - 4. Emergency response department
  - 5. Natural Resource & Humanitarian Dep.
  - 6. Disaster Prevention Dep.
  - 7. Policy Coordination & Cooperation Dep.



## 3. System Development and Database Expansion

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- ▶ **Municipality of Ulaanbaatar: Urban planning and Master planning department**
  - NEMA and "Urban planning and master planning department" were successfully made contract negotiation in 7<sup>th</sup> March 2019 for geospatial data sharing.
  - Geospatial data of Ulaanbaatar has been shared to NEMA effectively according to the achievement of contract negotiation. For this (Soil, water, plant, Environment, urban planning, engineering infrastructure, building and construction, social-economic, aerial photo etc received) building distribution data have been received with full of information with seismic evaluation data through result of passport.



## 3. System Development and Database Expansion

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Administration of land management, geodesy and cartography (ALMGaC):

NEMA and ALMGaC made contract negotiation in 2018.

Latest update: NEMA received 21 images building distribution data with full of information: Construction materials, design, structure, data, street, purpose, capacity etc. other as well as road and engineering infrastructure data and all data stored in I-DSIS.

These data and information will assist better building risk assessment and disaster protection planning in NEMA.



## 3. System Development and Database Expansion

10

- ▶ I-DSIS developed and modified according to NEMA's needs and necessity.
- ▶ Users and their access privilege will be officially approved by head of NEMA.
- ▶ During comprehensive disaster prevention training of Ulaanbaatar city in 24-26 April 2019, JET team and "Spatial information technology division" cooperatively work and created map of gathering place of citizens of Ulaanbaatar and we shared that map to social network (posts number of access and share) and websites.



## 4. Challenges and Further Actions

11

- ▶ Following things are required for securing sustainable system operation and management.
  - A few more staffs in charge of system administrator for making redundancy of I-DSIS O&M. (System admin is an essential and vital function in order to keep a ordinary system operation and management)
  - Strong leadership by appropriate individuals and organizations in NEMA based on A/47 Order of Head of NEMA in 20th Feb 2019.
  - Gaining better understanding for I-DSIS utilization among NEMA H.Q. and Regional EMDs.
- ▶ For expanding system and database, following things are recommended.
  - Increasing the number of staffs in Spatial Information and Technology Division in order to enhance a capacity for dealing with any requests by themselves about basic system operation and spatial database utilization from regional EMDs and other departments.
  - Strengthening of hardware environment by NEMA itself for securing more stable system operation.

**Thank you for your attention!**  
**MAP.NEMA.GOV.MN**

## Progress of WG2 Activity

WG2

## Progress Overview

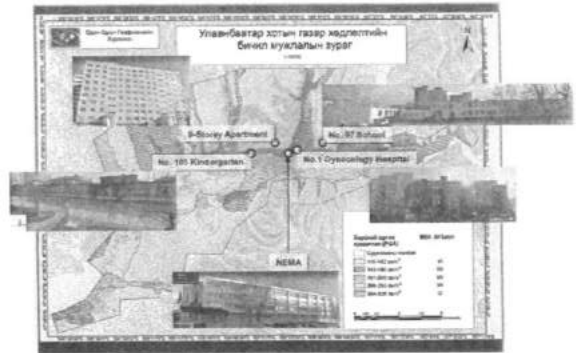
ID	Activity	Status	2018													
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
2.1.1	Approval of the administrative and technical documents for the development of the guidelines on seismic evaluation and strengthening	Completed														
2.1.2	Development of the guidelines on seismic evaluation and strengthening	Completed														
2.1.2.1	Development of CS for the 9-story building	Not start														
2.1.2.2	Development of CS for the existing building	Not start														
2.1.2.3	Development of CS for the 6-story building	Not start														
2.1.3	Validation of seismic evaluation and strengthening	Completed														
2.1.3.1	Validation of seismic evaluation and strengthening	Completed														
2.1.3.2	Validation of CS	Not start														
2.2	Strengthening of model buildings	Completed														
2.2.1	Strengthening of RC building	Completed														
2.2.2	Strengthening of PC building	Completed														

## Development of Seismic Evaluation & Strengthening

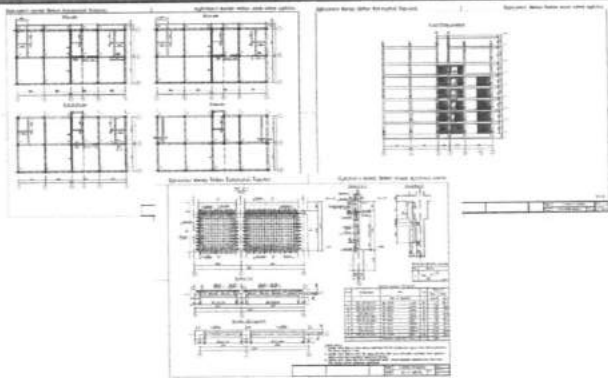
- Buildings
  - Approved by the 185 Ministerial Order of 2018.11.06 of Minister of Construction Urban Development
- Infrastructures & Lifeline Structures
  - Approved by the 174/303 Joint Ministerial Order of 2018.12.28 of Minister of Construction Urban Development and Road Transport Development.



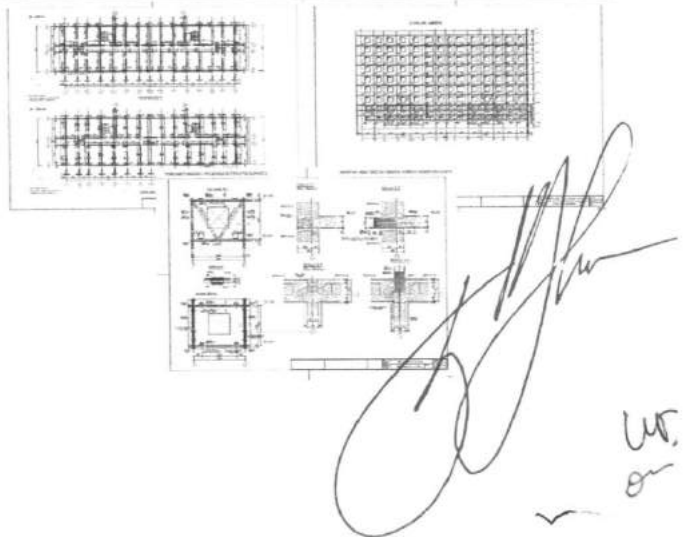
## Strengthening of Model Buildings



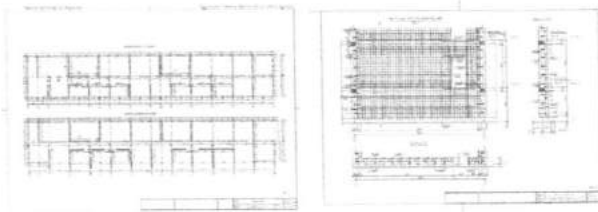
## Strengthening of Model Buildings Reinforced Concrete Building



## Strengthening of Model Buildings Precast Concrete Building



## Strengthening of Model Buildings Masonry Building



## Training of Seismic Strengthening

- In collaboration with the MCUD, NEMA, GASI, CDC, UBMPA and MACE, WG2 organized a three-day training course on "Seismic Retrofitting Design of Existing Buildings" between 2019.5.1 to 5.3.
- 65 people including engineers from private companies participated.



Group photo at Training Center



Introduction of activity of each organization



Training of seismic strengthening

## Dissemination of Technology

- Implementation of TOT
  - Transfer the technology on seismic evaluation to relevant organization through WG2 members.
- Collaboration with MACE
  - Transfer the technology on seismic evaluation and strengthening to engineers through MACE's regular training course.



TOT for NEMA



TOT for GASI



TOT for MCUD & CDC

## Dissemination of Technology

	1 3	3 21	3 28	4 19	5 13	5 6	5 10	5 13	5 14	5 15
Seismic Evaluation	○	○	○	○		○	○	○	○	○
Seismic Strengthening			○		○					
TOT						○	○	○	○	
Participants	MACE	MACE	MCUD CDC	MACE	NEMA MCUD CDC UB Other	NEMA	GASI	MCUD CDC	UB	GASI

## Issues & Future Activities

- Issues
  - Lack of human resources to disseminate the technology
  - Further improvement is needed to fit the Mongolian situation
    - Validation & Verification of the method
  - Lack of system to monitor the implementation of seismic evaluation and strengthening using guidelines developed in the Project.
- Future Activities
  - Building up the system to transfer the technology
    - Assignment of organization in charge
    - Collaboration with existing systems
  - Developing human resources through TOT
  - Establishment of monitoring system on status of the implementation of seismic evaluation and strengthening using guidelines developed in the Project.
    - Amendment of format of building passport used by UBMPA
    - Proposal or amendment of checklist used by GASI and other organizations
    - Assignment of personnel in charge of monitoring in NEMA

- Thank you for your kind attention!!

The 8<sup>th</sup> Joint Coordinating Committee (JCC)  
Meeting of the PROJECT FOR STRENGTHENING  
THE NATIONAL CAPACITY OF EARTHQUAKE  
DISASTER PROTECTION AND PREVENTION IN  
MONGOLIA

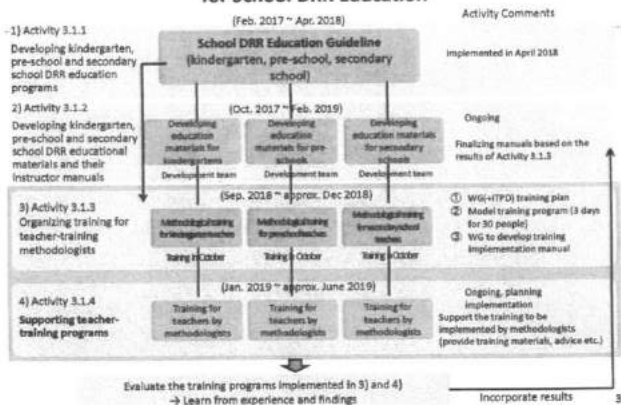
Sub-WG 3.1: School DRR  
Education  
Progress Report

2019.6.5

Sub-WG 3.1 Members  
School DRR Education

Mongolian Side	Japan Side
MECS Myragia, J	DRR Education I Miki Kodama (Ms.)
MECS Gantsetseg Ch. Bajnyam, P	DRR Education II Wajiro Ogawa (Dr.) (till Mar. 2018)
ERI (Education Research Institute) Enkhthegsh.A. Erdenochimeg, B	Seiji Suwa (Mr.) (From Apr. 2018)
ERI (Education Research Institute) Mungulkhatan, G. Hailan, G	Development of DRR Education Materials Yoko Ota (Ms.) Amarjagal, N
NEMA Disaster Prevention Department Bat-Erdene, D. Enkhboldon, G	Community Disaster Management Toshiyuki Inasaki (Mr.)
ITPD (Institute of Teachers' Professional Development) N. Munkhbayer	Local Consultant Dashdorj, G. Adnyam, D
	Local Consultant Bolormaa, T. Local Staff Nyambayars, S

Output 3-1: Overall Progress of Activities Related to Training  
for School DRR Education



Activity 3.1.4: Supporting Teacher Training Programs for DRR Education  
(Activity 1 on the Trial Schools and Kindergarten)

Objective	Conducting model lessons on trial pre-schools, kindergartens and middle schools in order to provide methodological support to teachers who will implement the "Safety Life Skills" program. (Videos of example lessons will be recorded and included in the teacher's manual)			
Participants	Teachers of the trial, as well as nearby, schools and kindergartens; methodologists of the education departments of Songinoikhairkhan and Bayangol districts; and officials of the emergency management divisions of the districts			
Period	March 15-19, 2019			
Place	Kindergarten No. 244 and School No. 13 (primary school) School No. 42 (middle school)			
Main Activities	Kindergarten No. 244	School No. 13	School No. 42	
(1) Training for all school and kindergarten teachers	3/5 10:00~13:00	3/7 10:10~13:10	3/6 9:30~12:30	
(2) Workshop 1 for implementing the "Safety Life Skills" training program	3/11 10:00~13:00	3/12 10:15~13:10	3/11 14:00~17:00	
(3) Workshop 2	3/13 14:00~17:00	3/14 14:10~16:30	3/13 10:00~13:00	
(4) Open class	3/15 9:30~10:30 (evaluation and discussion)	3/19 10:15~11:40 (evaluation and discussion)	3/18 12:20~14:00 (evaluation and discussion)	

Activity 3.1.4: Supporting Teacher Training Programs for DRR Education  
(Activity 2 on the Trial Schools and Kindergarten)



Activity 3.1.4: Supporting Teacher Training Programs for DRR Education  
(Activity 3 on the Trial Schools and Kindergarten)

- Videos of activities conducted in the trial schools and kindergarten

Model lessons for implementing the "Safety Life Skills" training program

Here is a presentation of example subjects that may be taught according to the "Safety Life Skills" program.

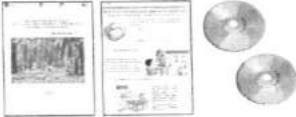
Please view the videos of the example lessons for reference and plan your own lessons accordingly.

1 Kindergarten (middle) "Protecting Yourself from Earthquakes"	3 Kindergarten, Paper Theater: "Tomoo's Home is Safe"	5 5 <sup>th</sup> Grade, "People and Nature" Class, "Fixing Furniture to Prevent Earthquake Risk"	7 7 <sup>th</sup> Grade, Chemistry Class, "Combustion Reactions and Fire"	9 8 <sup>th</sup> Grade, Health Class, "Diseases Spread by Foods and How to Prevent Them"
2 Kindergarten (high) "Protecting Yourself from Fire"	4 Kindergarten, "Earthquake Tomoo"	6 5 <sup>th</sup> Grade, Extra-Curriculum Activity, "Building Earthquake-Resistant Buildings"	8 7 <sup>th</sup> Grade, Chemistry Class, "Combustion Reactions and Actions to Prevent Fire"	



**Activity 3.1.2: Developing Training Materials**  
**Developing the Teacher's Manual for Implementing the "Safety Life Skills" Program**

- **Finalizing the Teacher's Manual**
  - 6/3~9 Expert Feedback
  - 6/10~13 Adjustments according to expert feedback
  - 6/14~ Print and distribute
- **Number of Manuals**
  - Pre-schools 50 pages·1,000 copies
  - Secondary Schools 150 pages·800 schools x 2 copies
- **Structure of the Manual: Book + DVD**



- DVD Contents**
- Example lessons for implementing the "Safety Life Skills" program
  - PPT and other materials used for training
  - "Anyone, Anytime, Anywhere is Easy" training manual
  - Be Ready!
  - Paper Theater PDF
  - Training Center Information Board PDF
  - Other training materials produced by the project

**TEACHER'S MANUAL FOR IMPLEMENTING THE "SAFETY LIFE SKILLS" TRAINING PROGRAM (PRE-SCHOOL EDUCATION)**

**Introduction**

1. Rationale for Developing the "Safety Life Skills" program
2. Contents of the "Safety Life Skills" program
3. Structure of the Manual and Points to Consider

**Chapter 1: General Understanding of Disasters**

1. Current Situation of Disasters
2. Disasters, Hazards and Vulnerabilities
3. Understanding Earthquakes

**Chapter 2: Including DRR activities in the Curricula of Kindergartens**

- 1) Relation Between the Pre-School Core Curriculum and the "Safety Life Skills" Program
- 2) Examples of Implementing "Safety Life Skills" Program Activities through Daily School Activities

**Terminology**  
**Bibliography**

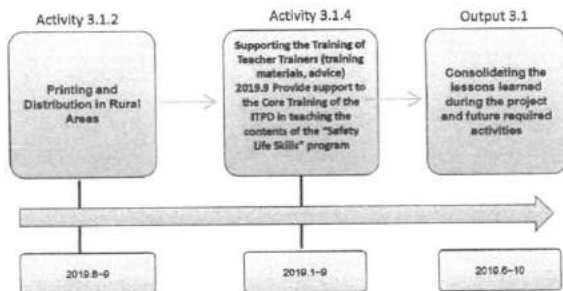
In the future, the implementation of the "Safety Life Skills" program will be tested through schools' auto-evaluation forms and student examinations on the required knowledge and skills.

**Activity 3.1.2: Developing Training Materials**  
**Developing the Teacher's Manual for Implementing the "Safety Life Skills" Program (cont.)**

- **Contents of the Teacher's Manual for Secondary Schools**

Contents of the Teacher's Manual for Implementing the "Safety Life Skills" Program in Secondary Schools (Primary, Middle and High Schools)	
<p><b>Foreword</b>                      The "Safety Life Skills" Program</p> <p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>◊ Rationale for Developing the "Safety Life Skills" program</li> <li>◊ Contents of the "Safety Life Skills" program</li> <li>◊ Structure of the Manual and Points to Consider</li> </ul> <p><b>Chapter 1: General Understanding of Disasters</b></p> <ul style="list-style-type: none"> <li>◊ Current Situation of Disasters</li> <li>◊ Disasters, Hazards and Vulnerabilities</li> <li>◊ Understanding Earthquakes</li> </ul> <p><b>Chapter 2: Outline of Lessons (Primary School)</b></p> <ul style="list-style-type: none"> <li>◊ Safety in the Social Environment: Learning the Cardinal Directions</li> <li>◊ Safety in the Social Environment: Climate Change</li> <li>◊ Natural Hazards: Developing a Model for an Earthquake Resistant Building</li> <li>◊ Earthquakes</li> <li>◊ Fires</li> </ul> <p><b>Chapter 3: Outline of Lessons (Middle School)</b></p> <ul style="list-style-type: none"> <li>◊ Safety at Home: Protect Your Health from Water Contamination</li> <li>◊ Climate Hazards: "Let's Become Climatologists"</li> </ul>	<ul style="list-style-type: none"> <li>◊ Climate Change and Our Role in Mitigating it</li> <li>◊ Natural Hazards: Protecting Yourself and Others from Earthquakes/Hazards / Preventing Lightning Hazards</li> </ul> <p><b>Chapter 4: Outline of Lessons (High School)</b></p> <ul style="list-style-type: none"> <li>◊ Natural Hazards: Developing a Preparedness Plan for Household Risks</li> <li>◊ Safety in the Social Environment: Preventing Cybercrime</li> </ul> <p><b>Chapter 5: Contents and Methodology of Activities to Support Training</b></p> <ul style="list-style-type: none"> <li>◊ Example Planning of School Activities</li> <li>◊ Objective of Extra-Curricular Activities</li> <li>◊ Primary School: Contents of Extra-Curricular Activities and their Methodological Reasoning</li> <li>◊ Middle School: Contents of Extra-Curricular Activities and their Methodological Reasoning</li> <li>◊ High School: Contents of Extra-Curricular Activities and their Methodological Reasoning</li> </ul> <p><b>Terminology</b>  <b>Bibliography</b></p>

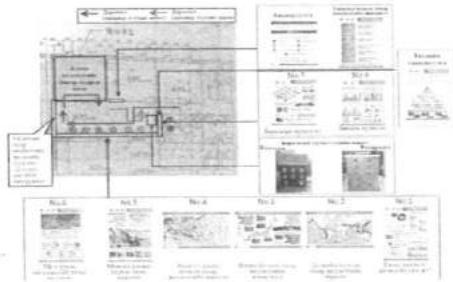
**Further Plans of Sub-WG 3.1**





**Activity 3.2.3: Developing training materials for the DPTMC and organizing training**

- **Earthquake experience simulation room: Developing earthquake information boards and a miniature model of an earthquake-resistant building**
  - The development of the information board and miniature building model finished in March 2019 and placed in the earthquake experience simulation room of the DPTMC (location pictured).
  - Supervision will be conducted based on the number of participants in the DPTMC training.



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**Activity 3.2.3: Developing training materials for the DPTMC and organizing training**

- **Developing training materials for the children's room and the earthquake protection corner**
  - The Sub-WG in collaboration with World Vision developed an earthquake DRR training material for children in the form of a "table theater".
  - The table theater was used in a trial kindergarten lesson on April 24, 2019; and the Sub-WG is planning to incorporate it into the teacher's manual DVD of the Safety Life Skills program of Sub-WG 3.1.
  - 10 copies of the table theater were distributed to NEMA, EMDC, MECSS, ERI, ITPD, DPTMC and the model kindergarten of Sub-WG 3.1.



7 Earthquake DRR table theater for children      Demonstration in kindergarten class      Wood-framed table theater delivered to DPTMC

**Further Plans**

Activity 3.2.1 Developing DRR education and awareness-raising plans	Place the schedule and planning of DRR education and awareness-raising activities on the www.ontario.gov.on.ca website under the 4W format.	Activity Completed
Activity 3.2.2 Developing DRR training and awareness-raising materials and conducting training in selected regions		Activity Completed
Activity 3.2.3 Refine the education program of the DPTMC and develop training tools and materials	<ol style="list-style-type: none"> <li>① Develop earthquake information boards and miniature building models for the earthquake experience simulation room</li> <li>② Develop materials for the children's room</li> <li>③ Submit the updated training program for the DPTMC for approval by EMDC and regularly implement it in the future.</li> </ol>	Activity Completed  Submitted to EMDC
Output 3 overall	<p>Assess project activities and discuss future actions</p> <ul style="list-style-type: none"> <li>➢ Promote the usage of the training and awareness-raising website among the Disaster Training and Awareness-Raising team, and find effective methods to inform the public of the website</li> <li>➢ Finding effective ways to promote the DPTMC training programs and materials in rural areas, etc.</li> </ul>	June 2019

**THANK YOU FOR YOUR ATTENTION!**

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Annex 4: Working Group Member List

The Amended Member List of Working Groups (7th JCC)

“XXX”: Withdrawal from WG after the 7<sup>th</sup> JCC

“XXX”: Nomination for WG after the 7<sup>th</sup> JCC

“XXX”: Change of organization after 7<sup>th</sup> JCC

Working Group (WG)		Sub-WG	Member
WG1	<b>Disaster Management Plan</b> WG1 Coordinator: <b>D.Bazarragchaa</b> Disaster Risk Management Department, NEMA	Risk Assessment Guideline	<b>D.Serjmyadag</b> Disaster Research Institute, NEMA <b>D.Bazarragchaa</b> Disaster Risk Management Department, NEMA <b>B.Batbayar</b> Disaster Risk Management Department, NEMA <b>B.Khishigbaatar</b> Disaster Operation Department, NEMA
		Disaster Management Planning Guideline, Preparedness Planning Guideline and Risk Management Guideline	<b>B.Bayanmunkh</b> Policy Coordination and Cooperation Department, NEMA <b>B.Myagmardorj</b> EMDC <b>Ch.Otgontugs</b> Fire Department, NEMA <b>B.Khishigbaatar</b> Disaster Operation Department, NEMA
		Agreements	<b>B.Duvshin</b> Disaster Risk Management Department, NEMA <b>T.Bilguun</b> Policy Coordination and Cooperation Department, NEMA
		White paper	<b>O.Tsend-Ayush</b> Disaster Prevention Department, NEMA
		Database Guideline	<b>B.Purevnyam</b> Disaster Operation and Early Warning Command Center, NEMA <b>D.Bayarbaatar</b> Disaster Operation and Early Warning Command Center, NEMA <b>D.Sodnomragchaa</b> Spatial Information and Technology Division, NEMA <b>B.Boldkhuu</b> Disaster Operation and Early Warning Command Center, NEMA
WG2	<b>Seismic Resistance</b> WG2 Coordinators: <b>L.Bilegjargal</b> MCUD	Seismic Diagnosis of Buildings	<b>L.Bilegjargal</b> MCUD <b>N.Ganchimeg</b> General Agency for Specialized Inspection <b>N.Tamir</b> Master Planning Agency of Capital City, Construction Quality and Safety Department <b>S.Munkhdul</b> Construction Development Center <b>T.Galbadrakh</b> Finance and Logistics Department, NEMA <b>O.Bayarbaatar</b> MCUD <b>B.Bayardulam</b> Land Management, Geodesy and Cartography Agency, MCUD
		Seismic Diagnosis of Infrastructures and Lifelines	<b>L.Bilegjargal</b> MCUD <b>N.Ganchimeg</b> General Agency for Specialized Inspection <b>B.Munkhsaikhan</b> General Agency for Specialized Inspection <b>O.Bayarbaatar</b> MCUD

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Working Group (WG)	Sub-WG	Member
	Design for Seismic Strengthening	<b>L.Bilegjargal</b> MCUD <b>N.Ganchimeg</b> General Agency for Specialized Inspection <b>N.Tamir</b> Master Planning Agency of Capital City, Construction Quality and Safety Department <b>S.Munkhdul</b> Construction Development Center <b>O.Bayarbaatar</b> MCUD <b>Ts.Khulan</b> Master Planning Agency of Capital City, Construction Quality and Safety Department
WG3  <b>DRR Education</b>  WG3 Coordinator: <b>D.Munkhbat</b> <del>Disaster Protection Training and Methodology Centre, EMDC</del> <b>D.Bat-Erdene</b> Disaster Prevention Department, NEMA	School DRR Education	<b>J.Myagmar</b> MECSS <b>Ch.Gantsetseg</b> MECSS <b>P.Baljinnyam</b> MECSS <b>G.Mongolkhatan</b> Education Research Institute, MECSS <b>B.Erdenechimeg</b> Education Research Institute, MECSS <b>A.Enkhtogtokh</b> Education Research Institute, MECSS <b>G.Khaliun</b> Education Research Institute, MECSS <b>N.Munkhbayar</b> Institute of Teachers' Professional Development (ITPD), MECSS <del><b>D.Munkhbat</b></del> <del>Disaster Protection Training and Methodology Centre, EMDC</del> <b>D.Bat-Erdene</b> Disaster Prevention Department, NEMA <b>G.Enkhtsolmon</b> Disaster Prevention Department, NEMA
	Community DRR Education	<del><b>D.Munkhbat</b></del> <del>Disaster Protection Training and Methodology Centre, EMDC</del> <b>D.Bat-Erdene</b> Disaster Prevention Department, NEMA <b>D.Khadbaatar</b> Disaster Prevention Department, NEMA <b>B.Uuriingegee</b> EMDC <b>D.Munkhbat</b> EMDC <b>B.Chinbat</b> EMDC <b>D.Dulamsuren</b> Public Information Center, Disaster Prevention Department, NEMA <b>S.Doljinsuren</b> EMDC <b>B.Ariunchimeg</b> National Center for Long life Education



Annex 5: Amendment of Objectively Verifiable Indicators for Overall Goal and Project Purpose in Project Design Matrix

Amendment of Objectively Verifiable Indicators for Overall Goal and Project Purpose in Project Design Matrix (PDM) <As of May 2019>

Narrative Summary (PDM)	Objectively Verifiable Indicators (PDM)	Proposed Amendment and Addition of Objectively Verifiable Indicators
<p>Overall Goal</p> <p>Seismic risk will be reduced.</p>	<ul style="list-style-type: none"> <li>• 1. Number of approved guidelines, rules, and provisions</li> <li>• 2. Number of white papers open to public</li> <li>• 3. Number of the executed seismic assessments</li> <li>• 4. Number of the seismic strengthened buildings</li> <li>• 5. Number of implemented activities on disaster risk reduction education</li> </ul>	<p><b>[Proposed Amendment]</b> The formulation of Disaster Protection Plans at Regional Level will be continued by referring the guidelines developed through the activity in the Project.</p> <p><b>[Proposed Amendment]</b> 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><b>[Proposed Amendment]</b> The implementation of Seismic Evaluation for public facilities will be continued across the country by referring the guidelines developed through the activity in the Project.</p> <p><b>[Proposed Addition]</b> The implementation of Seismic Evaluation for infrastructures and lifelines will be continued across the country by referring the guidelines developed through the activity in the Project.</p> <p><b>[Proposed Amendment]</b> 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><b>[Proposed Amendment]</b> The implementation of School Disaster Risk Reduction Education will be continued across the country by referring the guidelines developed through the activity in the Project.</p> <p><b>[Proposed Addition]</b> 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>Project Purpose</p> <p>The Capacity of the National Emergency Management Agency will be enhanced through the activities for strengthening the countermeasures for seismic risk.</p>	<ul style="list-style-type: none"> <li>• 1. The number of the approved guidelines and agreements</li> <li>• 2. The amount of data on disaster risk reduction which is newly established and improved</li> </ul>	<p><b>[Proposed Amendment]</b> The number of the approved guidelines, rules, and provisions:</p> <ul style="list-style-type: none"> <li>• Related to OUPUT 1 Activity: 3 (approved) / 9 (planned to be developed)</li> <li>• Related to OUPUT 2 Activity: 7 (approved) / 7 (planned to be developed)</li> <li>• Related to OUPUT 3 Activity: 2 (approved) / 3 (planned to be developed)</li> </ul> <p><b>[Proposed Addition]</b> The number of the Earthquake Disaster Protection Plans formulated or revised based on the guidelines developed through the activity in the Project:</p> <ul style="list-style-type: none"> <li>• 0 (approved) / 5 (planned to be developed : National Level, 2 Aimages, 2 Districts)</li> </ul> <p><b>[Proposed Amendment]</b> Following systems for Earthquake Disaster Risk Reduction are taken root in NEMA based on the approved guidelines, rules, and provisions:</p> <ul style="list-style-type: none"> <li>• Formulation and Revision of Regional Earthquake Disaster Protection Plan</li> <li>• Development of White Paper for Disaster Risk Reduction</li> <li>• Collection and Management of Disaster Related Information</li> <li>• Implementation of Earthquake Risk Assessment</li> <li>• Promotion of Disaster Risk Reduction Education and Awareness Raising</li> </ul>

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Annex 6: Progress toward the achievement of Project Outputs

<As of May 2019>

Progress toward the achievement of Project Outputs

Project Output	Project Activity	Expected outcomes developed through the Project activity <i>Blue: Ongoing In the WG Activity, Red: Completed by WG Activity</i>	Human and Organizational Development	Progress toward the achievement of Project Outputs (PDM) <i>Progress (As of May 2019)</i>
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 reflecting the Amended Law on Disaster Protection	<ul style="list-style-type: none"> <li>GL on Earthquake Disaster Risk Assessment</li> <li>GLs on Earthquake Disaster Protection Planning (4 GLs for "National", "State", "Almag", "Soum", "Capital City/District")</li> <li>GL on Operation and Management of Spatial Information System for Disaster Risk Reduction</li> <li>Manual to Support Earthquake Disaster Protection Planning</li> <li>Manual to Support Conclusion of Agreements on DRR</li> <li>Manual to Support development of White Paper for DRR</li> </ul>	<ul style="list-style-type: none"> <li>Improvement of rules and provisions by reflecting the Amended Law on Disaster Protection</li> <li>Capacity enhancement of NEMA, EMDC and regional EMDs through the pilot activity based on GLs</li> </ul>	<ul style="list-style-type: none"> <li>The number of guidelines, operational rules, and provisions which are developed. <b>3 (approved) / 9 (planned to be developed) Provided, remaining 6 documents have already been drafted.</b></li> </ul>
	1.2 To strengthen cooperation among related organizations for disaster risk reduction	<ul style="list-style-type: none"> <li>Agreements on cooperation among governmental agencies and related organizations for DRR actions (9 agreements planned to be developed)</li> <li>Agreements on spatial database exchange among the DRR related organizations (2 agreements planned to be developed)</li> </ul>	<ul style="list-style-type: none"> <li>Capacity enhancement for conclusion of agreements and accumulation of know-how on this work</li> <li>Enhancement of cooperation among governmental agencies and related organizations</li> </ul>	<ul style="list-style-type: none"> <li>The number of the draft of agreements developed <b>11 (approved) / 11 (planned to be developed)</b></li> <li><b>4 agreements have already been signed officially.</b></li> <li>The number of participants who participated in the training programs on agreements : <b>38 trainees (Apr. 5, 2018)</b></li> </ul>
	1.3 To improve monitoring and information gathering methods for national and local disaster protection plans	<ul style="list-style-type: none"> <li>Earthquake Disaster Protection Plans in pilot almag and Districts (2 almag and 2 Districts in UB city)</li> <li>White Paper for DRR in 2017, 2018</li> <li>Spatial Information System for Disaster Risk Reduction including Disaster Spatial Database</li> </ul>	<ul style="list-style-type: none"> <li>Pilot Activity for local earthquake disaster protection planning in the pilot area</li> <li>Training program on operation and management of spatial information system for DRR intended for NEMA, EMDC and regional EMDs</li> </ul>	<ul style="list-style-type: none"> <li>White Paper for Disaster Risk Reduction <b>1 (approved) / 2 (planned to be developed)</b></li> </ul>
2. Capacity of public administration officer related with the seismic assessment and strengthening for buildings will be enhanced.	2.1 To establish seismic assessment methods for buildings, infrastructures and lifelines in the country, and to implement training program on seismic assessment	<ul style="list-style-type: none"> <li>GLs on Seismic Evaluation of Buildings (3 GLs: RC, PC and Masonry)</li> <li>GL on Seismic Evaluation on Infrastructures and Lifelines</li> <li>Manual to Support Training Program Implementation</li> </ul>	<ul style="list-style-type: none"> <li>Training program on seismic evaluation on buildings, infrastructures and lifelines</li> <li>Training of trainers on fostering engineers who have expertise in Seismic Evaluation of buildings</li> </ul>	<ul style="list-style-type: none"> <li>Guideline for seismic assessment <b>4 (approved) / 4 (planned to be developed)</b></li> <li>The number of participants in the training program on seismic assessment <b>180 trainees (Jun. 4-7, 2018)</b></li> <li><b>23 trainees (Sep. 8, 2018)</b></li> <li><b>64 trainees (Nov. 12-13, 2018): Training on How to use equipment for seismic diagnosis</b></li> <li><b>31 trainees (Mar. 28 2019): Explanation of GLs</b></li> <li><b>21 trainees (May. 6-31 2019): Training of trainers</b></li> </ul>
	2.2 To develop seismic strengthening guidelines for buildings in the country, and to implement training program on seismic strengthening	<ul style="list-style-type: none"> <li>GLs on Seismic Strengthening of Buildings (3 GLs: RC, PC and Masonry)</li> <li>Trial Designs of Rebuilding and Strengthening Construction (5 kinds of buildings)</li> <li>Manual to Support Training Program Implementation</li> </ul>	<ul style="list-style-type: none"> <li>Training program on seismic strengthening on buildings</li> <li>Training of trainers on fostering engineers who have expertise in Seismic Strengthening of buildings</li> </ul>	<ul style="list-style-type: none"> <li>Guideline for seismic strengthening <b>3 (approved) / 3 (planned to be developed)</b></li> <li>The number of training programs on seismic strengthening : <b>65 (, May. 1-3, 2019).</b></li> </ul>
3. Implementation plan on disaster risk reduction 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	<ul style="list-style-type: none"> <li>GL titled "The Program for Life Safety Education"</li> <li>Guidebook for teachers to implement lessons based on the GL "The Program of Life Safety Education"</li> </ul>	<ul style="list-style-type: none"> <li>Training program for the instructors of educational departments in local governments (Kindergarten, Primary school, Lower-secondary school)</li> <li>Training program for teachers by the instructors and experts who received the training programs (Kindergarten, Primary school, Lower-secondary school)</li> </ul>	<ul style="list-style-type: none"> <li>The number of the cases of delivering classes on disaster risk reduction based on the activities of the Project <b>Classes on DRR education will be delivered from Sep. 2019</b></li> </ul>
	3.2 To develop materials for disaster risk reduction education and raising awareness, and to implement training program for target groups and residents	<ul style="list-style-type: none"> <li>DRR Training Materials for the Community</li> <li>Disaster Prevention and Simulation Program with related Materials in the Disaster Protection Training and Methodology Center</li> <li>Webpage for sharing the DRR training schedule</li> </ul>	<ul style="list-style-type: none"> <li>Training for trainers on DRR Experience Program</li> <li>Pilot activity of workshops for DRR Awareness raising</li> <li>Enhancement of cooperation among related organizations</li> </ul>	<ul style="list-style-type: none"> <li>The number of visitors in the Training Centers <b>Total 5,800 (2,200 students and 3,600 citizens) visitors from 23 Mar. to 27 May 2019</b></li> </ul>

## Annex 7: Question and Answer in the JCC meeting

### Record of Question and Answer in the 8th JCC Meeting

#### 1. Amendment of Working Group Member

##### **Moderator, NEMA:**

There have been no changes in the composition of WGs 1 and 2. However, for WG3, D. Munkhbat was replaced by D. Bat-Erdene as the WG leader. Moreover, D. Khadbaatar has been added to sub-WG 3.2 dedicated to community DRR education.

Please raise hands if your support the member changes. Thank you, I understand we agree on the member changes.

#### 2. Discussion How to Evaluate the Achievement of the Overall Goal including items of Indicators

##### **Mr. Kiyotaka Owada, Team Leader, JICA Expert Team:**

We have approved the PDM (Project Design Matrix) at the beginning of the project. The PDM includes the Overall Goal and Project Purpose of the project; and following the project progress and results, we propose the amendments of Objectively Verifiable Indicators to evaluate more specifically the achievement of the Overall Goals. We believe it is necessary to modify these indicators in relation to the project results.

Firstly, we propose to modify the indicator of “number of guidelines approved during the project” into an indicator based on the actual usage of the guidelines while the DRR protection plans of aimags and soums are being developed.

We also propose changing the indicator for “the number of White Paper copies published” into an indicator that “the White Paper will be published on an annual basis”.

For the indicator of “number of seismic evaluation conducted”, we propose to change it into “conducting the seismic evaluation of public structures on a national scale utilizing the guidelines developed during the project”. Also, since there is no mention of infrastructure and lifelines in the indicator, we propose “conducting earthquake risk evaluation on infrastructure and lifelines on a national scale utilizing the guidelines developed during the project” as an additional indicator.

As for the indicator regarding the “number of strengthened buildings”, since the implementation of strengthening of a building largely depends on the building owner’s desire, we propose changing the indicator to “continuing the training of engineers for building strengthening according to the project”.

In terms of WG3, the current indicator is “the number of DRR training programs implemented”. However, since there is a wide variety of training programs, we propose modifying the indicator of Sub-WG 3.1 to “the school programs developed within the scope of the project will be implemented in schools and kindergartens with the related teacher’s manuals”, and the indicator of Sub-WG 3.2 to “DRR awareness-raising activities shall be implemented according to the structure produced by the results of the project”.

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As for project purpose, there is a general indicator for the number of guidelines and agreements finalized. However, we propose adding the number of earthquake DRR plans developed and amended according to the approved guidelines to make this indicator more specific.

There is also the indicator for “number of newly produced or improved DRR data”. We propose modifying this indicator by clarifying the data for each Output.

These modifications have been discussed within the SC, and we would like to present them for discussion in the JCC as well.

**Moderator, NEMA:**

Any question on the modifications in the PDM indicators?

**Ms. Eriko Tamura, Chief Representative, JICA Mongolia Office:**

Thank you for the presentation. As an additional comment, post-project evaluation will be conducted 3 years after the completion of the JICA project, and we plan to evaluate the indicators during that time.

**Ms. D. Jargal, GASI:**

Thank you for the presentations. I have a few comments.

Firstly, I understand that the agreements to be established by WG1 are regulations for the actions of the relevant organizations after disaster occur. Perhaps it may be beneficial to inform these relevant organizations; such as for communications, road transport and waste water treatment; on how to use these agreement beforehand.

Secondly, we would appreciate recommendations to discuss how to utilize the strengthening plans in the WG2's activity.

Thirdly, regarding the further actions to take by all WGs, some WGs have definite next steps while others seem to be facing challenges. Especially, WG2 seems to be facing challenges in implementing their guidelines as well as issues with passports. Therefore, before the project ends, NEMA must cooperate with MCUD, the Capital City Mayor's Office and GASI to issue the appropriate decisions to resolve these issues.

Fourthly, I wanted to ask if there are issues in relation to preparing teacher trainers, engineers and inspectors for the seismic evaluation of buildings in rural areas. If there are, I would like to propose paying attention to these issues.

Fifthly, in terms of temporary shelter, I believe it's important to come up with a list of temporary shelters, plan coordination with relevant organizations and obtain advice and recommendations from the Japanese side before the project ends.

Sixthly, regarding the PDM indicators, I accept the amendment because we plan to use the guidelines developed during the project for evaluating buildings, infrastructure and lifelines. For the training of engineers, perhaps an indicator based on a number of engineers to be trained would be more effective.

Finally, regarding the spacial database, there are useful data in GASI. Therefore, how will we set the conditions for GASI to utilize the data? Thank you.



**Moderator, NEMA:**

Thank you Ms. Jargal. Any comments?

**Mr. Kiyotaka Owada, Team Leader, JICA Expert Team:**

On your 6<sup>th</sup> comment, you have proposed an indicator based on the number of engineers to be trained instead of a requirement for the sustained training of engineers. Showing the number of trained engineers has a challenge that it can not be determined how many employees should be trained. However, it might be best if NEMA discusses this matter with the relevant organizations.

**Mr. Ts. Ganzorig, Deputy Head of NEMA:**

The changes to the PDM indicators were made through discussions among SC members on the basis of WG activities and results. In terms of setting a indicator for a precise number of engineers to be trained, it might not be appropriate to set a goal of training just a fixed number of engineers for the post-project evaluation in 3 years' time; and therefore I emphasized the sustained training of engineers for an indefinite period instead of providing a specific number of engineers to train.

In terms of the agreements, I urge WG1 members to double their efforts in finalizing them since there is not much reason for delay.

We have received the JCC comments on the PDM indicators and will take them into consideration. For now, I propose we keep the modifications to the indicators focusing on the usage of the guidelines and documents produced by the project, and request to accept this amendment.

The WG could later discuss adding quantitative indicators for the number of engineers, teacher trainers or other specialists to train.

The next item on the agenda is the date of the next JCC meeting, which will be in November 2019.

**Moderator, NEMA:**

Do you have any comments from project side?

### **3. Confirmation of the Achievement of the Project Purpose based on Indicators**

**Mr. Kiyotaka Owada, Team Leader, JICA Expert Team:**

The next item to discuss is the progress of project activities that was explained. The items written in blue and red on the project results sheet need to be verified and confirmed.

**Mr. Ts. Ganzorig, Deputy Head of NEMA:**

The project results sheet shows the tasks that have been completed by each WG and the tasks that are currently in progress. Do the WGs have any comments on the sheet? If not, we will determine the work completed and the work that remains to be completed according to the sheet.

There are no comments from WGs, therefore we will determine the progress of the project according to the sheet as is.

Now let's move on to the other comments of the meeting.

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**Ms. Eriko Tamura, Chief Representative, JICA Mongolia Office:**

The meeting is about to close so I will sum up the main points.

Firstly, the WGs have all presented their plans but since the Naadam holidays will be coming soon and a lot of work is planned for September with less than 6 months remaining in the project, please pay attention to this timeframe and organize work effectively, especially on the agreements. If the current methods for completing the tasks are ineffective please consult with project members on the appropriate ways to move forward.

Regarding the Disaster Reduction Agreement with the Communication and Information Technology Agency, There is the priority connection has technical and institutional issues. Please consider the means to solve issues.

Secondly, I believe NEMA and other relevant organizations in the capital city and rural areas are preparing their budget for 2020. Therefore, please pay attention to including project-related items on their annual budgets in order to ensure the sustained impact of project results.

Thirdly, there is the issue of supporting the sustainability of project activities. This was a worry Chief Major General Badral expressed during our discussion. Each aimag needs to develop DRR plans, and it might be beneficial to incentivize the development of these plans and ensure their implementation by organizing inter-aimag competition on the matter. There are also a number of effective materials that have been developed for DRR education and awareness-raising; however, please focus on promoting their regular usage in teacher training institutions. Furthermore, for the DRR White Paper, it may be challenging to compile the DRR activities of an entire year, therefore a more effective and time-saving method may be to assign persons responsible for each section of the White Paper and have them gradually fill out their respective sections during the course of the year.

Finally, JICA held a safety and security conference yesterday at a conference hall where around a 100 people participated. One of the materials handed out during this conference was a map of potential earthquake temporary shelters in Ulaanbaatar, which can be valuable information for citizens. JICA has around 40 volunteer workers and around 70% of them work in rural areas along with volunteers from other organizations such as KOICA and Peace Corps. We were not able to effectively disseminate information to our volunteers in rural areas and we need to pay attention to this in the future.

NEMA has a very important mission to protect the lives of citizens, and I wish them the best of success with the time remaining in the project.

#### **4. Preparation of Project Completion Report**

**Mr. Kiyotaka Owada, Team Leader, JICA Expert Team:**

There is one more item to discuss before the next JCC meeting. A final report needs to be developed in relation to closing the project. The draft of the final report is planned to be prepared by the end of August. We plan to develop the PCR (Project Completion Report) based on documents adding evaluation factors; relevance, effectiveness, efficiency, impact, sustainability to the monitoring sheets produced during the project. Therefore, we will need to discuss this matter before the next JCC meeting. We understand that the next JCC meeting will be held after discussing the structure of the final report.



I have one suggestion for the next JCC meeting that is organizing an open seminar to present project results to public. I would like to discuss in detail on this seminar later on.

## 5. Others

### **Ms. Inamori.Makiko, JICA Mongolia Office:**

From today's JCC meeting, it is apparent that the project is yielding certain results and it might be beneficial to raise awareness of these results outside of Mongolia. The Asian Ministerial Conference for Disaster Risk Reduction ("AMCDRR") held in Ulaanbaatar in 2018 will be held in Australia in 2020, and this might be an appropriate platform for NEMA to present the results of the project, especially DRR activities in rural areas.

### **Mr. Ts. Ganzorig, Deputy Head of NEMA:**

You have given valuable advice, thank you Ms. Tamura. Since spring of this year, we have a specialist for DRR planning and evaluation in rural areas and we will increase our efforts in this matter. Please keep next year's AMCDRR in mind, we will take the necessary actions on our part.

Now the 8<sup>th</sup> JCC meeting is coming to an end. Our 3 WGs have worked well and shown results that are impactful. Our WG members will go on vacation soon and so will other government institutions. Therefore, all the required document approvals and the establishment of agreements, especially of WG1, will need to be completed by June, this is a special order.

## 6. Closing Remarks

### **Moderator, NEMA:**

We are at the end of today's meeting. Now I invite Colonel Batsaikhan, Director of the Disaster Prevention Department of NEMA, to give closing remarks.

### **Mr. D. Batsaikhan, Director of the Disaster Prevention Department, NEMA:**

In today's JCC meeting we have discussed the following: progress of WGs, change in WG members, objectively verifiable indicators for overall goal, modifications to PDM indicators, and required works for fulfilling PDM indicators.

The next JCC meeting in November 2019 was decided.

As a result of the project, the DRR White Paper will continue to be developed each year and made available to the public. The Disaster Research Institute of NEMA, GASI, MCUD and the Master Planning Agency of the Capital City are utilizing the equipment of diagnosis devices for seismic evaluation of buildings. Furthermore, the equipment of earthquake simulation experience has been installed in the DPTMC of the EMDC and work is being done to raise awareness of earthquake disaster prevention for public. We believe that an earthquake DRR framework has been developed in NEMA as a result of the guidelines, regulations, user manual and such materials produced during the project.



Further actions to take include: approving the guideline for developing Earthquake DRR Plans of WG1, revising regional and national DRR plans, accelerate efforts on establishing DRR cooperation agreements with related organizations and companies, and work on the early development of the final report of the project which we can then present during the 9<sup>th</sup> JCC meeting.

The open seminar to present project results to public will be held in addition to 9th JCC.

The 8<sup>th</sup> JCC meeting of the Project for Strengthening the National Capacity for Earthquake Disaster Protection and Prevention in Mongolia jointly implemented by JICA, the Government of Mongolia and NEMA hereby comes to a close. I wish you all the best of luck in your work.

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**MINUTES OF MEETING  
ON  
THE NINTH JOINT COORDINATING COMMITTEE MEETING  
FOR  
THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY  
OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN  
MONGOLIA**

Joint Coordinating Committee (hereinafter referred to as "JCC") for the Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention in Mongolia (hereinafter referred to as "the Project") held its ninth meeting on November 5, 2019 from 10:00 AM to 12:00 noon, at the Conference Room of National Emergency Management Agency (hereinafter referred to as "NEMA"), Ulaanbaatar, Mongolia, chaired by Mr. Badral Tuvshin, Chief and Major General, NEMA and supported by Mr. Kiyotaka Owada representing the Expert Team dispatched by the Japan International Cooperation Agency (hereinafter referred to as "JICA"). JCC members were invited and attended to this JCC. The list of the participants and agenda of the meeting are provided in Annex 1 and Annex 2, respectively.

The main subjects discussed and agreements made at the meeting are summarized in the attached document hereto.

Ulaanbaatar, November 5, 2019

田村 三子

Ms. Eriko Tamura  
Chief Representative  
Mongolia Office  
Japan International Cooperation Agency

Mr. Badral Tuvshin  
Chief, Major General  
National Emergency Management Agency,  
Mongolia

大和田 清隆

Mr. Kiyotaka Owada  
Team Leader  
JICA Expert Team

Mr. Batkhuu Idesh  
Director General  
Development Financing Department  
Ministry of Finance, Mongolia

## ATTACHED DOCUMENT

### 1. Amendment of the List of Working Group Members

According to the Record of Discussions signed on July 8, 2016 (hereinafter referred to as "R/D"), the project organization of Mongolian side includes counterpart (hereinafter referred to as "C/P") working groups (hereinafter referred to as "WG") in order to implement project activities at output level of the Project.

Mongolian side submitted the amended members' list of the C/P WG that was amended from the member list approved in the eighth JCC on June 5, 2019 to respond to changes in members' positions and to conduct more effective WG activities. JCC members confirmed the amended members' list of WG shown in Annex 3.

### 2. Agreement of the Content of Project Completion Report

The representatives of the Project and three WGs explained respectively the overall results and achievements of activities implemented in the Project, the result of the joint review and future plans to achieve overall goals after completion of the Project as shown in Annex 4 based on the content of proposed Project Completion Report (hereinafter referred to as "PCR") shown in Annex 5.

JCC members confirmed the completion of all the activities and agreed with the content of PCR.

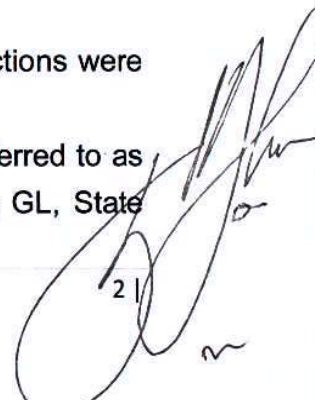
### 3. Confirmation of Action Plan for Addressing the Achievement of Overall Goals of the Project and Securing Sustainability of Project's Outputs

In line with the content of PCR, Mongolian side explained the action plan as shown in Annex 6 to address the achievement of overall goals of the Project. Japanese side suggested that the action plan will be finalized after the confirmation by Japanese side and Mongolian side and Mongolian side will take appropriate process to make action plan be authorized officially in the Project. Mongolian side agreed on it. Action Plan will be reported in the Standing Committee on Earthquake Disaster Prevention held on November 26, 2019 and approved finally by the deputy prime minister as the Order of Deputy Prime Minister.

#### 3-1 Implementation of Active Follow-Up Activities for Output 1

As follow-up activities of Output 1 after the final JCC, the following actions were clarified.

- ◇ To proceed with approval procedure for guidelines (hereinafter referred to as "GL") such as National Earthquake Disaster Protection Planning GL, State



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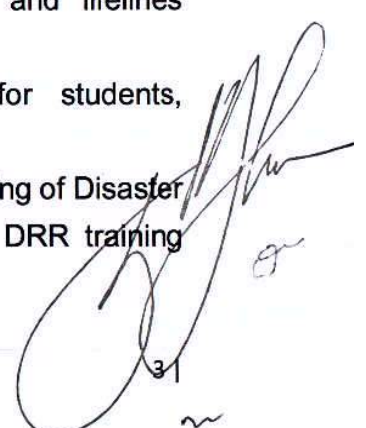
Earthquake Disaster Protection Service Planning GL and Aimag/Soum and City/District Level Earthquake Disaster Protection Planning GL that have not been approved so far.

- ✧ To encourage the Emergency Management Departments in the pilot Aimags and Districts to promptly approve the Earthquake Disaster Protection Plans formulated in the activity of Output 1.
  - ✧ NEMA will lead formulation of Local Level Earthquake Disaster Protection Plan, which can be called as Local DRR Plan on Earthquake Disaster, with utilizing the Project's outputs and making UNDRR activities be aligned with them.
  - ✧ NEMA will make the plan of expanding formulation of Local DRR Plans on Earthquake Disaster in the Project.
  - ✧ To monitor status of implementation of risk assessment by utilizing Earthquake Risk Assessment GL and Seismic Diagnosis GL that were developed in the Project.
  - ✧ To conclude the agreements discussed and drafted in the Project.
- 
- ✧ To establish a taskforce to continue the formulation of White Paper.
  - ✧ To ensure the sustainable operation of Spatial Information System for Disaster Risk Reduction (hereinafter referred to as "SISDRR") by making redundancy of system administration for operation and management of SISDRR.

### 3-2 Implementation of Disaster Risk Reduction Policies Utilizing Outputs of the Project

The following actions were clarified in order to achieve the overall goals by utilizing outputs of the Project.

- ✧ To make special efforts to disseminate measures for disaster risk reduction including disaster protection planning to whole local governments by assigning appropriate personnel.
- ✧ To implement earthquake disaster protection plans and monitor the progress of implementation by NEMA and related ministries and agencies.
- ✧ To expand seismic diagnosis of buildings, infrastructures and lifelines throughout the country and promote seismic reinforcement.
- ✧ To practice actively disaster risk reduction education for students, preschoolers and residents.
- ✧ 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.



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- ◇ To monitor progress of DRR education through communicating with the Grassroots Technical Cooperation implemented by Nagoya University in Mongolia.

### 3-3 Implementation of Countermeasures for Waterproofing Work for Disaster Protection Training and Methodology Center (hereinafter referred to as "DPTMC")

Mongolian side promised to undertake reliably and promptly waterproofing work for the whole basement floor of DPTMC that was inundated in recent year and had not been waterproofed despite the commitment during the seventh JCC.

#### 4. Continuous Public Relations regarding to DRR Activities

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.

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#### 5. Question and Answer on the JCC

The record of the question and answer session in the JCC is shown in Annex 7.

Annex 1: List of Participants

Annex 2: Agenda of the JCC Meeting

Annex 3: Working Group Members' List

Annex 4: Presentation Documents for the Results of Activities

Annex 5: Project Completion Report

Annex 6: Action Plan

Annex 7: Question and Answer in the JCC Meeting



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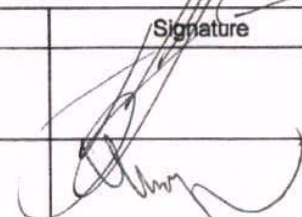
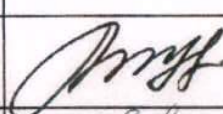
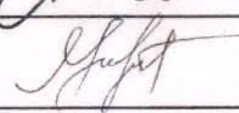
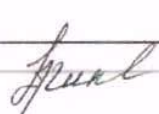
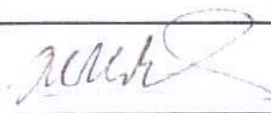
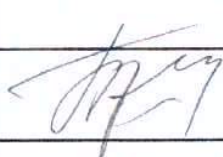
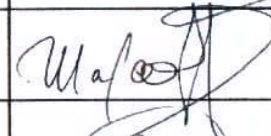


Annex 1: List of Participants

**“THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY  
OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN MONGOLIA”**

Date: 2019/11/5

Place: NEMA Conference Room (1st Floor)

Title of Meeting: 9th Joint Coordination Committee (9th JCC)

Name	Position, Organization	E-mail/ Tel	Signature
T.Badral	Chief, Major General, NEMA		
L. Sayana	Advisor in charge of Emergency Management of Deputy Prime Minister		
S.Magnaisuren	State Secretary, Ministry of Construction and Urban Development		
D.Batsaikhan	Director, Disaster Prevention Department, NEMA		
<del>Ya. Baasambat</del> Ye. Jargalsaikhan	<del>Referent of National Security Council</del>	88059855	
L.Ulziibayar	Director, Policy Coordination and Cooperation Department, NEMA		
D.Jargal	Director, Infrastructure and State Inspection Department, General State Inspection Agency	99176069	
T. Batkhuu	Director, Development Financing and Debt Management Department, Ministry of Finance		
J.Myagmar	Director, Division of Preprimary and Primary Education, Ministry of Education, Culture, Science and Sports		
P.Bayarkhuu	Vice Mayor of the Capital City in charge of Urban Development		
N.Ulambayar	Director, Emergency Management Department of the Capital City (EMDC)		
G.Enkhtuya	Director, Construction Quality and Safety Division, Master Planning Agency of Capital City	99016177	
Eriko Tamura	Chief Representative, JICA Mongolia office	tamura.eriko@jica.go.jp 田村 2113	
Makiko Inamori	Project Formulation Advisor, JICA Mongolia Office		稲森
Ch.Munkhmanlai	Program Officer, JICA Mongolia office	chinbat.munkhmanlai.m@jica.go.jp	
Hideaki Matsumoto	Director, Disaster Risk Reduction Team2, Disaster Risk Reduction Group, Global Environment Department, JICA	Matsumoto.Hideaki@jica.go.jp	
Takafumi Sakurazawa	Disaster Risk Reduction Team2, Disaster Risk Reduction Group, Global Environment Department, JICA	Sakurazawa.Takafumi@jica.go.jp	櫻澤 

**"THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY  
OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN MONGOLIA"**

Date: 2019/11/5

Place: NEMA Conference Room (1st Floor)

Title of Meeting: 9th Joint Coordination Committee (9th JCC)


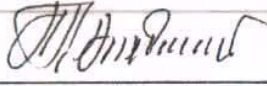

Name	Position, Organization	E-mail/ Tel	Signature
Xuvshin	NEMA	99173133	
B. Dulamsuren	NEMA	99007969	
B. Tsend	NEMA	80150069	
D. Bayarbat	NEMA	44766999	
S. Sodnomragchaa	NEMA, EWDC, SIT Division	98888148	
Bayanmunkh B	NEMA,	99087557	
Vandindorj B	NEMA	99080474	
Khurelbatser	NEMA	88019559	
Bat-erdene D	NEMA	99142333 0091023330 1015	
D. Bazarrag- Chaa	NEMA	99194257	
O. Bayarbat	MCVD	99900532	
D. Odbayar	JET	88477748	
N. Amgijavch	JET	99297766	
E. Enkh-Erdene		96956059	
T. Bolormea		99736052	

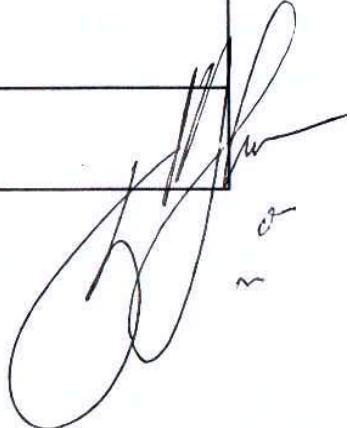
**"THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY  
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Date: 2019/11/5

Place: NEMA Conference Room (1st Floor)

Title of Meeting: 9th Joint Coordination Committee (9th JCC)

Name	Position, Organization	E-mail/ Tel	Signature
Miki Kodama	JICA Expert Team	chezmit2001@gmail.com	白王美樹
Seiichiro Fukushima	JICA Expert Team	fukushima@htk-c.co.jp	福島誠一郎
Osamu NISHII	JET	nishii@expinter.com	西井 理
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ANKHILEG-T.	JET	ANKHILEG.OT@yandex	
K. Owaola	JET		



## Annex 2: Agenda of the JCC Meeting



**“THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY  
OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN MONGOLIA”  
Agenda for 9th Joint Coordination Committee (9th JCC, Final)**

**Date:** November, 5<sup>st</sup> 2019

**Time:** 10:00~12:10

**Venue:** NEMA Conference Room

**Moderator:** Ms. D. Bazarraghaa

No.	Time	Agenda	Presenter
	9:50-10:00	Registration	
1	10:00-10:10 (10 min)	Opening Remarks from NEMA	<i>Mr. Badral Tuvshin Chief, Major general, NEMA</i>
2	10:10-10:20 (10 min)	Opening Remarks from JICA	<i>Mr. Hideaki Matumoto Director, Disaster Risk Reduction Team2, Disaster Risk Reduction Group, Global Environment Department, JICA</i>
3	10:20-10:30 (10 min)	Overall Result of the Project	<i>Mr. Kiyotaka Owada Team Leader, JICA Expert Team</i>
4	10:30-10:50 (20 min)	Result of WG1 Activity	<i>Representative for WG1</i>
5	10:50-11:05 (15 min)	Result of WG2 Activity	<i>Representative for WG2</i>
6	11:05-11:20 (15min)	Result of WG3 Activity	<i>Representative for WG3</i>
7	11:20-12:00 (40 min)	<p>Discussion and Confirmation on:</p> <ol style="list-style-type: none"> <li>(1) Amendment of the List of Working Group Members</li> <li>(2) Confirmation of the Project Completion Report</li> <li>(3) Confirmation of Action Plan for Addressing the Achievement of Overall Goals of the Project                             <ul style="list-style-type: none"> <li>➤ Implementation of Active Follow-Up Activities for Output 1</li> <li>➤ Implementation of Disaster Risk Reduction Policies Utilizing Outputs of the Project</li> <li>➤ Implementation of Countermeasures for Waterproofing Work for Disaster Protection Training and Methodology Center</li> </ul> </li> <li>(4) Others</li> </ol>	<p><i>Discussion with All Participants</i></p> <p><i>Item (2): Mr. Kiyotaka Owada, Team Leader, JICA Expert Team, explains results of Join Review in the Project Completion Report.</i></p> <p><i>Item (3): Mr. B. Bayanmunkh, Policy Coordination and Cooperation Department, NEMA, explains the Action Plan for addressing the achievement of overall goals of the Project.</i></p>
8	12:00-12:10 (10 min)	- Closing Remarks	<i>Mr. D.Batsaikhan Director of Disaster Prevention Department, NEMA</i>

### Annex 3: Working Group Members' List

#### The Amended Member List of Working Groups (8th JCC)

Working Group (WG)		Sub-WG	Member
WG1	<b>Disaster Management Plan</b>  <u>WG1 Coordinator:</u> <b>D.Bazarragcha</b> Disaster Risk Management Department, NEMA	Risk Assessment Guideline	<b>D.Serjmyadag</b> Disaster Research Institute, NEMA <b>D.Bazarragcha</b> Disaster Risk Management Department, NEMA <b>B.Khishigbaatar</b> Disaster Operation Department, NEMA
		Disaster Management Planning Guideline, Preparedness Planning Guideline and Risk Management Guideline	<b>B.Bayanmunkh</b> Policy Coordination and Cooperation Department, NEMA <b>Ch.Otgontugs</b> Fire Department, NEMA <b>B.Khishigbaatar</b> Disaster Operation Department, NEMA
		Agreements	<b>B.Duvshin</b> Disaster Risk Management Department, NEMA <b>T.Bilguun</b> Policy Coordination and Cooperation Department, NEMA
		White paper	<b>O.Tsend-Ayush</b> Disaster Prevention Department, NEMA
		Database Guideline	<b>B.Purevnyam</b> Disaster Operation and Early Warning Command Center, NEMA <b>D.Bayarbaatar</b> Disaster Operation and Early Warning Command Center, NEMA <b>D.Sodnomragcha</b> Spatial Information and Technology Division, NEMA <b>B.Boldkhuu</b> Disaster Operation and Early Warning Command Center, NEMA
WG2	<b>Seismic Resistance</b>  <u>WG2 Coordinators:</u> <b>B.Gantulga</b> MCUD	Seismic Diagnosis of Buildings	<b>B.Gantulga</b> MCUD <b>N.Ganchimeg</b> General Agency for Specialized Inspection <b>N.Tamir</b> Master Planning Agency of Capital City, Construction Quality and Safety Department <b>S.Munkhdul</b> Construction Development Center <b>T.Galbadrakh</b> Finance and Logistics Department, NEMA <b>O.Bayarbaatar</b> MCUD <b>B.Bayardulam</b> Land Management, Geodesy and Cartography Agency, MCUD
		Seismic Diagnosis of Infrastructures and Lifelines	<b>B.Gantulga</b> MCUD <b>N.Ganchimeg</b> General Agency for Specialized Inspection <b>B.Munkhsaikhan</b> General Agency for Specialized Inspection <b>O.Bayarbaatar</b> MCUD
		Design for Seismic Strengthening	<b>B.Gantulga</b> MCUD <b>N.Ganchimeg</b> General Agency for Specialized Inspection <b>N.Tamir</b> Master Planning Agency of Capital City, Construction Quality and Safety Department <b>S.Munkhdul</b>

Working Group (WG)		Sub-WG	Member
			Construction Development Center <b>O.Bayarbaatar</b> MCUD <b>Ts.Khulan</b> Master Planning Agency of Capital City, Construction Quality and Safety Department
WG3	<b>DRR Education</b>  <u>WG3 Coordinator:</u> <b>D.Bat-Erdene</b> Disaster Prevention Department, NEMA	School DRR Education	<b>J.Myagmar</b> MECSS <b>Ch.Gantsetseg</b> MECSS <b>P.Baljinnyam</b> MECSS <b>G.Mongolkhatan</b> Education Research Institute, MECSS <b>B.Erdenechimeg</b> Education Research Institute, MECSS <b>A.Enkhtogtokh</b> Education Research Institute, MECSS <b>G.Khaliun</b> Education Research Institute, MECSS <b>N.Munkhbayar</b> Institute of Teachers' Professional Development (ITPD), MECSS <b>D.Bat-Erdene</b> Disaster Prevention Department, NEMA <b>G.Enkhtsolmon</b> Disaster Prevention Department, NEMA
		Community DRR Education	<b>D.Bat-Erdene</b> Disaster Prevention Department, NEMA <b>D.Khadbaatar</b> Disaster Prevention Department, NEMA <b>B.Uuriingegee</b> EMDC <b>D.Munkhbat</b> EMDC <b>B.Chinbat</b> EMDC <b>D.Dulamsuren</b> Public Information Center, Disaster Prevention Department, NEMA <b>S.Doljinsuren</b> EMDC <b>B.Ariunchimeg</b> National Center for Long life Education



Annex 4: Presentation Documents for the Results of Activities

### Results of Review

DAC Evaluation Criteria	Key Point/s of Evaluation	Condition of each Key Point	Result of Evaluation
Relevance	<ul style="list-style-type: none"> <li>The Law of Disaster Protection</li> </ul>	<p>The law is newly focusing on <b>pre-disaster action and risk reduction measures</b>. The revised law was enacted in February, 2017 that introduced <b>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</b>. 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.</p>	High
Effectiveness	<ul style="list-style-type: none"> <li>Achievement of the Project Purpose's indicators</li> <li>Achievement of each Output's Indicators</li> </ul>	<ul style="list-style-type: none"> <li>Project Purpose's indicators have been <b>generally achieved</b> in the Project.</li> <li>Each Output's indicators have been <b>generally achieved</b> in the Project.</li> </ul>	High
Efficiency	<ul style="list-style-type: none"> <li>Project cost</li> <li>Project duration</li> </ul>	<ul style="list-style-type: none"> <li>Project cost had been increased <b>only for the effective implementation</b> of the 2nd Training in Japan following the increase in participants <b>at the request of the Mongolian side</b>.</li> <li><b>Project duration is equal to planned one.</b></li> </ul>	Fair
Impact	<ul style="list-style-type: none"> <li>Prospects to achieve the Overall Goal</li> <li>Causal relationship</li> <li>Ripple effect</li> </ul>	<ul style="list-style-type: none"> <li>The Project produced <b>outputs that would promote activities of NEMA and related organizations to achieve Overall Goal</b>.</li> <li>The Overall Goal does <b>not deviate from the Project Purpose</b> because the enhancement of capacity of NEMA contributes to risk reduction.</li> <li><b>Disaster Protection Plans and DRR White Paper</b> will improve the awareness of DRR of not only government agencies but also private sector.</li> <li><b>MACE</b> 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. the <b>awareness raising measures for the community</b> will induce the emergence of a new disaster protection culture.</li> </ul>	High

### Results of Review

DAC Evaluation Criteria	Key Point/s of Evaluation	Condition of each Key Point	Result of Evaluation
Sustainability	<ul style="list-style-type: none"> <li>Political and Institutional Sustainability</li> <li>Organizational Sustainability</li> <li>Technical Sustainability</li> <li>Financial Sustainability</li> </ul>	<ul style="list-style-type: none"> <li>The Project strives to ensure the political and institutional sustainability of the Project by institutionalizing the outcome of the project including <b>technical guidelines, agreements and organizational framework</b>.</li> <li>The Project <b>appointed WG members from NEMA and related agencies for implementing the project activities</b>. Due to frequent transfer of C/P officials, it was observed that some of the activities were delayed because former WG members transferred to irrelevant department to the Project.</li> <li>Each output <b>developed training material as guidelines to expand the result of the Project to other regions</b>. The Project strives to utilize C/P officials as facilitators/lectures for ensuring the technical sustainability and implemented the ToT workshops if necessary.</li> <li>The Project ensures the financial sustainability of the Project <b>by legalizing and approving the outcome of the Project, which facilitates the future budgeting of the activities</b>. 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.</li> </ul>	Relatively High



**Before Project Initiation**

< Project Rationale >

- Faults were discovered near UB
- Amount of perceptible and imperceptible seismic waves are increasing
- UB population density is increasing at a rapid pace (excessive growth)
- Large number of old, low-seismic resistance buildings built during the socialist era (increasing vulnerability)
- Global DRR trends contained within the Sendai Framework

Change in the local conception of earthquake hazards

Law on Disaster Protection (2017.2)

< Law which emphasizes prevention >

**Pre-Project Situation**

- The previous law was mainly focused on emergency measures during disasters, and contained few clauses related to guidelines on collecting and utilizing information for strengthening DRR activities and administration.
- Government organizations and other related organizations conducted disaster protection activities separately and there was a lack of coherence between the activities. Moreover, understanding and awareness of earthquake preparedness was lacking.

There was no common understanding on the seismic risk assessment of buildings, infrastructure and lifelines. Moreover, understanding and awareness of earthquake of earthquake resistance was lacking.

NEMA and NGOs have conducted DRR training in selected regions, however the continuity and nationwide reach of such educational activities were insufficient.

Project Activities (Progress) and Expected Results			
Project Activities	Tasks to be Developed and Implemented through Project Activities (As of October 2019)		Achieved Results (As of October 2019)
	Documents/ Materials	Human Resources/Organizations	
1.1	<ul style="list-style-type: none"> <li>To improve frameworks for DRR by reflecting the Amended Law on Disaster Protection</li> <li>Earthquake Risk Assessment GL</li> <li>Earthquake Disaster Protection Planning GL (3 types for National, State Services, and Capital City, Districts, Alimags and Soums)</li> <li>GL for SISDRR</li> <li>Disaster Protection Planning Manual</li> <li>Manual for Developing DRR Agreements</li> <li>Manual for Developing the DRR White Paper</li> </ul>	<ul style="list-style-type: none"> <li>The relevant GLs and regulations will be improved according to the Amended Law on Disaster Protection</li> <li>Strengthen the capacity of activities in selected regions, as well as DRR units in central and regional areas according to the GLs</li> </ul>	<ul style="list-style-type: none"> <li>Number of developed GLs to be Implemented: 8/8</li> <li>Of which 2 have been approved</li> </ul>
1.2	<ul style="list-style-type: none"> <li>DRR agreements (9 types)</li> <li>SISDRR agreements (2 types)</li> </ul>	<ul style="list-style-type: none"> <li>Obtain know-how on agreements and train human resources</li> <li>Coordination between relevant organizations will be strengthened</li> </ul>	<ul style="list-style-type: none"> <li>Number of agreements developed: 11/11</li> <li>Of which 9 are approved. Training Participants: 38</li> </ul>
1.3	<ul style="list-style-type: none"> <li>Disaster protection plans of test alimags and districts (2 alimags, 2 districts)</li> <li>"DRR White Paper - 2017", 2018</li> <li>GL on Operation and Management of SISDRR</li> </ul>	<ul style="list-style-type: none"> <li>Issue local disaster protection plans for selected alimags and districts</li> <li>Training on utilizing SISDRR jointly organized by central and regional organizations</li> </ul>	<ul style="list-style-type: none"> <li>DRR White Paper: 1/2 (2018 White Paper is being prepared for printing)</li> </ul>
2.1	<ul style="list-style-type: none"> <li>To establish seismic assessment methods for buildings, infrastructures and lifelines for the country and UB, and to implement training program on seismic assessment</li> <li>Seismic Diagnosis GL for Buildings (masonry, PC, RC)</li> <li>Seismic Diagnosis GLs for Infrastructure and Lifelines</li> <li>Training manuals</li> </ul>	<ul style="list-style-type: none"> <li>Training on the seismic diagnosis on buildings and risk assessment of infrastructure and lifelines</li> <li>Training of teacher-trainers</li> </ul>	<ul style="list-style-type: none"> <li>Seismic diagnosis GLs: 4/4</li> <li>Training Participants: 491 (Including training for teacher-trainers)</li> </ul>
2.2	<ul style="list-style-type: none"> <li>To develop seismic strengthening guidelines for buildings in the country and UB, and to implement training program on seismic strengthening</li> <li>GL on the Seismic Reinforcement of Buildings (masonry, PC, RC)</li> <li>Developing seismic reinforcement design for buildings</li> <li>Training manuals</li> </ul>	<ul style="list-style-type: none"> <li>Training on the seismic reinforcement and related designs for buildings</li> <li>Training of teacher-trainers</li> </ul>	<ul style="list-style-type: none"> <li>Building reinforcement GLs: 3/3</li> <li>Training Participants: 107 (Including training for teacher-trainers)</li> </ul>
3.1	<ul style="list-style-type: none"> <li>Developing the Safety Life Skills program for kindergartens and schools, and the associated educational materials; conduct training for pedagogical methodologists</li> </ul>	<ul style="list-style-type: none"> <li>Training for teacher-trainers nationwide (pre-school, primary and secondary)</li> <li>Training for teachers (pre-school, primary and secondary)</li> </ul>	<ul style="list-style-type: none"> <li>DRR-related training conducted within the framework of the Project: Started in the 2<sup>nd</sup> period of the 2019 school year</li> </ul>
3.2	<ul style="list-style-type: none"> <li>Develop DRR training tools and materials, and implement training for citizens in test regions</li> </ul>	<ul style="list-style-type: none"> <li>Implement measures related to DRR training and awareness-raising for citizens</li> <li>Train regional teacher-trainers</li> <li>Strengthen the cooperation of relevant organizations</li> </ul>	<ul style="list-style-type: none"> <li>Number of visitors to the DPTMC: 24,737 (March – September 2019)</li> <li>16,820: Visitors to the earthquake experience simulation room</li> </ul>

**After Project Completion**

< Overall Goal > Seismic risk will be reduced.

< Project Goal > The capacity of the National Emergency Management Agency will be enhanced through the activities for strengthening the countermeasures for seismic risk

**Results (As of October 2019)**

- Approved programs, GLs and agreements
- Output 1: 11/16
- Output 2: 7/7
- Output 3: 2/2

**Expected Results**

**Output 1: Capacity for data collection on disaster risk reduction and coordination among related organizations will be enhanced:**

- Conditions will be set for appropriately collecting the necessary data necessary for earthquake risk assessment and the evaluation of the global targets of the Sendai Framework. Moreover, central and regional organizations will be able to develop the DRR plan used for budgeting funds dedicated to DRR activities.
- The cooperation framework for relevant parties in each step of the disaster cycle will be developed through agreements. The coordination between NEMA, MUD, MECSS, GASI and the UB Mayor's Office will be enhanced within activities related to seismic diagnosis of buildings and DRR education.

**Output 2: Capacity of state organizations related to the seismic assessment and seismic strengthening of buildings will be enhanced:**

- The seismic diagnosis and reinforcement of buildings, and the seismic diagnosis of infrastructure and lifelines will be implemented based on the guidelines that will be applied nationwide. Moreover, human resources capable of seismic diagnosis will be prepared, and a comprehensive training program will be developed.

**Output 3: Implementation plans for DRR education, training and awareness-raising will be developed:**

- DRR education for primary and secondary schools will be implemented nationwide based on the comprehensive educational program. Moreover, activities for citizens will be implemented according to plan and DRR capacity will improve at the national level.

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# Progress and Results of WG1 Activities

"THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN MONGOLIA"

9<sup>th</sup> Joint Coordinating Committee

## Working Group 1

Sub-WGs: ▶ 1-1 Risk Assessment Guideline

▶ 1-2 Disaster Protection Planning Guideline

▶ 1-3 Agreements

▶ 1-4 White Paper

▶ 1-5 Database

### Sub-WG 1-1: Earthquake Disaster Risk Evaluation Guideline

Guideline on the General Analysis of Earthquake Risk (General Assessment) at the Administrative Division Level

- ▶ **Objective:** Perform general earthquake risk assessment at the administrative division level for planning and implementing DRR activities, and compiling the necessary information for disaster protection planning

### Sub-WG 1-1: Earthquake Disaster Risk Evaluation Guideline

Guideline on the General Analysis of Earthquake Risk (General Assessment) at the Administrative Division Level

#### CONTENTS

##### One. General Provisions

Purpose  
Scope

##### Two. Terminology

##### Three. Required Information

Principal Data  
Historical Earthquake Data  
Data on Buildings and Structures  
Information on Infrastructure

##### Four. Methodology for General Earthquake Risk Assessment

Determining Earthquake Risk  
Analyzing Earthquake Risk  
Evaluating Earthquake Risk

##### Five. Preparing the Report

##### Six. Incorporating the Results of the Risk Assessment in Disaster Protection Planning

##### Seven. Guide for Calculating Potential Earthquake Disaster Risk Using Microsoft Excel

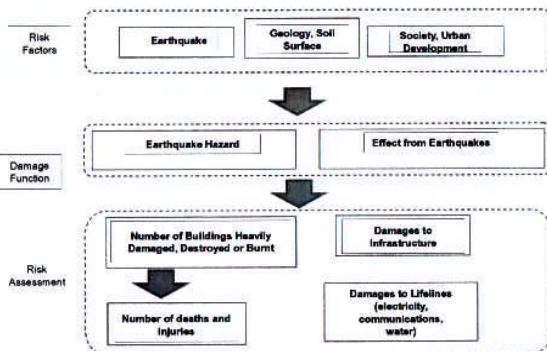


Diagram for the General Analysis of Earthquake Risk

Activate Writ

### Sub-WG 1-1: Earthquake Disaster Risk Evaluation Guideline

- ▶ The General Analysis of earthquake risk may be understood as the General Assessment
- ▶ Comments from the relevant parties were incorporated into the draft General Risk Assessment GL and was submitted for discussion by the NEMA Board of Directors on October 22, 2019.
- ▶ Utilization on the Disaster Risk Assessment GL

The "Regulation on Disaster Risk Assessment" (Gov. Resolution 67 of 2018) includes General Analysis of Disaster Risk

Approved on November 1, 2019 through decree 100 of the Deputy Prime Minister of Mongolia

Damage estimates in the 1st aimags Umnugovi and Darkhan-Uul were calculated using the General Risk Assessment GL

Training of specialists on the GL and methodology – EXCEL program

New specialists in charge of risk management and assessment were trained

U15

## Sub-WG 1-1: Earthquake Disaster Risk Evaluation Guideline

### ➤ Further Actions

Provide administrative guidance to the regional DRR committees and the Standing Committee on Earthquake Disaster Prevention for conducting earthquake disaster risk assessments between 2020-2025 in aimag centers where high-resolution regional maps were developed by the Space and Geophysics Institute according to the General Earthquake Risk Assessment Guideline, and monitor their assessment process.

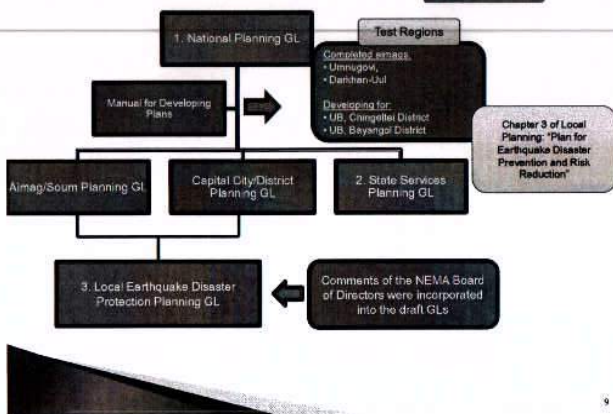
## Sub-WG 1-2: Guideline for Developing Earthquake Disaster Protection Plans

### Progress of Activities

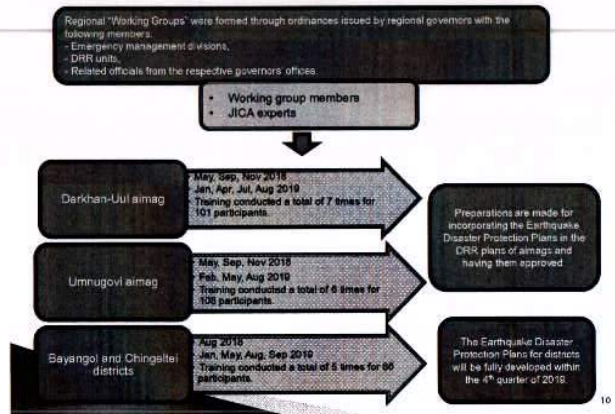
Output	2016.12.05-2017.02.01	2017.02.01-2017.12.31	2017.12.31-2017.12.31
Develop GLs for earthquake disaster protection planning	Researching and evaluating the existing disaster protection planning methods used in Mongolia	Researching the disaster protection planning methods of Japan and developing the structure of disaster protection plans	Obtaining knowledge and understanding of disaster protection planning in Japan
<b>Performance Indicators</b>	<ul style="list-style-type: none"> <li>- The Law on Disaster Protection (2017)</li> <li>- Guidelines for Disaster Protection Planning at the Aimag, Capital, Soum and District Levels (2016)</li> <li>- The National Disaster Protection Plan (2015)</li> <li>- The Earthquake Disaster Prevention and Risk Reduction Plan (2014)</li> <li>- Regional Disaster Protection Planning, Structures and Organization</li> <li>- Cooperation Agreements with Related Organizations</li> </ul>	<ul style="list-style-type: none"> <li>- The National Disaster Protection Plan of Japan</li> <li>- The Disaster Protection Plan of Sapporo City</li> <li>- The Disaster Protection Plan of the Ministry of Land, Infrastructure, Transport and Tourism</li> </ul>	<ul style="list-style-type: none"> <li>- 17 members of WCI went for training in Japan</li> <li>- Disaster management and generalization of Japan</li> <li>- Disaster protection planning at the national, prefectural, city and district levels</li> <li>- Inter-sectoral cooperation</li> <li>- Risk assessment</li> <li>- Database development</li> </ul>
<b>1. Aimag/Soum Disaster Protection Planning GL</b>			
<b>2. Capital City/District Disaster Protection Planning GL</b>			
<b>3. State Disaster Protection Services Planning GL</b>			
<b>4. National Disaster Protection Planning GL</b>			

## Sub-WG 1-2: Guideline for Developing Earthquake Disaster Protection Plans

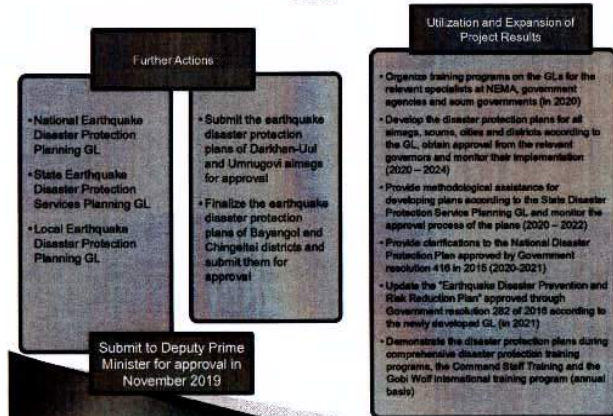
2016.12.16-2019.10.29



## Sub-WG 1-2: Guideline for Developing Earthquake Disaster Protection Plans



## Sub-WG 1-2: Guideline for Developing Earthquake Disaster Protection Plans



## Sub-WG 1-3: Cooperation Agreements

Sector	Contents	Organizations	Risks
Food	Organize stable supply of foods and water to disaster victims in evacuation places and temporary housings	NEMA-MOFALI	Agreement established on October 16, 2018.
Medicine, medical equipment	Stable supply of medicine for providing emergency medical services in regions struck by disaster	MOH-3 major pharmaceutical manufacturer and importer companies	Agreement established on November 12, 2018.
Construction materials, temporary housing	Supply of construction materials required for the immediate restoration of structures, and construction of temporary housing	MCUD- Association of Construction Material Manufacturers, Construction Association	Agreement established on September 28, 2019.
Clean water	Organize stable water supply at in regions struck by disaster	NEMA-Water Management Authority ("WMA")	The draft agreement was finalized and delivered to WMA. WMA responded that they will sign the agreement and deliver it back to NEMA.
Road and transport	Providing road and transport means necessary for organizing search and rescue, damage mitigation, and immediate restoration activities without delay in regions struck by disaster	NEMA-MRTD	Agreement established on October 20, 2019.

### Sub-WG 1-3: Cooperation Agreements

Sector	Contents	Organizations	Progress
Fuel and gas	Providing stable fuel supply required for organizing search and rescue, damage mitigation, and immediate restoration activities in regions struck by disaster	NEMA-MRPAM	Draft agreement delivered to MRPAM.
Communications	Setting up priority telephone lines during disasters, and limiting regular telephone services	Telephone companies, NEMA, CRC	CRC and telephone companies are currently studying the technical feasibility of the agreement.
Temporary housing	Utilizing school buildings as temporary housing (School buildings to be built by Japanese government grants)	NEMA (EMDC)- Education Office of UB City	Agreement is ready, and the date for signing the agreement is being scheduled.
Waste water treatment	Establish public lavatories in evacuation places and temporary housing, and organize the immediate restoration of sewage systems	EMDC-Facility Service Office of UB City	Agreement is ready, and the date for signing the agreement is being scheduled.

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### Structure and Contents of the "DRR White Paper - 2018"

**Chapter 1 - The Legal Environment for DRR in Mongolia, and its Improvement:**

- Notable guidelines and regulations approved in 2018
- Work related to policy documents

**Chapter 2 - Multilateral Cooperation in DRR:**

- International cooperation in DRR
- AMCDRR, projects and programs

**Chapter 3 - Disaster Prevention Activities:**

- DRR training and awareness-raising
- DRR activities

**Chapter 4 - Disaster Protection Activities:**

- Disasters and hazardous events in 2018 and their countermeasures taken
- DRR equipment and personnel

**Chapter 5 - Strategic Reserves and Humanitarian Aid:**

- Legal documents and activities related to strategic reserves and humanitarian aid in 2018

**Chapter 6 - DRR Budget and Funding:**

- National budget funding
- Foreign funding

**Chapter 7 - DRR Research, Analysis and Innovations:**

- Activities related to DRR research, technology and innovations

**Chapter 8 - Coordination of DRR Activities:**

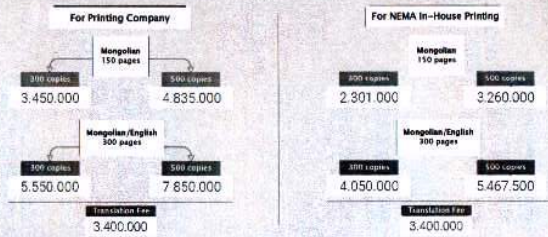
- Activities of the National Committee on DRR;
- Activities of the Standing Committee on Earthquake Disaster Prevention and Risk Reduction
- National Emergency Committee

### FURTHER ACTIONS

- Develop a detailed guideline on developing the DRR White Paper
- Publish the White Paper within the 1<sup>st</sup> quarter of each year
- White Paper should be an academic work of research
- Current state of disasters internationally, derive learnings from them



### Required Budget for the "DRR White Paper - 2018"



UK

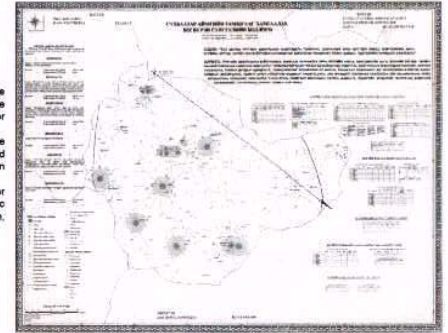


# Spatial information system for disaster risk reduction (SISDRR)

Introduction of development

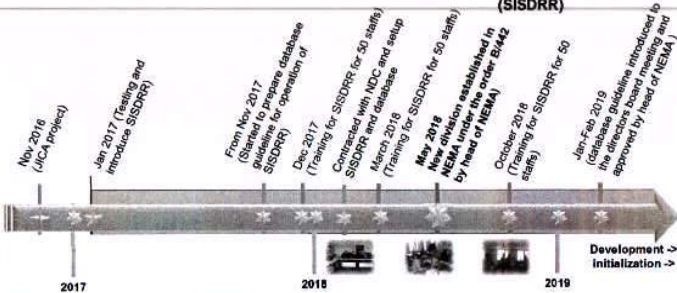
Speaker: D.Sodnomragcha, Lieutenant colonel

Geographic information system with disaster management:



**Location (Q1 where...?):** For the question one, finding location of A. Location A can be identified (by lat long, name, number, post code or geographical location)  
**Situation (Q2 which...?):** For the question two, identifying situation in disaster affected area, distance and compare the previous condition using geographical information.  
**Trends (Q3 what is changed...?):** For the question three, identifying changes during specific time period. (Building collapse, construction demolish, land use, height changes etc)

## Development of spatial information system for disaster risk reduction (SISDRR)



- ✓ Sub working group meeting organized 16 times for preparation of database guideline
- ✓ 150 staffs are participated from central NEMA and regional EMD in 3 times technical trainings.

## Development of Guideline and Manuals



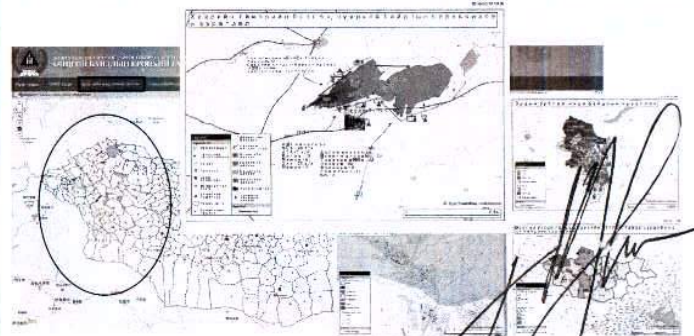
- ◆ **Database Guideline:**  
"Guideline on Operation and Management of Spatial Information System for Disaster Risk Reduction" approved by A/47 order of head of NEMA in 20<sup>th</sup> Feb 2019.
- ◆ **Annex**
  - > Annex 1: Disaster code
  - > Annex 2: Geospatial database design for DRR
- ◆ **User manuals**  
Installation, configuration and utilization manuals /9/ are fully prepared and ready to utilized in Mongolian language.

## 2.Capacity development of human resource

- JET and "Spatial information technology division" under the early warning center was jointly organized series of capacity enhancement technical training based on latest improvement of spatial information system for disaster risk reduction (SISDRR) and number of total participants are more than 150 staffs from central NEMA and regional EMD



## Spatial information system for disaster risk reduction (SISDRR)



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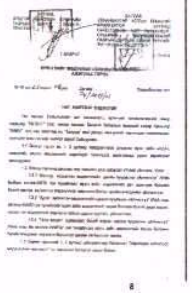
2.3 Capacity development of human resource

**Video lessons:**  
 8 video lesson prepared for general users of SISDRR  
 - Basic lessons  
 - Target lessons (object fire mapping, disaster risk mapping)  
 5 video lessons for admin of SISDRR

3. System and database development

• Municipality of Ulaanbaatar: Urban planning and Mater planning department

- o NEMA and "Urban planning and master planning department" were successfully made contract negotiation in 7th March 2019 for geospatial data sharing.
- o Geospatial data of Ulaanbaatar has been shared to NEMA effectively according to the achievement of contract negotiation. Content of shared data is soil, water, plant, Environment, urban planning, engineering infrastructure, building and construction, social-economic, aerial photo etc. Moreover building distribution data have been received with full of information with seismic evaluation data through result of passport.



3.1 System and database development

**Administration of land management, geodesy and cartography (ALMGaC):**  
 NEMA and ALMGaC made contract negotiation in 2018.  
 Latest update: NEMA received 21 aimags building distribution data with full of information (Construction material, design, structure, age, stories, purpose, capacity etc other) as well as road and engineering infrastructure data and all data stored in SISDRR.  
 These data and information will assists better building risk assessment and disaster protection planning in NEMA.

3.2 System and database development

- ▶ SISDRR developed and modified according to NEMA's needs and necessity.
- ▶ SISDRR users and their access privilege were officially approved by head of disaster administration and early warning center.
- ▶ During comprehensive disaster prevention training of Ulaanbaatar city in 24-26 April 2019, JET team and "Spatial information technology division" cooperatively work and created map of gathering place of citizens of Ulaanbaatar and we shared that map to social network and NEMA's websites.

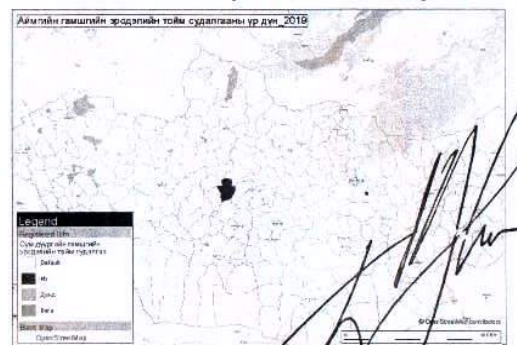


Utilization matrix on spatial information for disaster management

Disaster category	Disaster type	Name	Reference board	Response	Reconstruction	Preparedness	
Natural disaster	Strong wind cyclone	Leaf map		Substructure leaf assessment map Power Adapter map	Map of reconstruction plan Substructure Leaf assessment map Power Adapter assessment map	Disaster and Disaster Preparedness board	
		Identifying and response table Through table Plan table Risk map Vulnerability map		Identifying and response table Through table Plan table Risk map	Identifying and response table Through table Risk map Vulnerability map Risk map		
	Flood	Harvest map Flood assessment map Flood map Risk map Height of water table		Harvest map Flood assessment map	Flood map Flood structure map Map of reconstruction plan	Harvest map Flood Assessment Flood Assessment map Preparation forecast	
		Fire and wild fire	Risk table map		Harvest area map Location of the pipeline, identifying map	Harvest area map Map of forest land	Fire risk map
Designed hazard	Earthquake	A historical non-structural behavior map Evaluation of health Chloride map		Harvest assessment map	Harvest assessment map Map of reconstruction monitoring		
		Land slide Landslide assessment map Monitoring map		Landslide assessment map	Landslide assessment map	Landslide assessment map Preparation forecast	
Human disaster	Armed disaster	Risk of infectious disease Comprehensive risk map				Risk of infectious disease	

3.3 System and database development

Disaster risk assessment :  
 Disaster risk assessment results of 10 provinces, 52 khoroo registered in SISDRR. Results of assessment will be shown as risk map in SISDRR.



**Activities:**

- Initialize the spatial information system for disaster risk reduction (SISDRR) in daily activities of NEMA.
- Organize SISDRR based training in regular basis
- Establish a new working group will be necessary for improving utilization of SISDRR and monitoring implementation of A/47 Order approved by Head of NEMA in 20th Feb 2019.

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**Challenges:**

- One skillful staff position will be required in NEMA to develop SISDRR continuously and the development of similar systems
- For the insure the smooth operation of SISDRR, increase capacity of current server.

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## Output of WG2 Activity

WG2

## Overview

- Analysis of the existing manual of seismic evaluation
  - Issues identified in the analysis were reflected to guidelines newly developed.
- Development of guidelines of seismic evaluation
  - The Mongolian procedure was taken to make guidelines normative documents
  - Both seismic evaluation and retrofitting were included in one guideline
- Implementation of training on seismic evaluation
  - From June 4<sup>th</sup> to 7<sup>th</sup>, 2018 for seismic evaluation
  - From Nov. 12<sup>th</sup> to 13<sup>th</sup>, 2018 for seismic evaluation equipment
- Development of guidelines of seismic retrofitting
  - Included in guidelines of seismic evaluation
- Trial retrofitting design
  - Trial design was conducted for five buildings.
- Implementation of training on seismic retrofitting
  - From May 1<sup>st</sup> to 3<sup>rd</sup>, 2019

## Overview of Output and Indicator

Outputs	Objectively Verifiable Indicator	Achieved Value
Capacity of public administration officer related with the seismic assessment and seismic strengthening for buildings will be enhanced.	<ul style="list-style-type: none"> <li>• To establish seismic assessment methods for buildings, infrastructures and lifelines</li> <li>• To implement training program on seismic assessment</li> </ul>	<ul style="list-style-type: none"> <li>• GLs on Seismic Evaluation of Buildings ( 3 GLs : RC, PC and Masonry)</li> <li>• GL on Seismic Evaluation on Infrastructures and Lifelines</li> <li>• Manual to Support Training Program Implementation</li> </ul>
		<ul style="list-style-type: none"> <li>• Guideline for seismic assessment <b>4 (approved) / 4 (planned)</b></li> <li>• The number of the participants in the training program on seismic assessment <b>total 244 (at planned program) total 491 (actual, incl. YoT)</b></li> </ul>
	<ul style="list-style-type: none"> <li>• To develop seismic strengthening guidelines for buildings in the country</li> <li>• To implement training program on seismic strengthening</li> </ul>	<ul style="list-style-type: none"> <li>• GLs on Seismic Strengthening of Buildings ( 3 GLs : RC, PC and Masonry)</li> <li>• Trial Designs of Rebuilding and Strengthening Construction ( 5 kinds of buildings)</li> <li>• Manual to Support Training Program Implementation</li> </ul>
		<ul style="list-style-type: none"> <li>• Guideline for seismic strengthening <b>3(approved) / 3 (planned)</b></li> <li>• The number of training programs on seismic strengthening <b>total 65 (at planned program) total 107 (actual, incl. YoT)</b></li> </ul>

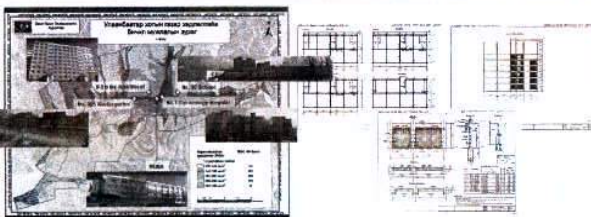
## Development of Guidelines

- Buildings
  - Approved by the 185 Ministerial Order of 2018.11.06 of Minister of Construction Urban Development
- Infrastructures & Lifeline Structures
  - Approved by the 174/303 Joint Ministerial Order of 2018.12.28 of Minister of Construction Urban Development and Road Transport Development

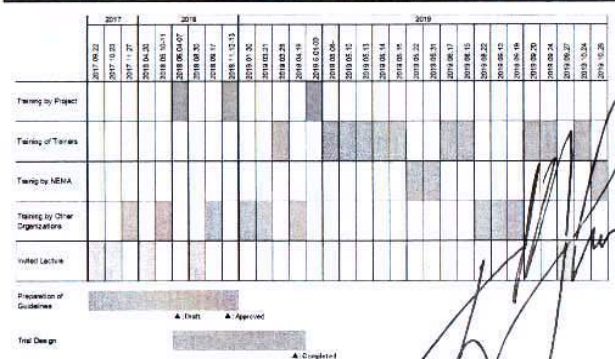


## Trial Retrofitting Design

Structural Type	Usage	Name	Location	Note
Masonry	Kindergarten	No. 106 Kindergarten	Songjio Khairkhan District	Constructed with standard design drawings
	School	No. 97 School	Bayanzurkh District	Constructed with standard design drawings
	Public Office	NEMA	Sukhbaatar District	Public office for emergency response
RC	Hospital	No.1 Gynecology Hospital	Sukhbaatar District	One of few RC hospital buildings
PC	Apartment House	9-Storey Apartment	Bayengol District	Apartment house based on standard design



## Technical Transfer through Training



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### Conducting Training for Seismic Evaluation

Date	Venue	Purpose	No. of Participants
2018.6.4-6	CDC Conference Room	Learn the method of seismic evaluation of buildings	110
2018.6.7	CDC Conference Room	Learn the method of seismic evaluation of infra- and lifeline structures	70



Exercise of seismic evaluation for buildings using Excel spread sheet



Lecture of seismic evaluation for Infra- and Lifeline structures

### Conducting Training for Seismic Evaluation Equipment

Date	Venue	Purpose	No. of Participants
2018.11.12-13	CDC Conference Room	Learn the non-destructive testing for seismic evaluation	64



Measurement of concrete compressive strength using Schmidt Hammer



Measurement of location and diameter of reinforcement using Profo-meter

### Conducting Training for Seismic Retrofitting

Date	Venue	Purpose	No. of Participants
2019.5.1-3	Disaster Training Center & CDC Conference Room	Learn the seismic retro fitting method and design	65



Lecture on seismic retrofitting calculation based on trial design



Introduction of retrofitting works conducted in Japan

### Conducting Training of Trainers

- Purpose
  - To transfer and disseminate the technology on seismic evaluation to relevant organization through WG2 members
- Target organization
  - Organizations which WG2 members belong to
  - Private sector
- Method
  - Preparation of training manuals



To NEMA



To GASI (building)



To GASI (lifeline)



To MCLUD & CDC



To UBUDA

### Outcomes; Capacity Building through Self-reliance and Sustainable Technical Transfer

- Preparation of approved guideline
  - Guidelines were approved as Ministerial Orders to have power of the law.
- Fostering Trainers
  - Some officers and engineers obtained the capacity to train other trainees.
  - Supporting materials, such as seismic evaluation tools, design drawings and training guidelines were prepared and arranged through project.
- Collaboration with private sector
  - Being involved as MACE's training program realizes sustainable technical transfer.



Training as MACE's program

### Achievement

- To establish seismic assessment methods for buildings, infrastructures and lifelines
  - Guideline for seismic assessment >> 4 (approved) / 4 (planned)
- To implement training program on seismic assessment
  - The number of the participants >> 491 (actual, including ToT) / 244 (at planned program)
- To develop seismic strengthening guidelines for buildings in the country
  - Guideline for seismic strengthening >> 3 (approved) / 3 (planned)
- To implement training program on seismic strengthening
  - The number of the participants >> 107 (actual, including ToT) / 65 (at planned program)

## Utilization of Project Output

- Current
  - **NEMA** implements training of risk evaluation using the guidelines.
  - **UBMUD** started to use guidelines in case of providing passport of buildings, especially of brick masonry ones.
  - **MACE** started training courses of seismic evaluation and retrofitting, in which the guidelines are referred.
- After Project
  - **MCUD** will instruct to use the guidelines in providing passport of building in local areas.
  - **GASI** will refer the guidelines when checking the passport of building.
  - **GASI** will also refer the guideline of infra- and lifeline structures in case of revising current checklist.
  - **CDC** will establish new section that implement seismic evaluation of buildings. Guidelines and seismic evaluation equipment will be utilized by the new section.

- Thank you for your kind attention!!

A large, stylized handwritten signature in black ink, located in the bottom right corner of the page. The signature is cursive and appears to be a name, possibly "D. H. W.". Below the signature, there are two small, handwritten marks that look like "a" and "u".

THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN MONGOLIA  
9th Joint Coordinating Committee (JCC) Meeting

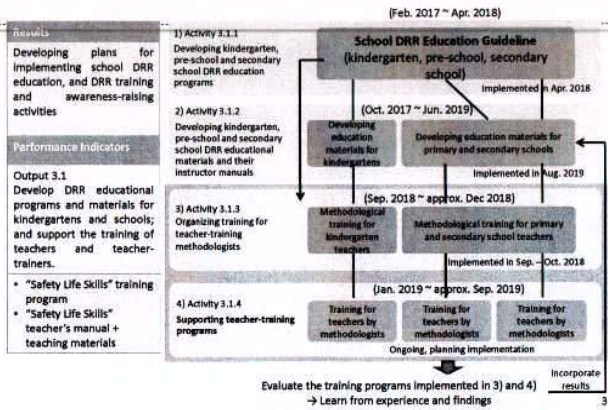
Sub-WG 3.1: School DRR Education Progress Report

2019.11.5

Sub-WG 3.1 Members School DRR Education

Mongolia Side	Japan Side
MECCS Mygmar.I	DRR Education I Miki Kodama (Ms.)
MECCS Gantsetseg.Ch Baljinyam.P	DRR Education II Yujiro Ogawa (Dr.) (till Mar. 2018) Seiji Suwa (Mr.) (from Apr. 2018)
ERI (Education Research Institute) Enkhstogtokh.A Erdenechimeg.B	Development of DRR Education Materials Yoko Ota (Ms.) Amarjagal.N
ERI (Education Research Institute) Mongolkhutani.G Hulan.G	Community Disaster Management Toshikazu Hiwaki (Mr.)
NEMA Disaster Prevention Department Bat-Erdene. D Enkhtsolmon. G	Local Consultant Darholoij.G Adiyanyam.D
ITPD (Institute of Teachers' Professional Development) N. Munkhbayar	Local Consultant Bolormaa. T Local Staff Byambasuren.S

Output 3-1: Overall Activities for School DRR Education



Output 3-1: Overview of School DRR Education in Japan

Japanese textbooks and teaching materials

Demonstration lesson by a Japanese expert

Analysis on the current state of DRR education in Mongolian schools

Training in Japan (conducted 2 times)

Visiting the Center for Mankind and the Future of DRR

Visiting the Honjo Bosai Center

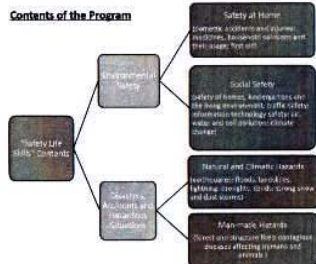
Activity 3.1.1: Developing the "Safety Life Skills" DRR Educational Program for Schools

Approved through decree A181 of the Minister of Education, Culture, Science and Sports on April 6, 2018.

Goal of the Safety Life Skills Program

- Pre-School Education**  
With the support of teachers, parents and guardians; young children will be able to visualize hazardous situations, learn safety habits and self-protection methods, and be able to ask for help as well as help others.
- Primary Education**  
Children will be able to visualize potential hazardous situations, take preventive and self-protection measures, make decisions and take correct action.
- Basic Education**  
Children will be able to visualize potential hazardous situations, maintain safety preparedness, protect themselves and others, provide first aid, and take correct safety actions.
- Secondary School**  
Children will be able to visualize potential hazardous situations, take responsive action, provide first aid, participate in volunteer work, and become a resilient citizen that values safe and correct life habits.

Contents of the Program



Activity 3.1.2: Conducting Test Lessons in Relation to Developing the Teacher's Manual for Implementing the "Safety Life Skills" Program

Test lessons were conducted in relation to developing the teacher's manual (May 1-2, 2018)

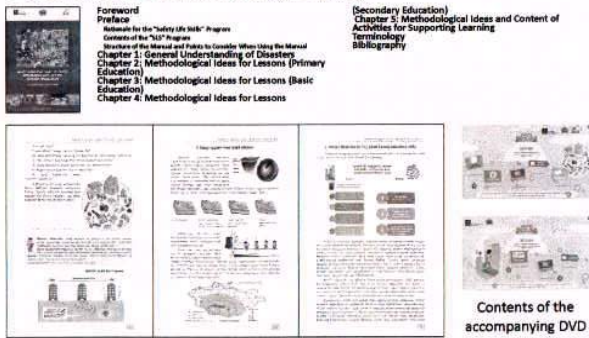
8th Grade Lesson 45 min	5th Grade Lesson 45 min	Upper Kindergarten Lesson 30 min
<b>"One Day Before" Project</b> 1. History of earthquakes in Mongolia (slides) 2. Why do earthquakes occur? (slides) 3. What damages are caused by earthquakes? (slides) 4. Team discussion and presentation on the subject: "An earthquake will happen tomorrow. What will you do?" 5. Conclusion: Learn about preparedness and responsive action	<b>"Let's Build an Earthquake-Resistant Building"</b> 1. What will happen during an earthquake? (slides) 2. Build an earthquake-resistant building with a milk carton 3. Presentation of results 4. Compare with real-life methods and discuss	<b>"How to Protect Yourself During Earthquakes?"</b> 1. What is an earthquake? 2. What will happen if an earthquake occurs now? 3. Find dangerous spots in the classroom 4. About the three dangers: "Danger of falling from above", "Danger of falling from the sides", "Danger from breaking" 5. Playing the "DRR Duck" game



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### Activity 3.1.2: Developing Teaching Materials Developing the Teacher's Manual for the "Safety Life Skills" Program (1)

#### ● Secondary School Teacher's Manual (200 pages)



**Foreword**  
**Preface**  
Rationale for the "Safety Life Skills" Program  
Contents of the "SLSS" Program  
Structure of the Manual and Points to Consider When Using the Manual  
**Chapter 1: General Understanding of Disasters**  
**Chapter 2: Methodological Ideas for Lessons (Primary Education)**  
**Chapter 3: Methodological Ideas for Lessons (Basic Education)**  
**Chapter 4: Methodological Ideas for Lessons**

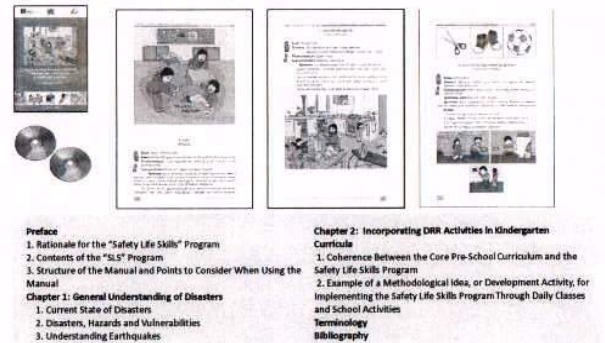
(Secondary Education)  
**Chapter 5: Methodological Ideas and Content of Activities for Supporting Learning**  
Terminology  
Bibliography

Contents of the accompanying DVD

7

### Activity 3.1.2: Developing Teaching Materials Developing the Teacher's Manual for the "Safety Life Skills" Program (2)

#### ● Pre-School Teacher's Manual (80 pages)



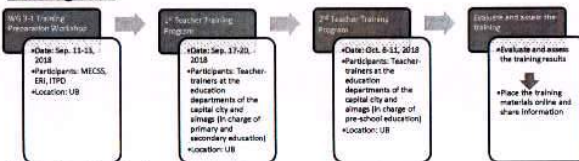
**Preface**  
1. Rationale for the "Safety Life Skills" Program  
2. Contents of the "SLSS" Program  
3. Structure of the Manual and Points to Consider When Using the Manual  
**Chapter 1: General Understanding of Disasters**  
1. Current State of Disasters  
2. Disasters, Hazards and Vulnerabilities  
3. Understanding Earthquakes

**Chapter 2: Incorporating DRR Activities in Kindergarten Curricula**  
1. Coherence Between the Core Pre-School Curriculum and the Safety Life Skills Program  
2. Example of a Methodological Idea, or Development Activity, for Implementing the Safety Life Skills Program Through Daily Classes and School Activities  
Terminology  
Bibliography

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### Activity 3.1.3: Training of Methodologists and Teacher Trainers

#### Training Plan



#### Training Contents

- The Principles and Main Contents of the "Safety Life Skills" Program
- The DRR Framework and Measures Being Taken Against Disasters in Mongolia
- General Understanding of Disasters and DRR
- General Understanding of DRR Education
- Best Practices for DRR Teaching
- DRR Educational Tools and Materials
- Workshop: Practice-based Teaching Method, Developing DRR Education Plans and Developing Teacher-Training Programs.

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### Activity 3.1.3: Teacher-Training Programs (1<sup>st</sup> Training: For Methodologists in Charge of Primary and Secondary Education)

- Training Date: September 17-20, 2018
- Participants: 60 participants from the education and culture departments of aimags, the capital city and districts
- Objective of the Training: Implement the training based on the "Safety Life Skills" program in each aimag (Participants shall organize teacher-training programs and ensure sustained educational activities)



- ➔ Develop the methodological ideas for lessons based on the "Safety Life Skills" program, conduct test lessons and acquire an understanding of how to conduct lessons.

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### Activity 3.1.3: Teacher-Training Programs (2<sup>nd</sup> Training: For Methodologists in Charge of Pre-School Education)

- Training Date: October 8-11, 2018
- Participants: 30 participants from the education and culture departments of aimags, the capital city and districts
- Objective of the Training: Implement the training based on the "Safety Life Skills" program in each aimag (Participants shall organize teacher-training programs and ensure sustained educational activities)



- Reviewed the teaching methods of Kindergarten 61 in Bayanzurkh District which is implementing DRR education as a model example, and included contents appropriate for pre-schools such as picture books, activities using paper stories, and drawing earthquake situations after listening to accounts about them.

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### Activity 3.1.4: Supporting the DRR Training for Teachers (Educational methodologists and principals of pre-schools in Bayanzurkh District)

- Training date/location: December 27-28, 2018/Kindergarten No. 61
- Training participants: 50 methodologists and principals of kindergartens in Bayanzurkh District
- Instructors: Emergency management department of Bayanzurkh District, ERI, MRCS, JET
- Training objective: Support the implementation of the "Safety Life Skills" training program



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**Activity 3.1.4 : Supporting the DRR Training for Teachers  
(Activity 1 on the Trial Schools and Kindergarten)**

<b>Objective</b>	Conducting model lessons on trial pre-schools, kindergartens and middle schools in order to provide methodological support to teachers who will implement the "Safety Life Skills" program. (Videos of example lessons will be recorded and included in the teacher's manual)		
<b>Participants</b>	Teachers of the trial, as well as nearby, schools and kindergartens; methodologists of the education departments of Songkhokhairkhan and Bayangol districts; and officials of the emergency management divisions of the districts		
<b>Period</b>	March 15-19, 2019		
<b>Place</b>	Kindergarten No. 244 and School No. 13 (primary school) School No. 42 (middle school)		
<b>Main Activities</b>	Kindergarten No. 244	School No. 13	School No. 42
(1) Training for all school and kindergarten teachers	3/5 10:00~13:00	3/7 10:10~13:10	3/6 9:30~12:30
(2) Workshop 1 for implementing the "Safety Life Skills" training program	3/11 10:00~13:00	3/12 10:15~13:10	3/11 14:00~17:00
(3) Workshop 2	3/13 14:00~17:00	3/14 14:10~16:30	3/13 10:00~13:00
(4) Open class	3/15 9:30~10:30 (evaluation and discussion)	3/19 10:15~11:40 (evaluation and discussion)	3/18 12:20~14:00 (evaluation and discussion)

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**Activity 3.1.4 : Supporting the DRR Training for Teachers  
(Activity 2 on the Trial Schools and Kindergarten)**



**Achievement of Project Results and Performance Indicators (Output 3.1)**

Expected Result	Performance Indicator	Achieved Result
<b>Output 3: Develop the plan for implementing DRR education and awareness raising activities</b>	<p>Output 3.1 Develop the "Safety Life Skills" program for schools and kindergartens, along with its associated educational materials; and conduct training for educational methodologists</p> <ul style="list-style-type: none"> <li>• "Safety Life Skills" Program</li> <li>• Teacher's manual + educational materials for the "Safety Life Skills" program</li> </ul>	<ul style="list-style-type: none"> <li>• The number of lessons on DRR that were conducted based on the Project results: The development and printing of the manual finished in October 2019 and was distributed to schools, kindergartens and the relevant organizations according to the schedule approved by MECOS. The manual will be used in lessons starting from the 2<sup>nd</sup> period of the 2019 school year. Furthermore, a joint-decree on "Supporting the Implementation of the Safety Life Skill Program" by the Minister of Education, Culture, Science and Sports and the Deputy Prime Minister is being prepared.</li> </ul>

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**Utilization of Results, Further Activities**

- Training on the "Safety Life Skills" program was conducted with the participation of methodologists from 21 aimags and 9 districts; and the methodologists from the education departments of aimags, the capital city and districts acquired an understanding of the necessity and importance of DRR education.  
→Raising awareness of the program and conducting training in all aimags and districts is necessary
- Improving the manual for implementing the "Safety Life Skills" program: Moving forward, the contents will be adjusted based on the implementation of the "Safety Life Skills" program (including DRR content) in schools and kindergartens. Regularly improving the content and adding other types of disasters and risks not included in the manual.
- Other Recommendations
  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.
  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.
  3. Include the contents of the "Safety Life Skills" program in the self-assessment sheets of schools.
  4. Incorporate the contents of the "Safety Life Skills" program into a textbook.

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## Sub-WG 3.2 Progress of Activities

THE PROJECT FOR STRENGTHENING THE NATIONAL CAPACITY OF EARTHQUAKE DISASTER PROTECTION AND PREVENTION IN MONGOLIA  
9<sup>TH</sup> JOINT COORDINATING COMMITTEE (JCC) MEETING

November 5, 2019

0

### Sub-WG 3-2 Members

Mongolian Side	Japanese Side
<b>D. Bal-Erdene</b> NEMA, Head of Training and Awareness-Raising Division, Lieutenant Colonel	<b>Development of Training Materials</b> Yoko Ota (Ms.)
<b>D. Munkhbat</b> Manager of the Disaster Protection Training and Methodology Center of the EMDC, Lieutenant Colonel	<b>Community Disaster Protection Training:</b> Toohikazu Hiwaki (Mr.)
<b>B. Chimbai</b> Senior Specialist of the Disaster Prevention and Awareness-Raising Division of the EMDC, Lieutenant Colonel	<b>Development of Training Materials</b> N. Amargjargal
<b>D. Dulamsuren</b> Head of NEMA's Public Communications Center, Lieutenant Colonel	<b>Disaster Protection Training 1:</b> Miki Kodama (Ms.)
<b>S. Doljinsuren</b> Disaster Prevention Specialist of the Emergency Management Division of Bayanzurkh District, Senior Lieutenant	<b>Disaster Protection Training 2:</b> Yujiro Ogawa (Dr.) Seiji Suwa (Mr.)
<b>B. Uurlingepes</b> Teacher at the Disaster Protection Training and Methodology Center of the EMDC	<b>Regional Specialist:</b> G. Dashdorj
<b>B. Arlunchimg</b> Specialist at the National Center for Lifelong Education, MECSS	<b>Regional Specialist:</b> D. Adlyanyam / T. Bolormaa

### WG 3-2 Regional DRR Education

Output	Output 3: Developing the plan for implementing DRR education, training and awareness-raising activities.
Performance Indicator	Output 3.2: Develop DRR training and awareness-raising materials and support the implementation of training for citizens and target groups

▶ **Activity 3.2.1 Developing a comprehensive planning framework for DRR education and awareness-raising; improve training and awareness-raising efforts**

▶ **Activity 3.2.2: Developing DRR education and awareness-raising materials, and conduct training in selected regions**

▶ **Activity 3.2.3: Refining the educational program of the Disaster Protection Training and Methodology Center (DPTMC)**

▶ 2

#### Activity 3.2.1 Developing a comprehensive planning framework for DRR education and awareness-raising (1)

##### The DRR Training and Awareness-Raising Team was formed

▶ The DRR Training and Awareness-Raising Team led by the Disaster Prevention Department of NEMA and supported by World Vision Mongolia and the working procedure of the team was approved.

▶ The aim of the team is to comprehensively plan and implement DRR training and awareness-raising activities, improve the coordination of government organizations and NGOs, increase efficiency and openly provide training and awareness-raising information to the public.

▶ The team members are DRR-oriented government organizations, NGOs, international organizations, projects and programs.



#### Activity 3.2.1 Developing a comprehensive planning framework for DRR education and awareness-raising (2)

##### Developing a website for disseminating information on DRR training and awareness-raising

▶ A comprehensive planning system for DRR education and awareness-raising activities and providing DRR training information has been developed with its manual and placed on the www.ontsgoisur.gov.mn website in January 2019.

▶ Online and classroom-based training for this system was organized for a total of 78 executives and specialists of disaster prevention departments of the 21 aimags and 9 districts; as well as members of the DRR Training and Awareness-Raising team.

▶ The trial run for the system was implemented between February-April, 2019 and became officially operational in May. From February 2019 to October 2019, a total of 224 training programs were scheduled.



Public announcement page with information on training programs on the calendar

Training in session

#### Activity 3.2.2 Developing DRR education and awareness-raising materials, and conducting training in selected regions (1)

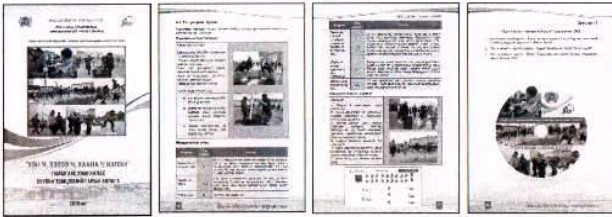
DRR training for citizens was implemented through lectures using the "Be Ready!" package and the "Anyone, Anytime, Anywhere is Ready" relay race based on Japanese experience.

**Training for Teacher Trainers:** A total of 75 teacher trainers were trained in March 2018 in the Bayangol and Bayanzurkh districts of UB City and Zavkhan aimag.

**Training for Citizens:** A total of 200 citizens from the 23<sup>rd</sup> khoroo of Bayanzurkh district, the 2<sup>nd</sup> khoroo of Bayangol district and the Uliastai and Otgon soums of Zavkhan aimag have participated.



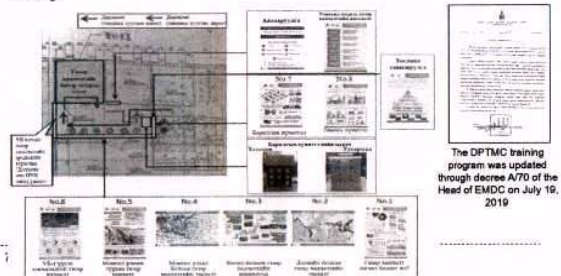
**Activity 3.2.2 Developing DRR education and awareness-raising materials, and conducting training in selected regions (2)**



- The manual for the relay race containing information on the activities and issues to pay attention to for each relay point was developed and distributed to the relevant organizations in aimags and districts.
- Furthermore, NEMA printed an additional 1,000 copies with the support of MRCS and distributed them to the relevant organizations in order to expand the Project operations nationwide.
- The contents of the relay race were prepared in video format.

**Activity 3.2.3: Developing training materials for the DPTMC and organizing training (1)**

- **Earthquake experience simulation room: Developing earthquake information boards and a miniature model of an earthquake-resistant building**
  - The development of the information board and miniature building model finished in March 2019 and placed in the earthquake experience simulation room of the DPTMC (location pictured).
  - Supervision is being conducted based on the number of participants in the DPTMC training.



**Activity 3.2.3: Developing training materials for the DPTMC and organizing training (2)**

**•Developing training materials for the children's room and the earthquake protection corner**

- The Sub-WG in collaboration with World Vision developed an earthquake DRR training material for children in the form of a "table theater".
- The table theater was used in a trial kindergarten lesson on April 24, 2019; and the Sub-WG is planning to incorporate it into the teacher's manual DVD of the Safety Life Skills program of Sub-WG 3.1.
- 10 copies of the table theater were distributed to NEMA, EMDC, MECSS, ERI, ITPD, DPTMC and the model kindergarten of Sub-WG 3.1.



Earthquake DRR table theater for children      Demonstration in kindergarten class      Wood-framed table theater delivered to DPTMC

**Achievement of Project Results and Performance Indicators (Output 3.2)**

Expected Result	Performance Indicators	Achieved Result
Output 3: Developing the implementation plan for DRR education, training and awareness-raising.	Output 3.2: Develop materials for DRR training and awareness-raising, and support the implementation of training for citizens and target groups. •Manual + materials for the relay race • Training program + materials for the DPTMC •Website for the comprehensive planning of DRR training and awareness-raising	•People who have visited the DPTMC 24,737 people (9,041 students, 15,696 others) (Earthquake experience simulation room, 16,820) (From March 2019 to September 17, 2019)

**Utilizing and Expanding Project Results**

- Ensuring the necessary framework, budget and human resources for continuing the implementation of activities in areas beyond the test aimags and districts:  
An assignment from the Director of the Disaster Prevention Department of NEMA to utilize the "Be Ready!" and "Anyone, Anywhere, Anytime is Ready" packages for organizing races, preparing training packages and utilizing them in training was delivered (2018)
- Analysis related to continuing the activities of the "DRR Training and Awareness-Raising Team" formed within the framework of the Project
- Develop materials for all types of participants (in classrooms, participants of various ages)
- Establishing the DPTMC in other regions (for example, a center in each of the 4 regions)
- Ensure the necessary budget, utilization and maintenance for the training materials and equipment of the earthquake experience simulation room and the children's room at the DPTMC.

**THANK YOU FOR YOUR ATTENTION!**